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Department of Agricultural and Consumer Economics, University of Illinois Urbana-Champaign

Illinois Farmland Investment Performance,... Revisited,... Again...

Bruce Sherrick

Department of Agricultural and Consumer Economics
University of Illinois

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USDA recently released the 2011 version of its annual summary of farmland values and rental rates, with final values for cropland in Illinois of \$5,800/acre representing an 18% increase. Cash rent serves as a proxy for current income, and averaged about 3.2% for the same period. Total farm real estate values increased by roughly 16.3% for the year. Except for 2009, the past seven years have each seen double digit capital gains, and 3-4% annual current income. This performance during a period of unprecedented equity market volatility has resulted in substantially increased attention to the asset class, with an attendant increase in visibility of institutional investors, and resulted in some highly notable sales. Some have begun to question the sustainability or rationality of the current levels, and have used phrases including "bubble" and "overheated". At the same time, there is little evidence to suggest that income values and capitalization costs are anything but rational given the current low interest rates and high relative incomes (see Schnitkey). But all of these descriptors — annual returns, capitalized values, volatility through time — are best viewed as relative indicators — if the equity markets had been returning 30% annually, the performance of farmland might look relatively poor, for example.

Some simple statistics about alternative investments and about the relationship between farmland returns and other assets that might be held together in a portfolio are provided for context. Table 1 below summarizes some relevant returns information, through the end of 2010. The periods from 1970-2010 and 1990-2010 are provided to contrast two substantially different epochs in agriculture, but interestingly the returns to farmland are similar in each period. The average annual return for farmland compares quite favorably with the majority of the other asset classes including the bonds and treasury securities, and does so with relatively low risk. The Coefficient of Variation gives an indication of the relative degree of variability around the average return experienced. Treasuries and investment grade bonds are the only alternatives to farmland that had lower relative risk.

Table 1. Asset Return Characteristics

| | Annual Ae. | Standard | Coefficient | Annual Ae. | 9tandard | Coefficient |
|---------------|------------|-----------|----------------------|------------|-----------|-------------|
| | Return | Deviation | of\ åriati on | Return | Deviation | of\ariation |
| Alsset/Indeix | 1970-2010 | | | 1990-2010 | | |
| llinois | 10.77% | 9.96% | 0.924 | 10.80% | 4.97% | 0.461 |
| DowJones | 6.52% | 16.11% | 2.473 | 6.84% | 16.05% | 2.347 |
| EUROPE | 6.56% | 20.89% | 3.185 | 4.98% | 22.00% | 4.417 |
| EAFE | 6.88% | 21.35% | 3.102 | 2.19 % | 21.78% | 9.966 |
| Gold | 8.97% | 22 2 4 % | 2.480 | 5.82 % | 13.45% | 2,309 |
| AIREITS | 9.09% | 21.56% | 2.373 | 9.49% | 20.74% | 2.187 |
| TBSM3M | 5.53% | 2.98% | 0.540 | 3,60% | 1.96% | 0.545 |
| TCM10Y | 7.20% | 2.59% | 0.360 | 5.45% | 1.45% | 0.265 |
| BB ALibor | 4.85% | 2.32% | 0.478 | 4.30 % | 2.08% | 0.482 |
| AAA | 8.24% | 2.27% | 0.275 | 6.76% | 1.21% | 0.179 |
| BAA | 9.35% | 2.50% | 0.268 | 7.71% | 1.12% | 0.145 |
| CP3M | 3.30% | 2.04% | 0.618 | 3.30% | 2.04% | 0.62 |
| CPI | 4.29% | 2.88% | 0.671 | 2.63% | 1.12% | 0.425 |
| PPI | 4.03% | 4.96% | 1.229 | 2.47 % | 4.01% | 1.624 |

Also important is the degree to which returns to farmland track other investments and inflation, or provide diversifying benefits through dissimilar returns patterns through time. A summary measure of the relatedness of returns is called the correlation, with a value of 1 indicating identical proportional movements, and a value of -1 indicating directly offsetting movements or perfect hedging of risk. Farmland has the remarkable feature of being positively correlated with inflation (and gold), and slightly negatively correlated with broad based equity market return over long periods. Interestingly, during the past forty years, farmland returns are also actually negatively related to the returns to Treasuries and bonds as well, though both sets are viewed as good fixed income holdings by many.

This set of results mirrors the answers we have found every couple of years for the past two decades. The story remains remarkably constant on each visit to the data — farmland has low systematic risk, high relative returns for the risk, and has provided good inflation insulation. Again.