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AN ANALYSIS OF THE EXTENSION OF THE FOOD AND AGRICULTURAL CONSUMER PROTECTION ACT OF 1973

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ABSTRACT

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The 1973 and 1977 Farm Bills are two legislative acts specifying guides for agricultural policy. The major differences between the two Acts and the consequences are discussed. An analysis of an assumed extension of the 1973 Act in lieu of the 1977 Farm Bill is presented.

AN ANALYSIS OF THE EXTENSION OF THE AGRICULTURE AND CONSUMER PROTECTION ACT OF 1973

Legislation affecting the agricultural sector is rewritten approximately every two to five years. "Farm Bills" are complex and extensive and relate to many phases of agriculture, affecting both producers and consumers. The Food and Agricultural Act of 1977, in effect through 1981, replaced the Agriculture and Consumer Protection Act of 1973. The 1977 and 1973 Acts were similar in content and purpose, but differed in the level of price and income support for the farm sector.

The major differences between the two Acts are generalized into five categories and are directed primarily at commodity producers. These are: 1) price and income support policy, 2) acreage control provisions, 3) basis for computing payments, 4) payment limitations, and 5) grain reserves. These differences reflect a change in the degree government program provisions affect the production and marketing of grain.

The objectives of this paper are to 1) discuss the differences in legislation cited above in greater detail and 2) to assess the economic impact of the 1977 Act on the agricultural sector. The methodology employed assumes an extension of the 1973 Act and its provisions in lieu of provisions of the 1977 legislation. The scope of the analysis is limited to the corn, wheat, and soybean sectors. Although implications can be expanded to include the livestock sector, other crops, and the macro-economy, time restrictions prohibit such a detailed analysis in this paper. The simulated impact of the 1973 Act scenario is then compared to the actual market conditions under the 1977 Act for the three year period 1977-1979.

DIFFERENCES IN THE POLICY PROVISIONS

The basic price and income support measures established by the 1973 Act continued under the 1977 Act. Price support is implemented through the nonrecourse loan program, and income support is generated through the target price concept. However, under the 1977 Act commodity loan rates were increased, and the procedure to calculate target prices was revised (3, 4).

Target price levels computed under the 1973 Act were based on the relative magnitudes of changes in the prices paid index and the three year moving average of crop yields. The 1977 Act mandated that the calculation reflect changes in the two-year moving average of variable, machinery ownership, and general farm overhead costs of producing specific commodities. Target prices for 1977, 1978, and 1979 are significantly higher under the revised method than those computed by the 1973 procedure. (Tables 1, 2, 3)

Authority to implement a set-aside program, which originated under the 1970 Farm Bill, continued under the 1973 and 1977 Acts. If a set-aside program was implemented under the 1973 Act; however, producers did not have to plant the crop in order to receive set-aside payments. Payments were based on the producer's historical allotment. In contrast, the 1977 Act established a "normal crop acreage" concept. A set-aside program under the 1977 Act may require that a program participant's planted acreage (of designated set-aside crops) plus acres set-aside not exceed his normal crop acreage. Set-aside and diversion payments, under the 1977 Act are based on current plantings and program benefits are proportional to production.

Program participants are eligible to receive deficiency and disaster payments under both the 1973 and 1977 Acts. Deficiency payments are made to eligible producers if the target price exceeds the maximum of either the national average price received by farmers (during the first five months of the marketing year) or the national average loan rate. The payment per acre equals the differences times the established (or proven) yield. Payments made under the 1973 Act were based on allotted acreage (independent of planted acreage), whereas payments made under the 1977 Act are based on planted acreages.

Program participants were also eligible to receive special payments if natural disaster severely limits the planting or harvest of the program crop. Eligibility for low yield disaster payments under the 1973 Act, required that a farm's production be less than the product of the farm's allotment and two-thirds of the farm's established yield. The payment rate on this deficit would be the maximum of the deficiency payment and one-third of the target price. Low-yield disaster payments under the 1977 Act are based on the deficit in production below 60 percent of the farm program yield times the acreage planted for harvest. The payment rate is 50 percent of the target price.

Under the 1973 Act, program producers who were prevented from planting their allotment, due to environmental conditions beyond their control, could receive payments based on the difference between their allotment and acreage planted. The payment rate was the same as described above for the 1973 low-yield. Under the current act, prevented planting payments are based on the minimum of acreage intended to be planted and the acreage planted in the previous year. The payment rate equals one-third of the target price time 75 percent of the program yield.

Both the 1973 Act and its successor limited the dollar amount of payments that program participants could receive. A $20,000 limitation per person was established for wheat, feed grains and cotton for each year of the 1973 Act. The $20,000 limit was continued for the 1977 crop year with only deficiency payments subject to the limitation. Payment limits per person were increased over the 1978-1981 crop years, rising to $50,000 per person for producers of wheat, feed grains and cotton in 1980 and 1981. Disaster payments were excluded from the limitation.

One of the most substantive differences between the 1973 and 1977 Acts was the 1977 mandate that the Secretary of Agriculture administer a producer-held storage program for wheat. At the Secretary's discretion a similar program for feed grains could be established. Permanent legislation previously authorized extended loan programs; however, the current act provides participating producers with a 3-year nonrecourse commodity loan contract plus an annual per bushel storage payment. The program gives participating producers the opportunity to enter grain into the reserve when prices are low and sets rules for the release of grain when prices exceed certain specified levels.

METHODOLOGICAL PROCEDURE

The revised procedure for calculating target prices and the establishment of the farmer owned reserve can be expected to alter the supply and utilization of commodities as well as having an effect on prices. If the 1973 Act prevailed in lieu of the 1977 legislation, target prices for the corn and wheat would have been significantly lower. This would have influenced the producer's planting decisions and ultimately production. The producer held reserve isolates grain from the market thus supporting prices and influencing quantities demanded.

The magnitude of the deficiency payments under the two programs do not directly affect the supply-utilization components. As such the payments represent income transfrers only and are based ex post of the crop year analysis.

The methodological procedure used for this study is an impact analysis. Actual observations and current projections for supply, utilization, farm payments, and Commodity Credit Corporation (CCC) outlays for the 1977, 1978, and 1979 crop years are compared to estimated supply-utilization, farm payments, and CCC costs figures had the 1973 Act prevailed (5). As stated earlier the analysis is limited to the corn, wheat, and soybean sectors. Any differences between the two scenarios are attributed to changes in provisions of the Acts.

The following assumptions are relevant to the analysis. First, target prices for the 1977 crop year were revised after the planting decision was made. Consequently, the revised 1977 target prices are not assumed to influence production, quantities demanded, and price, but would affect the magnitude of deficiency and disaster payments. Secondly, set-aside, diversion requirements, and loan rates under the 1973 scenario. the same as under the 1977 Act. Activity by the CCC is assumed to generate stock levels equal to the observed farmer held reserve levels plus CCC uncommitted inventories for the crop years analyzed. Finally, all other factors (yield, exports to centrally planned economies under the scenario are equal to actual values. The impact multiplier's used in this study are derived from the Crops Model (1).

THE RESULTS

The results from the assumed extension of the 1973 Farm Bill are presented in Tables 1, 2, and 3 for the 1977, 1978, and 1979 crop years, respectively. No target price exists for soybeans, therefore all adjustments in the soybean sector under the 1973 Act extension results from that industry's interrelationships with other crops, primarily corn. The tables indicate lower target prices under the 1973 scenario for corn and wheat. Target prices are proportional to potential income support payments, and a reduction in the level of target prices may in some regions decrease the economic incentive to participate in set-aside programs, thereby influencing the planting decision.

1977 CROP YEAR

A continuation of the 1973 Farm Bill would not alter the supply, utilization, or price figures for the 1977 crop year for commodities discussed (Table 1). The 1977 Act revised the target prices ($1.70 to $2.00 for corn and $2.47 to $2.90 for wheat) after the planting decision was made. Therefore only the magnitude of deficiency and disaster payments change under the 1973 scenario. There is no change in the soybean sector.

The information in Table 1 indicates that, if the 1973 Act target prices had been used to calculate payments for 1977, then the amount would have been lower for both corn and wheat producers. Under the 1973 scenario disaster payments were 37 percent lower than actual payments made to corn producers. For wheat producers, total payments would have been 361 million. This represents a decline of over 69 percent from the actual 1977 level.

1978 CROP YEAR

As inferred above, acreages planted under the 1973 scenario are lower for corn, wheat, and soybeans than actual 1978 plantings (Table 2). This results from a reduction in the target price level from $2.10 to $1.65 for corn and from $3.40 to $2.50 for wheat. Participation in the farm program is lower than the actual 1978 levels for both grains. Under the 1973 scenario production levels for corn and soybeans decline by 362 and 15 million bushels, respectively. Planted acreage for wheat also declined, but the number of harvested acres increased. Increased harvested acreage for wheat results in a slight increase in production to 1813 million bushels

The reduced supply for corn and soybeans results in farm price increases to $2.55 and $7.02 for corn and soybeans, respectively. These price increases interact with the wheat sector causing that price to rise $.25 to $3.23. The higher prices under the 1973 scenario lead to movements along the demand curves for various components for each commodity.

For corn, the 4.4 percent decline in available supplies results in adjustment to the feed and commercial carryover components. Feed demand falls by 63 million bushels and total carryover declines by 296 million bushels. For wheat, the increase in produciton is totally compensated for by an increase in commercial carryover. Higher wheat prices discourage exports and feed usage. But the cross commodity interaction of the grains with the soybean sector results in an increase in foreign demand and a decrease in total carryover.

The value of the crops to farmers change 5, -3, and 3 percent for corn, wheat, and soybeans, respectively, relative to the actual 1978 values. The decline in total payments to corn producers was more than compensated for by the increase in value. However, under the scenario, the net effect of the value of production increase and decline in payments made to wheat producers was negative ($174 million).

Negative net loan costs indicate that nonrecourse commodity loans are being repaid. The results in Table 2 indicate that more commodity loans would be repaid under the scenario.

1979 CROP YEAR

Target prices for corn and wheat, under the 1973 Act, are significantly below the actual levels. The difference is $.50 and $.71 for corn and wheat, respectively. Higher commodity prices, as indicated in Table 2 for the 1978 crop year coupled with lower target prices in 1979 discourages participation in government programs for 1979. It is projected that participation in the corn program would decline by 13 percent and an 8 percent decline is estimated for particiaption in the wheat program.

Production levels for corn and wheat in 1979, under the 1973 scenario, are below the actual 1979 levels. No change is indicated for soybean production. Reduced carryover for corn and soybeans results in a 4.4 percent and a 1 percent decline in supplies, respectively. Lower 1979 production overcompensates for the increase in carryover of wheat, resulting in a 60 million bushel decline in wheat supplies under the scenario.

Restricted supplies influence prices. Prices increase relative to actual levels for all commodities discussed. Corn price increase to $2.73, wheat to $4.23, and soybeans to $6.54. Higher prices, restricted supplies, and similar demands imply lower 1979 carryover levels under the 1973 scenario. The adjustment in carryover occurs entirely in the commercial sector. Total corn carryover drops 17 percent, soybean and wheat carryover decline 36 and 14 million bushels, respectively.

As in 1978, the total value of the crop increases, government payments decline, and CCC inventory costs decrease under the scenario. The increase in crop value is greater than the decline in government payments, thus producers are better off.

SUMMARY AND CONCLUSIONS

This paper presented an analysis of the extension of the 1973 Farm Bill in lieu of the 1977 Act. Different procedures for calculating target prices, and deficiency and disaster payments influence the planting decision in different ways. A continuation of the 1973 Act would have decreased target prices below the actual values under the 1977 Act. The lower target prices would discourage participation in farm programs, and lead to lower production levels, except for 1978 wheat. The lower target prices imply a lower level of income support.

Restricted plantings and lower production levels result in higher prices for all commodities. However, the interrelationships in the crops sector do not imply lower demanded quantities resulting from the higher price levels. In fact, the adjustment in quantities demanded occur primarily by private inventory holders. Inventory levels increase in 1978 for wheat by 30 million bushels under the 1973 Act scenario. For the other commodities discussed and years analyzed carryover falls. Relative to the 1979 projected carryover figures, under the 1973 Act, corn, wheat, and soybeans carryover decreases by 316, 14, and 34 million bushels, respectively.

Prior to the initiation of the farmer held reserve, the CCC could sell grain from its holding for not less than 115 percent of the loan rate. Under the 1973 scenario it is probable that the CCC would sell some of its holdings to moderate price increases for corn and wheat.

Direct payments to producers, under the 1973 scenario, are reduced significantly. Deficiency payments are eliminated in 1978 and 1979 due to market prices exceeding target prices. There are also corresponding reductions in the disaster payments. However, the value of production plus government payments increase relative to actual 1978 and 1979 values.

Under the 1977 Act, loan placement activity is greater and loan redemptions are less than the levels implied by the 1973 scenario. The negative net costs incurred by the CCC indicate repayment of loans.

A more extensive analysis indicates that livestock production declines and meat prices increase under the 1973 Act relative to actual production and price levels. Food prices increase very slightly in 1978 under the 1973 scenario. The increase in CPI is attributed to increases in meat prices. There is no change in the 1979/80 CPI(2).

TABLE 1. 1977 SUPPLY, UTILIZATION, FARM PAYMENTS, AND CCC COSTS

	Corn		Wheat		Soybean	
	Actual	1973 Scenario	Actual	1973 Scenario	Actual	1973 Scenario
Acreage (Mil.Ac.)						
Allot/NPA	60.9		62.2		-----	
Set-aside(diver)	0.0		0.0		-----	
Planted	83.6		75.1		58.8	
Harvested	70.9		66.5		57.6	
Yield (Bu./Ac.)						
Yield/Har.Ac.	90.7		30.6		30.6	
Program Yield/Ac.	90.0		32.0		-----	
Supply (Mil Bu.)						
Carryover	884		1112		103	
Production	6425		2036		1762	
Imports	3		2		0	
Total supply	7312		3150		1865	
Utilization (Mil.Bu.)						
Feed	3709		183		} 77	
Food,Seed,Ind.	551		666			
Crush					927	
Total domestic	4260		849		1004	
Exports	1948		1124		700	
Total utilization	6208		1973		1704	
Carryout (Mil.Bu.)						
CCC	12	327	48	390	-----	-----
FOR	315		342		-----	-----
Commercial	777	777	787	787	161	161
Total carryout	1104	1104	1177	1177	161	161
Prices ($/bu.)						
Target Price	2.00/1.70	1.70	2.90/2.47	2.47	-----	-----
Loan Rate	2.00	2.00	2.25	2.25	3.50	3.50
Farm Price	2.02	2.02	2.33	2.33	5.88	5.88
Revenue (Mil.$)						
Farm Value	12981	12981	4744	4744	10361	10361
Deficiency Payment	0	0	1013	279	0	0
Diversion Payment	0	0	0	0	0	0
Disaster Payment	281	127	161	82	0	0
Total Payments	281	127	1174	361	0	0
Total Value	13262	13156	5862	5259	10361	10361
CCC Costs (Mil.$)						
Net loans	1230	1230	-385	-385	31	31
Storage	3	82	12	98	0	0
FOR Storage	79	0	86	0	-----	-----
Participation Rate (%)	100	100	100	100	-----	-----

TABLE 2. 1978 SUPPLY, UTILIZATION, FARM PAYMENTS, AND CCC COSTS

	Corn Actual	Corn 1973 Scenario	Wheat Actual	Wheat 1973 Scenario	Soybean Actual	Soybean 1973 Scenario
Acreage (Mil.Ac.)						
Allot/NPA	76.2	60.9	58.8	58.8	-----	-----
Set-aside(diver)	6.1	.9	8.4	6.2	-----	-----
Planted	80.1	77.9	66.3	64.3	64.0	63.7
Harvested	70.3	66.7	56.9	57.5	63.3	62.7
Yield (Bu./Ac.)						
Yield/Har.Ac.	100.8	100.8	31.6	31.6	29.5	29.5
Program Yield/Ac.	94.0	94.0	31.3	31.3	-----	-----
Supply (Mil.Bu.)						
Carryover	1104	1104	1177	1177	161	161
Production	7087	6725	1798	1813	1870	1852
Imports	1	1	1	1	0	0
Total supply	8192	7830	2976	2991	2031	2013
Utilization (Mil.Bu.)						
Feed	4198	4135	179	161	87	87
Food,Seed,Ind.	575	568	678	680		
Crush					1018	1015
Total domestic	4773	4703	857	841	1105	1102
Exports	2133	2135	1194	1194	753	762
Total utilization	6906	6838	2051	2035	1858	1864
Carryout (Mil.Bu.)						
CCC	99	638	51	444	-----	-----
FOR	539		393		-----	-----
Commercial	648	354	481	512	173	149
Total carryout	1286	992	925	956	173	149
Prices ($/bu.)						
Target Price	2.10	1.65	3.40	2.50	-----	-----
Loan Rate	2.00	2.00	2.35	2.35	4.50	4.50
Farm Price	2.25	2.55	2.98	3.23	6.75	7.02
Revenue (Mil.$)						
Farm Value	15946	17149	5358	5856	12623	13001
Deficiency Payment	0	0	549	0	0	0
Diversion Payment	558	160	15	15	0	0
Disaster Payment	37	7	87	32	0	0
Total Payments	595	167	719	47	0	0
CCC Costs (Mil.$)						
Net loans	200	-226	-515	-1184	8	5
Storage	25	160	13	111	0	0
FOR Storage	135		98		-----	-----
Participation Rate(%)	42	15	63	50	-----	-----

Table 3. 1979 SUPPLY, UTILIZATION, FARM PAYMENTS, AND CCC COSTS. [a]

		Corn		Wheat		Soybean
	Actual	1973 Scenario		1973 Scenario	Actual	1973 Scenario
Acreage (Mil.Ac.)						
Allot/NPA	83.6	60.9	66.0	58.8	----	----
Set-aside (diver)	2.9	0.6	6.0	5.0	----	----
Planted	80.0	80.0	71.6	68.7	71.6	71.6
Harvested	71.0	70.2	62.6	60.0	70.5	70.5
Yield (Bu./Ac.)						
Yield/Har.Ac.	109.4	109.4	34.2	34.2	32.2	32.2
Program Yield/Ac.	96.0	96.0	32.0	32.0	----	----
Supply (Mil.Bu.)						
Carryover	1286	992	925	956	173	149
Production	7764	7682	2142	2052	2268	2268
Imports	1	1	2	2	0	0
Total supply	9051	8675	3069	3010	2441	2417
Utilization (Mil.Bu.)						
Feed	4350	4294	75	40	96	96
Food, Seed, Ind.	615	606	695	697		
Crush					1090	1091
Total Domestic	4965	4900	770	737	1186	1187
Exports	2275	2280	1325	1313	815	824
Total utilization	7240	7180	2095	2050	2001	2011
Carryout (Mil.Bu.)						
CCC	99	1001	198	448	----	----
FOR	902		250		----	----
Commercial	810	494	526	512	440	406
Total Carryout	1811	1495	974	960	440	406
Prices ($bu.)						
Target Price	2.20	1.70	3.40	2.69	----	----
Loan Rate	2.00	2.00	2.35	2.35	4.50	4.50
Farm Price	2.35	2.73	3.80	4.23	6.13	6.54
Revenue (Mil.$)						
Farm Value	18245	20995	8140	8680	13903	14833
Deficiency Payment	0	0	0	0	0	0
Diversion Payment	111	17	0	0	0	0
Disaster Payment	17	4	75	33	0	0
Total Payments	128	21	75	33	0	0
CCC Costs (Mil.$)						
Net loans	790	-40	298	-519	113	50
Storage	25	250	50	113	0	0
FOR Storage	225		63		----	----
Participation Rate (%)	23	10	48	40	----	----

[a] Pre Embargo basis.

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