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AFPC Policy Working Paper 99-5

June 1999



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# **FARM LEVEL COMPARISON OF THE FAIR ACT TO THE 1990 FARM BILL**

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## **Purpose**

The objective of this study is to evaluate the farm level impacts of the change in policy that occurred in 1996 with the passage of the FAIR Act. This is done by estimating the impact to farmers' income if the 1990 Farm Bill provisions had been extended as opposed to enacting FAIR in 1996. In another sense, the study provides insight into the question of whether farmers would have been financially better off over the period 1996-2002 with FAIR or the 1990 Farm Bill.

## **Assumptions**

Under the FAIR option, the following assumptions are made:

- Actual prices and yields are used for 1996-98.
- Contract payments are as specified in FAIR.
- Marketing loan for all program crops.
- Market loss assistance in 1998 included.
- Disaster payments paid in 1999 included.
- Milk price support discontinued in 2000 with no milk marketing order reform.
- FAPRI baseline from 1999-2002.

Under the 1990 Farm Bill, the following assumptions are made:

- 23 percent flexibility (NFA) utilized throughout 1996-2002.
- Acreage reduction based on stocks-to-use relationship.
- Target price held constant at 1995 levels.
- Loan rates adjusted as in bill.
- Marketing loan for all program crops.
- Disaster payments paid in 1999 included.

- Marketing loss assistance paid in 1998 excluded.
- Milk price support continued.
- Same macroeconomics and trend yield levels as FAIR.

### **Preference Criteria**

The FLIPSIM model, used for analyzing farm level effects, allows one to evaluate policy impacts in terms of a wide range of economic indicators that would be expected to influence farmer preferences. These include indicators such as net cash income, ability to cash-flow, present value of ending net worth, probability of having to refinance, probability of survival, and ending cash reserve.

For simplicity of presentation and understanding, we assume that farmers' preferences between FAIR and the 1990 Farm Bill are determined solely by differences in the farmer's net cash balance in year 1998 and 2002 under each option. In other words, if the cash account in 2002 is higher for FAIR than the 1990 Farm Bill, the farmer is assumed to prefer FAIR. Conversely, if the cash account for the 1990 Farm Bill is higher, the farmer prefers it.

This assumption was made after considerable thought, study and experience. It is AFPC's experience that all other things equal, farmers' perception of policy is influenced by the level and risk of net cash farm income which, over time, is reflected directly in the cash balance or liquidity position.

It will undoubtedly be argued by some that all other things are not equal in these two bills. AFPC grants this reality. For example, the 1990 Farm Bill employs production controls (acreage reduction provisions and base) while FAIR provides virtual flexibility. Freedom is important to farmers, but AFPC asserts that total net income is more important. Moreover, the appendix to

this report provides the full range of output for the FLIPSIM analysis. It will also undoubtedly be asserted that insufficient weight is given to the long-run effects of FAIR vs the 1990 Farm Bill on the development and maintenance of export markets. This is to be granted. Yet, it has been impressed upon us in many meetings with producers that farmers must survive in the short run to be around for the long run. Policy makers obviously need to weigh these results against a broader set of policy goals including exports and freedom.

### **Results**









Our results are reported in three time periods:

- 1996-98 is an historical period when FAIR prices and yields are known. 1990 Farm Bill prices over the period are projected by FAPRI.
- 1999-2002 requires a projection of prices and yields for both FAIR and the 1990 Farm Bill. The FAIR projection is the FAPRI baseline.
- 1996-2002 covers the entire period. It should be recalled by the reader that economic conditions in agriculture were substantially more robust before 1998 than they are currently or are expected to be through 2002.

Table 1 indicates the change in prices that FAPRI projects would have occurred under the 1990 Farm Bill assumptions as compared with FAIR. In other words, under the 1990 Farm Bill, the price of corn is projected to average \$0.027 per bushel higher over the period 1996-98. Appendix Table 1 provides detail on the level of price by year. The reasons for these price changes are covered in the FAPRI report.

## Table 1. FAPRI Price Comparisons

### 1990 Farm Bill Average Annual Price Change from FAIR

		1996-98	1999-02	1996-02
	Corn (\$/bu.)	0.027	0.083	0.059
	Wheat (\$/bu.)	-0.007	-0.038	-0.024
	Cotton (\$/bu.)	-0.007	0.028	0.013
	Rice (\$/cwt.)	0.350	-0.155	0.061
	Soybeans (\$/bu.)	0.183	0.110	0.141
	Soybean Meal (\$/ton)	3.40	3.05	3.20
	All Milk (\$/cwt.)	0.107	0.245	0.186
	Hogs (\$/cwt.)	0.027	1.03	0.60
	Feeder Cattle (\$/cwt.)	-0.09	-0.073	-0.08

## Summary Tables

Tables 2, 3 and 4 summarize the results of the farm level impacts. They indicate farmer preferences as determined by net cash income levels as reflected in the level of the representative farms' cash balance at the end of each of the three periods. In other words, from Table 1, 58 of the 79 farms had a higher cash balance (higher aggregate net cash income) at the end of the 1996-98 period under FAIR. Because of this higher cash balance, it is assumed that they would prefer FAIR to the 1990 Farm Bill.

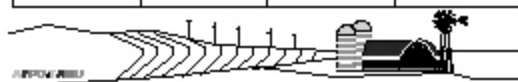
For the period 1999-2002, the preference of farmers shifts as relative farm price levels decline more for FAIR. Contract payments authorized under FAIR also decline. Therefore, 63 of 79 farms would now prefer the 1990 Farm Bill extension option. There are no market loss assistance payments assumed for 1999-2002 as was done in 1998.

For the 1996-2002 period, 53 of 79 farmers would prefer an extension of the 1990 Farm Bill. This suggests that farmers' and farm organizations' long-term concern with FAIR at the time that it was enacted may have been justified.

It is interesting and important to note that the preferences of crop, dairy and livestock farms, as summarized in Tables 3 and 4, fall pretty much in line with those of crop farms. The annotations to the right of each table summarize the results and provide insight into their underlying rationale.

**Table 2. Summary of Program Preferences for All Representative Farms**

	Prefer FAIR	Prefer 1990 Bill	Total Farms
1996-1998	58	21	79
1999-2002	16	63	79
1996-2002	26	53	79

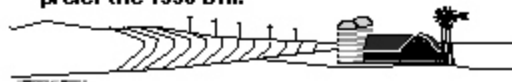


### Summary of Program Preferences for All Representative Farms

**58 of the 79 representative farms would prefer FAIR through 1998.**

**From 1999-2002, 63 of the 79 farms would prefer the 1990 Bill. This was primarily due to higher projected farm prices from the 1990 Bill.**

**Over the period, 1996-2002, 53 of 79 farms prefer the 1990 Bill.**



**Table 3. Summary of Program Preferences for Crops Representative Farms**

	Prefer FAIR	Prefer 1990 Bill	Total Farms
1996-1998	27	14	41
1999-2002	8	33	41
1996-2002	15	26	41

10/10/2002

### Summary of Program Preferences for Crop Farms

From 1996-98 relatively high crop prices and substantial lump-sum contract payments resulted in 27 of 41 crop farms preferring FAIR.

During 1999-2002 increased deficiency payments and higher prices lead 33 of the 41 crop farms to favor the 1990 Bill.

Over the whole period, 26 of 41 crop farms were projected to favor the 1990 Bill.



10/10/2002

**Table 4. Summary of Program Preferences for Dairy and Livestock Representative Farms**

	Prefer FAIR	Prefer 1990 Bill	Total Farms
1996-1998	31	7	38
1999-2002	8	30	38
1996-2002	11	27	38

10/10/2002

### Summary of Program Preferences for Livestock and Dairy Farms

Over the 1996-98 period livestock and dairy producers clearly favor FAIR. The 1990 Bill's higher feed costs are not offset by higher milk prices.

However from 1999-2002 the balance of benefits shifts to the 1990 Bill as milk prices tumble under FAIR. As a result 30 of 38 farms favor the 1990 Bill.

Over the whole period 27 of 38 livestock and dairy producers favor the 1990 Bill.

10/10/2002

## Commodity Tables

Tables 5-11 provide a summary of farm preferences for each of the commodity groups. In each case, the farms represent the major US production areas for the commodities and the results for commercial size, independent farm operations. Annotations to the right of each table explain the results for each commodity. The following is designed to capture the message that arises from this analysis, by commodity:

- **Feed Grains (Table 5):** Surprisingly, most feed grain farms would have preferred the 1990 Farm Bill for all time periods. The exceptions include only farms who desired to flex more than the 23 percent NFA limit assumed for the 1990 Bill would allow.
- **Wheat (Table 6):** The Kansas Chair of the House Agriculture Committee read his constituency correctly in that from 1996-98, wheat farms clearly preferred FAIR. However, from 1999-2002, preferences shift as decisively as in feed grains. Over the period, they are nearly equally divided.
- **Cotton (Table 7):** Seven of nine cotton farms favored FAIR from 1996-98. However, after 1999, with the absence of target prices and Step II export incentives, preferences shift unanimously to the 1990 Bill.
- **Rice (Table 8):** Rice is the only program crop where a majority of the farms favor FAIR in all three time periods. Relative to other commodities, rice prices hold relatively strong. With lower Asian incomes, people eat more rice but less meat and poultry. Stronger markets shift the preference in the direction of FAIR.
- **Dairy (Table 9):** Dairy farmers enjoyed high average prices but considerably greater price variability over the period 1996-98. This was reflected in a unanimous preference

for FAIR, despite its mandate for price support elimination and milk marketing order reform. However, the precipitous fall in milk prices late in 1998 shifted this preference to the 1990 Farm Bill as the price of nonfat dry milk fell to the soon to expire support level in 2000.

- **Beef (Table 10):** Specialized cattle ranches prefer FAIR because higher feed prices negatively impact stocker and feeder prices.
- **Hogs (Table 11):** The corn-hog farms that grow much of the corn that is utilized in their hog operations favor the 1990 Farm Bill. Specialized hog farms, like many of those in North Carolina, favored FAIR during 1996-1998 because it resulted in lower feed prices.

### **Summary**

The message from this study should not be surprising. That is, the success of the FAIR Act—in the eyes of farmers, was dependent on the maintenance of a strong export market. When the strength of that market disappeared in the last half of 1998, economic and farm level support for FAIR declined dramatically.

**Table 5. Summary of Program Preferences for Feed Grains Representative Farms**

	Prefer FAIR	Prefer 1990 Bill	Total Farms
1996-1998	2	11	13
1999-2002	1	12	13
1996-2002	2	11	13

APPENDIX B

### Summary of Program Preferences for Feed Grain Representative Farms

From 1996-98 only 2 of 13 grain farms prefer FAIR over 1990 Bill. The SCG3500 and MOCG3000 prefer FAIR due to the increased planting flexibility which allows them to plant more wheat/soybean double crops and corn, respectively.

Except for MOCG3000, all other feed grain farms prefer the 1990 Bill over the 1999-2002 period due to higher feed grain and oilseed prices and the ability to flex crop production within the 25 percent NFA.

Over the 1996-2002 period only 2 of 13 feed grain farms prefer FAIR, despite government payments averaging higher under the FAIR Act for 8 of the 13 feed grain farms. The 1990 Bill gives most of the farms the planting flexibility they need while generating higher feed grain prices and substantial deficiency payments.

APPENDIX B

**Table 6. Summary of Program Preferences for Wheat Representative Farms**

	Prefer FAIR	Prefer 1990 Bill	Total Farms
1996-1998	9	1	10
1999-2002	2	8	10
1996-2002	4	6	10

APPENDIX B

### Summary of Program Preferences for Wheat Representative Farms

9 of the 10 wheat farms preferred the FAIR Act through 1998 due to greater flex opportunities and higher contract payments. COW2700 prefers the 1990 Bill because it is not constrained by the program base acreage.

From 1999-2002, 8 of the 10 wheat farms would prefer the 1990 Bill, due primarily to increased government payments relative to the FAIR.

Over the 1996-2002 period 6 of the 10 wheat farms prefer the 1990 Bill. 4 of the 6 who preferred the 1990 Bill received higher government payments under the 1990 Bill.

APPENDIX B

**Table 7. Summary of Program Preferences for Cotton Representative Farms**

	Prefer FAIR	Prefer 1990 Bill	Total Farms
1996-1998	7	2	9
1999-2002	0	9	9
1996-2002	0	9	9

APPENDIX B

### Summary of Program Preferences for Cotton Representative Farms

7 of the 9 cotton farms preferred FAIR through 1998 due to higher contract payments for cotton relative to deficiency payments. This was not the case for the TN1675 and TXBL1400 because of large feed grain deficiency payments in 1998.

For 1999 through 2002 all 9 cotton farms would prefer the 1990 Bill due to projected higher cotton prices and government payments.

Over 1996-2002 all cotton farms would prefer the 1990 Bill largely because of higher cotton prices and government payments.

APPENDIX B

**Table 8. Summary of Program Preferences for Rice Representative Farms**



	Prefer FAIR	Prefer 1990 Bill	Total Farms
1996-1998	9	0	9
1999-2002	5	4	9
1996-2002	9	0	9

USPROM 00000

### Summary of Program Preferences for Rice Representative Farms

All 9 rice farms prefer the FAIR through 1998 primarily due to higher prices and contract payments.

From 1999-2002, 5 of 9 rice farms would prefer the FAIR. Higher prices over the period and increased government payments in 2001-2002 caused 4 farms to shift preference to the 1990 Bill.

All 9 rice farms would prefer the FAIR largely because government payments exceed those for the 1990 Bill.



USPROM 00000

**Table 9. Summary of Program Preferences for Dairy Representative Farms**



	Prefer FAIR	Prefer 1990 Bill	Total Farms
1996-1998	26	0	26
1999-2002	5	21	26
1996-2002	8	18	26

USPROM 00000

### Summary of Program Preferences for Dairy Representative Farms

From 1996-1998 favorable average milk prices resulted in all 26 dairy farms being better off with FAIR.

Over the 1999-2002 period, 21 of the 26 dairies would prefer the 1990 Bill due to higher milk prices under the price support program.

From 1996-2002, 18 of 26 dairies prefer the 1990 Bill.



USPROM 00000

**Table 10. Summary of Program Preferences for Beef Cattle Representative Farms**



	Prefer FAIR	Prefer 1990 Bill	Total Farms
1996-1998	3	1	4
1999-2002	3	1	4
1996-2002	3	1	4

USPROM 00000

### Summary of Program Preferences for Beef Cattle Representative Farms

For all three periods, the 3 Western ranches prefer the FAIR due to the higher feed grain prices under the 1990 Bill and lower stocker and feeder prices.

The Southwest Missouri diversified cattle and crop farm prefers the 1990 Bill in all periods. This farm benefits more from higher feed grain and soybean prices under the 1990 Bill than it loses from lower feeder prices.



USPROM 00000

**Table 11. Summary of Program Preferences for Hogs Representative Farms**



	Prefer FAIR	Prefer 1990 Bill	Total Farms
1996-1998	2	6	8
1999-2002	0	8	8
1996-2002	0	8	8

REPORT 2002

### Summary of Program Preferences for Hog Representative Farms

From 1996-98 the NC farms prefer FAIR due to lower soybean meal prices. All other hog farms prefer the 1990 Bill.

NC farms switch their preference to the 1990 Bill over the 1999-2002 period because the benefits of higher hog prices outweigh the higher input costs incurred from purchasing all of their feeds.

The 6 hog farms in Indiana, Illinois and Missouri that raise most of their feed prefer the 1990 Bill in all periods due to the increased revenue from hogs. Higher feed prices have little impact on these farms because they grow a large portion of their feeds.

REPORT 2002

