



Negative Returns and Downward Pressure on Cash Rents

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Surveys conducted by the [Chicago Fed](#) and the [Illinois Society of Professional Farm Managers and Rural Appraisers](#) indicate that 2015 cash rents have decreased between \$20 and \$25 per acre from 2014 levels. If these reductions occur, the majority of farmers still will have negative returns from cash rent farmland given current corn and soybean price levels. At a \$3.75 per bushel corn price and a \$9.50 soybean price, cash rents need to decrease from 2014 averages by around \$70 per acre before farmer return is zero. Even given mid-\$4.00 prices for corn, farmers will not have positive returns given cash rents at 2014 averages.

Operator and Land Returns

Table 1 shows estimates of 2015 operator and land returns. Operator and land returns represent the returns that can be split between the landowner and farmer. If operator and land returns are \$300 per acre and cash rent is \$250 per acre, the farmer will have a \$50 per acre return. Operator and land returns are based on revenues, yields, and costs shown in the [2015 Crop Budgets](#) and are averaged over the corn and soybean crops.

Operator and land returns are given for four different regions: Central Illinois with high-productivity farmland (Central-High), Northern Illinois (North), Central Illinois with low productivity farmland (Central-Low) and Southern (South) Illinois. In Table 1, regions are arrayed from the highest yielding on the left (Central-High) to the lowest yield region on the right (South). Operator and land returns decrease with lower yields. Even though these are Illinois specific regions, returns shown in Table 1 are generalizable to a wider geographical area.

There are five price scenarios in Table 1. The first is a \$3.75 per bushel corn price and \$9.50 per bushel soybean price, slightly above current bids for delivery of 2015 grain. These prices are used to determine crop revenue given the expected yields for each region. For example, the expected yields for the Central-High region are 198 bushels per acre for corn and 57 bushels for soybeans (see Table 1). Gross revenue also include ARC/PLC and crop insurance payments, both of which decrease with higher prices.

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Table 1. 2015 Operator and Land Returns for Different Expected Prices by Four Illinois Regions

Price		Illinois Region ¹			
		Central-High	North	Central-Low	South
		Expected Yield			
Corn	Soybeans	Corn	Soybeans	Corn	Soybeans
\$3.75	\$9.50	226	188	170	92
\$4.00	\$10.00	251	212	191	109
\$4.25	\$10.50	275	236	212	126
\$4.50	\$11.00	298	259	232	142
\$4.75	\$11.50	323	284	254	159
Avg 2014 Cash Rent		293	265	243	163

¹ Revenues, yields, and costs are adapted from 2015 Illinois Crop Budgets

At a \$3.75 corn price and a \$9.50 soybean price, the operator and land return for the Central-High region is \$226 per acre (see Table 1). The average cash rent in 2014 is \$293 per acre, implying a farmer loss of \$67 per acre (\$226 operator and land return - \$293 cash rent). Other regions have similar levels of loss: -\$77 per acre for the North region (\$188 operator and land return - \$265 cash rent), -\$73 in the Central-Low region (\$170 operator and land return - \$243 cash rent), and -\$71 in the South region (\$92 operator and land return - \$163 cash rent). Note that \$20 to \$25 per acre decreases in 2015 cash rents do not lead to positive farmer returns given that cash rents started at average levels.

Longer-Run Price Levels

Current price levels may be below long-run prices. Previous analyses ([farmdoc daily, February 27, 2013](#)) suggest that longer run prices may be around \$4.60 per bushel for corn and \$10.60 for soybeans. Obviously these higher prices will result in higher operator and land returns, as is illustrated in Table 1. Take the \$4.50 corn price and \$11.00 soybean price. These prices give \$298 per acre of operator and land return in the Central-High region. Note that the \$298 operator and land return is near the 2014 cash rent of \$293 per acre. At this price level, the operator and land returns for all regions are near the average 2014 cash rent levels. The nearness suggests that cash rents would need to decline if long-run prices are in the \$4.50 per bushel range for corn and \$11.00 per bushel range for soybeans. In the past several year, increases in cash rents likely overshoot levels supported by long-run prices.

Note that the above analysis is based on non-land costs remaining at current levels of roughly \$600 per acre for corn and \$370 per acre for soybeans. These cost levels are at historically high levels ([farmdoc](#)

[daily, March 29, 2011](#)). Decreases in fertilizer, seed, and chemical costs could reduce the need for decreases in cash rents.

Setting 2015 Cash Rents

Table 1 can be used to gain a feel for the relative size of downward pressures placed on cash rents in 2016. Given that costs do not change, operator and land returns shown in Table 1 will be accurate for 2016.

Expected 2016 commodity prices during the fall of 2015 will have a bearing on pressures place on cash rents. If corn and soybean prices respectively remain near \$3.75 and \$9.50 per bushel, cash rents will need to decrease by around \$70 per acre from 2014 average levels before farmer returns are near zero. Obviously larger decreases would be needed before farmer returns become positive. Pressures will be reduced with higher price expectations. Take the price scenario having respective corn and soybeans prices of \$4.25 and \$10.50 per bushel. Under this scenario, rents would have to be decreased by \$19 to \$37 per acre, depending on region, from 2014 average levels to have farmer returns at \$0 per acre. For farmers to have positive expected returns without cash rent of non-land costs, corn and soybean prices respectively need to be in the high-\$4.00 and mid-\$11.00 range.

Summary

Given current price levels, average cash rents levels need to decrease by over \$70 per acre for farmers to have returns near zero. Continued pressures on cash rents will occur in 2016 unless significant increases in prices occur from their current levels. Unless non-land costs decrease, prices must be in the high \$4.00 range before downward pressures are not placed on average cash rents.

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