

**PAID ACREAGE DIVERSION FOR 1983/1984 CROPS:  
CONSEQUENCES FOR FARM PRICES AND  
FOR THE FEDERAL BUDGET**

**Staff Working Paper**

**The Congress of the United States  
Congressional Budget Office**

**June 24, 1982**



---

## PREFACE

---

This staff working paper was prepared at the request of the Senate Budget Committee. It assesses the budget and farm price consequences of a program of acreage reduction and paid acreage diversion for the 1983/1984 crops of wheat, corn, rice, and upland cotton. In keeping with the Congressional Budget Office (CBO) mandate to provide an objective and nonpartisan analysis of issues before the Congress, no recommendations are offered.

The authors are James G. Vertrees and Howard C. Conley. The paper was prepared in CBO's Natural Resources and Commerce Division under the supervision of Damian Kulash and David Bodde. Francis Pierce edited the paper, and Kathryn Quattrone prepared it for publication.

Alice M. Rivlin  
Director

June 1982



## INTRODUCTION

Federal outlays on agricultural price support programs have surged upward in the last year. Commodity program outlays for feed grains, wheat, rice, and upland cotton are estimated at a record \$9 billion in fiscal year 1982. This is up from the \$2 billion spent in 1981 and well above average annual outlays in 1978-1981 of \$3 billion. The fiscal 1982 surge in outlays stemmed from recent large crops combined with slack demand. Farm prices, which are heavily influenced by export demand, have weakened in response to above-trend increases in 1981/1982 world crop production coupled with below-trend increases in world consumption of feed grains, wheat, and upland cotton. The low prices brought the federal income support programs into play, triggering deficiency payments and encouraging farmers to place crops under nonrecourse loans and in the farmer-owned grain reserve.

Commodity program outlays are likely to remain high in coming years, primarily because of large domestic stocks. Beginning stocks for the 1982/1983 crop year are generally at their highest levels relative to use since the mid-1970s; despite current voluntary acreage reduction programs, most analysts expect that 1982/1983 crops will be large enough to maintain or increase existing stocks. Most of these stocks are held by farmers and financed by the government. Although they serve as a cushion in years of poor harvests, in other years they depress farm prices and raise federal outlays. If expectations about this year's crops are correct, then normal worldwide crops in the following year, 1983/1984, would probably add to stocks, continuing to depress farm prices and escalate outlays. Continuation of the current acreage reduction program would do little to reduce 1983/1984 ending stocks, raise prices, and improve farmers' prospects for 1984/1985.

The issue addressed by this paper is whether there is an equally effective but less costly way to reduce the income risks to farmers--in particular whether a paid acreage diversion program could achieve the intent of commodity price support programs with lower budget outlays. Under current law, the Secretary of Agriculture has broad authority to implement paid acreage diversion. The Department of Agriculture has asked for comments on options for the 1983/1984 wheat crop; program decisions for it must be announced by August 15, 1982, since planting of the winter wheat crop begins soon thereafter.

This paper provides the Congressional Budget Office's assessment of a program that would combine the current voluntary acreage reduction with a program of paid acreage diversion for the 1983/1984 crops. This assessment



examines the likely effects on farm prices, farm income, and net budget outlays, including the effect on other commodity program outlays. It finds that such a program could indeed reduce crop production, raise farm prices, and lower net budget outlays. Higher prices, however, might eventually raise food prices by no more than 1.0 percent and increase the Consumer Price Index by 0.2 percent; these price increases could be larger if an effective paid acreage diversion program coincided with poor crops. Paid acreage diversion, however, is inconsistent with the long-term transition to a market-based farm sector.

## SITUATION AND OUTLOOK

Record or near-record crop production in 1981/1982 resulted in large increases in ending stocks held by farmers, other businessmen, and the government. For corn, rice, and upland cotton, the ratio of 1981/1982 ending stocks to annual use--a common indicator of supply and demand balance--increased to substantially above historical averages (see Table 1). Wheat stocks also rose to more than adequate levels, although for wheat the stocks-to-use ratio was not abnormally large.

As a result, the prices received by farmers for their crops have dropped. Lower farm prices have spurred farmers to place their crops in storage to obtain nonrecourse loans, and especially to make use of the farmer-owned grain reserve (FOR) in order to obtain storage payments while retaining the opportunity to gain from future price increases. Farmers have entered above-average shares of the 1981/1982 wheat and feed grain crops in the FOR, which now exceeds by 40 to 50 percent the peak levels reached in 1979 and 1980. As a result, stocks of wheat and feed grains held outside the FOR or not owned by the Commodity Credit Corporation (CCC)--termed "free stocks"--are at minimum levels. These relatively tight free stocks would place upward pressures on prices if stockowners, anticipating further reductions in production, were to bid up prices to obtain supplies.

Rice farmers are expected to forfeit 10 percent of the 1981/1982 crop under nonrecourse loans, the first significant forfeiture since the 1975/1976 crop, and this quantity will make the CCC the owner of about 40 percent of 1981/1982 ending stocks. Upland cotton farmers placed about two-fifths of the crop under nonrecourse loans and are expected eventually to forfeit about 5 percent of the crop, which will give the CCC the largest inventory in more than a decade.

Farmers' extensive use of nonrecourse loans and the FOR helped to keep farm prices from declining even further by reducing the supplies





TABLE 1. GRAINS AND UPLAND COTTON: RATIO OF ENDING STOCKS TO TOTAL USE, AND AVERAGE FARM PRICES <sup>a/</sup>

	Average for Years 1978/1979 to 1980/1981	1980/1981	Estimate 1981/1982	Projected 1982/1983
<b>Wheat</b>				
Ratio of stocks to use (percent)	43	43	42	51
Average farm price (dollars per bushel)	3.56	3.91	3.70	3.90
<b>Corn</b>				
Ratio of stocks to use (percent)	18	16	28	31
Average farm price (dollars per bushel)	2.63	3.11	2.45	2.60
<b>Rice</b>				
Ratio of stocks to use (percent)	18	11	38	44
Average farm price (dollars per cwt.)	10.45	12.80	9.25	9.50
<b>Upland Cotton</b>				
Ratio of stocks to use (percent)	25	22	53	42
Average farm price (dollars per pound)	0.652	0.747	0.545	0.620

- a. See Appendix Tables A-1 through A-4 for detail. The crop year for wheat is June 1 through May 31; for corn, October 1 through September 30; and for rice and upland cotton, August 1 through July 31. For example, the 1982/1983 wheat crop year begins on June 1, 1982, the harvest period, and continues through May 31, 1983.



readily available for sale. Nevertheless, crop farmers' incomes remain depressed. Equally important, the use of existing programs has increased the level of stocks either financed or owned by the CCC to the highest level in many years. This has resulted in significant loan and storage costs. Federal outlays for these storage programs increased from \$2 billion in fiscal year 1981 to about \$8 billion in fiscal year 1982, and the low farm prices triggered about \$1.2 billion in deficiency payments in 1982. Thus, net outlays for these crop programs reached a record \$9 billion in 1982.

### 1982/1983 Outlook

Acreage reduction programs are in effect for the 1982/1983 crops. To be eligible for nonrecourse loans, the FOR, and deficiency payments, farmers must reduce planted acres for each crop by a fixed percentage from base acreages--10 percent for feed grains and 15 percent for wheat, rice, and upland cotton.

The benefits of participation in the wheat and feed grains programs are not likely to attract enough farmers to reduce total acreage by more than 3 to 4 percent. By contrast, upland cotton and rice farmers, expecting relatively greater benefits, are expected to participate more fully so that acreage will decline by 8 to 10 percent. Despite the reduced acreage, 1982/1983 production is likely to exceed foreign and domestic demand and thereby to add to grain stocks. Ending stocks-to-use ratios for wheat, feed grains, and rice are expected to increase further in 1982/1983, and upland cotton stocks, though somewhat smaller, are projected to remain substantially above average (see Table 1). And wheat and feed grains stocks in the FOR will increase, while forfeiture of crops under nonrecourse loans will add to CCC inventories of rice and upland cotton. With large stocks overhanging markets, farm prices are not expected to improve much.

Budget outlays for these crops in fiscal year 1983 are expected to be somewhat less than in 1982 because the acreage reduction provisions for 1982/1983 will reduce the number of farmers eligible for program benefits; in addition, FOR entries will probably be smaller. Nevertheless, outlays are projected to range from \$5 to \$7 billion, substantially above average 1978-1981 outlays of \$3 billion.

### 1983/1984 Outlook

High levels of stocks in 1982/1983 will lead to higher stocks the following year even if worldwide crops are only average. The result will be



to depress prices and worsen farmers' prospects for 1984/1985. The low prices would, under existing law, mean continuing large federal outlays in connection with deficiency payments, the FOR, nonrecourse loans, and CCC inventory accumulation.

### Reducing Federal Outlays

At this time, it is too late to change farmers' production plans for 1982/1983 beyond the already-announced acreage reduction programs. The 1983/1984 crop year offers the next opportunity to reduce production and federal outlays.

The first step in such a lowering of outlays would be the current program to reduce acreage under cultivation. To the extent that farmers choose to reduce acreage, outlays could be reduced by reducing production and increasing prices. To the extent that farmers do not reduce acreage, outlays could be lowered by restricting eligibility for deficiency payments, the FOR, and nonrecourse loans. As an initial step, the continuation of the current acreage reduction program for the 1983/1984 wheat crop might induce the participation of farmers producing about 60 percent of the crop. For corn, an estimated 40 percent of the acreage planted to corn could be brought under the acreage reduction program. In both cases, production would fall enough to cause small price increases. The result would be to decrease budget outlays for income supports in wheat, corn, rice, and upland cotton by about \$2.9 billion in fiscal 1984, as compared to what outlays would be with no acreage adjustments. About half of the reduction would result from the restricted eligibility for deficiency payments.

The remainder of this paper examines whether an additional step of paying farmers to divert even more acreage from crop production would further reduce 1983/1984 crop production, increase farm prices, and lower federal outlays. Because stocks of these crops are so large, further reductions in production would be unlikely to raise prices to the point where they would significantly reduce consumption or have a large effect on inflation; instead, production changes would most likely be reflected in lower stocks. Thus, higher prices, together with reduced use of FOR and nonrecourse loans, could cause net budget outlays to fall.

### PAID ACREAGE DIVERSION

Payments to farmers for diverting acreage from crop production have been used three times since the early 1970s. In 1978/1979, upland cotton



farmers were offered diversion payments, but the program was announced too late to attract many participants. In 1978/1979 and 1979/1980, acreage diversion payments were offered for feed grains. For both years, farmers who set aside (diverted to conservation use) acreage under the voluntary acreage reduction program equal to 10 percent of the acres planted to feed grains could receive payment if they diverted an additional 10 percent of planted acres. For each diverted corn acre, the payment in 1978/1979 was equivalent to about \$200, and in 1979/1980, to about \$100.

Under these programs, payments for acreage diversion were used to encourage additional participation and acreage reduction. To receive diversion payments, however, a farmer first had to set aside acreage that made him eligible for nonrecourse loans, the FOR, and deficiency payments. The farmer was not paid for the acreage set aside, which was presumably his least productive.<sup>1/</sup> For this reason, the additional acres diverted for payment were likely to be more productive than would have been the case in the absence of the initial set-aside requirement.

In 1978/1979, farmers participating in the feed grain acreage set-aside and paid acreage diversion program planted about 40 percent of U. S. feed grain acres. Participation in the similar 1979/1980 feed grain program fell to about 25 percent of U. S. feed grain acreage, no doubt due in part to the halving of the payment per diverted acre. Since the 1979/1980 program was not intended to be very attractive, it does not offer a good basis for comparison.

### Participation

The level of farmer participation in acreage adjustment programs clearly determines the effectiveness of such programs in reducing production and stocks. Participation is difficult to predict because farmers have a choice between producing without government program benefits or reducing production in exchange for such benefits. A farmer must assess the net benefits from participation. The benefits are obviously greater when paid acreage diversion is offered. It is known that participation in an acreage reduction program is strongly influenced by the size of the expected deficiency payment. If additional acres may be diverted for payment, the

- 
1. The acreage set aside was not entirely "free" to the government, in that outlays were incurred when participating farmers received loans, storage payments, and deficiency payments.





farmer must then compare the size of the diversion payment with the return he would receive from keeping that acreage in production, measured as the difference between receipts and variable costs, plus deficiency payments.

Participation in the 1982/1983 voluntary acreage reduction programs is not yet certain. Wheat farmers participating in the program will probably account for only 30 to 40 percent of the total base acreage--explained in part by the fact that farmers were uncertain of the terms of the program until after much of the crop had been planted. Feed grain farmers participating in the program will probably represent about 40 percent of the total base acreage. Participation in the rice and upland cotton programs is likely to be much higher--70 to 80 percent of base acreages--due mainly to the expectation of large deficiency payments. The maximum deficiency payment per unit of production--the difference between the target price and nonrecourse loan rate--is 25 and 20 percent, respectively, of the rice and upland cotton target prices, as compared to 12 percent for wheat, and only 6 percent for corn.

#### COST-EFFECTIVENESS OF A PROGRAM COMBINING ACREAGE REDUCTION AND PAID ACREAGE DIVERSION

This section analyzes the effects of a program of voluntary acreage reduction and paid acreage diversion for the 1983/1984 crops of wheat, corn, rice, and upland cotton. The acreage diversion would be added to the present acreage reduction program. Under a combined acreage reduction and paid acreage diversion program (AR/PAD), farmers would first have to reduce 1983/1984 planted acres of each crop by a fixed percentage from their base acreages to be eligible for nonrecourse loans, the FOR, and deficiency payments; they would then become eligible for payments for diverting additional acreages. This analysis assumes a program in which wheat farmers, for example, would have to reduce acreage by an initial 15 percent to be eligible for program benefits and could then divert an additional 10 percent of their base acreage for payment (see Table 2).

#### Methods and Assumptions

Diversion payments per acre are estimated on the assumption that the diversion payment should approximate a farmer's forgone net revenue over variable costs on the land diverted, including the deficiency payment he would have received. Thus farmers, in the aggregate, would receive income protection benefits that are roughly the equivalent of current programs.



TABLE 2. ACREAGE REDUCTION AND PAID ACREAGE DIVERSION:  
OPTIONS AND KEY ASSUMPTIONS a/

Commodity Program	Option <u>b/</u>		Diversion Payment Per Acre (dollars)	Net Reduction from Base (percent) <u>c/</u>	
	Voluntary Acreage Reduction (percent)	Paid Acreage Diversion (percent)		Harvested Acres	Production
Wheat	15	10	120	17	13
Corn	10	10	150	9	7
Rice	15	5	130	16	12
Upland Cotton	15	5	100	13	9

- a. See Appendix Table A-5 for 1983/1984 nonrecourse loan rates, FOR loan rates and trigger release prices, and target prices.
- b. Percent reduction from base acreage.
- c. Base levels are projected 1983/1984 supplies, prices, and revenues assuming no acreage adjustments.



But individual situations will vary widely, and hence assumptions about participation rates are necessarily uncertain. Using this approach, diversion payments per acre were estimated to be roughly equivalent to average U. S. cash receipts less variable costs, plus deficiency payments and the costs of conservation practices. Under these conditions, diversion payments per acre would be \$120 for wheat; \$150 for corn; \$130 for rice; and \$100 for upland cotton (see Table 2). As in the past, one-half of the payments are assumed to be made to farmers near planting time and one-half soon after harvest. This would be an additional incentive to participation as compared to the disbursement of deficiency payments more than a year after planting for some crops.

Participation would be voluntary. Thus, estimated participation rates must be based upon past experience and analyses of farmers' expected net benefits from participation. Participating wheat farmers are assumed to plant about 75 percent of total base acreages; feed grain farmers 50 percent; rice farmers 70 percent; and upland cotton farmers 70 percent.

### Results

For a given participation rate, the calculation of the reduction in output attributable to the acreage reduction and diversion program is straightforward. In the case of wheat, for example, with a 15 percent acreage reduction requirement, participating farmers reduce planted acreages by 11 percent ( $.75 \times .15 \times 100$ ) from the U. S. base acreage. These wheat farmers, who are then eligible to divert an additional 10 percent of their base acreage for payment, are projected to divert 80 percent of that amount. Thus, they divert for payment roughly an additional 6 percent ( $.75 \times .10 \times .80 \times 100$ ) of the total U. S. base acreage. Altogether, wheat farmers participating in the AR/PAD reduce acreage by about 17 percent (11 percent acreage reduction plus 6 percent paid acreage diversion) from the U. S. base acreage. Production, however, is reduced by a lesser amount than the reduction in planted acres would indicate. This is because the diverted land tends to be less productive cropland and because nonparticipants may increase their planted acreage. Table 2 shows the results of similar calculations for all the commodities analyzed.

Once the reduction in farm output was estimated, changes in farm prices and budget outlays were calculated using an econometric model. The comparisons were made for the crop year 1983/1984. The analysis indicates that AR/PAD would reduce crop production sufficiently to cause 1983/1984 ending stocks to decline from 1982/1983 levels, and thereby increase farm prices. Average prices for wheat, corn, rice, and upland cotton would



increase by about 10 percent over what they would be in the absence of acreage adjustments. The combination of higher prices, reduced production, and reduced eligibility would cause total net outlays in fiscal years 1983 and 1984 to fall about \$1,377 million for wheat, \$1,603 million for corn, \$239 million for rice, and \$665 million for upland cotton. Total net outlays for these crops would be reduced by about \$3,884 million.

In the aggregate, farmers' net revenues under AR/PAD would remain about the same, but they would receive a greater share of their incomes from domestic and foreign consumers and less from the government. The higher farm prices would have relatively little impact on domestic consumers. Higher wheat and rice prices might add 0.1 percent to food prices. Higher corn prices would increase the costs of producing meat, poultry, and milk. The increases in production costs, which would be quite small, would at some point be reflected in food prices. But at most, consumer prices for these products might eventually rise by 1.0 percent. The aggregate eventual impact of higher farm and food prices might be to increase the Consumer Price Index by 0.2 percent.

Wheat. Under AR/PAD, acreage harvested would decline by 13 million acres and production would fall by about 360 million bushels, or 13 percent below the projected base level without acreage adjustments (see Table 3). Production under AR/PAD would be insufficient to meet projected use; as a result, 1983/1984 ending stocks would be drawn down from beginning levels. This could be brought about through a reduction in the FOR, in the CCC inventory, or in free stocks. The adjustment, however, would probably be made in the FOR because of minimal free stocks and CCC resale policy. The expected reduction in 1983/1984 ending stocks under AR/PAD, given minimal free stocks, would increase farm prices and discourage FOR entry.

Average 1983/1984 prices would increase about \$0.30 per bushel, or 10 percent, as compared to the base level. Higher prices would discourage FOR entry of the 1983/1984 crop, encourage farmers to repay FOR loans due in 1983, and perhaps trigger FOR release. The net revenue over variable costs for all wheat farmers would be slightly less than the base level, but a greater share of their incomes would come from the market and less from the government. Furthermore, the reduction in stocks would improve their prospects for 1984/1985.

With regard to outlays, wheat farmers would receive diversion payments of \$520 million with outlays of \$260 million in both fiscal years 1983 and 1984 (see Table 7). However, higher prices and reduced eligibility, as compared to the base levels, would reduce deficiency payments by about \$846 million in fiscal year 1984. And FOR outlays for loans and storage





TABLE 3. WHEAT--SUPPLY, PRICE, AND INCOME CONSEQUENCES OF AN ACREAGE REDUCTION AND PAID ACREAGE DIVERSION PROGRAM FOR THE 1983/1984 CROP a/

	Change From Base Levels <u>b/</u>
Acres Harvested (million acres)	-13.4
Production (million bushels)	-363
Ending Stocks (million bushels)	
FOR	-313
CCC Inventory	---
Free	---
Total	-313
Average Farm Price (dollars per bushel)	0.30
Net Revenue <u>c/</u> (percent)	-3

a. See Appendix Table A-1 for detail.

b. Base levels are projected 1983/1984 supplies, prices, and revenues assuming no acreage adjustments.

c. Cash receipts plus deficiency payments and diversion payments less variable costs.



payments would fall by \$103 million in 1983 and \$948 million in 1984. In sum, as compared to the base level, net outlays under AR/PAD would decline by \$1,377 million.

Corn. Acreage harvested would decline by nearly 7 million acres and production would drop by 560 million bushels, or 7 percent below the base level (see Table 4). Corn production under AR/PAD would be less than projected use, leading to a drawdown of stocks in 1983/1984. As compared to the base level, FOR stocks would decline and free stocks drop slightly. A reduction in 1983/1984 ending stocks, including a tightening of free stocks, would increase farm prices.

Farm prices in 1983/1984 would probably average about \$0.25 higher per bushel, or nearly 10 percent above base prices. Under AR/PAD, higher prices would discourage FOR entry and most likely trigger FOR release. As a result, ending 1983/1984 FOR stocks would drop from ending 1982/1983 levels.

Corn farmers would gain an increase in net revenue of 7 percent above the base level. The decline in production and deficiency payments from the base levels would be more than offset by higher farm prices, reduced production costs, and diversion payments.

With regard to outlays, diversion payments of \$450 million would be paid in equal amounts of \$225 million in fiscal years 1983 and 1984 (see Table 7). But higher prices would eliminate deficiency payments of \$1,050 million. In addition, FOR outlays would drop by \$1,003 million in fiscal year 1984. In sum, net outlays under AR/PAD would fall by \$1,603 million as compared to the base level.

Rice. Harvested acreage would fall by 800,000 acres and production by about 21 million hundredweight (cwt.) or 12 percent from the base level (see Table 5). Rice production under AR/PAD would be insufficient to meet projected use; consequently, ending 1983/1984 rice stocks would drop by 6 percent from beginning levels. This would probably increase 1983/1984 acreage prices by about \$0.75 per cwt., or 8 percent, as compared to the base level. Higher prices would discourage nonrecourse loans and decrease the likelihood of forfeitures to the CCC. Therefore, as compared to the base level, CCC inventories would fall in 1982/1983, as would free stocks.

Rice farmers' net revenues in 1983/1984 would be slightly higher under AR/PAD (see Table 5). In other words, reduced production and smaller deficiency payments under AR/PAD, as compared to the base levels, would



**TABLE 4. CORN--SUPPLY, PRICE, AND INCOME CONSEQUENCES OF AN ACREAGE REDUCTION AND PAID ACREAGE DIVERSION PROGRAM FOR THE 1983/1984 CROP a/**

	Change From Base Levels <u>b/</u>
Acreage Harvested (million acres)	-6.7
Production (million bushels)	-560
Ending Stocks (million bushels)	
FOR	-440
CCC Inventory	---
Free	-70
Total	-510
Average Farm Price (dollars per bushel)	0.25
Net Revenue <u>c/</u> (percent)	7

- a. See Appendix Table A-2 for detail.
- b. Base levels are projected 1983/1984 supplies, prices, and revenues assuming no acreage adjustments.
- c. Cash receipts plus deficiency payments and diversion payments less variable production costs.



**TABLE 5. RICE--SUPPLY, PRICE, AND INCOME CONSEQUENCES OF AN ACREAGE REDUCTION AND PAID ACREAGE DIVERSION PROGRAM FOR THE 1983/1984 CROP <sup>a/</sup>**

	Change From Base Levels <sup>b/</sup>
Acreage Harvested (million acres)	-0.6
Production (million cwt.)	-20.6
Ending Stocks (million cwt.)	
CCC Inventory	-13.5
Free	-6.1
Total	-19.6
Average Farm Price (dollars per cwt.)	0.75
Net Revenue <sup>c/</sup> (percent)	3

- a. See Appendix Table A-3 for detail.
- b. Base levels are projected 1983/1984 supplies, prices, and revenues assuming no acreage adjustments.
- c. Cash receipts plus deficiency payments and diversion payments less variable production costs.





be about offset by higher prices, lower production costs, and diversion payments.

With regard to outlays, rice farmers would receive diversion payments of \$26 million-- \$13 million each in fiscal years 1983 and 1984 (see Table 7). However, higher prices, reduced production, and limited eligibility would reduce deficiency payments in fiscal year 1984 by \$150 million. Additionally, nonrecourse loan outlays would be \$115 million less in fiscal year 1984 because of higher prices and smaller loan activity. In total, net outlays would be reduced by \$239 million in fiscal year 1984.

Upland Cotton. Upland cotton production would decline by 1.3 million bales or about 9 percent from the base level (see Table 6). Ending 1983/1984 stocks under AR/PAD would fall by about 0.7 million bales from beginning levels because production would be less than projected use. The tightening of stocks would probably raise 1983/1984 average prices \$0.06 per pound, or 9 percent, as compared to the base level. With higher prices, nonrecourse loans would be less attractive and the likelihood of forfeitures to the CCC of 1983/1984 cotton would be diminished. Therefore, as compared to the base level, ending CCC inventories would fall in 1983/1984, and so would free stocks.

Upland cotton farmers' return over variable costs would be about 8 percent less under AR/PAD as compared to the base level (see Table 6). But they would receive a larger share of their incomes from the market and less from government payments.

With regard to outlays, diversion payments of \$40 million, \$20 million in both fiscal years 1983 and 1984, would be made to upland cotton farmers (see Table 7). However, the combination of acreage reduction and paid diversion would reduce production and raise prices sufficiently to reduce deficiency payments and nonrecourse loans. Deficiency payments, as compared to the base level, would decline by \$545 million because of higher prices and reduced eligibility. In addition, loan outlays would fall by \$160 million in fiscal year 1984. In total, net outlays would decline by \$665 million.

## CONCLUSION

The analysis suggests that a program of acreage reduction and paid acreage diversion for the 1983/1984 crops would be cost-effective--that is, program benefits, especially diversion payments, would encourage farmers



TABLE 6. UPLAND COTTON--SUPPLY, PRICE, AND INCOME CONSEQUENCES OF AN ACREAGE REDUCTION AND PAID ACREAGE DIVERSION PROGRAM FOR THE 1983/1984 CROP a/

	Change From Base Levels <u>b/</u>
Acres Harvested (million acres)	-1.8
Production (million bales)	-1.3
Ending Stocks (million bales)	
CCC Inventory	-0.6
Free	-0.4
Total	-1.0
Average Farm Price (dollars per pound)	0.06
Net Revenue <u>c/</u> (percent)	-8

a. See Appendix Table A-4 for detail.

b. Base levels are projected 1983/1984 supplies, prices, and revenues assuming no acreage adjustments.

c. Cash receipts plus deficiency payments and diversion payments less variable production costs.



TABLE 7. BUDGET CONSEQUENCES OF AN ACREAGE REDUCTION AND PAID ACREAGE DIVERSION PROGRAM FOR 1983/1984 CROPS, FISCAL YEARS 1983 AND 1984 (In millions of dollars of change from base levels)

	Change from Base Levels <u>a/</u>	
	1983	1984
<b>Diversion Payments <u>b/</u></b>		
Wheat	260	260
Corn	225	225
Rice	13	13
Upland Cotton	20	20
Total	518	518
<b>Deficiency Payments</b>		
Wheat	---	-846
Corn	---	-1,050
Rice	---	-150
Upland Cotton	---	-545
Total	---	-2,591
<b>Farmer-Owned Reserve</b>		
Wheat	-103	-948
Corn	---	-1,003
Total	-103	-1,951
<b>Nonrecourse Loans</b>		
Rice	---	-115
Upland Cotton	---	-160
Total	---	-275
<b>Net</b>	<b>415</b>	<b>-4,299</b>

a. Base levels are projected outlays assuming no acreage adjustments.

b. Diversion payments for the 1983/1984 crop year are paid one-half each in 1983 and 1984.



to decrease and divert sufficient acreage to reduce crop production and stocks, thereby causing average prices to rise. The combination of reduced supplies and higher prices would result in smaller quantities stored for nonrecourse loans and the FOR on the one hand, and in reduced deficiency payments on the other; consequently, total net federal outlays in fiscal 1983 and 1984 would be about \$3.9 billion less than if there were no acreage adjustments.

The addition of paid acreage diversion would reduce crop program outlays by about \$1.0 billion more than a continuation of the present voluntary acreage reduction alone. The additional changes in production and prices, and resulting budget savings, would not likely be forthcoming from voluntary acreage reduction alone; participation would drop if the acreage reduction requirement was increased, and deficiency payments would increase if target prices were raised to encourage participation. Diversion payments would assure farmers that they would not forgo expected net revenues by taking additional acreage out of production. The effect of this incentive would be to increase participation over what it would be in a voluntary acreage reduction program. But the larger reduction in acreage and production, as compared to a voluntary acreage reduction program, would increase farm prices and decrease FOR and nonrecourse loans--thus offsetting the greater eligibility for deficiency payments and loans.

The budget savings for commodity programs would be reduced slightly by increases in outlays for federal programs that are indexed to consumer prices. However, this effect would be small and not likely to affect significantly overall savings in federal outlays.

### Effects on Farm Revenues

As compared to no acreage adjustments, corn and rice farmers' net revenues would increase slightly and net revenues would decline a little for wheat and upland cotton farmers. On the other hand, as compared to a program of voluntary acreage reduction, net revenues would increase slightly since higher prices in combination with diversion payments and reduced production costs would tend to offset lower production levels and reduced deficiency payments. More importantly, farmers would receive a larger share of their incomes from domestic and foreign consumers and a smaller share from the federal government, and the reduction in stocks would improve farmers' prospects for better returns in 1984/1985.





### Effects on Consumers

Increased farm prices would be of small significance to domestic consumers. Farm prices for wheat and rice only account for about 15 percent of the consumer's dollar spent on cereals and bakery products. Higher corn prices would lead to greater production costs for livestock, dairy, and poultry producers. These higher production costs would eventually be reflected in consumer prices. At most they might cause long-term food prices to rise by about 1.0 percent, and raise the Consumer Price Index by 0.2 percent.

### Policy Risks

Clearly, making payments to farmers for diverting acreage from crop production is inconsistent with the country's long-term transition to an increased reliance on markets. However, given the present costly and burdensome overhang of stocks, normal crops serve to exacerbate farmers' income problems and taxpayer costs. It is only in this context that paid acreage diversion becomes cost-effective. At best, it is a short-term option directed at reducing taxpayer costs and improving farmers' prospects in future years.

Furthermore, there are some risks in encouraging farmers to reduce 1983/1984 crop production. Poor crops here or abroad coinciding with an effective acreage reduction program could sharply escalate farm and consumer prices, and thereby make acreage diversion payments unnecessary. The current large stocks provide a cushion against such unforeseen changes in production, but once these stocks are diminished, the price risk is increased.

Internationally, reductions in U. S. production would probably be met by production increases in other exporting nations. This might increase export competition if other nations were willing to let the United States continue to carry the largest share of world stocks. Such competition would dampen the effect of reduced U. S. output on farm prices and budget outlays. On the other hand, without production adjustments, the United States would probably carry even greater shares of world stocks than it does now.



TABLE A-1. WHEAT--SUPPLY, USE, STOCKS, AND AVERAGE FARM PRICE FOR CROP YEARS 1981/1982, 1982/1983, AND 1983/1984

	Estimate 1981/1982	Projected 1982/1983	Projected 1983/1984	
			Base Levels a/	AR/PAD Levels
Acreage Harvested (million acres)	80.9	78.5	81	67.6
Supply				
Beginning stocks				
FOR	360	560	651	600
CCC inventory	195	189	189	189
Free	432	388	469	520
Total	989	1,137	1,309	1,309
Production	2,793	2,715	2,754	2,391
Total b/	3,784	3,854	4,065	3,702
Use (million bushels)				
Domestic	867	845	870	830
Exports	1,780	1,700	1,675	1,665
Total	2,647	2,545	2,545	2,495
Ending Stocks (million bushels)				
Farmer-owned reserve	560	651	861	538
CCC inventory	189	189	189	189
Free	388	469	470	480
Total	1,137	1,309	1,520	1,207
Ratio of Ending Stocks to Total Use (percent)	42	51	60	48
Average Farm Price (dollars per bushel)	3.70	3.90	4.00	4.30

a. Base levels are projected 1983/1984 levels assuming no acreage adjustments.

b. Includes imports.



TABLE A-2. CORN--SUPPLY, USE, STOCKS, AND AVERAGE FARM PRICE FOR CROP YEARS 1981/1982, 1982/1983, AND 1983/1984

	Estimate 1981/1982	Projected 1982/1983	Projected 1983/1984	
			Base Levels a/	AR/PAD Levels
Acreage Harvested (million acres)	74.6	72.5	74	67.3
Supply				
Beginning stocks				
FOR	185	1,300	1,481	1,481
CCC inventory	240	264	264	264
Free	611	472	555	555
Total	1,034	2,038	2,300	2,300
Production	8,203	7,685	7,770	7,210
Total b/	9,236	9,721	10,070	9,510
Use (million bushels)				
Domestic	5,048	5,121	5,200	5,175
Exports	2,150	2,300	2,300	2,275
Total	7,198	7,421	7,500	7,450
Ending Stocks (million bushels)				
Farmer-owned reserve	1,300	1,481	1,746	1,306
CCC inventory	264	264	264	264
Free	472	555	560	490
Total	2,038	2,300	2,570	2,060
Ratio of Ending Stocks to Total Use (percent)	28	31	34	28
Average Farm Price (dollars per bushel)	2.45	2.60	2.75	3.00

a. Base levels are projected 1983/1984 levels assuming no acreage adjustments.

b. Includes imports.



TABLE A-3. RICE--SUPPLY, USE, STOCKS, AND AVERAGE FARM PRICE FOR CROP YEARS 1981/1982, 1982/1983, AND 1983/1984

	Estimate 1981/1982	Projected 1982/1983	Projected 1983/1984	
			Base Levels <u>a/</u>	AR/PAD Levels
Acreage Harvested (million acres)	3.8	3.5	3.8	3.2
Supply				
Beginning stocks				
CCC inventory	---	20.0	35.0	35.0
Free	16.5	34.0	29.5	29.5
Total	16.5	54.0	64.5	64.5
Production	185.4	161.0	171.0	150.4
Total <u>b/</u>	202.0	215.0	235.5	214.9
Use (million cwt.)				
Domestic	56.5	59.0	61.0	61.0
Export	86.5	86.5	89.0	88.0
Total	143.0	145.5	150.0	149.0
Ending Stocks (million cwt.)				
CCC inventory	20.0	35.0	48.5	35.0
Free	34.0	29.5	32.0	25.9
Total	54.0	64.5	80.5	60.9
Difference Unaccounted	5.0	5.0	5.0	5.0
Ratio of Ending Stocks to Total Use (percent)	38	44	54	41
Average Farm Price (dollar per cwt.)	9.25	9.50	9.25	10.00

a. Base levels are projected 1983/1984 levels assuming no acreage adjustments.

b. Includes imports.





**TABLE A-4. UPLAND COTTON--SUPPLY, USE, STOCKS, AND AVERAGE FARM PRICE FOR CROP YEARS 1981/1982, 1982/1983, AND 1983/1984**

	Estimate 1981/1982	Projected 1982/1983	Projected 1983/1984	
			Base Levels a/	AR/PAD Levels
<b>Acreage Harvested (million acres)</b>	13.8	12.4	13.8	12.0
<b>Supply</b>				
Beginning stocks				
CCC inventory	---	---	0.5	0.5
Free	2.6	6.4	5.0	5.0
Total	2.6	6.4	5.5	5.5
Production	15.6	12.4	13.8	12.5
Total b/	18.2	18.8	19.3	18.1
<b>Use (million bales)</b>				
Domestic	5.2	5.7	5.9	5.8
Exports	6.8	7.5	7.6	7.5
Total	12.0	13.2	13.5	13.3
<b>Ending Stocks (million bales)</b>				
CCC inventory	---	0.5	1.1	0.5
Free	6.4	5.0	4.7	4.3
Total	6.4	5.5	5.8	4.8
<b>Ratio of Ending Stocks to Total Use (percent)</b>	53	42	43	36
<b>Average Farm Price (dollars per bushel)</b>	0.545	0.62	0.64	0.70

a. Base levels are projected 1983/1984 levels assuming no acreage adjustments.

b. Includes imports.



**TABLE A-5. PROJECTED 1983/1984 NONRECOURSE LOAN RATES, FARMER-OWNED RESERVE LOAN RATES AND TRIGGER RELEASE PRICES, AND TARGET PRICES (Dollars per unit)**

Commodity	Nonresource Loan Rate	Farmer-Owned Reserve		Target Price <u>a/</u>
		Loan Rate	Trigger Release	
Wheat (bushel)	3.80	4.25	4.90	4.30
Corn (bushel)	2.71	3.06	3.41	2.86
Rice (cwt.)	8.55	N/A	N/A	11.40
Upland Cotton (pounds)	0.55	N/A	N/A	0.76

N/A = Not Applicable.

a. Minimum levels set by the Agriculture and Food Act of 1981.

