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Government Policy and Farmland Markets: Implications of the New Economy--Part 1¹

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U.S. government policies have been intertwined with farmland values ever since the Homestead Act of 1862 opened unoccupied land to farmers. Given the dominance of land values in the agricultural balance sheet—farmland represents 70 percent of all agricultural assets—it is critical that farmers, ranchers, and policymakers understand the relationship of government policies to land values.

Government policy and land values was the subject of a conference of economists sponsored by the Farm Foundation; Ben Hill Griffin Jr. Chair, University of Florida; Institute of Food and Agricultural Sciences, University of Florida; Swank Chair, The Ohio State University; and the United States Department of Agriculture's (USDA) Economists' Group; National Research Institute; Economic Research Service; and Cooperative Research, Education, and Extension Service.

The research presented at the May 2002 conference clearly indicated that while government programs may have a short-term impact on farmland markets, the long-term empirical evidence is inconclusive. Contributing to this ambiguity are variances in cropping patterns, land productivity, and demographics. Researchers also discussed factors

profiling boom/bust cycles and off-farm influences that affect farmland values. This paper presents a synopsis of the research. The research papers (see *Research Papers* section) will be included in *Government Policy and Farmland Markets: Implications of the New Economy* by Charles B. Moss and Andrew Schmitz, to be published by Iowa State University Press in 2003.

Land Values and Government Programs

Researchers, Andrew Schmitz of the University of Florida and Richard Just of the University of Maryland, found a direct relationship between commodity programs and land values when they studied farmland values in the province of Saskatchewan, Canada and the state of Montana in the United States. Values were much lower in Saskatchewan even though the two regions have similar crop mixes and productivity patterns. Since the 1980s, land values in Canada's prairie region, which includes Saskatchewan, have steadily declined in relation to those in the eastern Canadian provinces of Ontario and Quebec. This discrepancy may be the result of differing agricultural policies. Import-competing commodities dominant in eastern

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provinces are supported through supply controls while the export-oriented crops of the prairie region receive little direct or indirect support.

The question remains: Who benefits from government farm programs that impact farmland values? Increases in farmland values driven through government programs generate wealth, which increases the financial solvency of the sector, thereby protecting agricultural lenders. Current landowners capture the wealth benefits. However, costs are increased to young farmers who need to buy land. The allocation of the benefits from these farm programs to farm operators and absentee landowners needs consideration.

Other research does not show a linkage between government programs and land values. According to Bruce Gardner of the University of Maryland, government program changes were statistically insignificant in explaining changes in land values for 80 rural U.S. counties between 1950 and 2000. He cited two potential reasons: government payments occur when commodity prices are low, and farmers consider government payments to be temporary.

An analysis done by Barry Goodwin of The Ohio State University and Ashok K. Mishra of the USDA used farm-level data. The researchers found that the ratio of farm-program payments to land values, which is a rough indicator of the impact of payments on land values, varied widely across the United States. The highest ratios were in sparsely populated states with high program-crop production. This is not surprising—if the demand for nonagricultural uses of land is low, the impact of program payments is high. However, the research indicated that different farm programs have different effects on land values. In general, loan deficiency payments directly affect land values while long-term payments not directly related to production (e.g. transition payments) have relatively little impact on farmland values. In addition, payments under the Conservation Reserve Program (CRP) may act as a price floor for land markets.

Canadian researchers, Jared Carlberg of the University of Manitoba and W. Hartley Furtan of the University of Saskatchewan, found that the 1974 legislation restricting foreign ownership of farmland

did not have a statistically significant impact on farmland values in Saskatchewan, nor did it affect migration to the rural communities of the province.

Boom/Bust Cycles

Historically, boom/bust cycles have been present in farmland markets. What contributes to their existence is less clear. Allen Featherstone of Kansas State University and Charles B. Moss of the University of Florida reported that long-term expectations inherent to land values and interest rates are factors in these cycles. In the short-term, markets are more volatile within agriculture production, but this volatility does not fuel boom/bust cycles.

Calum G. Turvey of the University of Guelph reported that boom/bust cycles may be fueled partially by the emotional need to acquire or disperse land holdings. That is, the option value—the difference between short-run expectations and long-term economic values—may cause some volatility in land values. Option value alone, however, will not generate extreme boom/bust cycles.

Jean-Paul Chavas of the University of Wisconsin examined the impact of transaction costs (e.g., legal fees, taxes, and costs of finding property) when there is little variance in land prices. He found that transaction costs contribute to the perception of thin markets, with few parcels of land available for sale. The result can be increased price instability, which pushes the price of land above its expected returns. In a related work, Douglas Miller of Purdue University found that transaction costs can be used to explain increased volatility only in the short and intermediate run.

Off-Farm Market Influences

Many people other than landowners perceive value from the way land is used, one example being environmental uses. These non-owners, who are often non-farmers, express their preferences through policy processes and institutional changes that may alter the opportunities available to landowners. However, according to Larry Libby and Elena Irwin, both of The Ohio State University, environmental policies have had little impact on farmland prices. The

researchers also discussed the effects of policies that have stated goals, such as farmland retention or abatement of urban sprawl. Programs are well attended, but many times have been found to be unable to withstand intense and prolonged pressure for change. For example, the "takings issue" creates a climate in which amenity protection is fragile at best.

Urbanized areas comprise about three percent of the U.S. land base, but urban influence now affects about 17 percent of the nation's agricultural land, according to a study by Charles H. Barnard, Keith Wiebe, and Vince Breneman, all of the USDA's Economic Research Service. Urbanization increases the market price of farmland, the entry cost of new farmers, and the cost of expansion for existing farmers. The researchers also discussed the implications of rapidly changing communications and transportation technologies on the volume and value of urban-influenced farmland.

Future Work

Future research priorities, as identified by conference participants, include:

- Fundamentals of asset valuation in agriculture.
- The impact of land markets on the economic solvency of the agricultural sector.
- International comparisons of farmland values.
- Analysis of government payments—including hidden subsidies, quotas and environmental payments—on comparative advantage.
- Disequilibria and volatility in farmland markets.
- Increased spatial analysis of farmland prices related to environmental amenities.

Research Papers

Historical Perspective on Farmland Markets: Context and Contemporary Issues— Bruce Sherrick (*University of Illinois*) and Peter Barry (*University of Illinois*)

The Economics of Farmland Values: Rent Seeking and Government Policy – Andrew Schmitz (*University of Florida*) and Richard Just (*University of Maryland*)

U.S. Commodity Policies and Land Prices – Bruce Gardner (*University of Maryland*)

Explaining Regional Differences in the Capitalization of Policy Benefits into Agricultural Land Values – Barry K. Goodwin (*Ohio State University*), Ashok Mishra (*U.S. Department of Agriculture*), and Francois N. Ortalo-Mangné (*London School of Economics*).

Capital Markets, Land Values, and Boom-Bust Cycles – Allen Featherstone (*Kansas State University*) and Charles B. Moss (*University of Florida*)

Hysteresis and the Value of Farmland: A Real-Options Approach to Farmland Valuation – Calum Turvey (*University of Guelph*)

On the Certainty Equivalence of Agricultural Assets: 1910-92 – Charles B. Moss (*University of Florida*), J. S. Shonkwiler (*University of Nevada*), and Andrew Schmitz (*University of Florida*)

Cash Rents, Imputed Returns and the Valuation of Farmland Revisited – Kenneth Erickson (*United States Department of Agriculture*), Ashok K. Mishra (*U.S. Department of Agriculture*), and Charles B. Moss (*University of Florida*)

Transaction Costs and Farmland Values – Jean-Paul Chavas (*University of Wisconsin*)

Further Results on Iowa Farmland Values and Transaction Costs – Douglas Miller (*Purdue University*)

Effect of Urban Influences (Sprawl) and Farmland Values – Charles Barnard (*United States Department of Agriculture*), Keith Wiebe (*U.S. Department of Agriculture*), and Vince Breneman (*United States Department of Agriculture*)

Foreign Ownership and Farmland Values – Hartley Furtan (*University of Saskatchewan*) and Jared Carlberg (*University of Manitoba*)

These are forthcoming in *Government Policy and Farmland Markets: Implications for the New Economy*, edited by Charles B. Moss and Andrew Schmitz, State University Press, 2003.