

The New US Farm Bill: Zooming in on ACRE

CONTENTS

Editorial

Farm Bill more than farm programmes
Key changes
Potential spending under ACRE
Conclusions

Graphs

Graph 1: Projected expenditure (2008-2012)
Graph 2: Past expenditure (2002-2007)
Graph 3: Crop insurance expenditure
Graph 4: Price component of ACRE
Graph 5: Yield component of ACRE
Graph 6: Revenue guarantee (ACRE & CCP)
Graph 7: Estimated spending on ACRE
Graph 8: Trigger price for ACRE

Tables

Table 1: Loan rates and target prices
Table 2: FAPRI estimated ACRE expenditure
Table 3: ACRE price guarantee for 2009

Introduction

The long-awaited 2008 Farm Bill is the subject of the first MAP of 2009. A disappointment perhaps for those who hoped that US lawmakers would take this opportunity to reform agriculture policy but little surprise for seasoned observers of US Farm Bills down through the ages. What emerged was the result of political compromises aimed at balancing all the agricultural and non-agricultural interests at stake.

The new law preserved the traditional instruments of farm policy, including loan programmes, countercyclical payments, crop insurance and direct payments. And in true Farm Bill tradition, rather than change any policy, new schemes were added. Just as the 1996 Bill introduced decoupled direct payments and the 2002 Bill formalised countercyclical payments, so the 2008 Bill saw the arrival of a permanent disaster scheme and a new scheme known as the Average Crop Election Programme or ACRE.

Heralded as an innovative new risk management tool, ACRE is yet another countercyclical scheme, this time for revenue. So it is business as usual in that the countercyclical nature of US farm support continues, with a bewildering array of schemes all addressing the same issues. For many observers it represents a significant step backwards in terms of agricultural policy.

This MAP focuses on farm support programmes related to traditional farming activities; commodity programmes and crop insurance. We examine the new ACRE scheme and consider its potential cost. Energy and conservation programmes are not within the scope of the MAP, though both are growing in importance in terms of budget share and impact on markets.

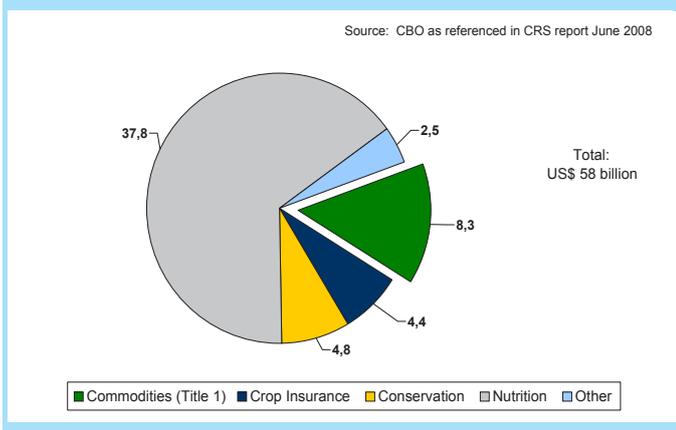


The Farm Bill covers more than farm programmes....

The Farm Bill¹ is a wide ranging piece of legislation, which goes well beyond agriculture. In all there are 15 titles covering not only farm programmes but such diverse policy areas as nutrition, trade and commodity futures. The wide coverage of the bill explains the broad coalition of interest groups which lent their support to the legislation.

The chart below shows the Congressional Budget Office (CBO) projections for average annual expenditure under the new Farm Bill from 2008 -2012, broken down by main title. The total average annual budget is \$58 billion². Nearly two-thirds of funding is expected to go towards domestic US nutrition programmes. Meanwhile farmers are projected to receive 30% of the budget, of which just 15% (\$8.3 billion) is farm support programmes (Title 1), 7.6% is crop insurance and just over 8% is support for conservation.

Graph 1: Projected Average Annual Expenditure of Farm Bill (2008-2012)



Of the \$8 billion foreseen for farm support programmes, over \$5 billion is allocated to fixed direct payments,

1 The Farm Bill should properly be called the Food, Conservation and Energy Act of 2008 (FCEA).

2 The Farm Bill discussion centred on estimates for expenditure over the 5 years from 2008-2012 based on March 2007 prices.

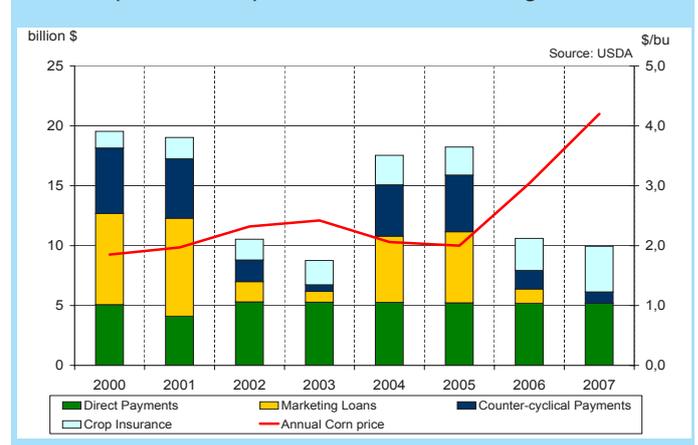
with the remainder spread over the traditional suite of schemes and the new ACRE programme.

The CBO has compared projected spending under the new Farm Bill with that of the old 2002 Farm Bill for 2008-2012. It expects total expenditure on the new Bill to be around \$1 billion per year more than projected under the 2002 Farm Bill, due largely to increases for nutrition, conservation and the new disaster scheme.

Meanwhile expenditure on farm programmes (Title 1) is on average \$400 million lower, mainly due to payment delays in 2011 and 2012 for countercyclical payments (CCP) and direct payments, as well as the new ACRE payments, which are not due until the second fiscal year after the crop is harvested. This means payments for the 2009 crop would be paid in Oct 2010, fiscal year 2011. Annual crop insurance spending is also expected to be \$700 million lower than it would have been under the 2002 Bill, due to a reduction in subsidies to the industry and payment delays.

If we compare projected spending on farm support programmes under the new Farm Bill with past spending, the \$8 billion forecast by CBO is broadly in line with spending in the recent past, as shown in graph 2. Together loans, CCP and direct payments were \$8 billion in 2006 and just over \$6 billion in 2007.

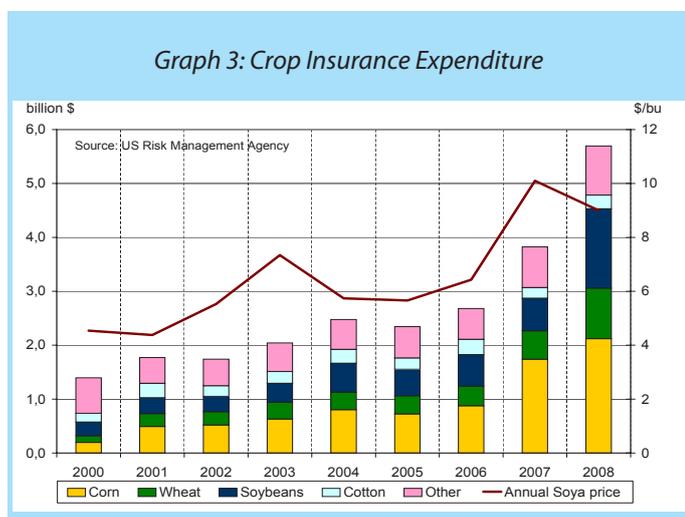
Graph 2: Past Expenditure on US Farm Programmes





However it is well below the levels of spending seen in 2004 and 2005, when the decline in prices led to big increases in loans and CCPs, given the countercyclical nature of US farm programmes. Since 2006 the upsurge in prices has meant that expenditure under these two schemes has fallen sharply.

Meanwhile crop insurance is one area of support which has escalated in recent years, in line with the rise in crop prices, implying higher premiums, indemnities, and subsidies³. Subsidies to agriculture and to the industry are split roughly in half⁴. The breakdown of spending by crop is shown in graph 3. Subsidies for the 2008/09 crop reached nearly \$6 billion, up by 50% on 2007/08, with the biggest growth recorded for soya, which more than doubled as a result of the surge in prices.



Although there appears to be a lag in the impact of prices on subsidies, this reflects the fact that insurance premium subsidies for the 2008/09 crop were based on high futures prices quoted at the time of planting.

3 This is not the level of producer subsidy notified by the US to the WTO, which is based on indemnities less producer-paid premia.

4 Bruce Babcock "The Political Economy of the U.S. Crop Insurance Program" June 2008.

Key changes in the 2008 Farm Bill

The Farm Bill preserved the traditional programmes: Loans, CCP and Direct Payments. In the context of high food prices there was a rebalancing of support in favour of "northern" crops (table 1). Both loan prices and target prices were increased for wheat and barley, while just target prices were increased for soybeans and sorghum. Only cotton saw a small cut in target price.

The increase in these support prices would have little impact on spending however, if prices were to remain high. FAPRI's preliminary analysis⁵ of the Farm Bill, assuming prices stayed high over the period 2008-2012, indicates that very low payments would be triggered under the traditional schemes. Total loans are estimated at around \$300 million annually (unchanged compared to the baseline old Farm Bill policies) while CCP is around \$400 million, a drop of 15% (mainly due to the decline in the cotton target price).

Although commodity prices have declined since FAPRI's analysis was conducted in July 2008, for most crops market prices continue to be well above the loan rates, so loan payments would still not be triggered, with the exception of cotton. Low cotton prices projected by CBO for 2008/09 and 2009/10⁶ could lead to significantly higher cotton payments with loans of over \$2.5 billion and CCP of around \$1 billion.

Other changes in the 2008 Farm Bill include the reduction of subsidies to the insurance industry. However, more radical attempts to cut costs by linking crop insurance directly to the new ACRE scheme were defeated in the Senate (see box on ACRE). Although insurance was supposed to help farmers manage risk and to eliminate the need for ad hoc disaster programmes, nevertheless the 2008 Farm Bill added new programmes to achieve precisely these objectives.

5 Food and Agriculture Policy Research Institute (FAPRI) report No 8 /08, July 2008.

6 CBO January 2009 baseline projections for fiscal years 2009 and 2010.



Table 1: Loan rates and target prices (bu=bushel)

		Loan Rates			Target Prices		
		2002 FB	2008 FB	% change	2002 FB	2008 FB	% change
Wheat	\$/bu	2.75	2.94	+6.9	3.92	4.17	+6.4
Corn	\$/bu	1.95	1.95	0	2.63	2.63	0
Barley	\$/bu	1.85	1.95	+5.4	2.24	2.63	+17.4
Sorghum	\$/bu	1.95	1.95	0	2.57	2.63	+2.3
Soybeans	\$/bu	5.00	5.00	0	5.80	6.00	+3.4
Cotton	\$/lb	0.52	0.52	0	0.72	0.71	-1.9
Rice	\$/cwt	6.50	6.50	0	10.50	10.50	0

A new Permanent Disaster scheme is one of two new subsidy programmes introduced in the new Farm Bill. It is expected to cost around \$750 million per year. For the first time income from farm programmes (loans, CCPs, the new ACRE and 10% of direct payments) is included in total income in addition to crop insurance, to avoid double counting for the purposes of calculating disaster payments. The crop scheme, known as SURE, requires a 50% loss on the farm or county declared a disaster.

But the biggest innovation is likely to be the new revenue insurance scheme called the Average Crop Revenue Election (ACRE) programme. This is considered by USDA to be a risk management scheme rather than an income support programme. From 2009 farmers have the option to continue with the traditional schemes or to enter the new one.

The initial driver behind the fixed revenue based scheme proposed by USDA in 2007, was partly the criticism that the traditional schemes, triggered by price alone, overcompensated producers in time of low prices and high yields (especially in 2005 with Hurricane Katrina) and undercompensated when prices were high but yields were low. Later, as prices rose producers faced a reduction in traditional commodity subsidies (with the exception of cotton), which are aimed at addressing systemic low prices.

So the incentive grew to devise a scheme which would be more attractive than the traditional schemes in the new high price/high cost environment. The result was that yet another programme was added to the farm subsidies menu. ACRE is a countercyclical revenue programme which addresses the risk that revenue will fall from levels seen in the recent past, by providing a payment when actual revenue falls below the revenue guarantee.

Furthermore ACRE allows producers to lock in a revenue guarantee in 2009 based on high prices in 2007/08 and 2008/09 and updated yields. This decision gives a higher revenue guarantee in 2009 than if average 2006/07 and 2007/08 prices were used. If prices fall in 2009/10, payments would be triggered. Indeed there is potential for very high payments (as we discuss later). The graphs on page 6 illustrate the price and yield “guarantees” offered by ACRE in 2009 compared to the traditional CCP scheme, based on January USDA price and yield projections for 2008/09, using soya as an example.

Graph 4 shows how the high prices of 2007 and 2008 (as projected by USDA in January 2009) would feed through to the 2009 ACRE price guarantee for soya. At \$9.55/bu it is well above the effective target price of \$5.36/bu for soya under the CCP scheme.



ACRE in detail

ACRE is an optional programme which applies at the state level from crop years 2009/10 until 2012/13. Producers may enter the scheme at any time but once in, the decision is irrevocable. The programme applies to all crops on the farm but since it is a crop specific scheme, payments may be triggered for one crop but not for others. The “fee” that producers pay to enter ACRE is that they forego CCPs and face a 30% cut in the marketing loan rate as well as a 20% reduction in direct payments. The ACRE payment per farm is based on two triggers; firstly it must be triggered at state level and secondly at the level of the farm itself.

The state trigger requires the state ACRE revenue guarantee to exceed the actual state revenue. The revenue guarantee is calculated annually based on a rolling average of prices and yields. It is equal to 90% of the product of the ACRE benchmark state yield (the previous 5 years Olympic average yield, dropping the highest and lowest yields) and the ACRE price guarantee (the average of the previous two years national market prices). The revenue guarantee is only allowed to change by a maximum 10% per year.

State ACRE Revenue Guarantee = 90% x ACRE benchmark state yield x ACRE price guarantee

The state ACRE payment is the difference between the state revenue guarantee and the state actual revenue. Actual revenue is the product of state planted yield and the national average market price (whichever is the higher of the US average cash price and 70% of the loan rate). The ACRE payment is subject to a maximum of 25% of the revenue guarantee. The latter constraint is to reduce double payments as crop insurance coverage is usually up to a maximum of 75%. The scheme initially discussed in the US Senate was linked to crop insurance in that it was based on futures prices (as is crop insurance) and would have deducted crop insurance receipts from ACRE payments. The aim was to integrate the two schemes thereby saving money on crop insurance. However it was defeated by the insurance industry.

State ACRE payment = (State ACRE Revenue Guarantee – State Actual Revenue) or 25% State ACRE Revenue Guarantee, whichever is the lower

For an individual farmer to be able to claim ACRE, the farm must also suffer a loss, i.e. the farm’s actual revenue must be below the farm’s ACRE revenue guarantee. The farm’s actual revenue is obtained by multiplying its actual yield by the national average market price. The farm’s ACRE revenue guarantee is equal to the product of the farm’s benchmark yield (Olympic average as defined above) and the ACRE price guarantee, plus the producer paid crop insurance premium (per crop). Inclusion of crop insurance increases the likelihood that the farm would trigger ACRE payments and offers an incentive for producers to buy increased crop insurance cover.

Farm ACRE Revenue Guarantee = (farm benchmark yield x ACRE price guarantee) + crop insurance premium.

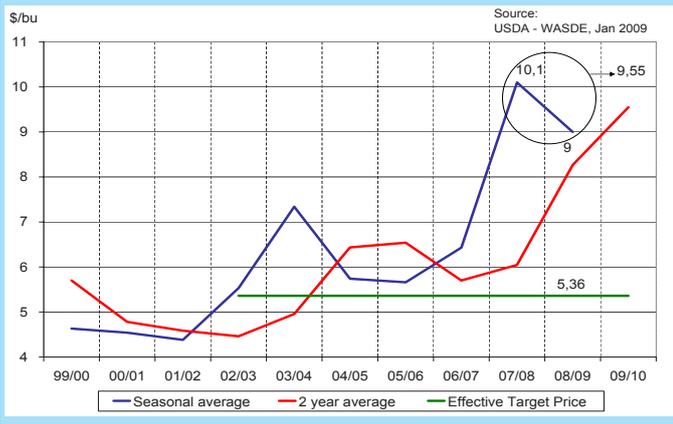
The farm payment equals the product of the state ACRE payment and the farm’s benchmark yield (relative to the state average). It is paid on 83.3% of the farms’ planted acres (85% from 2012) or base acres (whichever is lower).

Farm payment = 83.3% planted acres x state ACRE payment x (farm’s benchmark yield/state benchmark yield)

ACRE therefore provides a better match to the producer’s current planted acres and also permits an expansion in the area covered by support programmes as payment is linked to planted acres up to a limit of 100% of base acres (compared to 83.3% of base acres for CCP).

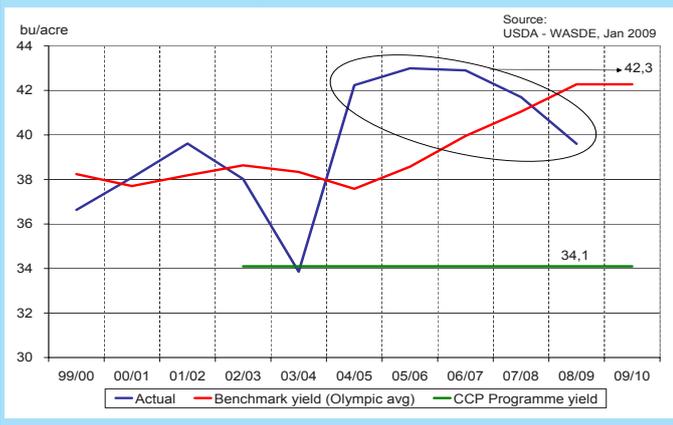


Graph 4: Price Component of ACRE Revenue Guarantee Soybeans: US Farm Prices



In addition, the 2009 ACRE yield guarantee for soya would be significantly higher, at 42.3 bu/acre (the 5 year Olympic average), than the CCP program yield of 34.1 bu/acre (see graph 5).

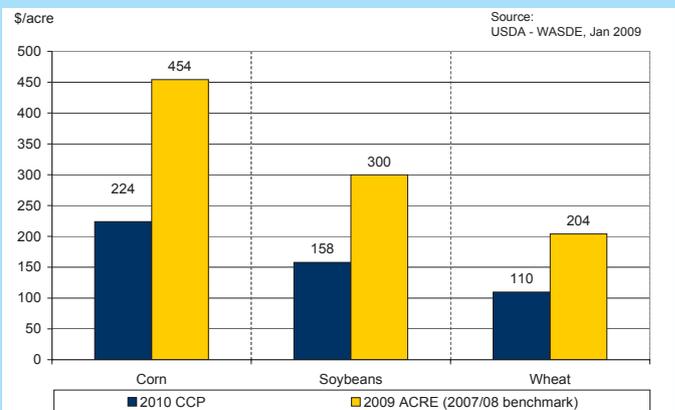
Graph 5: Yield Component of ACRE Revenue Guarantee Soybeans: US Yields



The 2009 ACRE revenue guarantee for corn, wheat and soya (after deducting the 20% cut in direct payments) is shown in graph 6. The ACRE revenue guarantee is compared to the implicit revenue guarantee provided by the traditional CCP programme. In deciding whether to opt for ACRE, producers will have to make a judgement about future prices and yield risk. However it is clear that

ACRE compares favourably to CCP in 2009 as it provides roughly double the revenue guarantee. ACRE also gives better revenue coverage than the traditional schemes in relation to increased variable costs⁷.

Graph 6: Revenue Guarantee - ACRE versus CCP



Potential spending under ACRE

Payments under ACRE are only triggered if revenue falls below the guarantee. So the scheme pays out if prices fall but not if they are flat or rising. Much of the analysis assumes high prices in the future. FAPRI's updated baseline analysis⁸ of August 2008 assumes continued high prices over the period 2008-2012. It concludes that relatively low payments would be triggered under both the traditional schemes and ACRE.

Total loans and CCP would be only \$400 million on average. (However, as indicated earlier, given the recent decline in cotton prices, spending on cotton under the traditional programmes is probably underestimated).

FAPRI estimates total ACRE expenditure at around \$2 billion per year. This assumes a participation rate in ACRE

⁷ See Carl Zulauf's analysis at <http://aede.osu.edu/resources/docs/pdf/WEGFSZ4Y-AG7A-VXX7-J003PSOREUML1A3F.pdf>

⁸ FAPRI Baseline Update for US Agricultural Markets, August 2008



of 75% for corn and soybeans, 65% for wheat and barley, 50% for sorghum and just 10% for cotton, rice and peanuts. As CCP is triggered for cotton, at current prices, it seems likely that most cotton producers will remain in the traditional programme.

Table 2 shows FAPRI's estimated expenditure on ACRE⁹ by crop for crop years 2009-2013. Nearly half of expenditure in 2009 and 2010 is for soybeans. Together soybeans and corn account for over 80% of spending in 2010. Including wheat brings the share of the three crops to around 95%.

*Table 2:
FAPRI Estimated ACRE Expenditure by crop (\$ million)*

Crop year	2009	2010	2011	2012	2013
Corn	515	864	940	788	831
Wheat	227	243	242	261	279
Sorghum	31	40	37	36	31
Barley	17	25	26	22	23
Soybeans	853	1057	912	880	682
Cotton	7	15	14	16	14
Rice	11	14	10	10	11
Total	1683	2283	2203	2039	1901

Source: FAPRI August 2008 updated US baseline

However, if 2009 prices fall below the benchmark, then spending could be much higher. Data released by the USDA in May 2008 before the Farm Bill was agreed pointed to budgetary concerns, implying that ACRE could potentially generate very high expenditure if prices fall from the high levels of 2007/08 and 2008/09 which were forecast in May 2008.

The analysis was based on high forecast prices (in May 2008) for the 2008/09 crop, used to calculate the benchmark. Assuming 90% participation in ACRE, USDA

⁹ The newly released CBO January 2009 Baseline projection also assumes continued high prices and therefore forecasts spending on ACRE of only around \$200 million for corn, \$350 million for soybeans and \$300 million for wheat in fiscal year 2011 (2009/10 crop).

calculated corn payments of \$10 billion if corn prices fell to \$3.25/bu. Soya expenditure could reach \$4 billion with soya at \$7/bu and wheat expenditure of \$2 billion could be expected with wheat at \$5/bu.

This analysis is supported by other studies¹⁰, which calculated expenditure on ACRE, after deducting the cut in direct payments and loans, based on 2007/08 and 2008/09 prices (June forecast), with corn payments of \$13 billion and soya payments of around \$5 billion. Of course 2008/09 prices have fallen back considerably since both these estimates were made. IFPRI¹¹ also concluded that ACRE spending could potentially be high, with total Amber Box (including ACRE) close to the current US Amber Box ceiling of \$19.1 billion.

We have conducted our own sensitivity analysis, using national US data, to gauge the level of potential expenditure, if prices were to decline to 2006/07 levels in 2009/10. The revenue guarantee for 2009/10 includes USDA's January 2009 WASDE forecast for 2008/09 prices and yields (final figures will be known only in July '09 for wheat and Oct '09 for corn and soybeans). We use FAPRI's March baseline yields from 2009 onwards. We assume 80% participation in ACRE for corn, wheat, soybeans, sorghum and barley and that cotton, rice and peanuts stay within the traditional programmes.

Table 3 sets out the 2009 "price guarantees" for corn, wheat and soya, based on observed prices in 2007/08 and estimated prices for 2008/09. Spending will be higher in the first year of the programme than if 2006/07 and 2007/08 had been the benchmark (as had been considered). For example, the price "guarantee" for corn is estimated at \$4.05/bu compared to \$3.62.

¹⁰ See Bruce Babcock "The Political Economy of the U.S. Crop Insurance Program" June 2008.

¹¹ See IFPRI Discussion Paper 00821 US: Shadow WTO Agricultural Domestic Support Notifications, November 2008. It also concludes that product specific caps would limit expenditure below that of the 2000's and that these caps could be exceeded for some crops even if prices stay high by historical standards.



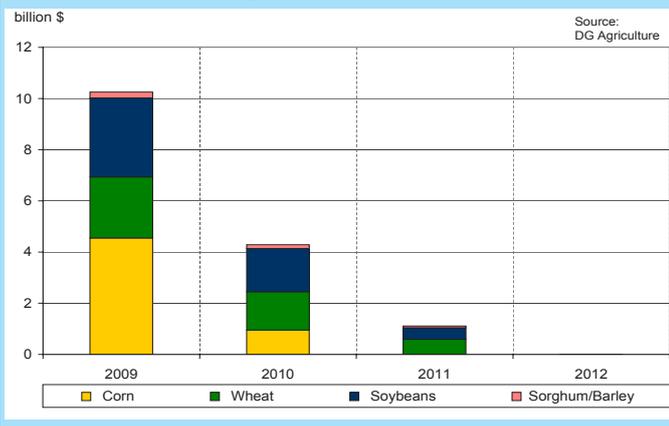
Table 3: ACRE Price Guarantee for 2009 (\$/bu)

	2007 Cash Price	2008 Jan estimate	2009 Benchmark Price
Corn	4.20	3.90	4.05
Wheat	6.48	6.70	6.59
Soybeans	10.10	9.00	9.55

Source: USDA

Graph 7 shows estimated expenditure, if 2009/10 prices fall to 2006 levels and remain at that level over the life of the Farm Bill, to illustrate the potential for high levels of payments under ACRE. (In reality we would expect a negative correlation between price and yield to reduce the impact on revenue, and it is unlikely that prices would remain flat). The average observed prices for 2006 were \$3.04 for corn, \$4.26 for wheat and \$6.43 for soybeans.

Graph 7: Estimated Future Expenditure on ACRE at 2006 Prices assuming 80% Participation in ACRE



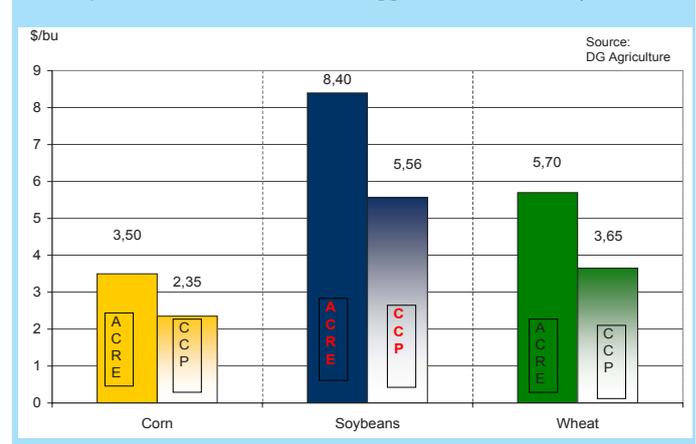
Payments would be significant if prices fall to these levels. We calculated that ACRE payments would be \$10.2 billion¹² for the 2009/10 crop, of which corn accounts for \$4.5 billion, soybeans over \$3 billion and wheat \$2.4

12 We calculated that each 10 percentage points' participation in the ACRE programme equates to approximately \$1.25 billion. If the participation rate is 70%, then this generates \$9 billion of ACRE expenditure, while a participation rate of 90% generates spending of \$11.5 billion.

billion. Even if prices stay at 2006 levels over the life of the 2008 Farm Bill, a highly unlikely scenario, payments would continue, though at a lower level, because the adjustment of the revenue guarantee is delayed by the 10% maximum annual change. This gives farmers time to respond to changing market conditions. The risk of ACRE is that it does not provide a floor (unlike CCP). So if prices collapse and remain low, then after a few years, as the revenue guarantee reflects the lower prices, ACRE payments would eventually be phased out in 2012.

Prices do not have to fall as low as 2006 levels to generate payments. Graph 8 shows the price at which ACRE is triggered for corn, wheat and soybeans, after deducting the "fee" that producers must pay in terms of the loss of 20% of direct payments. There is no loss of loans or CCP payments because these programmes would not be triggered at these prices. We estimate that ACRE is triggered for corn at around \$3.50/bu, soybeans at \$8.40/bu and wheat at \$5.70/bu. As prices drop below these levels ACRE payments will increase.

Graph 8: Estimated Price which triggers ACRE or CCP Payments



Meanwhile, prices would have to decline even further for the CCP scheme to kick in, i.e. the trigger price for corn CCP is \$2.35/bu. The effective target price which triggers CCP is indicated in graph 8.



Conclusions

The 2008 Farm Bill preserved the traditional instruments of US farm policy, even raising support prices for some crops. In addition, it introduced two new schemes aimed at further insulating producers from loss of revenue; the new ACRE revenue insurance scheme and the permanent disaster scheme. So the countercyclical nature of US policy continues and for many observers the new Bill even represents a further significant step backwards for agricultural policy.

The new ACRE scheme has been designed for a high price environment in that it allows producers to lock in a revenue guarantee based on high prices of the last two years and updated yields. Although prices have fallen since the Bill was enacted in June '08, ACRE still offers better revenue protection than the CCP programme with the exception of cotton. In addition, ACRE allows a better match with planted acres, so we could expect a high uptake of the new scheme.

ACRE has the potential to generate high payments if prices fall below the revenue guarantee based on the 2007/08 and 2008/09 benchmark. We calculated ACRE expenditure of over \$10 billion in 2009, if market prices declined to 2006 levels. Payments could remain high for a few years as there is a maximum 10% annual adjustment of the revenue guarantee.

We should remember that the 1996 Farm Bill was also agreed at a time of high prices. Direct payments were brought in when it was assumed that high prices would keep expenditure down. In reality prices fell and expenditure exploded, with the bill for direct payments coming on top of loans and other countercyclical type payments. History could repeat itself.

The 2008 Farm Bill, notably the new ACRE system seems to have been crafted without future WTO commitments in mind. Indeed US policy appears to be moving towards more trade distorting support.

The new disaster payments scheme may be classified as Amber Box or possibly non-crop-specific de minimis like crop insurance (not green box as it does not have the 30% income loss stipulation), in which case it would not be counted against the Amber Box ceiling but it would still be considered as Overall Trade Distorting Support.

The new ACRE is crop specific, is linked to updated prices and yields and it is based on planted acres not base acres. It is likely therefore to be classified as product specific Amber Box support and fall under the discipline of Amber Box individual product-specific caps. Our analysis indicates that the proposed ceilings for wheat, soybeans and corn could be breached. Even at high prices (FAPRI projections), the ceiling for wheat could be exceeded.

Meanwhile there will be a decline in decoupled direct payments classified as Green Box, given the 20% cut for producers who opt for ACRE. A theoretical 100% participation in ACRE would reduce direct payments by around \$1 billion from roughly \$5 billion to \$4 billion.

Even before the ink is fully dry on the new Bill, the debate around some aspects of policy carries on. Direct payments are viewed as unjustified by many, particularly under high prices and are an easy target for criticism. Some farming bodies are calling for cuts to these payments to increase protection under the traditional schemes, given today's price volatility and high costs.

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