

Projecting Cropland Rental Rate and Asset Values: Using a Hybrid of Past Approaches to Harvest New Estimates

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Abstract

The net worth of farming operations has been affected by recent changes in cropland asset values caused by historically low interest rates and by increased net crop receipts that raised rental rates. A simultaneous system of supply and demand equations was identified using past literature to project cropland rental rates from projected net crop receipts and other variables. The estimated elasticity of cropland rental rates with respect to net crop receipts is equal to 1. The projected rental rates were used in an infinite-life capitalization formula to project cropland asset values. Cropland asset values are found to be sensitive to assumptions about future interest rates. A scenario decreasing government payments by \$1 billion resulted in much larger proportional impacts on cropland rental rates and asset values than on the total amount of land used for crop production. Given projected decreases in net crop receipts and increases in interest rates, the model suggests cropland asset values could fall by 41% percent by 2019 from 2014 levels.