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Three Corners: FAPRI Examination of Farm Bill Alternatives

(Darnell B. Smith, 515/294-1184)

(William H. Meyers, 515/294-1184)

During 1995, the U.S. 104th Congress will evaluate the food and agricultural policy situation and consider new legislation. This periodic review and resulting omnibus legislation, commonly called the farm bill, provides the opportunity to carefully reexamine agricultural programs and policies. The programs being reviewed, some of which expire in 1995, deal with price and income support, trade, conservation, research, domestic food assistance, credit, crop insurance, and rural development.

Without a 1995 Farm Bill, permanent statutes incompatible with current national economic objectives, global trading rules, and federal budget or regulatory policies would take effect (*Congressional Research Service Farm Bill Report*). At this time there is general agreement on only one item of the 1995 Farm Bill discussions—that the final result will differ from its predecessors.

To aid legislative deliberations, the Food and Agricultural Policy Research Institute (FAPRI) researchers at Iowa State University and the University of Missouri-Columbia have analyzed three program alternatives. The three alternative analyses requested by Congress represent "corner" scenarios because their program emphasis is based on a different set of philosophies regarding current farm problems, the future of production agriculture in the United States, and the evolution of its rural communities.

The scenarios that were evaluated represent three discrete directions for policy change and emphasis in 1995:

I. No Program. This alternative eliminates the existing structure of target prices, deficiency payments, (Continued, page 4)

**Average Farm Prices
Received By Iowa Farmers**

	Mar 1995	Feb 1995	Mar 1994
		\$/Bushel	
Corn	2.21	2.13	2.68
Soybeans	5.41	5.25	6.65
Oats	1.50	1.42	1.59
		\$/Ton	
Alfalfa	84.00	83.00	100.00
All Hay	81.00	80.00	96.00
		\$/Cwt.	
Steers & Heifers	70.70	72.00	74.80
Feeder Calves	77.40	79.80	96.30
Cows	40.70	42.10	0.00
Barrows & Gilts	39.10	40.70	45.40
Sows	33.00	30.90	39.50
Sheep	26.40	34.90	29.60
Lambs	73.20	67.20	58.00
		\$/Lb	
Turkeys	0.38	0.37	0.00
		\$/Dozen	
Eggs	0.37	0.35	0.00
		\$/Cwt.	
All Milk	12.40	12.20	13.10
		\$/Head	
Milk Cows	NA	NA	NA

Iowa Farm Income Indicators

	1994	1993	1992
	Million Dollars		
Crop Cash Receipts			
Jan - Dec Total	5,034	4,174	4,810
Livestock Cash Receipts			
Jan - Dec Total	5,105	5,829	5,600

set of programs. The House needs to make larger cuts in general, because of the tax cuts that were part of their package. If the size of the tax cuts is limited by Senate objections, cuts in agriculture programs would likely be closer to the Senate figures.

It seems quite likely that the budget for agriculture programs will be cut by \$6 billion to \$8 billion over the next five years, and there may also be an effort to put a cap on spending in any one year.

CARD/FAPRI Analysis

Three Corners: FAPRI Examination of Farm Bill Alternatives

(Continued from page 1)

loan rates, export enhancement, and dairy price supports, as well as many speciality programs such as for cottonseed oil and sunflower. It also eliminates Acreage Reduction Programs (ARP) and the 0-50/85 program.

2. Marketing Loan Program. Under this option, target prices, loan rates, ARPs, and 0-50/85 would disappear and be replaced by a system of recourse marketing loans, with loan rates set in proportion to each other. Soybeans would be added to the commodity programs. Export Enhancement is eliminated, but dairy and other speciality programs are retained.

3. Revenue Assurance. This alternative would do away with target prices, marketing loans, ARPs, and 0-50/85. Instead, producers would be ensured of receiving 70 percent of revenue, based on a five-year moving average of county price times a producer's five-year average yield. In addition, transition payments would start at 80 percent of historic deficiency payments in 1996 and decline to zero percent by the year 2000. Export enhancement, dairy, and other speciality programs are retained. In all scenarios, the Conservation Reserve Program is assumed to decline to the 17 million-acre level projected by the Congressional Budget Office, while none of the scenarios incorporate annual ARPs.

Across the scenarios, the safety net configuration, especially in terms of income enhancement and risk sharing, shows considerable variation. Other than crop insurance, the safety net is completely gone in the no-program scenario. The marketing loan option provides some reduction of price risk, and enhancement of income, but has basically the same budget outlays as current programs. Revenue assurance offers significant reduction of cash flow risk for producers and provides substantial budgetary savings, but reduces the level of government support for producers by eliminating the direct income transfer aspect of current programs (i.e., deficiency and loan deficiency payments would be eliminated).

Comparison of Scenarios and FAPRI Baseline

When compared to the 1995 FAPRI baseline, the estimated effects on selected variables, as illustrated in the included table, show significant early variation

Average Annual Effects on Selected Variables

Area Planted to 8 Major Crops (corn, sorghum, barley, oats, soybeans, wheat, cotton, rice)

	Crop Years	
	1996/87-2000/01	2003/04
Baseline Value	254 million acres	263.3 million acres
Marketing Loan	Up 2.92 million acres	Up 1.20 million acres
Revenue Assurance	Down 1.38 million acres	Down 0.10 million acres
No Program	Down 4.98 million acres	Down 4.80 million acres

Crop Receipts

	Calendar Years	
	1996-2000	2004
Baseline Value	\$93.25 billion	\$107.2 billion
Marketing Loan	Down \$1.73 billion	Down \$2.85 billion
Revenue Assurance	Down \$0.57 billion	Down \$0.42 billion
No Program	Down \$1.48 billion	Down \$2.20 billion

Government Payments

	Calendar Years	
	1996-2000	2004
Baseline Value	\$8.03 billion	\$4.86 billion
Marketing Loan	Up \$1.79 billion	Down \$0.17 billion
Revenue Assurance	Down \$3.58 billion	Down \$3.75 billion
No Program	Down \$6.10 billion	Down \$3.75 billion

Net Farm Income

	Calendar Years	
	1996-2000	2004
Baseline Value	\$43.48 billion	\$52.45 billion
Marketing Loan	Down \$1.16 billion	Down \$2.97 billion
Revenue Assurance	Down \$2.87 billion	Down \$2.55 billion
No Program	Down \$6.89 billion	Down \$4.05 billion

Estimated Insurance Indemnities

	Fiscal Years	
	1996-2000	2004
Baseline Value*	\$1.06 billion	\$1.05 billion
Marketing Loan	No Change	No Change
Revenue Assurance	Up \$0.47 billion	Up \$0.65 billion
No Program	No Change	No Change

Net CCC Outlays

	Fiscal Years	
	1996-2000	2004
Baseline Value	\$8.36 billion	\$5.62 billion
Marketing Loan	Down \$0.59 billion	Up \$0.10 billion
Revenue Assurance	Down \$3.83 billion	Down \$4.39 billion
No Program	Down \$7.54 billion	Down \$5.43 billion

* Estimated as 80 percent of total crop insurance indemnities

across the alternatives. The effects also show that farm income generally tends to converge toward the end of the period. The reader should note that the farm income numbers in the various scenarios do not include any estimated crop insurance or Revenue Assurance indemnities, nor do they reflect any other risk reduction benefits that producers would receive. Thus, our results would tend to underestimate the benefits to producers from increased insurance

payments and reduction of cash flow risk. The article following this one explains the process of estimating these nonmonetary benefits.

Marketing Loan

In the Marketing Loan program, plantings would increase by about 2 million acres annually; however, crop receipts decline by roughly \$2 billion per year. The decline in crop receipts in the early years is offset by higher government payments; but by the year 2004, government payments also decline slightly. From the point of view of government program efficiency, the analysis indicates that net CCC outlays are virtually unchanged over the full period, while net farm income declines by \$2 billion per annum. This implies that when compared to the baseline continuation of current programs, this alternative is less efficient, as it costs the same to operate but results in less income to producers.

Revenue Assurance

For Revenue Assurance, area planted and crop cash receipts average very close to baseline levels over the full projection period while net CCC outlays decrease by approximately \$4.5 billion annually. The loss of government payments is offset in the early years by the decoupled transition payments provision. Due to increased market orientation, the reduction in government payments does not fully impact net farm income, as income declines by less than \$3 billion on average. In the final year, among the three options, net farm income is highest for Revenue Assurance. Thus, an efficiency gain is achieved compared to the other alternatives. This efficiency gain occurs even without inclusion of insurance indemnities benefits.

No Program

The No-Program analysis shows steep declines in area planted, cash receipts, government payments, net farm income, and government expenditures. This plan, like Revenue Assurance, demonstrates efficiency gains from the market orientation as CCC outlays drop more than net farm income declines. However, in this scenario the declines in income are severe enough to warrant real concern about disruption in financial sectors, especially since all safety nets are removed except crop insurance.

A few items included in the forthcoming FAPRI report on policy options for the 1995 Farm Bill, but not listed above, should be briefly discussed. Along with the

declines in farm income across all scenarios, land values also show decreases compared to baseline values. In 2004, the final year of the projection period, all three of the scenarios have nominal land values projected above what they were in 1994, though not as high as they would be with continuation of current programs. The baseline projects a 15 percent increase in average nominal land values from 1994 to 2004 compared with 11.6 percent for the Marketing Loan option, 8.6 percent for the Revenue Assurance option, and 5.4 percent for the No-Program option. However, some regions would see nominal land values decline from current levels, the most severe declines being under a No-Program option. The implication is that only with the No-Program option are financial markets likely to be severely strained. There would be regional variation with elimination of commodity programs of course. For instance, rice net returns decline significantly compared to a relatively modest impact on corn net returns. Thus, some regions would find credit markets strained more severely than others.

Conclusions

The three policy options discussed here share one policy continuation (CRP is continued) and one major policy shift (ARPs and 0/50-85/92 programs are eliminated). Also, as crop base restrictions are eliminated, with the exception of the Marketing Loan option, the market drives production decisions and shifts of acreage between crops. For the Marketing Loan option, production decisions are driven by the loan rates rather than the market prices. Further, in all scenarios government stockholding is reduced and, for the most part, stocks of most commodities remain low compared to historical patterns.

Farm income tends to decline in all of the alternatives and the decline in the No-Program option is severe enough to generate real concerns about disruption of financial/credit sectors. Land values decline relative to baseline projections, but average nominal land values at the end of the period are higher than 1994 in all scenarios. It is interesting to note that in the year 2004, even without insurance indemnities or nonmonetary risk reduction benefits included in the analysis, net farm income is highest for the Revenue Assurance alternative. And if increased insurance benefits are added, net farm income, plus increased insurance benefits under this plan, recovers to levels close to the baseline and at a much lower cost to the U. S. government.

Risky Business: Measuring Monetary and Nonmonetary Benefits of Insurance Programs

(Darnell B. Smith, 515/294-1184)

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Because farmers are exposed to a relatively large amount of business risk, aspects of government farm programs designed to remove or reduce risk can be of particular importance. Given a choice between a very risky activity and a slightly less profitable activity with much lower risk, many farmers (or their bankers) will choose the less risky activity. These aspects of programs can be viewed in terms of having a direct monetary impact on expected profitability, and an indirect, very illusive, nonmonetary impact on producer welfare. In the final analysis, it may not be preferable to have programs that increase expected profitability but also increase volatility in a producer's cash flow. It may be more desirable to have a program that results in slightly lower levels of expected profitability but reduces cash flow volatility and reduces producer risk.

It is very difficult to incorporate these risk effects into policy models because it is impossible to anticipate weather patterns and other sources of risk over the projection period. However, if we completely ignore these risk effects, policy analysis results will be biased against programs that are designed primarily to reduce risk. A comparable situation exists if one is evaluating two employment opportunities that have the same salary but only one provides full medical insurance coverage. The income numbers are the same, but the full remuneration package is much different. This issue is particularly important to the revenue assurance farm bill proposal because, under this plan, in an "average" year (i.e., the type of year incorporated in most projections and baselines), no farmer would receive a cash payment, but the risk structure is much different.

For Iowa's agricultural producers and rural communities, this question translates into, "Is the value of a dollar's worth of government payments received in bad crop years when cash flow is strained any different from a dollar in payments made in good years when cash is more abundant?" Technically, the answer to this question is that a dollar is just a dollar. However, if we remember the floods of 1993, the underlying value of disaster payments that prevented financial chaos for families all over the Midwest was higher than if that same amount of money were to be transferred