FAPRI Analysis of

Stricter Payment Limitations

Additional Information

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The Food and Agricultural Policy Research Institute (FAPRI) reported estimates of possible impacts of stricter payment limitations in a paper prepared for the Commission on the Application of Payment Limitations for Agriculture (FAPRI-UMC Report #05-03). At the request of Senator Grassley, this note presents additional information about the impact of stricter payment limits on producer net returns and regional land values and rental rates.

The previous analysis compared a continuation of current policies to a stylized alternative scenario that would place strict limits on various payments. Specifically, the scenario assumed that each farm identified by the Census of Agriculture would be eligible for no more than $40,000 in direct payments, $60,000 in counter-cyclical payments, and $175,000 in loan program benefits. This note builds on the earlier analysis and reflects the same policy assumptions.

As reported previously, FAPRI estimates that the assumed payment limits would have much greater impacts on producers of cotton and rice than on producers of other commodities. This is demonstrated in Table 1, which reports average effects of stricter payment limitations on producer net returns over variable production costs. In the short run, stricter limits reduce national average cotton net returns by approximately 8 percent and rice net returns by 6 percent. In contrast, national average net returns for corn, soybeans, and wheat decline by less than 1 percent under the payment limitation scenario.

Table 1. Impacts of stricter payment limitations on average* producer net returns

	2004				2004-2012 Average			
	Current Policy	Stricter Pay Limits	Absolute Difference	Percent Difference	Current Policy	Stricter Pay Limits	Absolute Difference	Percent Difference
	dollars per acre				dollars per acre			
Cotton	196.80	181.18	-15.62	-7.9%	181.38	172.36	-9.03	-5.0%
Rice	329.37	310.48	-18.89	-5.7%	320.18	305.22	-14.96	-4.7%
Corn	191.50	189.94	-1.57	-0.8%	200.38	199.43	-0.95	-0.5%
Soybeans	147.91	147.36	-0.55	-0.4%	153.86	153.54	-0.32	-0.2%
Wheat	88.18	87.29	-0.89	-1.0%	89.18	88.67	-0.51	-0.6%
Sorghum	71.32	70.07	-1.25	-1.8%	71.53	70.78	-0.75	-1.0%

*Figures represent average results across all producers for each commodity from FAPRI analysis of 500 alternative futures. Producers whose payments are limited would face larger reductions than indicated here, while those whose payments are not limited would experience little change in their net returns.

The impacts reported in Table 1 are national averages of all producers, both those whose payments are limited and those whose payments are not limited. Producers whose payments are not limited by the new rules would see little change in their net returns. In the case of corn, soybeans, wheat, and sorghum, effects on supply, demand, and prices are small, and so changes in net returns are necessarily small. In the case of cotton, the payment limitation scenario results in higher cotton prices, but the increase in cotton prices has little net impact on returns to producers whose payments are not limited, as higher prices are offset by lower marketing loan benefits and/or counter-cyclical payments. In the case of rice, producers whose payments are not limited would, on average, receive slightly higher returns, as the increase in rice prices is not fully offset by reductions in payments (FAPRI estimates that Adjusted World Prices would rise less than farm prices for rice, and so the reduction in marketing loan benefits would be less than the increase in market returns).

In contrast, the effect on net returns of large-scale producers subject to payment limitations would be larger than the average impacts reported in Table 1. The difference would be especially stark in the case of the producers with the most acreage if they make no changes in their operations to mitigate effects of the limitations (FAPRI assumes that many producers will take actions to mitigate effects, and that these actions will reduce the amount of payments withheld by 50 percent in the short run and 75 percent in the long run). Also, while relatively few producers of corn, soybeans, wheat, and sorghum would be affected by payment limitations, some large-scale producers of those commodities could have large amounts of payments withheld, resulting in a large impact on their net returns.

The earlier report provided estimates of the impacts of the payment limitation scenario on national average land values and rental rates. To evaluate regional impacts, FAPRI estimated the effects on weighted-average regional net returns for the six crops examined in the earlier study. As shown in Table 2, these effects in 2004 ranged from a reduction of 0.66 percent in the Lake States (Michigan, Minnesota, and Wisconsin) to

Table 2. Impacts of stricter payment limitations on regional net returns, land values, and rental rates (changes from current policy baseline)

	6-crop net returns		Land values		Rental rates	
	2004	2004-12 average	2004	2004-12 average	2004	2004-12 average
United States	-1.45%	-0.86%	-0.19%	-0.39%	-0.68%	-0.78%
Corn Belt	-0.70%	-0.41%	-0.09%	-0.18%	-0.33%	-0.37%
Central Plains	-0.84%	-0.48%	-0.11%	-0.22%	-0.39%	-0.44%
Delta States	-3.85%	-2.63%	-0.49%	-1.18%	-1.79%	-2.38%
Far West	-2.92%	-1.90%	-0.38%	-0.85%	-1.36%	-1.72%
Lake States	-0.66%	-0.38%	-0.09%	-0.17%	-0.31%	-0.34%
Northeast	-0.74%	-0.43%	-0.09%	-0.19%	-0.34%	-0.39%
Northern Plains	-0.79%	-0.45%	-0.10%	-0.20%	-0.37%	-0.41%
Southeast	-3.00%	-1.74%	-0.39%	-0.78%	-1.39%	-1.57%
Southern Plains	-3.78%	-2.26%	-0.49%	-1.02%	-1.76%	-2.05%

Note: Figures represent average changes from a current policy baseline, as estimated from FAPRI's analysis of 500 alternative futures.

3.85 percent in the Delta States (Arkansas, Louisiana, and Mississippi). In general, effects are larger in cotton and rice-producing regions than in the rest of the country.

Estimates of regional land values and rental rates are developed using the simplifying assumption that changes in land values and rental rates across regions will be proportional to the changes in regional net returns for six major crops. Thus, the effects on land values and rental rates are proportionally larger in southern and western states (the major cotton and rice production areas) than in the rest of the country. In the long run, proportional changes in rental rates are comparable to proportional changes in regional net returns. Land value changes are smaller, as factors other than producer returns from six program crops have a major impact on land values. Land values include the value of pasture and hay land, which would be only marginally affected by field crop returns, and non-agricultural uses of land also play an important role in land values in many regions.

Even these regional estimates should not be considered to be definitive estimates of what would occur in a particular area. For example, if a county has few producers affected by payment limitations, the net effect on county rental rates and land prices may be minimal, while counties where land markets are dominated by large-scale producers could experience greater impacts than reported here. This could hold even in the Midwest, if there are counties where the relatively small numbers of large-scale producers are principal players in local land markets. Thus, while average impacts are likely to be far larger in cotton and rice-producing regions than in the rest of the country, there may be counties in the South and West with very small effects and counties in the rest of the country with very large effects.

As noted in the earlier report, this analysis is of a stylized payment limitation scenario, and it should not be interpreted as an estimate of the impacts of a particular piece of legislation. To make reliable estimates of the effects of particular legislation would require an understanding of legal alternatives available to producers with an economic incentive to try to mitigate payment limitation effects. Such an analysis requires an understanding of legal issues outside FAPRI’s area of expertise.