



Guns and Butter, Crop Insurance Reform, and the Farmer Safety Net

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Republicans control both houses of Congress as well as the presidency. Control means accountability, and large federal budget deficits do not harmonize with the Republican self-image of fiscal prudence. Thus, one of the top agenda items this spring and summer will be how to reduce the federal budget deficit.

President Bush and congressional leaders have ruled out tax increases. This leaves only two ways of reducing the deficit: either spending will have to be reduced or we can hope to experience an unexpected boom in economic growth. Basing fiscal policy on hope is not prudent, so most observers think that the president and Congress will try to reduce spending. Agricultural spending is again on the table for budget cuts. Senator Judd Gregg of New Hampshire, chairman of the Senate Budget Committee, says that he will scrutinize farm programs and that "Agricultural entitlements are crying out to be reformed." Farm groups are working both to forestall cuts to farm programs and to figure out where cuts should be made if they are inevitable.

An optimistic way of looking at spending cuts is that they present an opportunity to improve program performance. After all, reducing farm spending will not inevitably harm farmers. For example, land owners will bear the brunt of cuts to commodity programs through a decline in land rents and land prices. Because most farmland is owned by absentee landlords, such cuts will have a smaller impact on farm operators than would seem likely. In addition,

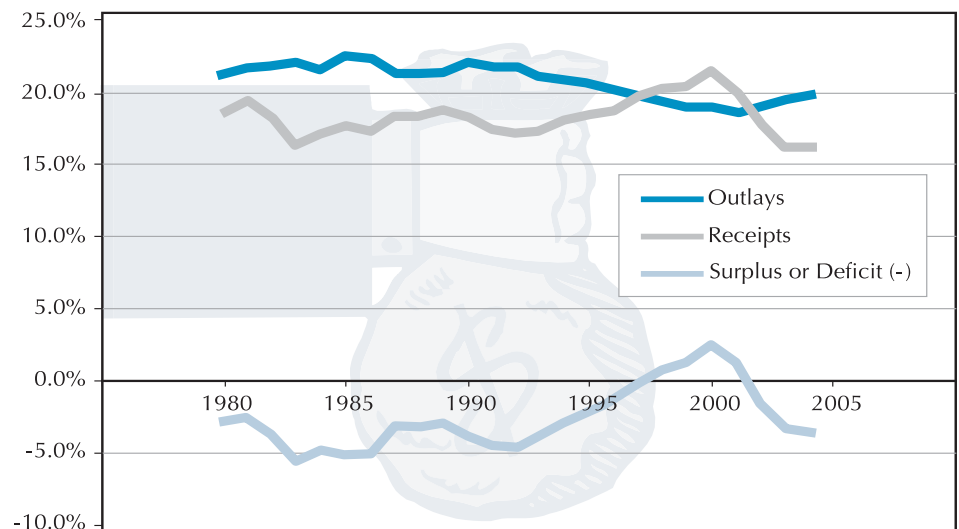


FIGURE 1. TOTAL FEDERAL RECEIPTS AND OUTLAYS AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT

tion, smart reforms of farm programs could result in both lower costs and better farm programs. Replacing the marketing loan program with an expanded countercyclical payment program would make U.S. farm programs more compliant with World Trade Organization negotiations and would reduce spending while leaving the U.S. farm safety net largely in place. Another program that is ripe for reform is the U.S. crop insurance program. One simple change would be to eliminate the option whereby farmers can insure against losses on a field-by-field basis. As will be demonstrated, elimination of this option would save taxpayers more than \$300 million while having no impact on the ability of the crop insurance program to meet its primary purpose of providing assistance when farm income is low.

Before getting into the details of such a crop insurance reform, it is useful to take a brief detour into our federal government's books to see

why farm groups' fears of spending cuts are well founded.

A "GUNS AND BUTTER" FEDERAL FISCAL POLICY

The best way to understand our federal fiscal policy is to measure tax receipts, government expenditures, and the resulting deficit or surplus as a percentage of gross domestic product (GDP). GDP is the most inclusive measure of the income of a country, so adjusting taxes and spending by GDP can help give a better perspective of their relative magnitude.

Figure 1 shows federal tax receipts, outlays, and deficits since 1980 expressed as a percentage of GDP. As shown, total outlays were fairly constant at about 22 percent of GDP until about 1992, at which time they began a long decline that was reversed in fiscal year 2002 (which runs from October 1, 2001 to September 30, 2002). This reversal can be explained by fairly large increases in both defense and non-defense

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spending, which came about because Congress did away with the “pay-as-you-go” rules that restrained spending throughout President Clinton’s two terms in office.

The pattern of tax receipts more closely follows the business cycle. The deep recession in the early 1980s and the milder recession in the early 1990s show up as declines in receipts. Congress passed tax increases in 1993, which, combined with the economic growth in the 1990s, grew federal tax receipts to above 20 percent of GDP. This growth in tax revenue, combined with spending restraint, led to budget surpluses from 1998 to 2001. A mild recession in 2001 and tax cuts passed by Congress have led to a dramatic downturn in federal tax receipts. This drop in receipts, combined with an increase in spending, has increased the budget deficit to about 3.5 percent of GDP.

Apologists note that the deficits are not as large as they were in the mid-1980s when they were regularly 5 percent of GDP. However, the reason they are not as large is that we are generating a large surplus in the so-called off-budget accounts, which consist primarily of the social security surplus. This surplus was created by policy reforms (tax increases and benefit cuts) in the mid-1980s. We are currently running a surplus of about 1.5 percent of GDP in this fund. When this surplus is accounted for, we are running budget deficits of about 5 percent of GDP.

Subtracting the off-budget surplus shows a clearer picture of federal finances. After all, social security surpluses are being generated today so that we have the financial resources to pay promised benefits tomorrow. It is this last picture of federal finances that has many economists worried that we are truly pursuing a “guns and butter” fiscal policy whereby we are borrowing about 5 percent of GDP from overseas lenders to pay for our guns (military spending) and butter (domestic programs).

The Congressional Budget Office projects that the budget deficit will be reduced to around 2 percent of GDP by 2010. But this is an unrealistic projection on which to base policy because it makes two questionable assumptions: that President Bush’s tax cuts will be rescinded and that the alternative minimum tax will not be reformed or eliminated. Thus, cutting spending really is the only tool deficit hawks can use to cut the deficit.

Figure 2 gives a breakdown of our federal spending. Nondiscretionary spending and interest on the debt are considered off limits to budget cutters. This eliminates fully 61 percent of the budget. Thus, spending cuts must come from discretionary spending.

In the short run, it is unlikely that Congress will cut military spending because of President Bush’s Iraq commitment. In fact, holding defense spending constant will require a significant reduction in planned expansion of weapon systems. Thus, we are left with cutting non-defense, non-discretionary savings, which accounts for 19 percent of the federal budget.

To illustrate the problem facing deficit hawks, if all non-defense, non-discretionary outlays were entirely eliminated, this would reduce total spending by 3.1 percent of GDP. As shown in Figure 1, a spending cut of this magnitude would not eliminate the budget deficit. We would still be in red ink but the National Weather Service, National Science Foundation, National Institutes of Health, National Parks System, FBI, EPA, Department of Education, U.S. farm programs, and many other federal programs funded out of discretionary spending would be gone.

This brief exploration of the problem facing budget cutters shows why they will be taking a hard look at all agencies and programs for areas where efficiencies can be increased or programs can be eliminated. And agricultural programs are a prime target.

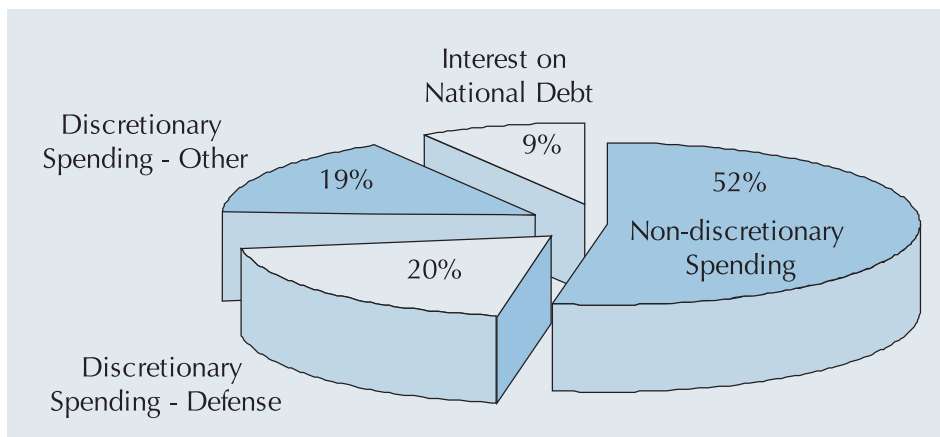


FIGURE 2. FEDERAL SPENDING CATEGORIES

SAVING MONEY FROM SMART REFORM OF THE CROP INSURANCE PROGRAM

The crop insurance program provides an example of a smart reform that can both save money and improve the program. To understand how this might work, we must first review some program details.

Congress last reformed the crop insurance program in 2000 by significantly increasing the subsidies farmers receive when they buy more expensive, lower deductible policies. The new subsidies resulted in a significant increase in the amount of insurance that U.S. farmers purchase each year, which was the objective of the reform. Total (unsubsidized) crop insurance premiums, which are the best measure of the size of the program, have increased 68 percent since 2000.

This growth in the program is a direct result of the way that farmers receive their subsidies. Congress mandated that per acre subsidies must be proportionate to total premiums. Thus, the more farmers pay for insurance, the more they receive in subsidies. Farmers have many choices in the program. They choose which products to buy (Revenue Assurance, Crop Revenue Coverage, or standard yield insurance); the level of coverage to purchase; and whether to insure their fields in separate insurance units or to combine them into a single unit.

The particular subsidy proportions chosen by Congress create an

incentive for most farmers to buy insurance at the 75 percent coverage level (a 25 percent deductible). At this coverage level, farmers pay only \$45 for each \$100 worth of insurance that they purchase. This creates a large incentive for farmers to purchase the most expensive insurance that is available to them. The most expensive insurance available is Revenue Assurance with the harvest price option (or Crop Revenue Coverage, which gives equivalent coverage) and insuring crops on a field-by-field basis, which is known as buying “optional units.” It is this incentive for buying optional units that could allow a large impact under smart reform.

OPTIONAL UNITS IN CROP INSURANCE

Farmers who grow a crop on more than one section of land can create a separate insurance unit—an “optional unit”—for the land in each section. Each optional unit stands alone when it comes time to calculate premiums and indemnities. If hail damages a crop on one unit, the farmer will receive an insurance indemnity to cover the hail losses. This payment arrives even if the farmer’s other field units receive beneficial rainfall instead of hail.

The alternative to optional units is to insure all of a farmer’s crop in a single insurance unit. The insurance guarantee on this single unit is exactly equal to the sum of the insurance guarantees on the optional

units. However, the frequency of insurance payments will be lower on the single unit because production from all fields is pooled together when calculating whether there is a loss. Reflecting this lower frequency of payments, USDA charges a 10 percent insurance surcharge for optional unit coverage.

Why would farmers pay a premium surcharge for no increase in their insurance guarantee? The explanation, of course, is that because of the proportionate subsidies, farmers only pay a surcharge of 4.5 percent. What farmer would not pay 45¢ for coverage that returns \$1.00? Approximately 90 percent of land enrolled in the crop insurance program is enrolled as optional units.

A smart reform of the crop insurance program would be to either eliminate the ability of farmers to buy optional unit coverage or to eliminate the additional subsidy that farmers receive for buying optional unit coverage. The first reform option has the added benefit of a reduction in fraud and abuse of the program by making it more difficult for dishonest farmers to “move” production among fields either to make false insurance claims or to build up a higher yield history on a particular field in order to increase its eligibility for higher future levels of insurance.

COST SAVINGS FROM SMART REFORM

Significant cost savings would accrue from elimination of optional unit coverage. Table 1 (page 5) summarizes the estimated changes in taxpayer costs from this reform for fiscal year 2006, assuming that 90 percent of acreage is insured under optional units. Reducing premiums by 10 percent on 90 percent of the business reduces expected insurance payouts, cost reimbursements to crop insurance companies, and underwriting gains by 8.18 percent. Taxpayer costs of this program could be reduced by approximately \$330 million. And because the total

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Rethinking Agricultural Domestic Support under the World Trade Organization

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The World Trade Organization (WTO) negotiations under the Doha Round are slowly progressing toward an eventual new agreement on agriculture. A new framework for the agriculture agreement was approved by the WTO membership in August 2004. The changes in the guidelines for domestic support could have effects on many countries and many types of support. However, details on the specific regulations of the agreement have yet to be determined. Dramatic reforms in agriculture could take place under the framework, but the decisions made to implement the framework will determine if that potential is realized. If countries lack ambition and commitment to make genuine reforms, changes in support will not happen in this round.

Governments provide support to agriculture in numerous ways, for example, direct payments, research grants, loan programs, and storage programs to name a few. Under the current Uruguay Round Agreement on Agriculture (URAA), domestic support programs are divided into three “boxes” that indicate the trade-distorting effects of the programs. “Green Box” programs are considered minimally trade distorting. The agreement sets out specific guidelines for the structure of such programs but does not set limits on these program expenditures by WTO members. “Blue Box” programs are considered more trade distorting but have production limits embedded in them. These programs also are not limited under the current agreement.

All other programs are “Amber Box” programs. Amber Box programs are considered the most trade distorting and are limited under the current agreement. Within the Amber Box, programs are classified as product-specific or non-product-specific. These classifications determine the so-called *de minimis* rules, by which certain Amber Box programs may be exempt from domestic support limits. Support that counts against the limits is referred to as the Aggregate Measure of Support (AMS).

THE NEW FRAMEWORK, RECENT POLICY CHANGES, AND WTO RULINGS

The newly agreed upon framework for agricultural domestic support is targeted at achieving substantial reductions in trade-distorting support, the Amber and Blue Box programs. New limits are put in place on *de minimis* support, Blue Box support, and the product-specific AMS. Total support, as measured by the sum of AMS, *de minimis*, and Blue Box support, is to be limited. This limit on total support will be tightened during the implementation period. All member states face a 20 percent reduction in the total support limit in the first year of implementation. This reduction is referred to as the “down payment.” Recent estimates indicate the United States would have a total support limit of \$49 billion per year at the start of the new agreement; a 20 percent reduction would lower the limit to \$39 billion. Additional reductions in the total support limit will be based on a tiered formula that is yet to be determined. However, the formula will result in larger reductions for WTO members that have higher levels of permitted support.

Total AMS and *de minimis* permitted levels will also be reduced over the implementation period. The agreement stipulates that prod-

WTO SUPPORT CATEGORIES

Amber Box Support. Domestic policies that have a direct effect on production and trade. WTO members calculate how much support of this kind they provide per year for the agricultural sector (using calculations known as “total aggregate measurement of support” or “Total AMS”).

Green Box Support. Measures with minimal impact on trade, which can be used freely. They include payments made directly to farmers that do not stimulate production, such as certain forms of direct income support, assistance to help farmers restructure agriculture, and direct payments under environmental and regional assistance programs.

Blue Box Support. Direct payments to farmers whereby the farmers are required to limit production. The new framework would also include direct payments based on a fixed base that do not require production in the blue box.

uct-specific AMS and Blue Box support should only be capped, rather than reduced. However, the framework states that the required reductions in total support and total AMS should also result in reductions in product-specific support. The Blue Box has been redefined to include direct payment schemes that are either production limiting or do not require production at all. A member state’s limit for Blue Box support will be based on 5 percent of its average total value of agricultural production over a historical period or the amount of existing Blue Box payments over a historical period, whichever is higher. Green Box guidelines are to be reviewed to ensure that all

Green Box programs are minimally trade or production distorting.

Both the United States and the European Union have significantly altered their agricultural programs over the last few years. They have moved a great deal of their subsidies to direct payments to agricultural entities. The U.S. direct and countercyclical payments and the E.U. Single Farm Payments all fit the description of direct payments. Given the current structure of the Green Box and the new definition of the Blue Box, U.S. direct payments and E.U. Single Farm Payments would be filed as Green Box. U.S. countercyclical payments would go in the Blue Box. These moves give the United States and the European Union a great deal of flexibility in dealing with the proposed reductions.

However, the WTO panel ruling on the Brazil-U.S. cotton dispute has concluded that U.S. direct payments "do not fully conform" to the guidelines for Green Box direct payments because of their exclusion of fruit and vegetable production on the payment-base acreage. By the same measure, E.U. Single Farm Payments,

too, would not conform to the Green Box requirements. However, it should be relatively easy to fix both issues, so this is probably of minor concern to U.S. and E.U. negotiators.

The framework explicitly states that the reductions in total AMS permitted levels "will result in reductions of some product-specific support." But true reductions may not materialize because there are loopholes in market price support (MPS) programs, and member states still have flexibility to provide support through other mechanisms. The change in Japanese rice policy in the late 1990s provides one example of an MPS loophole. Another example would be if the United States made superficial changes to the dairy and sugar programs to fulfill a target in product-specific support reductions without truly affecting actual support. The United States could also lower loan rates in the marketing loan program (reducing product-specific AMS) and augment the countercyclical program to make up the support difference (by changing the target price). Aggregate support

would remain the same but would shift from the Amber Box to the Blue Box. The ability of reductions in total AMS permitted levels to force reductions in product-specific support will also hinge on the product-specific AMS limits. These limits have yet to be determined, although the framework does state that the limits will be based on "respective average levels." To guarantee product-specific support reductions, the final level of total permitted AMS must be less than the sum of the product-specific AMS limits.

RECOMMENDATIONS FOR MOVING FORWARD

The issues embedded in the current WTO agriculture negotiations are numerous because of the multitude of agricultural programs used by member states throughout the world. Putting all of the programs into categories has allowed negotiators and their advisers to condense this support into manageable points so that further clarifications can be

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Guns and Butter

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insurance guarantee would remain the same for farmers, this cost savings comes about with absolutely no impact on the ability of the crop insurance program to provide income support when a farmer's market income falls short of the insurance guarantee.

IS SMART REFORM DOABLE?

The word around Washington is that departments and agencies are being asked to identify perhaps 8 percent of their budgets that can be cut. If these cuts were to be made on a program-by-program basis, then the USDA's Risk Management Agency would be forced to cut projected spending by 8 percent. Elimination of optional unit coverage would ac-

TABLE 1. ESTIMATED CHANGES IN TAXPAYER COSTS FROM CROP INSURANCE REFORM (FY 2006)

	Current Program (billion \$)	No Optional Units (billion \$)
Total premiums	4.00	3.67
Total indemnities	4.30	3.95
Total premium subsidies	2.37	2.17
Administrative and operating cost	0.92	0.84
Underwriting gains	0.40	0.37
Taxpayer cost of crop insurance	3.99	3.66

complish this 8 percent cut in the crop insurance program with no impact on the total amount of insurance provided to U.S. farmers.

Of course, the beneficiaries of optional units can be expected to fight their elimination. The primary beneficiaries are crop insurance agents, who will find that their commissions will be cut by about 8 percent; crop insurance companies,

which will have reduced underwriting gains; and farmers, who will have reduced payments. But if cuts are going to be made, one would hope that they are made with an objective of doing the least harm to the mission of the agency or program being cut. Elimination of optional units is the type of reform that makes sense in an era of scarce federal resources. ♦

Agricultural Situation Spotlight

Planting Decisions: Corn versus Soybeans

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The recent discovery of soybean rust in the United States has prompted many agricultural pundits to predict more corn acres will be planted in the coming crop year. While soybean rust may cause some shift from soybeans to corn, producers have already begun such a shift and will likely continue regardless of the presence of soybean rust. Figure 1 shows that Iowa soybean acreage reached its peak in 2001. Since then, corn acreage has risen by nearly 9 percent while soybean acreage has declined by over 7 percent. Three major factors explain this shift: trend yields, variable costs, and prices. If we look at these factors over the past several years, corn has outpaced or matched soybeans in all three areas. Corn trend yields are growing relatively faster than are soybean trend yields. Variable costs of production for corn are maintaining a consistent margin with those for soybeans. Futures prices for corn are relatively stronger than are those for soybeans.

Figure 2 contains actual and trend yields for Iowa corn and soybeans. Two trend lines are given for each crop. One shows a 1980 to 1997 trend, which represents the information that was available to farmers before planting their crops in 1998. The other shows the trend from 1980 to 2004, representing currently available information.

A comparison of the two sets of trend yields demonstrates that yields in the late 1990s and early 2000s have pushed the corn trend higher, while the soybean trend remains roughly the same. In 1998, the corn trend yield was 129 bushels per

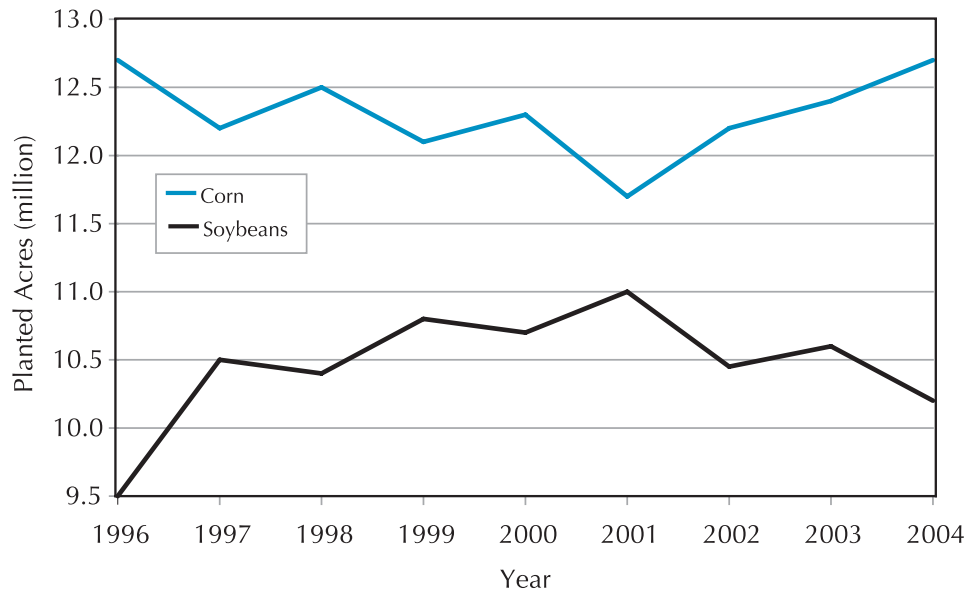


FIGURE 1. CORN AND SOYBEAN PLANTED AREA IN IOWA

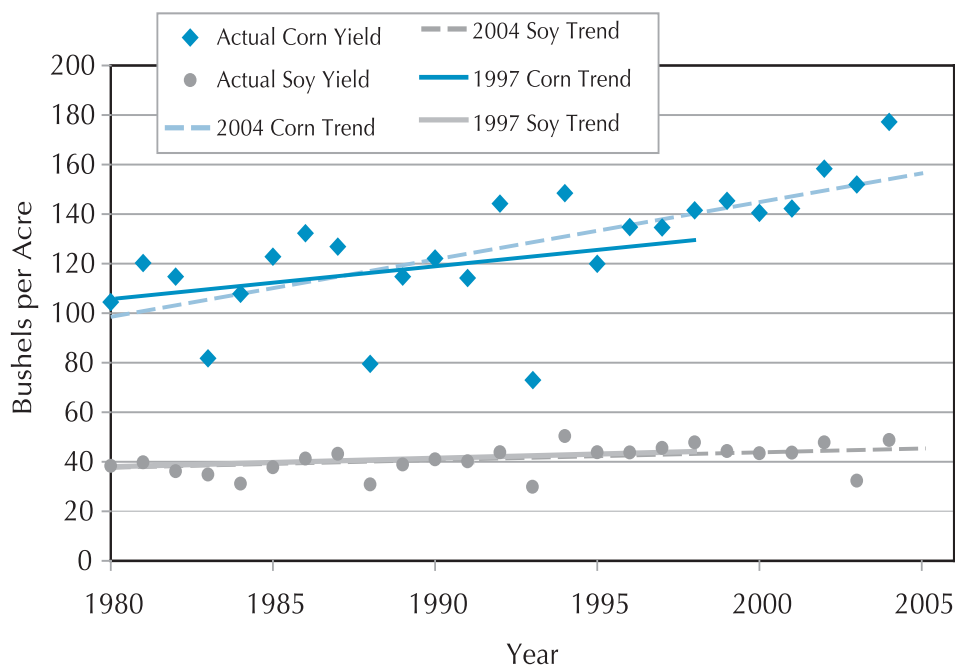


FIGURE 2. IOWA CORN AND SOYBEAN ACTUAL YIELDS AND YIELD TRENDS

acre, 2.9 times the soybean trend yield of 44 bushels per acre. In 2005, the corn trend yield is 156 bushels per acre, 3.4 times the soybean trend yield of 46 bushels per acre. Given corn's growing advantage in trend

yields, for soybeans to be competitive, soybean prices must be relatively higher than corn prices or soybean costs must be relatively lower. Neither of these is turning out to be the case.

USDA has tracked agricultural production costs for many years. The upper section of Table 1 shows the variable (or operating) costs for producing corn and soybeans in the Heartland region, which includes Iowa. Cost figures after 2003 have not yet been published. These figures show corn variable costs are roughly double the variable costs for soybeans. Going back to 1996, this cost relationship has been fairly steady. So variable costs have not moved in favor of either crop for quite some time.

The middle section of Table 1 shows the expected prices for the crops before planting. For these prices, we gathered the futures prices in mid-January on the harvest futures contracts for corn and soybeans. Looking at the ratio of the corn and soybean prices, corn reached its high point in 2002 when its expected price was 53 percent of the soybean price. Since then, the price ratio has moved in soybeans' favor—until this year. In 2005, the ratio is 0.42, slightly below the 10-year average. So current prices also are not favoring either crop.

The bottom section of Table 1 shows the expected net returns for each crop. The net returns are based on the expected prices, trend yields, and variable costs for each year. The variable costs from 2003 are used for 2004-05. In each year, corn expected net returns have exceeded soybean expected net returns. This is a fair comparison because lower fertilizer costs from planting corn after soybeans are accounted for in USDA cost figures. In fact, going back even further, corn expected net returns have surpassed soybean expected net returns in 9 of the past 10 years. Given that the expected net returns are higher for corn, it is not surprising that Iowa farmers have been shifting from soybeans to corn.

The additional threat of soybean rust is not creating a new incentive to move to corn but is actually just reinforcing the shift. Soybean rust could affect production and planting decisions in several ways. First, if

TABLE 1. VARIABLE COSTS, EXPECTED PRICES, AND EXPECTED NET RETURNS

	2001	2002	2003	2004	2005
Variable Costs (\$ per acre)					
Corn	152.00	134.97	150.40		
Soybeans	78.27	70.26	75.38		
Expected Price (\$ per bushel)					
Corn	2.58	2.37	2.44	2.52	2.37
Soybeans	5.07	4.43	5.23	6.41	5.60
Expected Net Return (\$ per acre)					
Corn	226.40	218.03	218.59	236.43	218.81
Soybeans	146.16	127.57	160.22	215.89	181.27

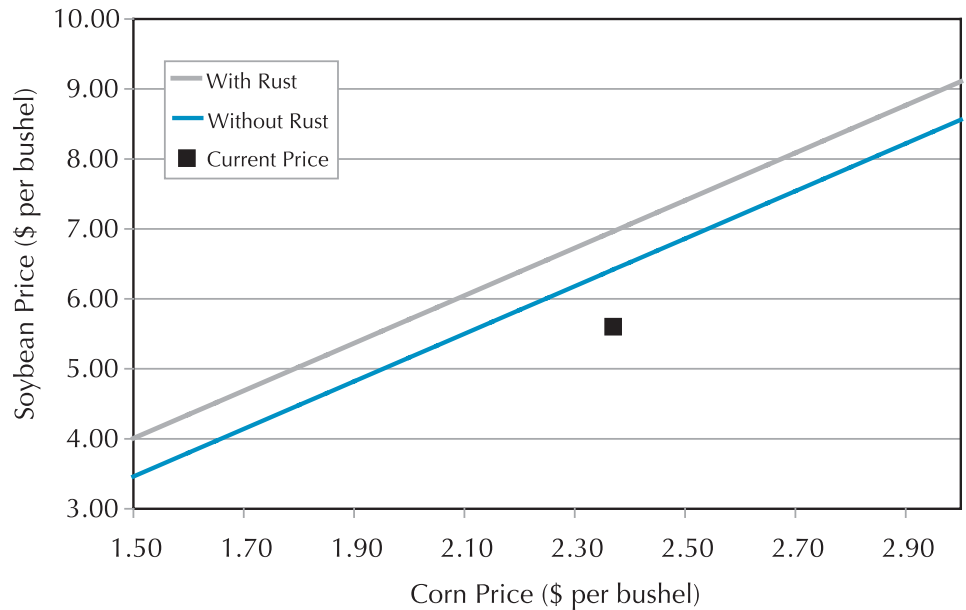


FIGURE 3. SOYBEAN PRICES NEEDED TO HAVE EXPECTED NET RETURNS EQUAL TO CORN

soybean rust does spread during the growing season, soybean producers will face additional variable costs for fungicides. Estimates of the additional costs range from \$16 to \$35 per acre, depending on the fungicide used, the number of applications, and the severity of the outbreak. This will drive down soybean net returns and make corn relatively more attractive. Second, areas where soybean rust is more likely to be present may shift to alternative crops. Given the biology of soybean rust, southern states are more likely to face rust problems. Corn, cotton, and rice acreage in these areas may increase and the additional produc-

tion from these acres would put downward pressure on prices for these crops. This change could also spur higher soybean prices. These price changes would support more soybean acres in Iowa. The net effect of soybean rust on expected net returns is uncertain.

Figure 3 shows the soybean prices that would be needed to make corn and soybean expected net returns comparable with and without soybean rust. For the soybean rust scenario, additional costs of \$25 per acre are assumed. Given this additional cost, an extra 55¢ per

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Animal Identification Is Key to Restarting Beef Exports to Japan

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December 26, 2004, marked one year since Japan banned imports of U.S. beef following the discovery of bovine spongiform encephalopathy (BSE) in an imported animal. The loss of more than 375,000 metric tons (mt) of U.S. beef and beef variety meats created a shortfall in supply that Japan has been unable to fill. Australian exports to Japan were 41 percent higher in 2004 than in 2003, but Australia and other countries cannot supply the volume and types of beef the United States had supplied.

Japan's search for alternative suppliers includes China. Although China has problems with foot-and-mouth disease and other sanitary issues, Japan has sourced small quantities of inexpensive, heat-treated beef for *gyudon*—a popular lunch meal of beef and rice served in bowls. Japan is likely to increase these imports as the Japanese Ministry of Agriculture, Forestry, and Fisheries (MAFF) approves additional processing plants. This willingness to source beef from China is an indication of how badly Japan needs to increase beef imports.

Shortly before the U.S. presidential election, Japan and the United States signed an agreement outlining the conditions necessary to resume imports of some U.S. beef under an interim trade program. In retrospect, USDA's statement that "several weeks will be required for the resumption of sales" was overly optimistic, and several conditions of the agreement have proven problematic. Briefly, conditions to restart trade include a Beef Export Verification Program, managed by the USDA's Agricultural Marketing Service, to ensure the following industry practices are implemented.

- Specified risk materials (SRMs) must be removed from animals of all ages.
- Beef items, including offals and variety meats, must be derived from cattle verified to be 20 months of age or younger.
- Cattle must be traceable through live animal production records that indicate the animals are 20 months of age or younger at the time of slaughter. Records must be based on (a) individual animal age verification, (b) group age verification, (c) insemination age verification, or (d) USDA Process Verified Animal Identification and Data Collection Services.

In addition, the USDA would document how physiological maturity using carcass grading and quality attributes can be used to determine chronological age.

Conditions for the Japanese side included revising domestic rules from requiring 100 percent BSE testing to testing of animals 21 months and older. Members of Japan's Liberal Democratic Party have resisted this change and asked that public hearings be held before the law is revised. U.S. consumers may have reacted with relative equanimity to a case of BSE in the domestic herd, but Japanese consumers did not. The first case of BSE in Japan, confirmed in September 2001, caused immediate and dramatic consumer reaction against both domestic and imported beef. Following recovery in beef consumption and despite 14 confirmed cases of BSE in Japan, demand for domestic beef remains strong because consumers know every animal is being tested. Japanese policymakers are understandably concerned about potential damage to the domestic industry as a result of

resuming trade with the United States and have yet to lift the policy of blanket testing for cattle. Japan also needed legislation permitting imports of beef from animals 20 months and younger.

Under the interim trade agreement, U.S. supply will not be a problem. The USDA estimates that approximately 70 percent of the 35 million U.S. cattle slaughtered each year are steers and heifers 20 months or younger. This estimate means the United States will slaughter 23.5 million heifers and steers and produce more than 8 million mt of beef meeting Japan's age requirement.

However, a major point of contention in restarting exports is that most of these animals do not meet the agreement's criteria for age verification. Beef industry sources estimate that only 10 to 20 percent of U.S. cattle are covered by the appropriate documentation to confirm age.

The USDA's physiological maturity study was recently analyzed by the Japanese government. Japan reportedly may accept beef from animals that fit the "A40" quality category, which has been shown to cover an age bracket between 12 and 17 months. USDA estimates that 35 percent of U.S. slaughter cattle fit this category. An agreement to accept A40 beef would allow additional beef to be harvested for Japan, but further negotiations will delay the resumption of trade.

Compared with many other countries, the United States has been slow to adopt a system that would provide age verification of all cattle. The U.S. National Animal Identification System (NAIS) is under development but, at least initially, will be voluntary. By comparison, Canada's national animal identification system received strong approval from Japanese MAFF officials who made an inspection mission to Canada and the United States in late

2004. Canada has been out of the Japanese market since May 2003 because of BSE, but the Canadian cattle identification system will be a cornerstone of Canada's efforts to reenter the Japanese market.

Both Canada and the USDA believe effective firewalls are in place to ensure cattle suspected of having BSE are removed from the North American herd and kept from entering the food system. The United States has named Canada a "minimum-risk region," which means the Canadian industry meets risk standards that (a) prohibit specified risk materials in human food; (b) implement a ruminant-to-ruminant feed ban; (c) restrict imports to minimize exposure to BSE; (d) use surveillance procedures that meet or exceed international guidelines; and (e) use epidemiological investigations, risk assessment, and risk mitigation measures.

Canada's third case of BSE created renewed concern in the U.S. beef industry, with some groups urging the U.S. government to keep the border closed to live cattle. However, both countries had acknowledged the possibility of additional cases, and the United States is proceeding with its decision to allow imports of live cattle under 30 months of age and other specified animals and products from Canada. On March 7, 2005, the United States

Compared with many other countries, the United States has been slow to adopt a system that would provide age verification of all cattle.

and Canada will once again become a North American market.

Based on the importance Japan places on documented age verification and Canada's adoption of a national identification system, opening the U.S. border to live Canadian cattle should not slow U.S. efforts to reenter the Japanese import market. On the other hand, additional negotiations will be required to compensate for the U.S. industry's slow uptake of animal identification, age verification, and traceability systems. Further, being banned from the U.S. market forced Canada to increase slaughter capacity. This means the Canadians will have more beef to sell and can market their source-identified product as being distinctly different from most U.S. beef.

Of greater concern than opening the border is that, once access is

granted, exporters are likely to face consumer resistance to U.S. beef. Consumer polls indicate that between two-thirds and three-fourths of Japanese consumers say they will not buy U.S. beef when it becomes available. Given this consumer attitude, markets for less-expensive cuts of U.S. beef will exist in food service outlets where source identification is not required. However, convincing consumers to purchase more-expensive cuts from retail outlets that require country-of-origin labeling and from restaurants that provide source identification will be a much harder sell.

Experience has given the Japanese government a strong incentive to respond to consumer concerns. Traceability of livestock and other food products is a high priority in Japan, and supermarkets and other food suppliers have been quick to embrace traceability as part of consumer assurance programs. The intent of the U.S. NAIS is to allow for rapid tracking of animals in case of disease outbreaks. However, because the system would provide both documentation of age and traceability from birth to the doors of the slaughter plant, adoption of the system would be a major step forward in satisfying Japanese concerns about animal identification and traceability and perhaps in avoiding extended import bans in the event of future animal disease or meat safety issues. ♦

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bushel of soybeans would be needed to offset the costs and maintain net returns. With a corn price of \$2.37 per bushel (the futures price for corn on January 7) and assuming no soybean rust problems, soybean prices would need to move up to \$6.42 per bushel (82¢ higher than the soybean futures price on January 7) to match

expected net returns with corn. With soybean rust, soybean prices would need to increase to nearly \$7 per bushel. Of course, \$7 soybeans are quite possible if rust significantly reduces yields or causes major acreage shifts out of soybeans and into corn. But, at least so far, the futures market is discounting the possibility of either event happening. ♦

U.S. Sweetener Consumption Trends and Dietary Guidelines

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The United States is the fourth-largest producer of sugar and has well-developed sugarcane and sugar beet industries. However, since the 1970s, high fructose corn syrup (HFCS) has gained popularity with food processors as a sweetener, a change stimulated by sugar agricultural policies that have raised the price of sugar well above its world level, and the emergence of cheaper sweeteners based on corn. Nearly 7.3 percent of total corn production (2.2 million bushels) was used to produce HFCS in 2003/04. The United States is the world's lowest-cost producer of HFCS, partly because of access to cheap corn at or below world market prices and low unit costs in large plants. HFCS represents an increasing share of per capita caloric sweeteners delivered for domestic food and beverage use.

Table 1 shows the radical changes that have occurred over time in the level and composition of U.S. sweetener consumption. Total caloric sweetener consumption increased 33 percent from the 1960-69 to 2000 average level. HFCS use increased by 1,060 percent, and total sugar consumption dropped by 33 percent. Since 2000, these trends have tapered, and U.S. sweetener consumption seems to have peaked. Food-processing industries and food retailers have initiated these changes in the sweetener composition of food and many consumers obviously like them.

The beverage industry is by far the largest user of HFCS, as shown in Table 2. Canned, bottled, and frozen foods industry is the second-largest user. Added sugars include refined sugar, HFCS, edible syrups, and honey not naturally occurring in food but mostly added in food processing. By 2000, per capita consumption of added sugar among Americans was 31 teaspoons per person per day.

The relatively high amount of added sugars is attributed to increased consumption of foods with added sucrose or HFCS. Soft drinks and fruit drinks contribute almost 43 percent of total intake of added sweeteners. Often the caloric sweeteners are "hidden" in prepared foods, making it difficult for consumers to determine the exact amount of added sweetener in food items in the short run. In the long run, consumers can observe the health consequences of their dietary intake. The scientific literature has associated the intake of high sweetener levels with increased risk of health problems, including diabetes, cardiovascular disease, and obesity. Sugar and foods containing sugars and starches can also result in tooth decay.

The 2005 Dietary Guidelines for Americans recommend choosing foods that limit the intake of added sugars; balancing caloric intake from foods and beverages with physical activity; and choosing and preparing foods and beverages with little added sugars or caloric sweeteners. Evidence suggests a positive association between the consumption of sugar-sweetened beverages and weight gain, and that reduced intake of added sweeteners (especially sugar-sweetened beverages) may be helpful in improving the quality of diets and in weight control. Limiting intake of added sweeteners will lead to major changes in consumption and have implications for the agricultural sweetener sector. The U.S. Congress and some state legislatures are considering bans on soft drink sales in schools and other restrictions and food standards to curb sweetener and high-energy food consumption because of the rising cost of obesity among children and the general population. CARD economists (Helen Jensen, John Beghin, and Amani Elobeid) are currently analyzing the impact of such policies on U.S. sweetener and agricultural markets. ♦

TABLE 1. U.S. SWEETENER CONSUMPTION FROM 1950-59 TO 2000 (ANNUAL AVERAGES, PER CAPITA)

	1950-59	1960-69	1970-79	1980-89	1990-99	2000	% Change 1960-69 to 2000
<i>Pounds per capita, dry weight</i>							
Total caloric sweeteners	110	114	124	127	146	152	33%
Cane and beet sugar	97	98	96	68	65	66	-33%
Share of industry in total			64%	60%	58%	59%	
Corn sweeteners	11	15	26	57	80	85	472%
HFCS	0	0	6	37	57	64	1,060% ^b
Glucose	7	11	17	16	20	18	66%
Dextrose	4	4	4	4	4	3	-177%
Other caloric sweeteners ^a	2	2	1	1	1	2	0%

Source: USDA/ERS 2003.

Note: Totals may not add up because of rounding.

^a Edible syrups (sugarcane, sorgo, maple, and refiners), edible molasses, and honey.

^b Percentage change between 1970-79 and 2000.

TABLE 2. U.S. HIGH FRUCTOSE CORN SYRUP CONSUMPTION BY TYPE OF USER (THOUSAND SHORT TONS)^a

Industry	1987	1992	1997	2002	% change 1987-2002
Confectionery and related products	27	114	106	83	202%
Bakery, cereals, and allied products	411	442	402	513	25%
Ice cream and dairy products	402	568	772	258	-36% ^b
Canned, bottled, and frozen foods	593	647	502	686	73%
Beverages (mostly soft drinks)	3,888	3,878	5,845	6,693 ^c	80%
Miscellaneous food manufacturing		101			
Total	5,126	5,506	7,632	8,533	66%
Contribution of beverages to total HFCS consumption	76%	70%	77%	82%	

Source: Calculated from U.S. Census Bureau data.

^a For some categories and some years, the Census Bureau withholds data in order to avoid disclosing information about individual companies or if estimates did not meet publication standards.

^b The reduction in HFCS consumption by the ice cream and dairy products industry may reflect a change in classification of the industry.

^c Authors' estimate.

Rethinking Agricultural Domestic Support Continued from page 5

made. Building on the framework for agricultural domestic support, we recommend additional changes.

The definition of Green Box policies needs to be re-examined. Given the possible effects of decoupled income support and marketing, transportation, and infrastructure support on world trade, these programs may not truly fit the Green Box target of minimally trade-distorting policies. However, these programs are not directly linked to current production or prices and may have large non-agricultural benefits. Therefore, leaving them in the Green Box but tightening the rules for them may make the most sense.

An initially generous Green Box definition may facilitate negotiation of a phase-out of the Amber Box policies, which are the most damaging distortions. Developing countries complain about the large expenditures that sustain E.U. and U.S. farm policies. As these expenditures take place no matter what, competing exporters would be better off with Green Box types of policies than

with Amber Box policies. However, this change would mean that net food-importing countries would lose access to cheap food. The export subsidies that keep the costs of food down would disappear with the Amber Box. But trade would be undeniably much less distorted.

The current AMS framework for market price support cannot adequately reflect actual support levels. The MPS examples of Japanese rice and U.S. dairy and sugar show the flaws in current AMS calculations for these programs. Moving to an AMS based on current world and domestic prices will better capture the actual level of support and align market price support programs with other Amber Box programs in which actual expenditures are used in the calculations. An alternative would be to remove the MPS programs from both the AMS limits and the current AMS calculations. The way AMS is calculated for MPS in the current agreement has a significant loophole, allowing the possibility that countries can make small changes in official policy (resulting in minimal changes in agricultural trade protection) and provide themselves large

cushions from agricultural support reductions. Either of the proposals suggested here would close this loophole.

Although the framework has provided the possibility for significant agricultural trade reform in domestic support, the Blue Box cap proposed in the framework is so generous that many programs could be folded into the Blue Box with no effective change in policy. Actually, the MPS loopholes, generous initial AMS bindings, and generous Blue Box caps taken together ensure that no actual change in aggregate support would occur. As the agricultural framework stands now, actual cuts in support may well have to wait for a third round of agricultural negotiations, unless negotiators develop a sudden desire for radical reforms. It may help to remember that it took eight rounds of world trade negotiations to get rid of trade distortions in manufacturing. ♦

This article was drawn from a larger working paper of the same name. The full text is available at <http://www.card.iastate.edu/publications/synopsis.aspx?id=557>.

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