Getting Out of the Box: Transitioning Out of Direct Payments[*]

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October 2007

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Direct payments and counter-cyclical payments (CCPs) have become the predominant form of government support to U.S. agricultural producers in recent years. The share of total government support to agriculture accounted for by direct payments has grown particularly during the past few years as high commodity prices have reduced outlays on CCPs and loan deficiency payments. Direct payments and CCPs do not depend on current production decisions but instead on a producer's historical acreage, historical yields, and—in the case of CCPs— market prices outside of the control of any individual producer.

Given that a farm's direct payments and CCPs are not affected by its current production decisions, one might argue that these payments should have no impact on agricultural production or trade. However, in work we carried out for the Organization for Economic Cooperation and Development (OECD) in 2005, we identified several mechanisms through which direct payments and CCPs can potentially affect agricultural output and therefore trade.

The objectives of this paper are threefold. First, we recap and update the empirical studies we reviewed as part our work for OECD on the production impacts of direct payments and CCPs. The empirical studies we reviewed for that work lent support to the view that these payments, on the whole, had a small but positive impact on production. The studies indicated that these payments may positively influence planted area and possibly the use of variable inputs, particularly farm household labor.

Second, we consider the results of these studies in light of the Doha Round of WTO negotiations and the WTO dispute settlement process, with a particular focus on the U.S.-Brazil cotton case and the current U.S.-Canada corn trade dispute. One of Canada's key complaints is that U.S. direct payments are not Green Box compliant and should therefore be included with Amber Box payments, which would allegedly put the U.S. in violation of its $19.1 billion Amber Box limit for several recent years (WTO 2007a). With respect to the Doha Round negotiations, a number of countries have proposed that U.S. direct payments and CCPs be taken out of the Green Box and put into either the Amber Box or the Blue Box, which combined with a lower Amber Box ceiling and limits on Overall Trade Distorting Support (OTDS) could significantly constrain U.S. domestic support choices.[1]

Third, given this, we explore the idea of replacing direct payments and CCPs with a series of annual asset value compensation payments to landowners, who are widely recognized as the principal beneficiaries of agricultural price and income support programs, and payments for restructuring farm operations.

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[1] OTDS is the sum of Total AMS, product-specific *de minimis*, non product-specific *de minimis*, and Blue Box payments. The United States has recently notified CCPs as part of its Amber Box payments, but proposed modalities for domestic support under the Doha Round of WTO negotiations would include these payments in the Blue Box in future.

Empirical Studies on Production Impacts of Direct Payments and CCPs

Direct payments and CCPs do not depend on current production decisions but instead on a producer's historical acreage, historical yields, and—in the case of CCPs—market prices outside of the control of any individual producer. Given that a farm's direct payments and CCPs are not affected by its current production decisions, one might argue that these payments should have no impact on agricultural production or trade. However, in our earlier work for the OECD (2005), we identified six mechanisms through which direct payments and CCPs can affect agricultural output and therefore trade:

1. The additional income generated by payments may enhance the ability of producers to cover fixed and variable production costs, keeping production higher in the short run if it would otherwise be unprofitable. For this mechanism to apply, farmers who receive direct payments and CCPs must choose to use them to cover production costs rather than to increase their consumption or savings. They may do this simply because they have a preference for investing in agriculture rather than in other sectors of the economy or seek to take advantage of their specialized skills, particularly when there are imperfections in labor, information, or capital markets.

2. If producers face constraints on borrowing, the additional income generated by payments may relax those constraints by allowing them to invest more heavily in their operations out of retained earnings. For this mechanism to apply, there would have to be a market failure due to imperfect or incomplete capital markets resulting in an insufficient supply of capital to otherwise suitably qualified agricultural borrowers, or a supply of capital at a rate of interest which exceeds its opportunity cost in other uses, adjusted for any premium reflecting the relative risk of agricultural investments. In addition, producers would have to use the funds provided by payments for production-enhancing investments, rather than for any other purposes.

3. If producers are risk averse, the increase in wealth created by payments may make them less risk averse, causing them to expand production by planting land that would otherwise be seen as too risky.[2] This effect might be strengthened with CCPs because they reduce income variability, leading to an insurance effect on production. For this mechanism to apply, farmers must be risk averse and the risk management strategies used by farmers (e.g. hedging to reduce price risk and crop insurance to reduce yield risk) must be of limited effectiveness.

4. Producers might believe that there could be rebasing—a future updating of the area or yield upon which payments are based in which current-year area and yield play a role. Farmers may produce more now to ensure a larger base later. For this mechanism to apply, producers would have to believe that rebasing is likely in the near future, since it is doubtful that an uncertain prospect of rebasing 10 or 20 years from now would influence current production decisions.

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[2] This is known as the "wealth" effect of government support. The existence of a wealth effect requires that producers exhibit decreasing absolute risk aversion (DARA), which occurs when the Arrow-Pratt coefficient of absolute risk aversion declines as wealth increases.

5. The increase in wealth created by payments may lead farmers and/or their spouses to work less on the farm and spend more time on leisure activities. This mechanism works in the opposite direction of the previous mechanisms and is reason why direct payments and CCPs might actually reduce production. For this to reduce production, farmers would have to be limited in their ability to substitute hired labor or machinery for the work that they and their spouses were no longer doing.

6. Payments may prompt some producers to remain in agriculture rather than exiting the industry, thus slowing down the rate of structural change in agriculture. This mechanism could go either way in its impact on production. If exit would lead to land abandonment or the conversion of land to other crops, payments would cause production of supported crops to be higher than otherwise. On the other hand, the exit of less efficient farmers may result in the land being acquired by more efficient farmers who are able to produce more profitably. The amalgamation of land parcels may lead to economies of scale, leading to increased production efficiency and lower average costs of production. Larger scale farms may be in a better position to obtain financing from lenders to fund purchases of variable inputs or invest in their farm operations, due to their higher income-earning capacity or greater equity to provide collateral for loans. Any or all of these effects associated with the exit of farmers might lead to an increase in production in the absence of payments.

The econometric studies we review below generally do not distinguish among these six mechanisms. They instead adopt a "bottom line" approach to testing for the existence or absence of effects of payments on production decisions, and the effects they estimate are likely to represent a combination of multiple mechanisms. Many of these studies analyze production flexibility contract (PFC) payments (also known as AMTA payments) and marketing loss assistance (MLA) payments under the 1996 FAIR Act and legislation from the late 1990s. PFC payments and MLA payments were the predecessors of direct payments and CCPs under the 2002 Farm Bill. Studies using data collected since the 2002 Farm Bill was enacted are only now being completed.

Econometric Studies of Crop Acreage Decisions

Adams et al. (2001) use four years of state-level data (1997-2000) for 11 states that account for a significant proportion of total U.S. crop production. The study analyzes the relationship between a state's total crop area and the sum of production flexibility contract (PFC) and marketing loss assistance (MLA) payments using a variety of econometric models. The authors ran one model to test whether PFC and MLA payments help explain total crop area and found that the PFC/MLA payment variable was not statistically significant. The authors also ran a second model to test whether PFC and MLA payments have a different impact on total area than market returns and marketing loans. This model included the sum of four income sources (gross market returns, marketing loans, PFC payments, and MLA payments) as a single variable and the sum of PFC and MLA payments as a second variable. In this model, the PFC/MLA payment variable was statistically insignificant while the variable representing the sum of the

four income sources was statistically significant. When the PFC/MLA payment variable was removed from the model, the variable representing the sum of the four income sources became statistically insignificant.

Adams et al. (2001) conclude that that their results provide weak evidence that PFC and MLA payments affect total crop area. However, a statistically significant effect is found only when PFC and MLA payments are lumped together with gross market returns and marketing loans into a single variable, and even then only when a separate PFC/MLA payment variable that turns out to be statistically insignificant is also included in the model. Chavas (2001), commenting on this work, notes the weakness of the empirical results, including the assumption that area planted elasticities are the same across all 11 states in the analysis and limitations in capturing farmers' responses created by the short time period analyzed.

Using farm-level panel data from the US Census of Agriculture, Key, Lubowski and Roberts (2005) compare farm-level changes between 1987-1992, 1992-1997, and 1997-2002 in plantings of program crops, total farm size, and total farm sales for farms that participated in government programs with those that did not participate. Because farms choose whether or not to participate in farm programs, the authors faced the challenge of controlling for unobserved factors that could influence both program participation and plantings of program crops. By examining farm-specific changes, they were able to control for time-invariant unobserved factors at the farm level. They also controlled for fixed effects associated with farm type, scale, location, and operator age. During 1997-2002 they found that the growth rate of program crop acreage among participants was about 38 percentage points greater than that of non-participants, other things equal. The differences between participants and non-participants in growth rates for total farm size and total farm sales during 1997-2002 were 16 and 23 percentage points, respectively.

Goodwin and Mishra (2006) use farm-level data for 1998-2001 to evaluate the effects of payments on decisions at the farm level. The data are drawn primarily from the USDA's Agricultural Resource Management Survey (ARMS). Their analysis centers on the USDA's Heartland region and on the three most important crops in that region (corn, soybeans, and wheat). They estimate acreage equations for the three crops that incorporate market prices, PFC and MLA payments per acre, and variables that attempt to capture the indirect effects of PFC payments on area response through farmers' aversion to risk and capital constraints. They find a statistically significant impact of PFC payments in each of the three crop area equations, although the elasticities are relatively small. The estimated elasticities of crop area with respect to PFC payments are 0.03 for corn and wheat 0.02 and 0.03 for soybeans. They also find a statistically significant impact of MLA payments on corn area but not soybean or wheat area. The estimated elasticity of corn area with respect to MLA payments is 0.10.

Goodwin and Mishra (2006) also use county-level data for the Heartland region for 1998-2001 to examine the impact of PFC and MLA payments on corn, soybean, and wheat acreage. As the authors indicate, a limitation of their farm-level analysis is that individual farms are not observed over time in the ARMS data. This makes it difficult to control for historical values of key variables and complicates the identification of causal effects of policy variables. PFC and MLA payments depend on historical base acreage for program crops. Farms that planted a large number of acres to program crops during the period covered by the 1996 Farm Bill may have

also had significant acreage in program crops in years prior to 1996, and thus received large payments. In this case acres devoted to program crops are correlated with payments, but the payments do not necessarily have a causal influence on acreage decisions. In their county-level analysis the authors control on lagged crop acreage in order to mitigate this causal identification problem.

The results of Goodwin and Mishra's (2006) county-level analysis parallel their farm-level analysis. They find that the impacts of PFC payments on crop area are statistically insignificant for corn and wheat, and statistically significant for soybeans but small in magnitude. The area elasticity is approximately 0.02 for soybeans. MLA payments have a statistically significant impact on crop area for corn and soybeans, although the area elasticities are less than 0.01 in each case.

Goodwin and Mishra (2005) repeat their 2006 farm-level study but this time use 2002-2003 ARMS data to examine the impact of direct payments on corn, soybean and wheat acreage. Unlike their 2006 study they were able to control for a farm's base acreage in this study. They find that direct payments had no statistically significant impact on acreage for any of the three crops.

Goodwin, Mishra and Kimhi (2007) use 2003-2004 ARMS data to examine the impact of direct payments on total crop acres harvested on crop farms. The estimated impact was negative and statistically significant, with an elasticity of approximately -0.18. Estimated impacts for coupled payments and other types of farm payments on crop acres harvested were positive and statistically significant.

Econometric Studies of Time Spent on Farm Work

El-Osta, Ahearn and Mishra (2003) used 2001 farm household data from ARMS to analyze the impacts of government payments on on-farm, off-farm work hours, and total work hours among farm operators. They found that the impact of PFC payments on on-farm work hours was statistically significant but small in magnitude. Their results indicate that an additional $1,000 in PFC payments would have led to about 5.8 additional on-farm work hours per year. The average PFC recipient received about $9,000 in 2001, implying about 50 additional hours of work on the farm annually, which represents an increase in total on-farm work hours of about 2%. They obtained similar results with respect to disaster payments—statistically significant but small in magnitude. Their results indicate that an additional $1,000 in disaster payments would have led to about 2.9 additional on-farm work hours per year. They also found a statistically significant and negative impact of PFC payments on off-farm work hours. Among farm operators working off the farm, an additional $1,000 in PFC payments would have led to about 37 fewer off-farm work hours per year. The impact of MLA payments on off-farm work hours was statistically insignificant. The impacts of PFC and MLA payments on total work hours were also statistically insignificant.

Other studies (e.g. Ahearn, El-Osta and Dewbre, 2006; Goodwin and Mishra, 2004) have examined the impact of government payments on off-farm work by farm operators without analyzing impacts on on-farm work hours. These studies find that payments have a negative and

statistically significant impact on off-farm work hours. However, we do not know from the results of these studies what farmers were doing with the time no longer spent on off-farm work. It might have been spent on farm work, but it might have also been spent on leisure activities or a combination of farm work and leisure.

Econometric Studies of Structural Change in Agriculture

Key and Roberts (2006) use farm-level panel data from the 1987-1997 Censuses of Agriculture examine the effect of government payments on farm business survival. They find that government payments have a small but statistically significant impact on the probability of farm business survival, controlling for farm sales, farm type, the age, gender and race of the farm operator, the organizational structure of the farm business, and whether the operator's principal occupation is as a farmer. Their results imply that a farm receiving the average level of government payments has a 10-year business survival probability of about 35%, compared to 25% for a farm receiving half the average level of government payments. They suggest three possible explanations for their findings. First, farms receiving large payments may bid up the price of land, driving up costs for farms with lower payments and causing them to exit. Second, government payments may also relax borrowing constraints allowing a farm with more payments to grow to a more efficient scale. Third, higher payments may make farming more profitable compared to alternative occupations, reducing incentives to exit agriculture.

Ahearn, Yee and Korb (2005) used state-level from 1982, 1987, 1992, and 1996 to examine the impacts of commodity payments (coupled plus decoupled payments) on farm structure. They found that commodity payments had a positive and statistically significant impact on the share of farms within a state classified as large (those with more than 1,000 acres). They view this result as consistent with the view that farmers use commodity payments to buy out smaller neighbors and expand in scale.

Summary of the Econometric Evidence

The empirical studies reviewed lend support to the view that direct payments and CCPs have some impact on production and that the impact is positive. Although several mechanisms for this effect can be hypothesized, it is difficult to disentangle the relative importance of each of these empirically. Empirical studies indicate that the payments may have influenced acreage decisions and increased time spent by farm households on farm work.

In general, the estimated impacts are small. In the econometric studies of PFC and MLA payments, the payment variables are sometimes statistically insignificant. When the variables are statistically significant they imply in most cases that PFC and MLA payments increased crop acreage and on-farm work hours by less than 5%. However, as Sumner (2005) emphasizes, for WTO purposes it is likely that even small effects would be considered more than "minimally distorting", which is a fundamental requirement if payments are to be included in the WTO´s Green Box of permitted support.

Production Linkages and WTO Agreements

Since the conclusion of the Uruguay Round of trade negotiations in 1994, agriculture has been subject to disciplines on domestic support through the Agreement on Agriculture (AoA). Support through measures that distort domestic production and trade (the so-called Amber Box) are subject to a maximum, which in the U.S. case is just over $19.1 billion. Estimates of support are derived using the Aggregate Measure of Support (AMS). This employs agreed conventions, (e.g., the use of fixed reference prices) and excludes product-specific and non product specific support that falls below a certain level (*de minimis*). As a result the total AMS does not equate to the actual support provided through U.S. government programs. Payments that involve reductions in production (Blue Box), such as the deficiency payments used prior to the 1996 Farm Act, and payments that are viewed to be minimally distorting (Green Box) are both excluded from the AMS calculation and are not subject to any limits.

Countries are supposed to notify payments under each of the categories to the WTO on a regular basis. Some guidelines on what measures can be included in each category are provided by the AoA, but in the final analysis countries decide where to allocate their payments. The United States has notified CCPs as part of its non product-specific AMS, i.e., under the Amber Box category, and direct payments (including production flexibility contract payments) under the Green Box category (WTO, 2007b).

The legal status of U.S. direct payments has been called into question as a result of a WTO ruling on a dispute between the United States and several other countries over U.S. cotton programs. The essence of the case (referred to here as the cotton case), brought by Brazil in 2003, was that a wide range of U.S. domestic programs, both those notified under Amber Box support (including CCPs) and some notified under the Green Box (including direct payments) are export subsidies that have caused serious prejudice to Brazil by depressing world cotton prices and increasing the U.S. share of world exports. The U.S. disputed these allegations. In particular it argued that payments it had declared under the Green Box met the fundamental requirement of being minimally trade- or production distorting. The cotton case is complex, as indicated by the almost 400 pages of the panel report (WTO 2004). However, a major conclusion was that some of the payments declared to be Green Box by the U.S. do not satisfy the fundamental requirement, since they are linked to production. In the judgment of the panel this linkage is created by limitations on planting flexibility for land upon which the payments are based rather than on the basis of any direct impact on the production of a commodity for which subsidies are paid. Producers who wished to receive payments cannot plant fruits and vegetables on eligible land. This was interpreted to mean that there is, in fact, a linkage between payments and production and that, consequently, they do not qualify for the Green Box.

As already noted, in January 2007 Canada submitted a request for consultations on domestic support for corn – the first stage in the dispute settlement process (WTO 2007a). In its request Canada alleges that domestic support and subsidies provided under the 1996 and 2002 Farm Acts, including CCPs and direct payments, caused serious prejudice to Canada. Canada also alleges that these and other forms of support should all be included in the AMS and that when this is done the U.S. exceeded its total AMS commitment in several years (1999, 2000, 2001, 2004 and 2005). In its request Canada includes a list of factual sources of information and

some analysis in support of its allegations, including papers by academics, that extends to almost four pages. Canada requested in June 2007 (WTO 2007c) that a panel be established to examine its case. As of mid-October 2007 a decision has not been taken by the Dispute Settlement Body on whether to set up such a panel.

Figure 1 shows the implications of including US direct payments in the calculation of the Total AMS, based on data from U.S. notifications. Canada´s claim seems to be supported for only two years, 1999 and 2000. However, re-classification of CCPs as product-specific subsidies rather than non product subsidies would cause the total AMS binding to be exceeded in 2004 and 2005. On the basis of current notifications, the binding would not seem to have been exceeded in 2001.

Figure 1. Impact of Including Decoupled Payments and Reclassifying CCPs on the Total AMS
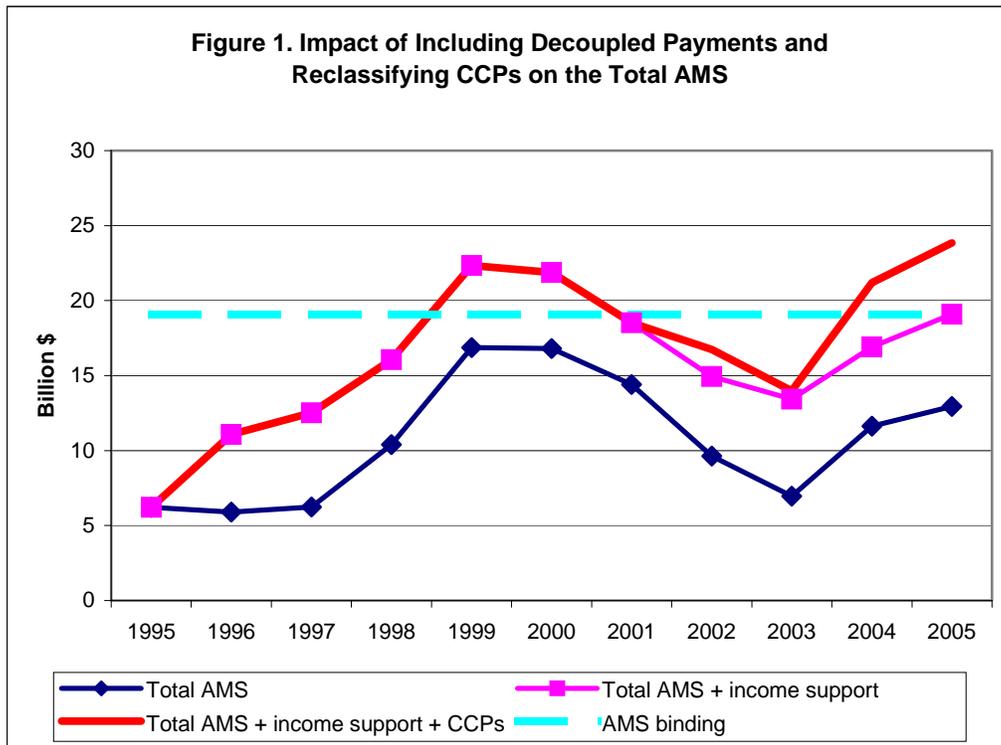
Source: WTO Notifications.

One way in which the U.S. might overcome the problems posed by the cotton case ruling for its direct payments would be to eliminate the restriction stipulating that fruit and vegetables cannot be produced on land upon which the payments are based. Producers of fruit and vegetables in the U.S. do not receive direct assistance though price supports and government payments, although some products are protected from competing imports through tariffs. Producers of previously supported commodities could decide to redirect land into fruit and vegetables if they could produce these profitably. As a result, there could be some adjustments in prices and the location of production of certain crops, but Green Box transitional assistance could be used to address these issues. The elimination of the fruit and vegetable restriction would not create a market distortion unless producers use direct payments to cross-subsidize other agricultural activities. But in that case, the whole basis of the rationale that such direct payments are minimally production and trade distorting would be in doubt.

What the cotton and corn cases indicate is that many of the ongoing forms of support for farmers that are central to U.S. farm policies seem increasingly open to legal challenge by other countries. As the Canadian corn case shows one rationale for challenge is that payments should be counted against the AMS, i.e., by implication they are production and trade distorting. A second rationale is that the distortions created by the policies cause serious prejudice (i.e., harm) to other countries. Regardless of the economic logic of the cotton case ruling (e.g., production effects that are indirect rather than direct – with an incidence on non supported rather than supported commodities) or the merits of the broader Canadian challenge (that all price and income support payments are production and trade distorting) it seems possible that other challenges will be made in the WTO against these policies for other commodities.

Further pressure for change will result if an agreement on reductions in domestic support is finally reached in the Doha round of WTO negotiations. The draft modalities that are on the table envision a phased reduction of the 60 percent in the total AMS for the U.S., caps on product-specific AMS, reductions in the thresholds for the *de minimis* exclusions, ceilings on CCPs, and a cut of between 66-73 percent in overall trade distorting support. Such changes would, at the very least, reduce the flexibility to increase domestic support, if not actually require reductions in actual support levels once fully implemented (Blandford and Josling 2007).

While limits on CCPs are explicitly covered in the modalities – in that they would move from the Amber to the Blue Box. There are no provisions on the table to ensure that current forms of U.S. direct payments (that include the limitation on planting fruit and vegetables) would continue to qualify for the Green Box.

Transitioning Out of CCPs and Direct Payments

How could the U.S. respond to a need to modify future farm programs to meet future WTO commitments? One option would be to convert price and income support payments to a form of revenue insurance. Government financial participation in income insurance and safety-net programs is covered under existing Green Box rules (Annex 2 of the AoA). The conditions are quite strict. The main limitations on compensation are:

1. It can only be provided if the income loss from agriculture exceeds 30 percent of average gross income or the net income equivalent (excluding safety net payments) in the preceding three-year period or a three year average based on a five-year period, excluding high and low years.

2. It must be less than 70 percent of the income loss.

3. It cannot relate to type or volume of production, prices or to factors of production employed.

4. When combined with disaster payments, the total cannot exceed 100 percent of the loss.

Under current programs, approved insurance companies provide crop insurance to producers. These policies provide coverage for a loss in yield or revenue for over 350 commodities (USDA 2006). In some states, whole-farm gross revenue policies are also available. Current U.S. crop insurance programs do not satisfy the conditions set out in Annex 2. Consequently, the U.S. has notified these as part of the non product-specific AMS.

Various proposals have been made to shift expenditure to revenue insurance as an alternative to current price-based support. These proposals include compensation for reductions in revenue on an individual crop basis rather than a whole-farm basis. This is consistent with the way in which direct and counter-cyclical payments have been structured. However, revenue stabilization schemes linked to individual crops appear to be inconsistent with the criteria set out in Annex 2. Consequently payments under this approach would seem to be open to challenge if notified as Green Box, in addition to any challenge that might result because the other operational criteria specified in Annex 2 (as summarized above) are not met. A switch from current price-based and other programs that fall in the Amber Box by alternative programs that would also fall under the AMS calculation would seem feasible only if the new programs would lead to lower expenditures (i.e., lead to a lower calculated AMS). This would be particularly important if reductions in the total AMS binding are eventually agreed as part of the Doha Round.

A second option would be to replace current open-ended support programs by buyout payments. This approach has already been used to buyout peanut and tobacco quotas in 2002 and 2005, respectively. Payments made using this approach have been notified to the WTO as decoupled income support. The amount of payments that would be needed to compensate producers for any economic loss is open to debate. Blandford and Boisvert (2006) derive an estimate for the value of all income and price support programs, including those for dairy and sugar that involve limited direct government expenditures but transfers by maintaining domestic prices above world market levels. Their estimate is based on the assumption that part (but not all) of the additional revenue generated by government programs is capitalized into the value of fixed assets, primarily land. Using OECD and USDA data they derive an estimate of capitalized value of $109 billion – a figure roughly equivalent to 10 percent of the total value of U.S. farmland or the outstanding value of farm real estate debt.

Blandford and Boisvert (2006) argue that the elimination of current price and income supports could be accompanied by a series of annual asset value compensation payments to land owners. These would be limited in time and amount. If experience elsewhere (e.g., Australia) is a guide, financial institutions would probably offer an up-front payment in exchange for the entitlement to future payments. Various options could be explored, but the simplest would seem to be to use one payment rate per acre for land in program crops, and a second for land devoted to other products. The area upon which compensation would be paid could be the base acreage established under current legislation for program crops, and the average area in production during a recent time period for other crops, such as sugar. Compensation for the loss in value of the fixed assets of livestock producers, particularly dairy farmers, presents additional challenges since it is difficult to identify the area of land upon which compensation should be based. Given the difficulty of identifying the appropriate land base, it may be necessary to adopt a blended approach to compensation with part of the payment linked to the number of dairy cows and

replacements for individual operators in a recent base period, and part based on land in pasture and forage production.

The actual payment that farmers might receive under a buyout would depend on which elements of current programs that would be eliminated. For example, if CCPs and direct payments alone were to be eliminated, the amount of economic loss and compensation would need to be adjusted downward. However, it might be necessary to pay more than the strict economic cost in compensation in order to obtain agreement to move to a more market-oriented system.

Conclusions

Available empirical studies indicate that U.S. direct and counter-cyclical payments have some impact on production of supported commodities, although the magnitude of the effect is probably not large. Despite this, legal challenges to such payments in the WTO are likely to continue. If a final agreement is reached on domestic support in the Doha negotiations, this will exert additional pressure for change.

There are domestic arguments to support the international arguments for policy reform. It is increasingly difficult to justify existing payments on the basis of income support given that they go primarily to larger farms whose average household income and wealth significantly exceed averages for all farm households as well as all U.S. households (farm plus non-farm). The payments are not linked to any social goals such as natural resource conservation, protection of the environment, or rural development. A shift in orientation to those priorities might help the U.S. to use scarce public funds more wisely, in addition to reducing the likelihood of future confrontations with other countries in the WTO.

References

Abler, D., and D. Blandford (2005). *A Review of Empirical Studies on the Acreage and/or Production Response to US Production Flexibility Contract Payments under the FAIR Act and Related Payments under Supplementary Legislation*. Paris: OECD. http://www.oecd.org/dataoecd/15/15/34997377.pdf.

Adams, G., P. Westhoff, B. Willott, and R.E. Young II (2001). "Direct Payments, Safety Nets and Supply Response: Do 'Decoupled' Payments Affect U.S. Crop Area? Preliminary Evidence from 1997-2000." *American Journal of Agricultural Economics* 83(5):1190-1195.

Ahearn, M.C., H. S. El-Osta, and J. Dewbre (2006). "The Impact of Coupled and Decoupled Government Subsidies on Off-Farm Labor Participation of U.S. Farm Operators." *American Journal of Agricultural Economics* 88(2):393-408.

Ahearn, M.C., J. Yee, and P. Korb (2005). "Effects of Differing Farm Policies on Farm Structure and Dynamics." *American Journal of Agricultural Economics* 87(5):1182-1189.

Blandford, D. and R.N. Boisvert (2006). Policy for Agricultural Adjustment in the United States in D. Blandford and B. Hill (eds.) *Policy Reform and Adjustment in the Agricultural Sectors of Developed Countries*. CAB International, Wallingford, Oxfordshire, UK.

Blandford, D, and T. Josling (2007). "Meeting Future WTO Commitments on Domestic Support: The Implications of Ambassador Falconer's July 2007 Proposals for the European Union and the United States." German Marshall Fund Paper Series. Washington, DC. September.

Chavas, J.-P. (2001). "Direct Payments, Safety Nets and Supply Response: Discussion." *American Journal of Agricultural Economics* 83(5):1215-1216.

El-Osta, H.S., M.C. Ahearn, and A. K. Mishra (2003). "Implications of 'Decoupled' Payments for Farm and Off-Farm Labor Allocation." Paper Presented at the Conference *Agricultural Policy Reform and the WTO: Where Are We Heading?* Capri, Italy. June. http://www.ecostat.unical.it/2003agtradeconf/Contributed%20papers/El-Osta,%20Ahearn%20and%20Mishra.pdf.

Goodwin, B.K., and A.K. Mishra (2004). "Farming Efficiency and the Determinants of Multiple Job Holding by Farm Operators." *American Journal of Agricultural Economics* 86(3):722-729.

Goodwin, B.K., and A.K. Mishra (2005). "Another Look at Decoupling: Additional Evidence on the Production Effects of Direct Payments." *American Journal of Agricultural Economics* 87(5):1200-1210.

Goodwin, B.K., and A.K. Mishra (2006). "Are 'Decoupled' Farm Program Payments Really Decoupled? An Empirical Evaluation." *American Journal of Agricultural Economics* 88(1):73-89.

Goodwin, B.K., A.K. Mishra, and A. Kimhi (2007). "Household Time Allocation and Endogenous Farm Structure: Implications for the Design of Agricultural Policies." Discussion Paper No. 11.07, Hebrew University of Jerusalem. http://ageconsearch.umn.edu/bitstream/123456789/27653/1/dp070011.pdf.

Key, N., R.N. Lubowski, and M.J. Roberts (2005). "Farm-Level Production Effects from Participation in Government Commodity Programs: Did the 1996 Federal Agricultural Improvement and Reform Act Make a Difference?" *American Journal of Agricultural Economics* 87(5):1211-1219.

Sumner, D.A. (2005). "Production and Trade Effects of Farm Subsidies: Discussion." *American Journal of Agricultural Economics* 87(5):1229-1230.

U.S. Department of Agriculture (2006). "Risk Management." 2007 Farm Bill Theme Papers. http://www.usda.gov/documents/Farmbill07riskmgmtrev.pdf.

World Trade Organization (2004). *United States – Subsidies on Upland Cotton. Report of the Panel*. WT/DS267/R. September 8. http://www.wto.org/English/tratop_e/dispu_e/cases_e/ds267_e.htm.

WTO (2007a). *United States – Subsidies and Other Domestic Support for Corn and Other Agricultural Products – Request for Consultations by Canada*. WT/DS357/1. January 11. http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds357_e.htm.

WTO (2007b). *U.S. Notification of Domestic Support for 2002-2005*. G/AG/N/US/60. October 8. http://docsonline.wto.org/DDFDocuments/t/G/AG/NUSA60.doc.

WTO (2007c). *Subsidies and Other Domestic Support for Corn and Other Agricultural Products – Request for the Establishment of a Panel by Canada*. WT/DS357/11. June 8. http://docsonline.wto.org/DDFDocuments/t/WT/DS/357-11.doc.

WTO (2007d). *Draft Modalities for Agriculture*. WTO Committee on Agriculture. July 17. http://www.wto.org/english/tratop_e/agric_e/agchairtxt_17july07_e.pdf.