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Data Controlling Costs with Lower Crop Revenues: Historical Overview

Gary Schnitkey

Department of Agricultural and Consumer Economics
University of Illinois

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The first in a five part series dealing with controlling costs on grain farms.

Corn and soybean prices are likely to be considerably lower in the next several years as compared to prices from 2010 through summer of 2013. Lower commodity prices then will lead to lower crop revenues. While crop revenues have come down abruptly, costs likely will decrease much more slowly, and likely not decrease as much as revenues have fallen. Moreover, management decisions may influence the extent to which costs decrease. This article documents cost changes that have occurred over time, thereby showing historical cost decreases as a guide for potential future cost decreases. Future articles will examine specific costs and potential ways of lowering those costs.

Increases in Non-land Costs

Non-land costs include all the financial costs associated with production, except those that relate to farmland. Non-land costs include fertilizer, seed, pesticides, drying, storage, crop insurance, as well as machinery and overhead costs.

Figure 1 shows costs over time for central Illinois farms with high-productivity farmland. As can be seen in Figure 1, corn and soybean costs have increased dramatically since 2006. Non-land costs for corn increased from \$302 per acre in 2006 to \$581 per acre in 2012, an increase of 92%. Soybean costs increased from \$190 per acre in 2006 to \$353 per acre in 2012, an increase of 86%.

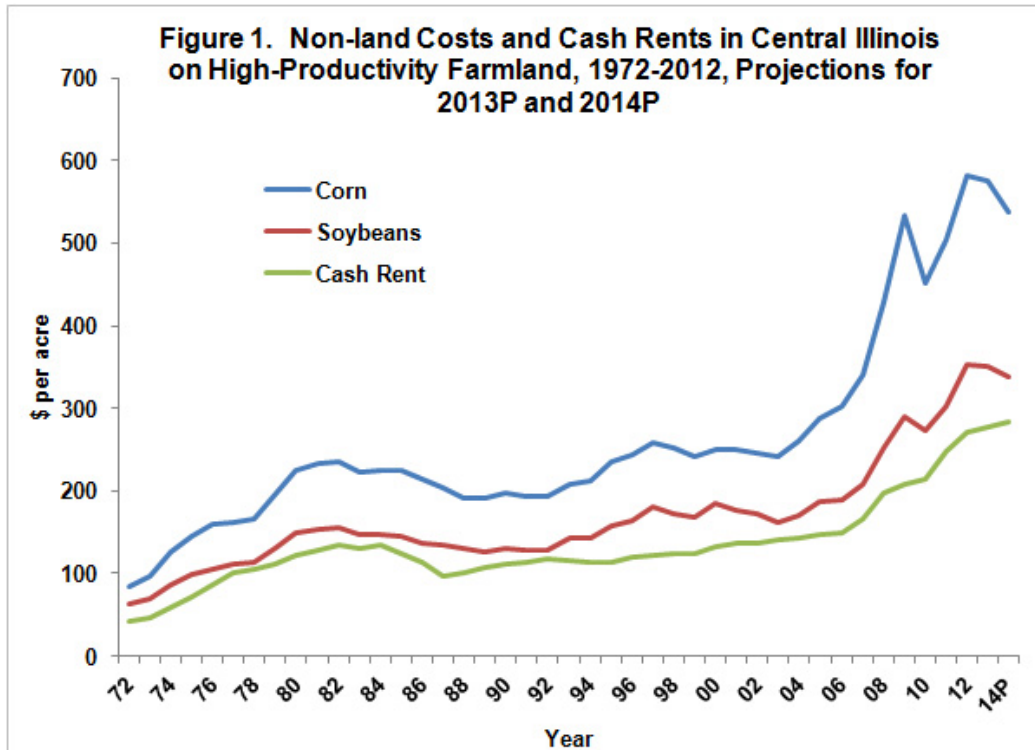
The last time non-land costs increased as much as the 2006-2012 period was from 1972 through 1984. Non-land costs for corn increased from \$85 per acre in 1972 to \$224 per acre in 1984, an increase of 164%. Soybean costs increased from \$64 per acre in 1972 to \$148 per acre in 1984, an increase of 131%.

Costs increased more during the 1972-1984 period than the 2006-2012 period. For corn, costs increased 164% in the 1972-1984 period compared to 92% in the 2006-2012 period. However, the 1972-1984 period contains more years. There are 12 years between 1972 and 1984, compared to 6 years between 2006 and 2012.

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Perhaps instructive for the next several years are the costs decreases that occurred between 1984 through 1988. The 1984-1988 period occurred during the height of the 1980s financial crisis. It is extremely unlikely that the next several years will be as bad as the 1984-1988 period; however, cost decreases during the 1984-1988 period may be indicative of likely changes in the near future. From 1984 to 1988, corn costs decreased from \$224 per acre to \$192 per acre, a 14% decrease. Soybean costs decreased from \$148 in 1984 to \$130 in 2012, a 12% decrease.

These costs decreases are relatively small compared to preceding period's cost increases. Applied today, a 14% decrease in costs would lower corn non-land costs from \$581 per acre to \$500 per acre ($\$581 \times (1 - .14)$). A 12% decrease would lower soybean non-land costs from \$353 per acre to \$311 per acre ($\$353 \times (1 - .12)$).



Increase in Cash Rents

Cash rents have also increased since 2006. Average cash rents increased \$166 per acre to \$270 per acre in 2012, an increase of 80%. The increase from 2006-2012 compares to a 213% increase from 1972 through 1984. Cash rents were \$43 per acre in 1972 compared to \$135 per acre in 1984.

Cash rents decreased from \$135 per acre in 1984 to \$101 per are in 1988, a 25% decrease. A 25% decrease applied to the \$270 cash rent in 2012 would result in a cash rent of \$203 per acre ($\$270 \times (1 - .25)$).

Commentary

History would suggest that decreases in costs are possible. However, those decreases were not of the same magnitude as preceding cost increases. Moreover, lowering costs likely will be difficult, requiring management effort. Following articles in this series will focus on specific costs where potential for cost decreases exist. Focus will be given to 1) fertilizer, 2) machinery, 3) input decisions in general, and 4) cash rents.