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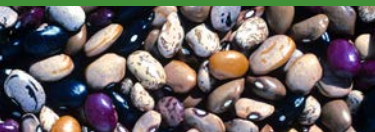
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The 2014 Agricultural Act



U.S. Farm Policy in the context of the 1994
Marrakesh Agreement and the Doha Round

By Vincent H. Smith



International Centre for Trade
and Sustainable Development

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LIST OF ACRONYMS

ACRE	Average Crop Revenue Program
AMS	Aggregate Measure of Support
ARC	Agricultural Risk Coverage
CCP	Countercyclical Payments Program
DMPP	Dairy Margin Protection Program
FAPRI	Food and Agricultural Policy Research Institute
PLC	Price Loss Coverage
SCO	Supplementary Coverage Option
SCM	Subsidies and Countervailing Measures
SNAP	Supplementary Nutrition Assistance Program
STAX	Stacked Income Protection Plan
SURE	Supplementary Revenue Assistance Crop Disaster Aid
US	United States
USDA	United States Department of Agriculture
WTO	World Trade Organization

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FOREWORD

The new US Agriculture Act of 2014 is expected to play a significant role in determining the extent to which agricultural domestic support programmes in the United States affect production and trade between now and 2018, and, as such, is likely to make an important contribution to shaping the contours of the global agricultural trading system over the next five years. Furthermore, the degree to which the new legislation makes provision for farm payments that are linked to prices and production will be important in establishing the scope for further reforms to the set of multilateral rules inherited from the WTO Uruguay Round, under the process launched at the Doha Ministerial Conference in 2001.

For these reasons, and because of the possible direct and indirect effects these programmes may have on their own producers, WTO negotiators have been following with considerable interest the development of the legislation, and trying to understand better the likely implications it could have on trade. The complexity of the new act, and unanswered questions about how it will be implemented, have made it difficult for all but the largest and best-resourced delegations to follow with any degree of sophistication from Geneva. Uncertainties over future market trends further compound the challenges negotiators face in this regard.

ICTSD has sought to improve WTO members' understanding of the likely implications of the Farm Bill proposals through a number of studies and policy dialogues, both in Geneva and in Washington, D.C. In particular, ICTSD has tried to build understanding of the possible implications that trade-distorting support programmes might have for developing country producers. This process in turn has been part of a bigger project looking at the relationship between agricultural trade policy and broader public policy objectives such as food security in economies that play a major structural role in the global agricultural trading system.

This paper, by Professor Vince Smith of Montana State University, therefore seeks to provide trade negotiators, domestic policy-makers and other policy actors with an impartial, evidence-based description of the new US Agriculture Act of 2014, as well as an assessment of some of its likely trade and production implications, in the context of WTO rules under the Agreement on Agriculture and the ongoing Doha Round negotiations. We believe that, as such, it will make a constructive contribution to the discussion on the future of agricultural trade rules and broader development objectives in the multilateral trading system.



Ricardo Meléndez-Ortiz
Chief Executive, ICTSD

EXECUTIVE SUMMARY

The 2014 Agricultural Act, passed by the United States (US) Congress in early February and signed into law by President Obama on February 7, 2014, terminates several farm subsidy programs but replaces them with new subsidy initiatives. On balance, given that major grain and some other commodity prices are retreating from recent record and near record levels, the new US farm bill programs may well involve larger subsidies for farmers than those they received from the discontinued programs. For example, if prices for crops like wheat and corn fall to levels recently forecasted by the United States Department of Agriculture in February, 2014, then subsidies on the new programs could be more than double the average amounts paid out annually under the programs they will replace.

A second issue is that, in the context of the World Trade Organization Agreement on Agriculture, all of the major new subsidy programs are unambiguously amber box programs. In contrast, the now abandoned Direct Payments program that was a major source of crop subsidies for US farmers between 2008 and 2013 (4.9 billion dollars a year) was essentially a decoupled green/blue box program.

The major new subsidy programs are as follows: Price Loss Coverage (PLC) in which payments are triggered by relatively low crop prices, Agricultural Risk Coverage (ARC) in which payments are triggered by relatively modest shortfalls in expected revenues on a per hectare basis, the Supplementary Coverage Option (SCO) which provides heavily subsidized insurance to cover relatively small decreases (shallow losses) in per hectare revenues from their expected levels, the Stacked Income Protection (STAX), a more heavily subsidized insurance program only for cotton, and a new dairy program called the Dairy Margin Protection Program (DMPP).

The STAX, SCO, and DMPP programs provide subsidies tied to the current crop production, crop planting, and milk production decisions of US farmers. The PLC and ARC programs make subsidy payments based on the farm's historical production of the covered crops (for most farms, almost certainly their production of the covered crop over the period 2008 to 2012). However, under the PLC subsidies are triggered by current market prices and under the ARC subsidies are triggered by current prices and current yields. While these new programs are unlikely to cause problems for the US in meeting its current WTO Aggregate Measure of Support (AMS) commitments, they may make it more difficult for the US to agree to future reductions in allowable caps on AMS expenditures and related *de minimis* AMS exclusion provisions in a new WTO agreement.

1. INTRODUCTION

The 2014 Agricultural Act, more widely known as the 2014 Farm Bill, was approved by both the House of Representatives and the Senate, albeit with an atypically large numbers of dissenting votes in both chambers of Congress, and signed into law by President Obama on February 7, 2014. Debate over the 2014 Farm Bill was more confrontational and heated than for previous farm bills and, as a result, passage of the Bill, which chairs and ranking members of the House and Senate agricultural committees (who effectively write new farm bills and typically have farm heavy constituencies) originally hoped would be approved in 2012, was delayed for about two years.

There were several reasons why the recent farm bill debate was controversial and divisive. First, and perhaps most importantly, the 2014 farm bill was initially developed in the context of large federal budget deficits in 2010 and 2011, which amounted to about seven percent of US Gross Domestic Product. Many members of Congress, who viewed those federal deficits as unacceptably large, were eager to reduce federal government spending. Farm bill legislation involved about 100 billion dollars a year in expenditures on nutrition programs (77 billion dollars a year) and farm-oriented conservation, subsidy and other programs (23 billion dollars a year). A new farm bill was therefore an attractive target for deficit reduction spending cuts.

Second, many members of the majority party in the House of Representatives (the Republican party, and especially members of the tea party caucus within that party) were focused on reducing what was perceived as waste in the most heavily used nutrition program (the Supplementary Nutrition Assistance Program or SNAP, widely known as the food stamp program). However, the

cuts proposed for SNAP (about four billion dollars a year, 5 percent of current spending levels) were viewed as unacceptably large by Democrats, which formed the majority party in the Senate, and also by some moderate Republicans representing urban districts in the House of Representatives.

Third, many members of Congress who did not have substantial rural constituencies, including several members in important leadership roles, viewed some major farm subsidy programs as wasteful, poorly targeted and unnecessary.

Fourth, to some extent, a coalition between environmental interest groups and farm interest groups that had been forged in the 1980s around conservation programs became fractured. This was partly because of disagreements among those groups about whether conservation funding or farm subsidy funding should be cut to achieve deficit reduction related goals. Another controversial issue was whether conservation compliance practices should be required for any farmer participating in the federal crop insurance program.

Other factors also played a role in the farm bill debate, including widely different perspectives over milk production subsidies tied to milk production supply controls, the U.S. sugar program, and limits on farm subsidy payments to high income and high wealth farmers and landowners. In fact, in the end, it is likely that the 2014 Agricultural Act was only passed because, after a shutdown of the US government in October, 2013 resulting from political gridlock in Congress, Congressional leaders decided that some legislation had to move forward and that the 2014 farm bill was perhaps less controversial than other legislative initiatives such as immigration reform.

2. FARM SUBSIDY PROGRAMS IN THE 2014 FARM BILL

The 2014 Farm Bill has been widely described as a “bait and switch” initiative with respect to farm subsidy programs. While some programs have been terminated or are rapidly being

phased out, most notably the Direct Payments program, other have been introduced that may involve more substantial subsidies for farmers.

3. DISCONTINUED FARM SUBSIDY PROGRAMS

Several farm subsidy programs that, in a World Trade Organization (WTO) context, have proved to be controversial and the actual or potential source of trade disputes within the WTO have been discontinued or modified. These include:

- The *Countercyclical Payments Program* (CCP) introduced in the 2002 farm bill. This program made payments to producers of a wide range of crops when annual average prices for the current crop marketing year fell below predetermined trigger levels. While payments were made on the basis of a farm's historically determined production of the crop, not the farm's current production levels, CCP payments were unambiguously amber box payments to be counted against the US Aggregate Measure of Support (AMS) because they were triggered by current year market prices. Crops covered included wheat, corn, grain sorghum, barley, oats, upland cotton, rice, peanuts, soybeans, other oilseeds (including canola, sunflower, safflower, mustard seed, etc.), small and large chickpeas, dry peas, and lentils.
- The *Average Crop Revenue Program* (ACRE) introduced in the 2008 farm bill. This "shallow loss program" made payments to farmers for the same set of crops covered by the CCP when, on a state wide basis, estimated current year per acre revenues for a crop fell sufficiently below their recent historical average levels. Payments, which would have mainly been driven by declines in crop prices, were capped at 25 percent of those recent per acre average revenue levels and, if the ACRE program had been continued for the 2014 crop year, would likely have involved extremely large subsidy payments for producers (probably well in excess of nine billion dollars for just corn, soybeans and wheat), who would generally have received payments based on all the acres planted to the eligible crop in the current year. ACRE payments therefore were also unambiguously amber box payments. The program was available for the same crops eligible for the CCP and farmers had to choose either the CCP or the ACRE program.
- The *Dairy Price Support Program and Milk Income Loss Contract*. Payments under both of these dairy programs were triggered by market prices and payments were made on current production.
- *No preferential treatment for the use of domestic upland cotton* (now US mills will be given the same incentives to use upland cotton regardless of the origin of the cotton). The loan rate for cotton was \$0.52/lb under the 2008 Farm Bill provisions, but is now to be set in the range of a minimum of \$0.45/lb to maximum of \$0.52/lb. The actual loan rate will equal the two year average of the global price for upland cotton if the average lies within that range.
- The *Supplementary Revenue Assistance* (SURE) crop disaster aid program (SURE) has been discontinued. This program provided subsidies that would be paid on "shallow losses" incurred on all hectares planted to a crop in the current year and those payments would be triggered by shortfalls in expected revenues of substantially less than 30 percent. The SURE program was therefore clearly an amber box program as it did not meet the criteria laid out in Paragraphs 6 and 7 of Annex 2 of the WTO Agreement on Agriculture for a disaster aid program to be viewed as a green or blue box program.

4. NEW AGRICULTURAL CROP SUBSIDY PROGRAMS

Several major new programs have been introduced in the 2014 farm bill. In addition, four disaster programs established by the 2008 farm bill, but under that Act only funded through the end of 2011, have now been reestablished and refunded for the next five crop years (the duration of the 2014 Farm Bill). These disaster aid programs provide farmers with compensation for drought and fire related livestock forage losses, excessive livestock mortality losses, damage to trees and orchards, losses associated with farmed fish and bee colony collapse.

Generally, the livestock-oriented disaster aid programs that have been reestablished are structured in ways that essentially conform to the requirements in Paragraphs 6 and 7 of Annex 2 of the Agreement on Agriculture for disaster aid program outlays not to be counted as amber box AMS payments, and are likely to meet any *de minimis* criteria. These programs are therefore unlikely to be a source of friction in the U.S. government's relationships with trading partners.

That is not the case for five new major subsidy programs, each of which appears to have been introduced with the specific intent of providing farmers with substantial subsidy payments rather than moderate risk management protection. These programs, all of which are amber box programs under the provisions of the Marrakesh Agreement, are:

- The Price Loss Coverage Program (PLC);
- The Agricultural Risk Coverage program (ARC);
- The Supplementary Coverage Option insurance program (SCO);
- The Stacked Income Protection (STAX) program for cotton;
- The Dairy Margin Protection Program (DMPP).

The first three programs – PLC, ARC and SCO – are available for the following commodities: wheat, corn, grain sorghum, barley, oats, upland cotton, rice, peanuts, soybeans, other oilseeds (including canola, sunflower, safflower, mustard seed, crambe, and other minor oilseeds), small and large chickpeas, dry peas, and lentils. These are the same commodities for which farmers received subsidies under the discontinued Direct Payment, CCP, and ACRE programs. As discussed below, for each crop, on a crop by crop basis, a farm has to choose whether to participate in the PLC program or the ARC program. If the PLC program is chosen, then the farm may also choose to obtain additional insurance coverage for the crop in the new SCO program. However, if the ARC program is chosen for the crop, then the farm cannot purchase SCO coverage for that crop.

Price Loss Coverage (PLC)

The PLC program has the following structure. A reference price is established for each eligible commodity. If the national average price for the crop over the crop's marketing year falls below the reference price, the farmer receives a payment equal to the difference between the crop's reference price and the national average price over the marketing year on the amount of the crop eligible for such payment. For example, the reference price for wheat is \$5.50 per bushel of wheat. Therefore, if the national average price of wheat for the 2014 crop year is 5.00 dollars, the per bushel price loss coverage payment will be 0.50 dollars.

Under the PLC, the farm establishes a historical production base. This production base is obtained by multiplying an historically determined amount of "base acres" for the crop (for example, 1,000 wheat base acres) by an historically determined per acre base yield for the crop (for example, 40 bushels of wheat) to establish the production base on which PLC payments will be made (for example, 40,000

bushels). The farm receives a subsidy equal to the price loss coverage payment (0.50 dollars/bushel in the wheat example) multiplied by 85 percent of its production base (40,000 bushels of wheat). In the example, therefore, under the PLC program the example farm would receive a wheat subsidy payment of 17,000 dollars ($0.85 \times 40,000 \text{ bushels} \times 0.50 \text{ dollars}$) if the national average price of wheat were 5 dollars/bushel.

Under the provisions of the 2014 farm bill, agricultural producers have the option of using the base acres and base yields that determined the subsidies they received under the Direct Payments Program in the new PLC and ARC programs. For many farms, these base acres and base yields were established on the basis of the acres planted to each eligible crop either in the early and mid-1980s or between 1998 and 2001. However, farmers will also have the option of updating their production bases using recent much more recent data on areas planted to crops (the annual averages of the areas planted to each eligible crop over the four year period 2009-2012) and yields. Under such "base updating," payment yields for each eligible crop will be set equal to 90 percent of the average yield for that crop over the five year period 2008-2012.

Many farmers are likely to update their production bases to take advantage of increases in their yields over the past thirty years. For example, in the mid-1980s, the national annual average per acre yield for corn was about 90 bushels and in the late 1990s and early 2000s between 120 and 130 bushels per acre. Over the past five years, using an Olympic average, national corn yields have averaged close to 160 bushels per acre. Farms that take advantage of yield updating for corn are therefore likely to increase the per acre base yield eligible for subsidy payments by between 25 and 50 percent. Yields for many other crops have also increased substantially, making base updating attractive for perhaps a large majority of farmers who plan to participate in the PLC.

Under the PLC, subsidies are determined by current market prices, and, in fact, the structure of the PLC is essentially identical to

the CCP, for which it is a replacement. The only difference is that the prices that will trigger payment under the PLC are much higher than those used under the CCP, and the production bases on which PLC payments will be made are likely to be much larger for many crops because of base updating (see table 1 that, for a selection of crops, compares the reference prices that would trigger payments under the CCP and the PLC).

Clearly, therefore, payments under the PLC program should and almost certainly will be classified as amber box expenditures. PLC payments should probably count as product specific AMS outlays because they are tied to specific crop prices even though CCP payments were reported by the US as non-product specific AMS outlays.

Expenditures for wheat on the PLC program may be substantial. Table 2 compares the reference price for wheat with recent (February 2014) USDA forecasts of annual average marketing year prices for the crop over the period 2014 to 2018. The differences between the reference price and the USDA February 2014 forecast price for wheat are substantial, ranging from 0.60 dollars per bushel to 1.20 dollars per bushel and imply subsidy expenditures for wheat in excess of two billion dollars for three of the four crop years between 2014 and 2017, and in excess of one billion dollars for the first year (the 2014-15 marketing year in which the 2014 wheat crop would be sold). If market prices for wheat are higher (lower) than those presented in the USDA February 2014 forecasts then subsidy payments will be lower (higher). PLC expenditures for other crops may also be substantial and, as is the potential case for wheat, may well be larger than the Direct Payment and CCP program subsidies received for many crops under the provisions of the previous 2008 farm bill.¹

Agricultural Risk Coverage

The agricultural risk coverage program (ARC) makes subsidy payments to farmers when, in the current year, the estimated average revenue per acre for a crop (the current year crop yield multiplied by the national average

marketing year price for that crop) falls below 86 percent of the estimated historical average per acre revenue for the crop over the most recent five years, computed by multiplying the estimated five year Olympic average price for the commodity by the estimated five year Olympic average for crop yields.² On a per acre basis, ARC payments are capped at 10 percent of the five year estimated historical average revenue.

The ARC is therefore a “shallow loss” program. Shallow loss programs provide farmers with subsidies when current year revenues from a crop decline only modestly from their expected per hectare or per acre levels. Like the ARC program, they generally compensate farmers for revenue shortfalls that are much smaller than 30 percent of the expected revenues from a crop covered by the program.

ARC payments will be triggered by either relatively low current market prices or current year yields. Hence, even though the farm will receive ARC payments on its predetermined base acres for the crop (the same base acres used in the PLC program) it seems clear that subsidies paid out under the ARC program will be amber box payments.

The farmer has two options within the ARC program: payments can be based on either the farm's own historical yields for the crop (both in computing the historical average per acre revenue for the crop and the estimated current year revenue) or current and historical average yields in the county in which the farm is located. If the farm chooses to base its ARC program participation on its own yields for a crop, however, it will receive ARC payments on only 65 percent of the farm's base acres for that crop. In addition, such a farm will also have to enroll all of its crops in the ARC program. If the farm chooses to base ARC participation on county yields, it will receive ARC payments on 85 percent of the farm's base acres for each crop enrolled in the program. In addition, the farm would be free to allocate other crops to either the county based ARC or the PLC program. So it seems likely that most farmers who enroll in the ARC program will choose the

ARC county yield option rather than the ARC farm yield option.

The ARC program is more complex than the PLC program because, regardless of the ARC option selected by a farm, the revenue trigger for an ARC payment is likely to change from one year to the next. To illustrate how the ARC would work, table 3 shows the national average marketing year prices and yields for corn over the crop years for 2009 to 2013 as reported by USDA, USDA price forecasts for the 2014-2018 crop years, and the national expected average yield for corn in those years (assumed to be 160 bushels per acre, more than the previous five year average yield but somewhat less than the forecasted yield estimates reported recently by USDA that substantially exceed previous annual average per acre yields).

While the estimates of total ARC subsidy expenditures presented in table 3 are illustrative and driven by the corn price forecasts used in their construction, they are of considerable interest because of their magnitude. They indicate that if, over the next four years, corn prices were to follow a path similar to the path implied by the USDA February 2014 price forecasts, then by themselves, US corn producers would be likely to receive over well over five billion dollars a year for each of their 2014, 2015 and 2016 corn crops. While those payments would fall to about 3.5 billion dollars in 2017, over that four year period corn producers would receive about 20 billion dollars in ARC subsidies, averaging about five billion dollars a year, more than twice as much as they received each year under the Direct Payments, Counter Cyclical and ACRE programs between 2003 and 2013. In addition, all of the ARC subsidy payments would be amber box subsidies.³

Two additional comments are appropriate. First, if farmers believed that national average corn prices are likely to fall measurably below the PLC reference price for corn of 3.70 dollars, many of them would be likely to sign up for the PLC program. If, for example, the national average price of corn were expected to about 3.40 dollars then the PC payment on each

eligible bushel would be 0.30 dollars. Smith and Goodwin (2014) have estimated that an updated national production base for corn would be about 12.4 billion bushels, implying an annual PLC subsidy for corn growers of around 3.2 billion dollars if all growers signed up for that program.

Second, the results presented in tables 2 and 3 suggest that, under plausible circumstances with respect to future corn and wheat prices, in some years over the period 2014-2018 the United States could provide over seven billion dollars in amber box subsidies for just two commodities, wheat and corn. Similarly, AMS Payments may be substantial for soybean producers under the ARC program, which is the program into which producers are more likely to place that commodity, given the predicted future path of prices for soybeans.

The Supplementary Coverage Option (SCO)

The SCO is an insurance product that allows farmers to obtain coverage through a group based area yield or revenue insurance product for shallow losses. It will be available for crops enrolled in the PLC program but not for crops enrolled in the ARC program. The program will not be implemented until the 2015 crop year.

Under the SCO, farmers have the option of purchasing an area yield product that will pay them an indemnity when, at the area (county) level, either average yields or average revenues fall below 86 percent of their expected levels. Coverage is capped at the difference between 86 percent of the expected area yield or revenue and the level of coverage selected by the farm under an "underlying" federally subsidized insurance contract. For example, a farm that typically uses an insurance product based on the farm's own yield history may select a coverage level of 75 percent for on-farm yield losses, meaning that it will only receive an indemnity when its actual yields or revenues at the farm level fall below 75 percent of their expected level. In that case, the farm can use an SCO insurance contract where payments for losses are capped at 11 percent (the difference between 86 percent and the farm's selected

75 percent coverage level for its underlying contract). The farmer is required to pay only 35 percent of the actuarially fair premium for an SCO contract, where the actuarially fair premium is the expected average annual indemnity payment.

The federal government will pay all administrative costs and 65 percent of the actuarially fair premium.

Every acre planted to a crop can be covered under an SCO and therefore all SCO subsidies are both production distorting and amber box outlays that should be reported as AMS subsidies.

The Stacked Income Protection Plan (STAX) for Cotton

The STAX insurance program for cotton is very similar to the SCO insurance program for other crops. It is also an area (county) based insurance product in which payments are triggered if, at the county level, actual county average revenues (actual county average yields multiplied by the national average cotton price) fall sufficiently below their expected levels. However, it differs in two important ways that make indemnity payments more likely and, on a per-unit of cotton production basis, subsidies larger.

First, cotton producers will receive STAX payments when county wide average revenues fall below ninety percent of their expected levels. Second, the subsidy rate will be larger; farmers will only pay 20 percent of the estimated actuarially fair premium with the federal government picking up all other costs. Given the volatility of cotton prices within any given year, on an annual basis payments under this program may often be substantial and, on a per-pound of cotton basis, proportionally also quite substantial.

The subsidy payments made under STAX are clearly amber box payments that count towards both the crop specific and general AMS for the United States, as they apply to every acre of cotton that is planted, are in large part driven

by current year market prices for cotton, and cover losses that are shallow (far smaller than the types of losses in excess of 30 percent of expected revenues which can legitimately be addressed under paragraphs six and seven of Annex 2 of the Agreement on Agriculture). Regardless of claims by US cotton producers that the STAX program “solves” the policy problems that led to the WTO trade dispute over cotton with Brazil, by itself the STAX program seems unlikely to adequately address those issues. Although STAX is explicitly a domestic output subsidy, not an export subsidy, in principle (and likely in practice) the program is trade distorting.

The Dairy Margin Protection Program

The Dairy Margin Protection Program (DMPP) is a shallow loss program that, in its simplest form, provides subsidies to farmers when the difference between milk prices and a formula-based estimate of feed costs falls below 4.00 dollars for each hundred pounds of milk they

produce. The program “tops up” the margin to 4.00 dollars. The DMPP also includes a subsidized supplementary insurance program, allowing farmers to insure higher revenue-feed cost spreads at a cost to the farmer (the insurance premiums for the buy up insurance coverage are subsidized, with more favorable subsidy rates for small dairy farmers than larger dairy farmers). Again, payments under this program are clearly amber box because they are driven by current market prices, but have been estimated by the Congressional Budget Office (CBO) to be relatively small, again because the CBO assumes that relatively high milk prices will be paid to dairy farmers over the entire 2014-2018 period covered by the new farm bill. Were milk prices to decline to levels that were observed in 2011 and 2012 (in the range of fifteen dollars per hundredweight for what is called Class I milk in Boston) and corn prices to remain close to recent record levels then the DMPP would be likely to result in multiple billions of dollars in federal subsidies to US dairy producers.

5. THE 2014 FARM BILL AND US AGGREGATE MEASURES OF SUPPORT (AMS) PAYMENTS

Current annual total AMS payments for the United States are capped at 19.1 billion dollars. Further, all payments under the PLC, ARC, SCO, STAX and DMPP programs are amber box payments, and, as indicated by the illustrative estimates presented for corn and wheat, subsidies under these new programs are likely to be much larger than under the programs they replace (Direct Payments, CCP, ACRE, etc.). However, even if the issue of *de minimis* exclusions for some program outlays is put aside, it seems unlikely that spending under the new programs will be sufficiently large to cause the United States to violate its current total annual AMS constraint.

Under the federal crop insurance program, the United States is currently providing an annual average total program subsidy of about seven billion dollars a year to farmers. These are amber box subsidies tied to current production that do not meet the criteria in Paragraphs 6 and 7 of Annex 2 to the Agreement on Agriculture. Additional government expenditures on program delivery through payments to private insurance companies are likely to amount to between 2 and 2.5 billion dollars a year, but in the future, as a result of recent changes in US reporting practices, will be reported as blue or green box infrastructure subsidies rather than crop insurance subsidies

benefiting farmers (Smith and Glauber, 2012). So, effectively, if none of the subsidy payments under the new programs in the 2014 farm bill or the federal crop insurance program were reported as *de minimis* outlays, payments under the new programs would have to exceed 12 billion dollars in any given year to cause an AMS violation. In addition, expenditures on existing subsidy initiatives such as the federal crop insurance program would have to remain at current levels.

It is conceivable that, because of lower prices for major commodities such as corn, soybeans and wheat, outlays under the PLC, ARC, SCO, STAX and DMPP could exceed 12 billion dollars in a given year. However, the total amount of subsidies paid to farmers under the federal crop insurance program is proportional to the size of the actuarially fair premiums that are established for each insurance policy, which themselves are proportional to expected crop prices. So, as crop prices decline, subsidies paid out under the federal crop insurance program also fall. Hence, if PLC and ARC payments are as large as 11 or 12 billion dollars because of relatively low crop prices, annual crop insurance subsidies are likely to be more in the range of four to five billion dollars than seven billion dollars and the US AMS cap is unlikely to be violated.

6. THE 2014 FARM BILL AND THE DOHA ROUND

Perhaps a more serious long term issue concerns how the increases in amber box subsidies that seem likely to occur under the provisions of the 2014 farm bill may adversely affect the willingness of the United States to support effective reductions in AMS caps under a new WTO agreement.

For example, the Revised Draft Modalities for Agriculture put forward in December 2008 proposed that AMS caps for a developed country with a current Final Bound AMS of more than 15 billion dollars but less than 40 billion dollars would be reduced by 60 percent (WTO, 2008). These draft modalities would also reduce the *de minimis* exemption from excluding program specific AMS payments in a country's reported AMS expenditures. For a developed country, the proposed *de minimis* exemption would decline from 5 percent of the value of the basic agricultural product (for product specific annual AMS expenditures) or the Member's total value of all agricultural production (for non-product-specific annual AMS expenditures) to a maximum of 2.5 percent. Given the likely costs of the new programs introduced in the 2014 farm bill, the United States could well be reluctant to support those types of changes in AMS caps and *de minimis* exemptions.

The current US Total Bound AMS cap is 19.1 billion dollars; reducing that limit by 60 percent would result in a US AMS cap of 7.64 billion dollars. Under the provisions of the 2014 farm bill, in some years annual expenditures on just corn and wheat PLC and ARC subsidies appear quite likely to exceed seven billion dollars if, as recent USDA price forecasts indicate, prices for those commodities decline. Annual expenditures on PLC and ARC subsidies for other commodities (including soybeans, peanuts and rice) and subsidies under the STAX program for cotton could also quite easily exceed one or two billion dollars.

In addition, the dairy-focused DMPP program has the potential to involve AMS subsidy outlays well in excess of two or even three

billion dollars in some years. It is likely to cost at least 300 million dollars in an average year (Congressional Budget Office, 2014). At the same time, in any given year, AMS amber box subsidies associated with the current US agricultural insurance program are unlikely to be less than four or five billion dollars (even if prices for major commodities like wheat, oilseeds, corn and other feed grains decline quite substantially from recent record and near record levels).

Thus, it is difficult to envisage the United States regularly being able to stay below a Total Bound AMS cap of 7.64 billion dollars, given the provisions of the 2014 Farm Bill, unless there is extensive use of AMS *de minimis* exemptions.

Like many other countries, the US has used the *de minimis* provision of the 1994 Agreement on Agriculture to avoid reporting some amber box subsidies as contributing to their annual AMS expenditures. For example, in recent years this has been the US practice for subsidy expenditures under the now defunct Countercyclical Payments Program, which have been reported as non-product-specific AMS expenditures, and the current heavily subsidized crop insurance program, which have also been reported as non-product-specific AMS expenditures (Orden, Blandford and Josling, 2011).

Since it was introduced in 2002, annual subsidy payments under the CCP program have been relatively modest, rarely exceeding half a billion dollars, and their reported status as non-product specific outlays has not been challenged. However, outlays under the new PLC program, which has the same structure as the CCP but uses much higher price supports, and under the companion new ARC and SCO programs, are likely to be much more substantial. Over the past four years the value of US agricultural production has ranged between 310 and 400 billion dollars (including record levels of farm income from sales of agricultural products). Thus expenditures in

excess of \$10 billion on these linked programs would exceed a *de minimis* 2.5 percent exemption criterion if they were reported as non-product specific.

The United States would have even more difficulty in reporting the PLC and ARC subsidies as *de minimis* if they were determined to be product specific rather than non-product-specific amber box expenditures. The reason is that crops typically account for only about 50 percent of the value of US agricultural production. Moreover, farmers in the United States have been allowed to update the crop specific production bases on which such subsidies are paid in two of the last three farm bills (the 2002 and 2014 farm bills). Thus it may be more likely that the United States will

eventually be required to report PLC and ARC expenditures as product specific subsidies as a result of challenges from other countries.

Overwhelming, agricultural insurance subsidies in the US are also tied to crops rather than livestock products (which account for roughly half of the value of US agricultural output). If, also perhaps as a result of challenges from other countries, the US were required to report agricultural insurance subsidies as product specific, then the *de minimis* criterion would not apply to those subsidies. The reason is that, for most crops, those subsidies amount to more than four percent of the value of the crop's total production, considerably more than the 2.5 percent *de minimis* exemption limit.

7. THE 2014 FARM BILL AND THE WTO SUBSIDIES AND COUNTER-VAILING MEASURES (SCM) AGREEMENT

Finally, another important WTO issue concerns the potential for WTO trade disputes to be filed because of price suppression under the Subsidies and Countervailing Measures (SCM) agreement. The PLC, ARC, and DMPP programs, as well as the SCO and STAX programs, are designed to give US farmers larger subsidies when prices for the commodities they produce fall. The PLC and ARC programs cover at least seventeen different crops, including large area crops like corn and soybeans, crops that have

been the subject of previous trade disputes such as cotton and wheat, as well as small area crops like chickpeas and minor oilseeds. All of these crops are traded internationally and, in several cases (for example, both corn and chick peas), the US has a relatively large share of global production. Hence, it could reasonably be argued that the 2014 farm bill has substantially increased the potential scope for trade disputes with respect to both “large acre” and “small acre” crops.

ENDNOTES

- 1 Recent Congressional Budget Office estimates for both the PLC and ARC programs are much lower than those presented in table 2 and 3 because they assume much higher prices will be paid for corn, wheat and other commodities than those provided by USDA in its February, 2014 forecasts of agricultural commodity prices.
- 2 The historical average revenue is computed as the product of two five year Olympic averages, one for the national market price and one for yields, which are obtained by dropping the highest and lowest values in each series and calculating the averages of the remaining three values.
- 3 Smith, Babcock and Goodwin (May 2012 and September 2012) and Babcock and Paulson (October 2012) provide costs estimates for version of the ARC and PLC include in the Senate and House Agricultural Committee versions of a new Farm Bill that were proposed in the spring and early summer of 2012. Their estimates of the costs of these programs under moderate commodity price scenarios are largely consistent with the illustrative estimates presented in tables 2 and 3 here.

REFERENCES

- Bruce Babcock and Nick Paulson. Potential Impact of Proposed 2012 Farm Bill Commodity programs on Developing Countries. International Center for Trade and Sustainable Development Issue Paper No. 45. Geneva, October 2012.
- David Blandford and David Orden. United States. In *WTO Disciplines on Agricultural Support*, edited by David Orden, David Blandford and Tim Josling. Cambridge University Press, Cambridge, 97-152, 2011.
- Food and Agricultural Policy Research Institute. U.S. Baseline Briefing Book: Projections for Agricultural and Biofuels Markets. FAPRI-MU Report # 02-14, March 2014.
- Vincent H. Smith, Bruce Babcock and Barry K. Goodwin. Field of Schemes: The Taxpayer and Economic Welfare Costs of Shallow-Loss Farming Programs. AEI Monograph, May 2012.
- Vincent H. Smith, Bruce Babcock and Barry K. Goodwin. Field of Schemes: The Taxpayer and Economic Welfare Costs of Shallow-Loss Farming Programs. AEI Monograph, May 2012, Washington, D.C.
- Vincent H. Smith, Bruce Babcock and Barry K. Goodwin. Field of Schemes Mark II: The Taxpayer and Economic Welfare Costs of Price Loss Coverage and Supplementary Insurance Coverage Programs. AEI Monograph, September 2012, Washington D.C.
- Vincent H. Smith and Joseph W. Glauber. (2012). "Agricultural Insurance in Developed Countries." *Applied Economic Perspectives and Policy* 34(3): 363-390.
- Vincent H. Smith and Barry K. Goodwin. The Devils in the Details: Base Updating and the Cost of New Farm Programs. AEI monograph, Washington, D.C., January 2014.
- United States Congressional Budget Office. H.R. 2642, Agricultural Act of 2014: Cost Estimate. Washington D.C., January 28, 2014.
- World Trade Organization Committee on Agriculture. Revised Draft Modalities for Agriculture. WTO TN/AG/W/4/Rev 4, Geneva, December 2008.

Table 1. CCP and PLC Payment Trigger Prices

Commodity	CCC Payment Trigger Price (USD)	PLC Reference (Payment Trigger) Price (USD)	Percent Increase in Payment Trigger Price Under PLC (USD)
Corn	\$2.35/bushel	\$3.70/bushel	57%
Wheat	\$3.65/bushel	\$5.50/bushel	53%
Soybeans	\$5.56/bushel	\$8.40/bushel	66%
Peanuts	\$459/ton	\$535/ton	17%
Rice	\$8.15/cwt	\$14/cwt	72%
Barley	\$2.39/bushel	\$4.95/bushel	107%

Table 2. Estimated Subsidy Expenditures for Wheat under the PLC Program

Marketing Year	USDA Wheat Price Forecast (\$/bushel) ^A	Wheat Reference Price (\$/bushel)	Estimated PLC Per Bushel Payment	Estimated Total Wheat PLC Subsidy Payments (\$ millions) ^B
2014/15	\$4.90	\$5.50	\$0.60	\$1,164
2015/16	\$4.35	\$5.50	\$1.15	\$2,231
2016/17	\$4.30	\$5.50	\$1.20	\$2,328
2017/18	\$4.45	\$5.50	\$1.05	\$2,037

^A These estimates are based on the USDA February 2014 price forecasts for wheat. The CBO uses much higher wheat forecast prices to obtain much lower cost estimates and USDA issued a new set of price forecasts that presume much higher expected prices for wheat in March of 2014.

^B The estimated total wheat PLC subsidy payments are computed by multiplying the estimated PLC per bushel payment for wheat in each year (column 4 in table 2) by the estimate of the national base production for wheat reported by Smith and Goodwin (2014) in which they calculated an updated national wheat base planted area of 46.85 million acres and an assumed national average planted acre yield of 46 bushels an acre. In computing the subsidy costs of the PLC for wheat, all wheat producers are assumed to sign up for the PLC program. The CBO and FAPRI assume a mix of ARC and PLC sign ups in developing their forecasts.

Table 3. Estimated Total Annual Corn ARC Subsidy Payments ^A

Year	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
	National Average Price (USD)	National Average Yield (bushels/acre)	USDA Corn Price forecast (USD/bushel)	National Expected Yield per acre (bushels)	National Five Year Olympic Average Estimated Revenue per acre (USD)	Estimated Current Year Average Revenue Per Acre (USD)	Estimated Corn ARC Per Acre Subsidy Payment (USD per acre)	Estimated Total National Corn ARC Subsidy Payments (\$ millions)
2009	\$3.55	164.7	*	*		*	*	*
2010	\$5.18	152.8	*	*		*	*	*
2011	\$6.22	147.2	*	*		*	*	*
2012	\$6.89	123.4	*	*		*	*	*
2013	\$4.50	155.4	*	*		*	*	*
2014	*	*	\$3.65	160	\$804.54	\$584.00	\$80.45	\$6,028.22
2015	*	*	\$3.30	160	\$804.54	\$528.00	\$80.45	\$6,028.22
2016	*	*	\$3.35	160	\$738.62	\$536.00	\$73.86	\$5,534.28
2017	*	*	\$3.45	160	\$607.46	\$552.00	\$47.69	\$3,573.43

^A The estimated total corn ARC subsidy payments are computed by multiplying the estimated ARC per bushel payment for corn in each year (column 7 in table 3) by the estimate of the national base production for corn reported by Smith and Goodwin (2014) in which they calculated an updated national corn base area of 88.15 million acres. In computing the subsidy costs of the ARC for wheat, all corn producers are assumed to sign up for the ARC program and, on average, to have yields identical to those of the national average, which is assumed to be 160 bushels per acre over the period 2014-2018. The data on national average corn yields and national average marketing year prices for 2009-2013 presented in columns 2 and 3 were obtained from the USDA National Agricultural Statistical Service. Column 3 presents the USDA February 2014 price forecasts for corn for the 2014-2017 marketing years. Column 5 presents the estimated five year Olympic average revenue guarantee (computed as the multiple of the Olympic average national price and the Olympic average yield for the previous five years). The estimated ARC per acre subsidy payments for corn reported in column 8 are computed as the difference between 86 percent of the previous five year Olympic average revenue per acre and the current year estimated average revenue per acre, capped at ten percent of the estimated national five year Olympic average. Note that these estimates are based on yields on harvested acres rather than yields on planted acres. Using planted acre yields would reduce the above estimates by about five percent.

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