CONGRESS OF THE UNITED STATES
CONGRESSIONAL BUDGET OFFICE

JUNE 1991

The Outlook for Farm Commodity Program Spending, Fiscal Years 1991-1996

A CBO STUDY

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S U M M A R Y

June 1991

CBO'S OUTLOOK FOR FEDERAL FARM PROGRAM SPENDING

Spending on farm programs is likely to exceed $10 billion during 1991 and 1992 but fall below $10 billion for the following four years, according to a Congressional Budget Office study, *The Outlook for Farm Commodity Program Spending, Fiscal Years 1991-1996.* Outlays should fall in the future because the prices of supported commodities are expected to recover gradually from their now relatively low levels. The programs are structured so that payments to farmers fall as prices rise. Payments are also affected by program changes that reduce the amount of each farmer's crop that earns benefits.

The CBO report reviews the effects on federal outlays of legislation enacted during 1990 that changed farm programs. Three laws that affected these programs were the Food, Agriculture, Conservation, and Trade Act of 1990; Title I of the Omnibus Budget Reconciliation Act of 1990; and the Rural Development, Agriculture, and Related Agencies Appropriations Act, 1991. CBO estimates that changes in these laws will reduce Commodity Credit Corporation spending by $4.4 billion over the 1991-1995 period. Estimates of savings provided during the time the bills were being considered were much higher--$10.6 billion over the 1991-1995 period. The report explains how changing conditions in commodity markets caused the estimates of savings to fall.

CBO's report also provides a detailed description of CBO's baseline projections for agricultural programs. Based on CBO's assumptions about economic conditions, a continuation of current farm programs, and no changes in the agricultural programs of other countries, annual outlays for farm programs are projected to be $10.2 billion in 1991, rise to $11.1 billion in 1992, and fall gradually to $8.6 billion in 1996. While these expenditures are substantially higher than the $6.4 billion actually spent in 1990, they are well below the levels observed in the mid-1980s and, in real terms, are similar to levels observed during the 1960s.

Questions regarding this report should be directed to Andrew Morton, Eileen Manfredi, or David Hull of the Budget Analysis Division (202-226-2860). the Office of Intergovernmental Relations is CBO's Congressional liaison office and can be reached at 226-2600. For additional copies of the report, please call the Publications Office at 226-2809.

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Washington, D.C. 20515

COMMODITY CREDIT CORPORATION OUTLAYS
(By fiscal year, in millions of dollars)[a]

	Actual	Projected					
	1990	1991	1992	1993	1994	1995	1996
Commodity							
Feed grains	2,721	2,291	3,784	3,607	3,427	2,963	2,824
Wheat	806	3,151	2,760	2,242	1,899	1,810	1,702
Rice	667	776	659	680	664	681	687
Upland cotton	-79	394	859	588	757	808	753
Soybeans	5	119	33	-65	-50	-43	-46
Peanuts	1	3	4	4	4	4	4
Tobacco	-307	-217	-85	-107	-72	-32	-30
Honey	47	51	29	29	27	26	26
Sugar	15	0	-26	-27	-28	-28	-28
Dairy	505	739	540	477	449	416	407
Other[a]	34	46	113	91	85	79	111
Subtotal	4,415	7,353	8,670	7,518	7,162	6,685	6,410
Noncommodity							
Disaster payments	158	0	0	0	0	0	0
Export loans	-42	1,162	-21	-26	-44	-58	-58
Other	1,203	1,017	1,635	1,566	1,498	1,532	1,566
Net interest	632	681	803	820	766	734	700
Subtotal	1,952	2,860	2,418	2,361	2,220	2,207	2,208
Total	6,367	10,212	11,088	9,879	9,383	8,892	8,618

SOURCES: Actual data from Department of Agriculture; projections from Congressional Budget Office's February 1991 baseline.

NOTE: Cash outlays for the export credit guarantee program are included in the CCC baseline through 1991 only. Beginning in 1992, the credit reform provisions of the Budget Enforcement Act require that separate accounts be created for programs offering direct loans and loan guarantees.

a. Includes peanuts, tobacco, honey, sugar, and dairy products.

THE OUTLOOK FOR FARM COMMODITY PROGRAM SPENDING, FISCAL YEARS 1991-1996

The Congress of the United States
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NOTES

Details in the text and tables of this study may not add to totals because of rounding.

A crop year (or marketing year) is the 12-month period beginning around the time of harvest. Crop years for major crops are:

Corn--September through August
Wheat--June through May
Rice--August through July
Cotton--August through July
Soybean--September through August

Crop years are identified by the calendar year in which the crop is harvested. For example, the 1991 corn crop year extends from September 1991 through August 1992. The dairy marketing year coincides with the fiscal year and is identified similarly--the 1991 dairy marketing year extends from October 1990 through September 1991.

Units of measure used for commodities in this study are:

Corn--one bushel = 56 pounds
Wheat--one bushel = 60 pounds
Rice--one hundredweight (cwt) = 100 pounds
Cotton--one bale = 480 pounds
Soybeans--one bushel = 60 pounds

Dairy product use and Commodity Credit Corporation net purchases are measured in pounds of milk equivalent, milkfat basis

The cover photograph was taken by Russell Lee for the Farm Security Administration in 1940. It is from the collections of the Library of Congress.

PREFACE

Outlays for Commodity Credit Corporation (CCC) farm price and income support programs have varied widely from year to year, depending as they do on such factors as the weather, agriculture and trade policies, the administration of U.S. farm programs, and conditions in worldwide commodity markets. This study provides detailed information about CCC outlays included in the Congressional Budget Office's (CBO's) most recent budget outlook. CBO's budget outlook is part of its annual report to the Committees on the Budget, which is required by law, and includes five-year outlay projections for the entire federal budget. In keeping with CBO's mandate to provide objective and impartial analysis, the report contains no recommendations.

This study was prepared under the supervision of Robert A. Sunshine and Roger E. Hitchner as a joint effort of the Budget Analysis Division and the Natural Resources and Commerce Division. Andrew S. Morton coordinated the study. Portions of the report were written by Roger E. Hitchner, David B. Hull, Eileen M. Manfredi, Andrew S. Morton, and David D. Trechter. Kathy A. Ruffing, and Robert A. Dennis of CBO provided valuable comments. Francis Pierce and Sherry Snyder edited the manuscript, with assistance from Nancy H. Brooks. Cynthia Cleveland typed the tables and prepared early drafts, and Martina Wojak prepared the final draft for publication.

Robert D. Reischauer
Director

June 1991

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SUMMARY

The agricultural sector experienced generally good weather and record high farm incomes during 1990, with the major exception of the severe cold in December that heavily damaged California citrus crops. Yields rebounded from the drought-depressed levels of the two previous years. Most of the rest of the world also had excellent weather. Relative to levels of the previous year, world wheat production increased by nearly 10 percent. Wheat production rose in most of the world's major consuming and producing countries, including the U.S.S.R., China, the European Community, Canada, Argentina, and Australia. The same is generally true of the other major commodities: world cotton production increased by nearly 10 percent, corn production by 2 percent, and rice by about 1 percent. World production of soybeans was an exception to this pattern, falling by about 2 percent from year-earlier levels. These increases in production have resulted in a general weakening of commodity prices, notably in wheat.

THE NEW SPENDING PROJECTIONS

Changes in federal farm policy occurred in 1990 with the enactment of two major pieces of legislation that will guide farm policy for the next five years--the Food, Agriculture, Conservation, and Trade Act of 1990, referred to as the 1990 farm bill, and Title I of the Omnibus Budget Reconciliation Act of 1990. Contrary to most people's expectations, the 1990 farm legislation made important changes in agricultural policy. (It had been widely predicted that the 1990 law would be very similar to the 1985 Food Security Act that it was to replace. Indeed, early versions of the bill maintained most of the major components of the 1985 act.)

The determination to reduce the budget deficit led to cuts in federal spending for price and income supports. The most important policy change reduces deficiency payments made to producers participating in the wheat, feed grains, cotton, and rice programs. Producers will no longer receive deficiency payments on 15 percent of their crop

acreage base, but they will be allowed to plant alternative crops, including other program crops and nonprogram crops such as soybeans, on that unpaid portion of the crop acreage base without losing eligibility for future program benefits. The degree of acreage shifts on these unpaid flexible acres will depend largely on the relative market returns associated with various alternative crops. Assuming market conditions projected in the baseline, farmers are expected to shift between 2 million and 4 million acres per year from program crops to nonprogram crops.

The 1990 farm legislation is expected to reduce Commodity Credit Corporation spending by an estimated $4.4 billion over the 1991-1995 period compared with spending if the expiring provisions of the Food Security Act of 1985 had been extended. While this is a substantial reduction, it is less than half of the $10.6 billion envisioned by Congressional and Administration budget negotiators in September 1990 and claimed in the ensuing legislation. The larger savings estimate was made relative to assumptions underlying the June 1990 CBO baseline. However, commodity market conditions have changed significantly since June 1990 and some of these savings, which were based on the old assumptions, are unlikely to be achieved.

The effect of the provisions mentioned above that reduce payment acres and increase planting flexibility is that fewer acres of U.S. farmland will be eligible for commodity program payments and that the type of production taking place on these acres will be determined, in large part, by market forces. These changes are expected to improve the responsiveness of U.S. agriculture to market signals. They may have some modest environmental benefits as well, because they facilitate the use of crop rotations.

CBO projects that spending by the Department of Agriculture's Commodity Credit Corporation (CCC), which includes most of the programs that support farm prices and incomes, will rise from $10.2 billion in 1991 to $11.9 billion in 1992, then fall over the 1992-1996 period, reaching $8.6 billion in 1996 (see Summary Table 1). Actual outlays in 1990 were $6.4 billion, artificially lowered by the shift of $850 million in deficiency payments into 1989 from 1990. Outlays for these programs are directly affected by the laws governing the programs, the

choices made by the Administration in implementing the programs, farmers' decisions to participate, and U.S. and world market conditions for supported crops and milk. The CBO baseline projections are built on the assumption that the laws affecting the farm programs remain constant over the projection period. This study describes the variety of other assumptions that underlie the baseline projections.

SUMMARY TABLE 1. COMMODITY CREDIT CORPORATION OUTLAYS (By fiscal year, in millions of dollars)

	Actual	Projected					
	1990	1991	1992	1993	1994	1995	1996
Commodities							
Feed grains	2,721	2,291	3,784	3,607	3,427	2,963	2,824
Wheat	806	3,151	2,760	2,242	1,899	1,810	1,702
Rice	667	776	659	680	664	681	687
Upland cotton	-79	394	859	588	757	808	753
Soybeans	5	119	33	-65	-50	-43	-46
Dairy	505	739	540	477	449	416	407
Other[a]	-211	-117	35	-11	17	49	83
Subtotal	4,415	7,353	8,670	7,518	7,162	6,685	6,410
Other Outlays	1,952	2,860	2,418	2,361	2,220	2,207	2,208
Total	6,367	10,212	11,088	9,879	9,383	8,892	8,618

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THE OUTLOOK FOR THE MAJOR COMMODITIES

The near-term outlook for most major commodities is for ample supplies and relatively low prices. The general long-run outlook for the major commodities is one of relative balance between supply and market demand. Prices are projected to remain fairly steady or to rise slightly in nominal terms throughout the projection period (see Summary Table 2).

Wheat

The most dramatic change in market outlook that occurred over the past year is for wheat. The average farm price of wheat for both the 1988 and 1989 marketing years was $3.72 per bushel. The current estimate for the 1990 marketing year (ending July 1991) is $2.60 per bushel. Last year wheat farmers had to take no more than 5 percent of their eligible acreage out of production to qualify for benefits under the federal wheat program, and there were provisions that allowed even smaller acreage reduction. In 1991, farmers must remove 15 percent of their acreage from production in order to qualify for the federal program. A higher acreage reduction program requirement gives some support to market prices. However, even over the longer term, prices are not projected to exceed $3.00 per bushel on a season average basis.

Corn

The national average yield for corn harvested in the fall of 1990 was 116.3 bushels per acre. This was slightly below the trend of yields but a dramatic improvement over the drought-depressed 1988 crop yield of 84.6 bushels per acre. These high yields contributed to the highest level of production since the 1986 crop. Despite this increase in production, stock levels declined for the third year in a row as use exceeded production. Domestic use of this year's crop is strong relative to earlier years. Export demand is weak because of strong competition in world markets from cheap wheat. Both wheat and corn can be used as animal feed, and the corn market suffers when wheat is plentiful and prices low.

SUMMARY TABLE 2. SUMMARY OF PROJECTED SUPPLY AND USE OF MAJOR SUPPORTED COMMODITIES (By crop year)

	1990	1991	1992	1993	1994	1995	1996
Corn (Millions of bushels)							
Production	7,933	8,321	8,347	8,555	8,669	8,822	8,936
Exports	1,801	2,051	2,220	2,339	2,414	2,475	2,501
Total Use	7,961	8,086	8,307	8,513	8,653	8,823	8,925
Ending Stocks	1,318	1,555	1,597	1,641	1,659	1,661	1,674
Price (Dollars per bushel)	2.30	2.26	2.24	2.24	2.27	2.30	2.31
Wheat (Millions of bushels)							
Production	2,739	2,247	2,279	2,286	2,352	2,371	2,494
Exports	985	1,014	1,112	1,179	1,226	1,294	1,359
Total Use	2,251	2,272	2,308	2,354	2,396	2,463	2,542
Ending Stocks	1,045	1,041	1,034	989	967	898	872
Price (Dollars per bushel)	2.60	2.54	2.63	2.74	2.83	2.93	3.00
Rice (Millions of cwt)							
Production	154.9	162.1	169.2	166.0	172.6	174.3	181.0
Exports	73.0	73.3	74.1	74.6	75.1	75.5	76.0
Total Use	162.0	165.3	169.2	173.4	177.4	181.6	186.5
Ending Stocks	24.1	26.2	31.9	30.9	32.8	32.8	35.1
Price (Dollars per cwt)	6.75	6.90	6.75	6.80	6.80	6.80	6.80
Cotton (Millions of bales)							
Production	15.25	16.63	14.67	15.20	15.42	15.67	15.91
Exports	7.03	6.40	6.28	6.30	6.40	6.53	6.62
Total Use	15.48	14.91	14.87	15.10	15.40	15.76	15.96
Ending Stocks	2.67	4.49	4.39	4.59	4.71	4.73	4.78
Price (Dollars per pound)[a]	0.678	b	b	b	b	b	b
Soybeans (Millions of bushels)							
Production	1,922	1,936	1,978	2,008	2,027	2,047	2,076
Exports	578	638	660	670	685	702	721
Total Use	1,853	1,942	1,987	2,006	2,030	2,057	2,087
Ending Stocks	309	305	298	302	300	292	284
Price (Dollars per bushel)	5.66	5.54	5.70	5.94	6.01	6.09	6.16
Dairy Products (Billions of pounds)							
Production	147.2	150.7	153.5	155.4	157.1	159.3	162.0
Commercial Use	139.8	142.3	145.8	149.3	150.3	152.7	155.4
CCC Removals[c]	8.0	8.1	8.1	7.5	7.3	7.0	7.0
Price Support (Dollars per cwt)	10.10	10.10	10.10	10.10	10.10	10.10	10.10

SOURCES: Actual data from Department of Agriculture; projections from Congressional Budget Office's February 1991 baseline.

NOTE: cwt = hundredweight.

a. Price for 1990 is the weighted average based on marketings during the first eight months of the crop year; not a projection for 1990.

b. Government agencies are prohibited from publishing cotton price projections.

c. Removals refer to net government purchases of dairy products (milk equivalents on a milkfat basis) for the purpose of supporting the farm price of milk.

The longer-term outlook for corn calls for continued balance between supply and demand with little change in ending corn stock levels. Farm-level prices of corn on a marketing year basis are expected to remain in the $2.25 per bushel to $2.30 per bushel range during the entire projection period.

Soybeans

The soybean market, and government spending for the soybean program, could be affected by policy changes made in 1990. The 1990 farm bill created a marketing loan for soybeans. This program will allow soybean growers to obtain a nonrecourse loan from the CCC and repay the loan at the lower of the loan rate or the market price. The loan rate set by the legislation is $5.02 per bushel. If the market price fell to $4.75, for example, a soybean grower could repay the loan at the market price rather than $5.02.

The planting flexibility provisions enacted during 1990 could also affect the soybean market in significant ways. Because of the flexibility provisions, participants in the programs for the other supported commodities will have an incentive to plant the crop with the greatest expected market return on 15 percent of their eligible acres. Soybeans are expected to be a profitable alternative for many producers. This increased production of soybeans puts downward pressure on soybean prices. However, expectations of increased supplies and lower prices will tend to moderate increases in soybean plantings. As a result, even though soybean prices are expected to fall during the 1991 marketing year (which begins September 1991) from year-ago levels, they are projected to stay well above the $5.02 nonrecourse loan rate on a season average basis during the projection period.

Rice

The Department of Agriculture has announced a significant cut in the acreage reduction program requirement for rice program participants--from 20 percent of base acreage for the 1990 crop to 5 percent for the 1991 crop. Production of rice is projected to rise as the land idling

requirement falls. However, the flexibility provisions of the new law are expected to cause some rice producers to shift to other crops on that portion of their land that does not qualify for deficiency payments. This effect of the law, together with possible problems with water supplies in California, is expected to limit the increase in planting. Export demand for U.S. rice has been depressed and is expected to remain so for several years, partly as a result of the loss of the Iraqi market. The price of rice, expected to be about $6.75 per hundredweight during the current marketing year, is projected to remain under $7.00 per hundredweight through 1996, the end of the projection period.

Cotton

Demand for cotton is expected to remain strong, at least in the near term. Mill use of cotton, both domestically and internationally, is at high levels. Strong demand has cut cotton stocks by more than half, from 7.0 million bales at the end of the 1988 marketing year to a projected 2.7 million bales at the end of the 1990 marketing year (July 1991). Cotton prices have remained relatively strong because of the high level of demand. The average price was $0.64 per pound in the 1989 marketing year, compared with $0.57 per pound during the 1988 marketing year, and has been several cents per pound higher so far in 1990. Prices are projected to remain below recent highs during the remainder of the projection period.

Dairy Products

The government's support price for dairy products is projected to remain at the new legislative minimum of $10.10 per hundredweight through 1996. Fiscal year 1990 was a period of very low surplus production, with the consequence that dairy price support purchases were low, and hence CCC spending for the dairy program was the lowest since 1979. In the CBO baseline, production is projected to remain substantially above use in all years through 1996. Prices received by farmers, which had reached a record level of $13.78 per hundredweight during 1990, are projected to stay less than $11.50 per hundredweight during the projection period.

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CHAPTER I

THE CONGRESSIONAL BUDGET OFFICE BASELINE FOR COMMODITY CREDIT CORPORATION OUTLAYS

The federal government assists the agriculture sector through programs that support prices of farm products and incomes of farmers and that subsidize crop insurance and agricultural credit. The price and income support programs administered by the Department of Agriculture's Commodity Credit Corporation (CCC) account for the bulk of federal support. In recent years, more than 90 percent of total spending in budget function 350, which contains most farm programs, has been for price and income supports. The major mechanisms by which farm prices and incomes are supported are described in Box 1. Additional definitions of special terms associated with the farm programs can be found in the Glossary.

The baseline projections of spending for CCC programs presented in this report assume that current laws governing commodity programs will continue through 1996. These laws may change in coming years. Legislation implementing an agreement reached in the current General Agreement on Tariffs and Trade (GATT) talks, for example, could alter the farm law during the next several years. Largely because of this policy uncertainty, the baseline should not be looked upon as a forecast of future expenditures, but rather as a yardstick that can be used by the Congress to measure the effects of proposed changes in policy.

According to the baseline projections, commodity program costs will increase to $10.2 billion in 1991 from the drought-reduced level of $6.4 billion in 1990. (Outlays in 1990 were also artificially reduced by $850 million in deficiency payments that were shifted into 1989 out of 1990.) Projected outlays rise to $11.1 billion in 1992, declining

BOX 1
MAJOR FARM PROGRAM TOOLS

Deficiency Payments. Deficiency payments are direct federal payments to producers participating in CCC programs for feed grains, wheat, rice, and cotton. Deficiency payments are generally calculated as the difference between a crop's target price (specified in the law) and the higher of the market price or the nonrecourse loan rate, and are paid on the basis of the producer's program yield multiplied by the number of acres of the crop that are eligible for payments. Program yield is now set for each farm, based on an average of past yields; the number of acres planted to the crop is typically constrained by other components of the program. Deficiency payments are direct income supplements. CCC programs normally require some land to be taken out of production without payment. Thus, some portion of deficiency payments may be regarded as compensation for agreeing to reduce production. In addition, the 1990 legislation reduced the maximum number of acres eligible for deficiency payments (payment acres) by 15 percent of base acreage, land that would normally be planted to the program crop. These unpaid flexible acres may be planted to the program crop or an alternative crop but are not eligible to receive deficiency payments.

Market Price Supports. Nonrecourse loans are used to provide a floor for market prices in the feed grains and wheat programs. Participating producers may pledge all or part of their crop as collateral for a CCC loan. The gross amount of the loan equals the amount of the crop pledged multiplied by the nonrecourse loan rate, which varies by crop and by year. Nonrecourse loans support the market price at or around the nonrecourse loan rate because producers have the option of forfeiting the loan collateral to the CCC if the market price is not high enough to make it profitable for them to repay the loan and sell the crop. Producers benefit from nonrecourse loans because they are assured a minimum price for their crop, they receive credit at subsidized rates, and these loans allow them to market their crops at the most profitable time.

Direct government purchases are also used to support market prices, notably in the case of dairy products. Direct purchases may be made in other crops, but for most the nonrecourse loan is the primary form of price support. Forfeitures of nonrecourse loans have effects on market prices that are very much like those of direct purchases.

Marketing Loans. Producers in the oilseeds, cotton, rice, and honey marketing loan programs may repay their nonrecourse loans at per-unit rates based on world market prices (which may be less than the nonrecourse loan rates at which the loans were issued). Marketing loans allow market prices to be determined by world supply and demand conditions rather than

by domestic nonrecourse loan rates, making these commodities more competitive on world markets. The per-unit benefit to farmers--the difference between the nonrecourse loan rate and the loan repayment rate--is similar to a deficiency payment rate. However, total marketing loan benefits are unlike deficiency payments in that they can be received on a producer's total production rather than on a portion.

Acreage Provisions. The commodity programs now contain several types of acreage provisions: acreage reduction requirements, unpaid flexible acreage, and acreage in the long-term acreage retirement program. Typically, participants in the commodity programs must reduce their plantings by devoting some portion of their acreage to a conserving use rather than planting it to the program crop. The purpose of the Acreage Reduction Program is to limit production, support market prices, and cut government costs.

The reduced payment acre/increased flexibility provision of the 1990 legislation does not necessarily remove acreage from production, but does eliminate deficiency payments on those acres. Starting with the 1991 crops, 15 percent of a farm's acreage base will not be eligible for deficiency payments regardless of what crop is planted on it. If there is no GATT agreement, however, the Secretary may eliminate this requirement. The purpose of the flexibility provision is to reduce spending, allow farmers to respond to market signals more easily, and encourage environmentally beneficial crop rotations.

The amount of land subject to acreage reduction programs is determined annually. Another program, the Conservation Reserve Program, is a long-term acreage retirement program that pursues resource conservation goals but also has effects on production that are similar to those of the annual programs.

Export Subsidies. The Export Enhancement Program, which began in 1985 to provide reduced prices to targeted foreign markets, has mostly been used to increase wheat exports. The Export Credit Guarantee Program provides favorable credit terms by guaranteeing repayment of commercial loans made to importing nations. In addition to specific export promotion programs, the marketing loan programs in cotton and rice and the reductions in nonrecourse loan rates, all included in the Food Security Act of 1985, have made U.S. commodities more competitive on world markets.

Other Programs. Other CCC activities also affect market prices and producers' returns. The Farmer-Owned Grain Reserve Program pays farmers for storing wheat or feed grains. The farmer-owned reserve was designed to stabilize prices; under 1990 legislative provisions, grain in the reserve can be sold anytime. Farmers receive quarterly payments in exchange for storing grain for up to three years.

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SOURCES: Actual data from Department of Agriculture; projections from Congressional Budget Office's February 1991 baseline.

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a. Includes peanuts, tobacco, honey, sugar, and dairy products.

thereafter to $8.6 billion in 1996. Additional details about CCC outlays during this period are contained in Table 1.[1]

CCC program spending depends on eligibility and benefit levels determined by the law and can rise or fall from year to year depending

1. Cash outlays for the export credit guarantee program are included in the CCC baseline through 1991 only. Beginning in 1992, the credit reform provisions of the Budget Enforcement Act require that separate accounts be created for programs offering direct loans and loan guarantees.

on how the law is implemented by the Administration, on supply and demand conditions in commodity markets, and on decisions made by eligible farmers concerning participation in the programs. This report provides detailed information on the assumptions made by CBO concerning program administration and market conditions in constructing the five-year budget baseline.

ASSUMPTIONS ABOUT PRICE AND INCOME SUPPORT POLICY

The statutes affecting farm programs through 1995 were amended by the Food, Agriculture, Conservation, and Trade Act of 1990, referred to here as the 1990 farm bill, by Title I of the Omnibus Budget Reconciliation Act of 1990, and by the Rural Development, Agriculture and Related Agencies Appropriations Act, 1991, all enacted late in 1990. In general, provisions of the 1990 farm bill affecting commodity programs extended the expiring 1985 farm bill with relatively few major changes. Provisions in the budget reconciliation act affecting farm programs, however, did significantly change the programs and the expected spending levels, while the 1991 appropriations act limited 1991 funding for CCC's Export Enhancement Program.

The farm program changes in the reconciliation act were made to reduce farm program spending as part of the comprehensive budget agreement that reduced the projected federal deficit by nearly $500 billion over the 1991-1995 period. The effects on CCC outlays of specific changes in the farm law enacted last year are discussed in Chapter II. The remainder of this section describes aspects of the current law that affect CCC outlays and CBO's assumptions about how the law is implemented.

Target Prices

Target prices are established in the law for corn and other feed grains, wheat, cotton, and rice. Target prices directly influence outlays through their effect on deficiency payments (see Box 2 for a discussion of deficiency payments). The 1990 farm bill sets target prices for the

1991-1995 crop years at the levels in effect for the 1990 cropssee Table 2). Target prices had been declining by about 3 percent per year in the final years of the 1985 farm bill.

Reduced Payment Acres and Increased Planting Flexibility

Producers receive deficiency payments for a specific amount of production determined by multiplying their program yield--a figure set for each farm based on historic yields--and the number of acres for which they are eligible to receive payments. The land area eligible for payments is referred to as payment acres. In past years, the maximum number of payment acres was calculated as the producer's crop acreage base less that amount of land required to be idled to comply with an acreage reduction requirement, which was set each year. Beginning with the 1991 crops, an additional 15 percent of the acreage base of program participants will not be eligible for deficiency payments.[2]

This change in the law reduces deficiency payments but also provides producers with greater flexibility in their planting decisions.[3] Now producers can plant crops other than the program crop on this unpaid portion of the crop acreage base (referred to as unpaid flexible acres) and retain credit for their entire crop acreage base, which is needed to qualify for future program benefits. Under the previous law, producers could lose crop acreage base if they failed to plant the program crop on their entire base less that idled to comply with an acreage reduction requirement.

Producers have additional flexibility to plant up to another 10 percent of their base to certain crops other than the program crop without losing base credit. However, they lose deficiency payments on this optional flexible acreage if they choose to plant a crop other than the program crop.

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2. The 1990 legislation allows 1991 crop winter wheat producers to avoid the reduction in payment acres if they choose to have their deficiency payments based on the season average price for wheat instead of the price during the first five months of the marketing year.

3. For a more complete treatment of this policy alternative, see Congressional Budget Office, *Farm Program Flexibility: An Analysis of the Triple Base Option* (December 1989).

BOX 2
CALCULATING DEFICIENCY PAYMENTS

Deficiency payments are direct federal payments that generally make up the difference between target prices, which are specified in the law, and market prices. The market prices used are national average market prices, so that a producer's local market price plus the deficiency payment rate could be more or less than the target price. Using average prices rather than those received by the individual farmer preserves individual incentives to market the crop for the highest possible price.

In calculating deficiency payments, program production--calculated by multiplying the program yield, which is based on historical yields, by payment acres--a maximum of the acres permitted to be planted to the program crop after meeting acreage reduction requirements less unpaid flexible acres--is used rather than actual production. Program yield does not change with current production, so deficiency payments to an individual are unaffected by factors such as variations in production owing to poor weather, or the use of greater or lesser amounts of fertilizers or other inputs that enhance crop yields.

Deficiency payments for feed grains, wheat, and rice are calculated as the product of program production and the difference between the target price and the higher of the average market price during the first five months of the crop year or the basic (unadjusted) nonrecourse loan rate. In corn, for example, the 1991 crop target price is $2.75 per bushel and the basic loan rate (wheat and feed grain loan rates can be adjusted downward at the discretion of the Secretary of Agriculture) is $1.90 per bushel. The regular deficiency payment rate could be as much as $0.85 per bushel--the difference between the target price and the basic loan rate--if the five-month average market price is below the basic loan rate. The regular deficiency payment is subject to the payment limitation of $50,000 per person. For crop years 1994 and 1995, the average price over the entire crop year will be used to calculate deficiency payments for these crops.

Cotton deficiency payments are based on the difference between the target price and the higher of the calendar year market price or the nonrecourse loan rate. These payments, but not the benefits of the cotton and rice marketing loan programs, are subject to the $50,000 per person payment limitation. Benefits received under the cotton and rice marketing loan programs, however, are subject to the $75,000 payment limit.

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Changes in aggregate plantings of crops are expected with this new law as farmers must look to market returns rather than program returns on a greater portion of their cropland. The shifts in planting patterns that are assumed to occur because of these provisions are described in Chapter II.

TABLE 2. PROGRAM ASSUMPTIONS IN THE CBO BASELINE FOR THE COMMODITY CREDIT CORPORATION (By crop year)

	1991	1992	1993	1994	1995	1996
			Target Prices (Dollars per bushel)			
Corn	2.75	2.75	2.75	2.75	2.75	2.75
Wheat	4.00	4.00	4.00	4.00	4.00	4.00
Rice[a]	10.71	10.71	10.71	10.71	10.71	10.71
Cotton[b]	0.729	0.729	0.729	0.729	0.729	0.729
			Nonrecourse Loan Rates (Dollars per bushel)			
Corn	1.63	1.68	1.68	1.65	1.64	1.64
Wheat	2.04	2.04	2.05	1.95	1.85	1.88
Rice[a]	6.50	6.50	6.50	6.50	6.50	6.50
Cotton[b]	0.508	0.520	0.532	0.533	0.533	0.518
Soybeans	5.02	5.02	5.02	5.02	5.02	5.02
			Acreage Reduction Requirements (Percentage of base acreage)			
Feed Grains[c]	7.5	7.5	5.0	5.0	5.0	5.0
Wheat	15.0	12.5	12.5	10.0	10.0	5.0
Rice	5.0	7.5	10.0	7.5	7.5	5.0
Cotton	5.0	15.0	12.5	12.5	12.5	12.5

SOURCE: Congressional Budget Office's February 1991 projections.

a. In dollars per hundredweight.

b. In dollars per pound.

c. Baseline assumption in the Acreage Reduction Program (ARP) for corn, grain sorghum, and barley. The 1990 farm bill does not permit an ARP for oats.

Nonrecourse Loan Rates

Nonrecourse loans are available for all the principal program commodities--corn and other feed grains, wheat, cotton, and rice--as well as soybeans and other oilseeds. The crop serves as collateral for the loan, which can be repaid with cash or, at the producer's option, can be satisfied by forfeiting the crop to the CCC. The amount of the loan is calculated by multiplying the loan rate by the amount of the crop pledged as collateral. The basic loan rate, expressed in dollars per bushel or pound, is set annually based on formulas established by law. The announced loan rate can differ from the basic loan rate because of adjustments by the Secretary of Agriculture.

The 1990 farm bill sets the basic loan rate for each of these crops at 85 percent of the five-year moving average of past market prices with the highest and lowest annual prices removed. The basic loan rate cannot fall by more than 5 percent from the previous year for all crops and can be no lower than $0.50 per pound for cotton and $6.50 per hundredweight for rice. For wheat and corn, the Secretary is given discretionary authority to reduce the basic loan rate by 10 percent if ending stocks are projected to exceed 30 percent of use for wheat and 25 percent for corn. The Secretary may reduce the basic loan rate by 5 percent if stocks are projected to be between 15 percent and 30 percent of use for wheat and 12.5 percent to 25 percent for corn. However, this downward adjustment may be limited by minimum loan rates of $2.44 per bushel for wheat and $1.76 per bushel for corn. Notwithstanding the statutory minimums, the Secretary is allowed to reduce wheat and corn loan rates an additional 10 percent if necessary to maintain international competitiveness. Loan rates for other feed grains, grain sorghum, barley, and oats, will continue to be set based on their feed value compared to corn. Table 2 shows the nonrecourse loan rates assumed in the baseline for the five major crops.

Marketing Loan Programs

The new farm law contains marketing loan programs for rice, cotton, and oilseeds. A marketing loan allows farmers to repay their nonrecourse loans at the farm-level equivalent of the world price for these

commodities rather than at the loan rate.[4] For example, if a loan for rice was taken out at $6.50 per hundredweight (cwt) in 1991 and the farm-level equivalent of the world price was $5.60 per cwt, the rice producer could repay the loan at $5.60 per cwt rather than $6.50 per cwt.

The rice marketing loan program is carried over unchanged from the 1985 farm bill. The new law changes some cotton marketing loan provisions, but they largely codify the Secretary of Agriculture's current operation of the program. The new law also requires cotton import quotas and payments to domestic users and exporters of cotton if U.S. cotton is deemed to be uncompetitive in world markets. Oilseeds did not have a mandatory marketing loan program under the 1985 farm bill. The new oilseed program raises the loan rate from $4.50 per bushel to $5.02 per bushel for soybeans, and establishes loan rates for sunflower seed, canola, rapeseed, safflower seed, flaxseed, and mustard seed at a level comparable with soybeans, but not less than 8.9 cents per pound. All participants in the oilseed marketing loan program will be charged an origination fee of 2 percent of the principal value of the loan.

The oilseed marketing loan was passed, at least in part, in response to the planting flexibility provisions. The principal effect of allowing more planting flexibility (and making a portion of each farmer's base ineligible for deficiency payments) is expected to be an increase in the number of acres devoted to producing oilseeds. The oilseed marketing loan provides oilseed producers with some protection from possible sharp price declines.

Annual Acreage Reduction Programs

Acreage reduction programs reduce production and thereby raise market prices by requiring participants to place land that would normally be in production into a conserving use. Generally, this means that a cover crop must be established on this land. Land in a conserving use

4. The farm-level equivalent of the world price deducts transportation and handling costs from the world price, which is estimated by the Department of Agriculture based on market prices at major export terminals.

cannot be used for haying or grazing except in unusual circumstances. The specific level assumed for each crop is shown in Table 2.

The Conservation Reserve Program

The 1990 farm bill extends until 1995 the requirement, first stated in the 1985 farm bill, that a minimum of 40 million acres of highly erodible land be placed in the long-term Conservation Reserve Program. The new bill broadens the definition of eligible land to allow shelter belts, windbreaks, marginal pasture land planted to trees, and other environmentally sensitive land including wetlands to be enrolled in the program. Under the 1985 farm bill, land in the Conservation Reserve was placed in a conserving use for 10 years. The new bill allows a contract length of 10 to 15 years for land placed in a conserving use and longer periods for land devoted to trees. Farmers offer to enroll land in the reserve in return for a rental payment. The Department of Agriculture decides which bids to accept based on budget constraints and local rental markets. Current enrollment in the program is 33.9 million acres. The baseline assumes that 40 million acres, including about 1 million acres of wetland easements, will ultimately be enrolled in the program.

Some of the land enrolled in the Conservation Reserve was formerly crop acreage base that would have been planted to the program crop and eligible for deficiency payments and other program benefits. Having this land out of production would raise crop prices and reduce deficiency payments if other aspects of the programs were unchanged. However, the requirements of the annual unpaid acreage reduction programs are undoubtedly far lower than they would have been had there been no Conservation Reserve Program. Government costs are increased to the extent that paid retirement of land in the conservation reserve substitutes for the unpaid land idled to satisfy the acreage reduction requirement. CCC outlays are not directly affected by this substitution, however, because outlays for the Conservation Reserve Program are accounted for separately (in function 300 of the budget, Natural Resources and the Environment).

Stocks Owned and Financed by the Federal Government

The government holds stocks of agricultural commodities as part of the regular CCC program, acquiring them through dairy product purchases or when nonrecourse loans are forfeited rather than repaid and disposing of them through donations, cash sales, or exchanges for generic commodity certificates. The Department of Agriculture is required to hold 147 million bushels of wheat in the Food Security Wheat Reserve to the extent government stocks are available or funds have been appropriated to purchase grain. Aside from these required reserves, government-owned stocks are relatively low. Droughts during the 1988 and 1989 seasons allowed large reductions in government-held stocks.

The CCC also encourages farmers to hold stocks by paying them to store grain in the Farmer-Owned Reserve Program. The Secretary of Agriculture must allow grain to enter the reserve if total stocks exceed trigger levels set in the law *and* prices fall below specified levels. The Secretary *may* open the reserve if either the stock trigger or the price trigger is tripped.

The Secretary of Agriculture announced in December 1990 that up to 300 million bushels of wheat from the 1990 crop could enter the reserve. The CBO baseline assumes that the reserve would remain open for wheat from the 1991 crop to reach the target. CBO further assumes that the reserve would not be open for any other commodity during the 1991-1996 period.

Minor Crop Programs and Other Expense Categories

Expenditures for minor crop programs and other expenses account for an average of approximately 25 percent of projected outlays during the 1991-1996 period. These include programs for commodities such as tobacco, peanuts, sugar, and honey; export credit programs; storage facility loans; operating expenses and changes in working capital at the CCC; cash redemption of commodity certificates; and net CCC interest payments to the Treasury. The bulk of the expenditures in this

category are accounted for by CCC operating expenses, net interest payments, and cash redemptions of commodity certificates.

As part of the budget reconciliation act, producers and processors of tobacco, sugar, peanuts, and honey will be assessed a fee equal to 1 percent of sales valued at the loan rate for these crops.

Operating expenses include salaries and other expenses incurred by the Agricultural Stabilization and Conservation Service in CCC program operation. Estimated outlays for CCC operating expenses average about $750 million per year during the 1992-1996 period.

The CCC makes interest payments on money borrowed from the Treasury to finance commodity program activities. It has authority to borrow up to $30 billion from the Treasury, and pays interest at the government's average cost of borrowing. Past and anticipated losses on CCC operations are covered by annual appropriations, which are typically used to retire outstanding debt. Funding needs during the year are met by borrowing additional funds from the Treasury. These interest payments made by the CCC to the Treasury--about $1 billion annually--are intragovernmental transfers and do not affect the size of the federal deficit.

The CCC also receives interest payments, principally on nonrecourse loans made to farmers. The interest rate charged can change monthly and is based on the CCC's cost of borrowing from the Treasury, which follows the one-year Treasury bill rate. The estimated rate for fiscal 1991 is about 7.4 percent. The difference between interest paid to the Treasury and interest received from farmers is the CCC's net interest cost. Net interest expense is projected to be $681 million in 1991, rising to $803 million in 1992, and then falling to $700 million by 1996.

Cash redemptions of commodity certificates are projected to average about $500 million per year during the 1992-1996 period. All of them are expected to be issued as part of the Export Enhancement Program. Hitherto, the CCC has required that these certificates be used only to acquire commodities, and cash redemptions have not been allowed. Given the expected low level of government stocks during the

next five years, however, cash redemptions may be the only way of redeeming the certificates. The baseline assumes that cash redemptions will be allowed.

ECONOMIC ASSUMPTIONS UNDERLYING THE BASELINE

Agriculture depends both on the other sectors of the economy and on world market conditions. The performance of the national economy affects the prices farmers pay for purchased inputs and the demand for their products. International conditions affect the sector because of its reliance on world markets: roughly one-quarter of U.S. agricultural production, in value terms, was exported during the 1980-1988 period. For the program commodities, the percentage exported was often higher--slightly more than two-thirds by value of wheat produced in 1980-1988, for example.

The U.S. economy slipped into a recession during the second half of 1990. CBO expects this recession to be short and mild relative to other postwar recessions.[5] The economy is expected to begin expanding again during 1991. CBO forecasts that real gross national product will increase by 1.3 percent from the fourth quarter of 1990 to the fourth quarter of 1991, and 3.4 percent from fourth quarter 1991 to fourth quarter 1992. Real growth in later years is projected to be somewhat slower, averaging 2.8 percent.

The baseline assumes no changes in other nations' agricultural or trade policies that would cause significant changes in world prices or shifts in foreign demand for U.S. commodities, other than those required by the U.S-Canada free trade agreement or other previous trade agreements. While such changes could result from the ongoing negotiations in GATT, ratification and implementation remain uncertain. Further, any eventual acceptance of an agreement could take several years to implement. Also, the economic integration of Western Europe may eventually cause changes in European farm policy, but it is cur-

5. For detail on CBO's economic outlook see Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1992-1996* (January 1991).

rently impossible to predict what they might be. Farm policy changes might also result from a future U.S.-Mexico trade agreement.

ASSUMPTIONS AFFECTING YIELDS

Crop yields vary significantly from year to year, depending mostly on the weather. The past several years have shown how great the effects of weather can be. However, CBO assumes that national average crop yields will not be affected by extreme weather conditions during the projection period. This assumption is made because there is no acceptable way to forecast the actual variation in weather patterns.

Assuming that weather patterns will not affect national average yields is not the same as assuming that every region of the country or each farmer will experience average weather during the projection period. During any year, variation in weather patterns among regions is normal and to be expected. Regional or localized droughts are not necessarily inconsistent with the assumptions underlying the baseline.

In addition to annual variation, crop yields have historically increased over time in response to improved management practices, the development and adoption of higher-yielding varieties, advances in farm machinery, and greater use of chemical inputs. Between 1977 and 1990, corn yields increased at an average of 2.1 percent per year; they are assumed to increase at an average of 1.3 percent per year during the 1991-1996 period. For most other crops, yields during the projection period are expected to increase at a slightly lower rate, about 1 percent per year. Milk production per cow is assumed to increase at 2.4 percent per year during the projection period, roughly in line with recent experience.

CHANGES IN THE BASELINE PROJECTIONS SINCE JUNE 1990

Table 3 shows the changes that have been made since June 1990, when CBO last issued its baseline for CCC program outlays. The net effect on projected outlays over the entire period is deceptively small--a

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decline of only $265 million. However, the changes are large in some years and there are substantial offsetting reestimates within some years. The reasons for the reestimates are described below.

Program Changes Caused by Legislation

Legislation affecting CCC programs enacted since June 1990 causes projected CCC outlays to be nearly $4.4 billion lower over the 1991-1995 period than they otherwise would have been. These estimates of effects of provisions affecting commodity programs in the farm bill, the reconciliation act, and the 1991 agricultural appropriations act are based on current conditions in the commodity markets. The estimated outlay savings from changes included in the reconcilia-

TABLE 3. CHANGES IN CBO PROJECTIONS FOR THE COMMODITY CREDIT CORPORATION SINCE JUNE 1990 (By fiscal year, in millions of dollars)

	1991	1992	1993	1994	1995	1991-1995
June 1990 Baseline	8,462	11,231	10,625	10,041	9,360	49,720
Changes						
Program changes caused by legislation	-526	-256	-908	-1,154	-1553	-4,397
Technical reestimates						
Export credit guarantees	1,083	574	380	140	178	2,355
Market conditions	900	-277	-323	62	661	1,023
Interest payments to Treasury	193	341	449	440	376	1,798
Other	100	188	144	111	167	710
Accounting changes caused by credit reform	0	-712	-488	-257	-297	-1,754
Total Changes	1,750	-143	-746	-659	-467	-265
February 1991 Baseline	10,212	11,088	9,879	9,383	8,892	49,454

SOURCE: Congressional Budget Office's February 1991 projections.

tion act are substantially lower than estimates that were issued at the time the legislation was being considered by the Congress. Chapter II contains a detailed discussion of the new estimates and how changes in market conditions have caused them to differ from the original estimates.

Technical Reestimates

CCC projections have changed significantly since June 1990 because of changes in market conditions and other technical reasons. The major technical reestimates are discussed below.

Export Credit Guarantees. Projections of CCC outlays would have risen substantially since June 1990, had the accounting changes mandated by credit reform not taken place. (These changes are discussed in the next section and in Box 3.) The projected cost of defaults under this cash accounting system rose sharply when Iraq defaulted on nearly $2.0 billion of commodity loans and interest due over several years following the imposition of trade sanctions in August 1990. These defaults are expected to increase guarantee claims paid to U.S. banks by about $1.1 billion in 1991, $0.6 billion in 1992, and $0.3 billion in 1993. The current baseline assumes that none of this money would be repaid during the projection period. Projected defaults were also reestimated upward because loan guarantees are being extended to the Soviet Union, which is assumed to have a higher than average risk of default.

Market Conditions. Outlays are currently projected to be about $0.9 billion higher in 1991 and $1.0 billion higher over the 1991-1995 period than was projected in June of 1990 because of changes in the commodity market situation for supported crops. The biggest change has occurred in the wheat market where bumper harvests around the world in 1990 and fierce competition among exporting countries for foreign sales have sharply reduced market prices. As a result, CBO estimates that government deficiency payments to wheat producers will be significantly higher in 1991 than was expected earlier.

BOX 3
CCC EXPORT CREDIT GUARANTEES UNDER CREDIT REFORM

The CCC Export Credit Guarantee Program provides guarantees for intermediate-term export credits, mostly up to three years, extended by banks to foreign buyers of U.S. agricultural products. The guarantee covers 98 percent of the principal loaned and part of the interest rate. This program helps promote or maintain export markets, and its cost depends on the level and timing of loan defaults and subsequent repayments. Defaulted loans become direct loans of the U.S. government. Payments on defaulted loans are generally rescheduled by allowing repayment over an extended period. Legislation is required to forgive debts of specific countries.

The accounting for outlays associated with the program was changed by credit reform. This change was mandated by the Budget Enforcement Act of 1990. Credit reform requires that, starting in fiscal 1992, accounts containing credit activity be separated and that the costs of new loans be expressed on a subsidy basis. Previously, costs were expressed on a simple cash flow basis; in the case of CCC export guarantees, they were intermingled with the much larger CCC account. Outlays associated with the program are shown and explained below:

CCC EXPORT GUARANTEES IN THE CBO FEBRUARY 1991 BASELINE
(By fiscal year, in millions of dollars)

	1992	1993	1994	1995	1996
Liquidating Account	759	536	95	-3	-93
Subsidy Account	97	97	95	94	93

Interest Payments to the Treasury. A technical reestimate of the interest payments made by the CCC to the Treasury adds $1.8 billion to the projections over the 1991-1995 period. These payments are intergovernmental transfers--an outlay of the CCC but a receipt for the Treasury--and, as such, have no effect on the federal budget deficit.

Under current law, CCC finances its activities with annual appropriations and authority to borrow up to $30 billion from the

Liquidating Account. Any activity associated with guarantees extended by the end of fiscal 1991 is carried in a liquidating account, which continues to depict annual cash flows as in previous baselines. Such cash flows include guarantee fees generated in the year a guarantee is provided, defaults, and repayments of defaulted loans expected to be made. The bulk of the outlays in 1992 and 1993 is expected defaults of payments of principal and interest due from Iraq for credit extended in recent years.

Subsidy Account. Costs of loan guarantees in 1992 and later years are now estimated on the basis of the net present value cost of the guarantee, known as the subsidy. Thus, the value of all financial flows related to export credit guarantees made in 1992 is discounted to yield a net present value of the life-time estimated cost of the program, and that subsidy estimate is charged in 1992. Such a subsidy is calculated for each year after 1992 in the baseline.

Several assumptions underlie the net present value estimate, but the key ones are the default rate, the percentage of defaulted loans ultimately repaid, the time span for all activity, and the discount rate. The first variable depends heavily on the countries receiving the guarantees for a given year and their default probabilities. However, all the variables are dependent on unknown future financial and political situations. Not only is it difficult to forecast which guarantees will be likely to default in the next three years, but it is even more difficult to forecast the time stream of eventual repayments. The longer the delay before repayment, the higher the cost at a given discount rate. Baseline subsidy estimates of approximately $100 million (associated with $5.7 billion in annual guarantees) assume low default rates and eventual repayment of part of the defaulted amounts and accumulated interest. Debt forgiveness is not assumed, as it requires new legislation by the Congress.

Treasury. The upward reestimate in interest payments is mainly because CCC borrowing from the Treasury is expected to be higher than was projected earlier. The 1991 appropriations act provided CCC with less money than was requested by the President and assumed in the June 1990 baseline, and CCC non-interest outlays for 1991 are significantly higher than projected earlier. The baseline assumes that larger 1991 borrowings result in larger debt to the Treasury throughout the baseline projection period.

Other Technical Reestimates. CCC outlays are about $0.7 billion higher over the 1991-1995 period mainly because of higher administrative expenses for the Agricultural Conservation and Stabilization Service (ASCS), which operates the farm programs. ASCS costs are expected to rise to implement and manage various program changes required in the 1990 legislation.

Accounting Changes Caused by Credit Reform

The credit reform provisions of the Budget Enforcement Act (Title XIII of the reconciliation act) create separate budget accounts for programs offering direct loans and loan guarantees beginning in the 1992 fiscal year. CCC credit activity includes nonrecourse loans offered as part of CCC price support activities and export credit guarantees. The nonrecourse loan programs are exempt from the new requirements and their budgetary effects will continue to be contained in the CCC totals. However, the budgetary effects of CCC's export credit guarantee programs will no longer be part of the CCC accounts, reducing the CCC outlays projections by nearly $1.8 billion over the 1992-1995 period, compared with what they would have been had the former accounting practices been maintained. Box 3 discusses how costs of the export credit guarantee program will be treated under credit reform.

THE ADMINISTRATION'S CURRENT SERVICES ESTIMATES

The Administration's current services baseline for CCC spending is compared with the CBO baseline in Table 4. The Administration's baseline is modestly higher than the CBO baseline in 1991, but significantly below the CBO baseline in subsequent years.

The most notable differences between the Administration and CBO are assumptions about change in working capital, market conditions, and cash redemptions of generic certificates. Working capital change is used to balance outlays reported by the Treasury with apparent outlays stemming from individual program activities. Historically, working capital change has sometimes been positive and sometimes negative, but has averaged close to zero. Accordingly, CBO does not include working capital change in its projections. The Adminis-

TABLE 4. COMPARISON OF ADMINISTRATION CURRENT SERVICES AND CBO BASELINE PROJECTIONS FOR THE COMMODITY CREDIT CORPORATION (By fiscal year, in millions of dollars)

	1991	1992	1993	1994	1995	1995
Current Services[a]	10,669	9,696	9,241	8,670	7,370	8,007
Differences						
Market factors	223	1,147	471	652	1,496	591
Cash redemption of generic certificates	114	625	545	460	475	475
Working capital change	-669	-947	-1,000	-1,000	-1,000	-1,000
Interest payments to Treasury	-21	260	331	287	296	290
Other	-104	307	291	314	256	255
Total Differences[b]	-457	1,392	638	713	1,522	611
CBO Baseline	10,212	11,088	9,879	9,383	8,892	8,618

SOURCES: Congressional Budget Office's February 1991 projections; Office of Management and Budget, *Budget of the United States Government, Fiscal Year 1992.*

a. Excludes wool program outlays.

b. CBO February baseline less current services.

tration, in contrast, assumes about $0.7 billion in 1991, $0.95 billion in 1992, and $1.0 billion in each of the later years.

The Administration projects that spending in the commodity programs will be lower, on average, by about $0.8 billion per year mainly because it projects higher market prices for corn and other feed grains. The Administration's outlays are also lower by about $0.5 billion per year over the 1992-1996 period because, unlike CBO, the Administration assumes no cash redemptions of generic commodity certificates. It is unclear what the Administration assumes regarding certificate redemptions because excess government-owned grain stocks, that would otherwise be exchanged for certificates, are very small. Finally, the Administration projects smaller CCC interest payments to the Treasury than does CBO because it expects significantly lower outlays over the 1992-1996 period.

CHAPTER II

THE BUDGETARY EFFECTS OF THE 1990 FARM PROGRAM LEGISLATION

Three laws enacted in November 1990 affect the price and income support programs of the Commodity Credit Corporation (CCC). These are the Food, Agriculture, Conservation, and Trade Act of 1990 (the 1990 farm bill), Title I of the Omnibus Budget Reconciliation Act of 1990, and the Rural Development, Agriculture, and Related Agencies Appropriations Act, 1991.

CBO provided the Congress with estimates of the budgetary impacts of these new laws when conference committee action was completed during the fall of 1990. At that time, CBO was required to use its summer 1990 baseline to measure such impacts. At the request of the participants in the 1990 budget summit negotiations, CBO released its summer baseline early in June 1990, several months earlier than usual. The commodity market supply and demand assumptions underlying the CCC spending projections were based on information available in May 1990. Relative to the assumptions underlying that baseline, CBO estimated the 1990 legislation would reduce CCC spending by about $10.6 billion over the 1991-1995 period compared with expected spending if the expiring provisions of the Food Security Act of 1985 had been extended.

However, by the time the legislation took final form in the fall of 1990, it became clear that the real budget savings would be significantly smaller than those estimated relative to the June 1990 baseline assumptions. During the summer of 1990, changes in the commodity market situation began to make some baseline assumptions obsolete, particularly those with respect to the wheat and corn markets. These changes made the budget savings associated with certain provisions affecting those markets unlikely to be achieved. In addition, the final form of the legislation included language designed to limit the discretionary authority of the Secretary of Agriculture to reduce the size

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of acreage reduction programs, but only under certain market conditions. This language would have limited the Secretary's discretion and increased budget savings if the market conditions projected in the June 1990 baseline had actually occurred, but not against the market situation that had emerged by the time the legislation was passed. As a result, CBO was forced to make an estimating assumption that generated artificially high budget savings because it was tied to old baseline assumptions.

CBO has reestimated the budgetary effects based on market assumptions developed in November and December of 1990 in order to provide a more accurate assessment of the new legislation. Relative to these updated market assumptions, CBO estimates that the legislative changes would reduce CCC spending by $4.4 billion over the 1991-1995 period. The first section of the chapter describes the new estimates for the major changes in farm program legislation. The second section discusses why the new estimates differ from the original ones.

MAJOR LEGISLATIVE CHANGES THAT AFFECT CCC SPENDING

The 1990 legislation made a large number of changes in farm programs, but only a few of them are expected to result in significantly different spending. This section briefly describes those major legislative changes and their estimated budgetary effects (see Table 5).

Reduced Payment Acres and Increased Planting Flexibility

The reconciliation act requires that 15 percent of the base acreage of program participants that previously was eligible for deficiency payments no longer be eligible for payments beginning with the 1991 crops. Producers are allowed to plant crops other than the program crop on this unpaid portion of the crop acreage base (termed unpaid flexible acres) and retain credit for their entire crop acreage base to qualify for future program benefits. The budgetary effects of the reduced payment acre provision depends on how farmers adjust their planting decisions on the unpaid flexible acres and how the Secretary

of Agriculture responds to anticipated acreage shifts by changing the size of acreage reduction requirements for the program crops. (For definitions of the italicized terms, see the Glossary.)

What farmers decide to plant on unpaid flexible acres will depend largely on the relative market returns associated with alternative

TABLE 5. CHANGES IN COMMODITY CREDIT CORPORATION SPENDING BECAUSE OF THE 1990 FARM PROGRAM LEGISLATION (By fiscal year, in millions of dollars)

	1991	1992	1993	1994	1995	1991-1995
Reduced Payment Acres and Increased Planting Flexibility	-386	-888	-1,108	-1,263	-1,392	-5,038
Change in the Market Price Used for Calculating Deficiency Payment Rates	0	0	0	-218	-537	-755
Minimum Milk Support Price and Assessments on Marketings	42	95	152	242	305	836
Increase in the Target Level of Stocks Used to Determine the Size of Cotton Acreage Reduction Requirements	27	192	40	82	79	420
Increase in Barley Deficiency Payments and Elimination of Authority for Acreage Reduction Programs for Oats	2	95	86	66	58	307
Assessments on Marketings of Sugar, Tobacco, Peanuts, and Honey	-10	-68	-71	-72	-74	-297
Other	-201	318	-7	10	9	129
Total	-526	-256	-908	-1,154	-1,553	-4,397

SOURCE: Congressional Budget Office's February 1991 projections.

crops. The largest shift is expected to be out of corn and into soybeans in the Corn Belt region where these crops are often grown on the same farm. Depending on relative market prices over the next five years, CBO projects that between 1.0 million acres and 2.5 million acres per year will move out of corn into soybeans. Lesser amounts of acreage are expected to shift out of other program crops--wheat, grain sorghum, barley, oats, and rice. Total shifts out of the program crops are projected to average between 3 million and 5 million acres per year. Some of these shifts will be from one program crop to another, but the remainder, perhaps 1 million to 2 million acres per year, will shift to non-program crops such as sunflowers, rapeseed, canola, and hay, or be left fallow.

This provision can in theory reduce government deficiency payments to farmers in two ways. First, payments will be reduced because fewer acres will be eligible to receive payments than would otherwise be the case. Second, because deficiency payments are based on the difference between target prices and market prices, payments can fall further if acreage shifts cause program crop production to fall and program crop market prices to rise. If the Secretary of Agriculture did not adjust the size of acreage reduction programs because of expected acreage shifts, then the budget savings associated with the reduced payment/increased flexibility provision would be quite large. Not only would acres eligible to receive deficiency payments fall but program crop prices would rise, causing deficiency payment rates to fall for all program participants. If, on the other hand, the Secretary reduces acreage reduction requirements to compensate for these acreage shifts, budget savings will be greatly reduced because program crop prices will not rise.

The Secretary of Agriculture has wide discretion to set the size of acreage reduction programs. Key factors guiding the Secretary's choice in recent years have been the desire to maintain market prices at levels that will not damage the international competitiveness of U.S. farm commodities and to allow enough production to guarantee adequate stocks. CBO does not see any compelling reason why introducing the reduced payment/increased flexibility provision should cause the Secretary to change the desired level of prices and stocks from what they would have been without the law change. As a result,

CBO assumes the Secretary will reduce acreage reduction requirements to compensate for anticipated acreage shifts out of the program crops. Under this assumption, the reduced payment acre provision reduces CCC outlays an estimated $5.04 billion over the 1991-1995 fiscal year period.

Change in the Market Price Used for Calculating Deficiency Payment Rates

Beginning with 1994 crops, the reconciliation act requires that wheat and feed grain deficiency payment rates be based on the difference between target prices and the lesser of (1) the season average price received by farmers for selling that crop; or (2) the price during the first five months of the marketing year plus $0.10 for wheat and $0.07 for feed grains. Currently, the five-month price is used in the payment rate formula.

This provision should reduce deficiency payment rates because the season average price is normally higher than the price during the first five months. Prices usually rise over the course of the marketing year to cover the cost of storing grain. However, this price pattern will not always occur because changing market conditions can cause the difference between the season average and five-month price to be less or more than what would be expected from storage costs alone. When such other factors are held constant, CBO estimates that the season average price will exceed the five-month price by about $0.10 per bushel in both wheat and feed grains. CBO estimates that this provision will reduce deficiency payments by about $755 million over fiscal years 1994 and 1995.

Minimum Milk Support Price and Assessments on Marketings

The government supports milk prices by buying milk products--cheese, butter, and nonfat dry milk--at established purchase prices. The dairy program under the 1985 farm bill required annual milk support price reductions of $0.50 per hundredweight (cwt) if CCC calendar year purchases of milk products were expected to exceed 5 billion pounds on a

milkfat milk equivalent basis. CBO estimates that continuation of the old law would have caused a reduction in the support price, which is now $10.10 per cwt, to $9.60 per cwt in January 1991, and to $9.10 in January 1992.

The 1990 farm bill prevented the downward adjustment in 1991 by setting a $10.10 per cwt minimum support price regardless of expected purchases. This provision is expected to encourage milk producers to increase production and to significantly increase the quantity of government purchases at higher prices compared with what would have occurred under the old law. This provision along with other minor changes in the dairy program are expected to increase outlays by about $1.65 billion over the 1991-1995 period. The reconciliation act requires that milk producers pay assessments on milk sales of 5 cents per cwt in calendar year 1991 and 11.25 cents per cwt during the 1992-1995 period. Producers who do not increase milk production from a year earlier will receive a refund of these assessments. However, if such refunds occur, assessments on other producers are to be increased to make up for any revenue shortfall. CBO estimates that assessment revenues will slightly exceed $0.8 billion over the 1991-1995 period. The net budgetary effect of these provisions will be to raise CCC oulays by over $0.8 billion during 1991 through 1995.

Increases in the Target Level of Stocks Used to Determine the Size of Cotton Acreage Reduction Requirements

The 1990 farm bill directs the Secretary to set the cotton acreage reduction requirement so as to cause cotton stocks to equal 30 percent of use. Currently, cotton stocks are quite small by historical standards because of strong foreign demand for U.S. cotton and because the government no longer owns cotton stocks. The CBO baseline assumes that demand for U.S. cotton will remain relatively strong over the next five years. Under the 1985 law, the stocks target was 4 million bales--only around 25 percent to 26 percent of expected use. As a result, CBO estimates that the Secretary will have to reduce the size of acreage reduction programs to increase cotton stocks enough to reach the new target. Smaller acreage reduction programs will increase stocks by raising production and lowering market prices, thereby reducing the

costs of holding inventory. However, smaller acreage reduction programs increase deficiency payments because acres eligible for payments increase and deficiency payment rates are higher with lower market prices. CBO estimates this provision will raise CCC outlays by slightly over $0.4 billion over the 1991-1995 period.

Increases in Deficiency Payments for Barley Producers and Elimination of Authority for Acreage Reduction Programs for Oats

The 1990 farm bill changed the market price concept used in the formula for computing deficiency payments for barley producers beginning with the 1991 crop. The act requires that these payments be calculated as the difference between the target price and the market price of barley sold for use as a livestock feed. Previously, barley deficiency payments were based on a market price reflecting all uses of barley. The new formula will increase barley deficiency payments because it excludes higher-priced malting barley, which normally amounts to about 40 percent of all barley marketings. Malting barley is used mainly to make beer.

CBO estimates this provision will raise barley deficiency payments by about $280 million over the 1991-1995 period. To offset some of these costs, the act requires that barley program participants pay an assessment of up to 5 percent of the value of malting barley produced on the farm for the 1991 through 1995 crop years. CBO assumes that the Secretary of Agriculture will set the assessment rate at the 5 percent maximum and estimates that assessment receipts will total nearly $40 million over the 1991-1995 fiscal year period.

The act also eliminated authority for the Secretary of Agriculture to provide for an acreage reduction program for oats beginning with the 1991 crop. CBO assumes that the Secretary of Agriculture would have set an ARP of 5 percent, the maximum allowed under the old law had it continued. Eliminating acreage reduction requirements will increase the acreage of oats eligible to receive deficiency payments because farmer participation in the program is expected to rise sharply. CBO estimates this provision will increase oat program costs by $67 million over the 1991-1995 period. The combined effect of these

barley and oat program changes will raise CCC costs by $307 million over the 1991-1995 period.

Assessments on Marketings of Sugar, Tobacco, Peanuts, and Honey

The reconciliation act requires that CCC collect assessments on marketings of 1991 through 1995 crops of sugar, tobacco, and peanuts at a rate equal to 1 percent of the price support level for these crops. Producers and first purchasers (processors in the case of sugar) are to share the cost of the assessments equally. Honey producers are required to pay assessments equal to 1 percent of the level of price support on all marketings of honey, excluding imports, in each of crop years 1991 through 1995. First handlers of honey are required to collect and remit the assessments to the CCC. CBO estimates that these assessments will generate receipts of $10 million in 1991 and about $70 million per year in later years, totaling $297 million over the 1991-1995 period.

Other Changes

The 1990 legislation made a number of other changes that are estimated to affect CCC outlays. Among them were the following provisions:

- Limitation of funding for the 1991 Export Enhancement Program (EEP) to $425 million. This ceiling severely constrained EEP compared to the size of program the Department of Agriculture would have preferred in 1991. The limitation was eventually rescinded (see Box 4).

- Changes in the Farmer-Owned Reserve Program for wheat and feed grain producers. Under the new reserve program, farmers receive a quarterly payment in exchange for storing grain on their farm for up to nine quarters. Farmers are given more control over when they can sell grain placed in the reserve.

- Highest nonrecourse loan rates for wheat, feed grains, and soybeans. Also the new law requires that loan rates be established for other oilseeds including sunflower seed, canola, rape seed, safflower seed, flaxseed, and mustard seed at a level comparable to soybeans.

- A marketing loan program for oilseeds. Producers are allowed to repay commodity loans at the lower of the market price or the loan rate. However, producers who elect to put their oilseed crop under government loan are required to pay a 2 percent loan origination fee.

- Permission for program crop participants to plant minor oilseeds on 0/92 acreage (see Glossary) and still receive deficiency payments or receive oilseed marketing loan benefits. Previously, 0/92 allowed producers to keep all or part of their acreage idle and still receive 92 percent of their expected deficiency payment as long as such acreage was devoted to conservation uses.

- Requirement that the Department of Agriculture provide $1 billion over the 1991-1995 fiscal year period in export credit loan guarantees to the emerging democracies of Eastern Europe.

CBO estimates that these provisions, combined with a number of others, will raise CCC outlays by about $130 million over the 1991-1995 period.

WHY THE NEW ESTIMATES DIFFER SO MUCH FROM EARLIER ESTIMATES

As shown in Table 6, CBO's current savings estimate of the legislation is $4.4 billion over the 1991-1995 period, only 41 percent of the savings initially claimed. The 1991 budget resolution required CBO to measure the budgetary impact of legislative changes against the June 1990

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BOX 4
RECENT LEGISLATION AFFECTING THE EXPORT ENHANCEMENT PROGRAM

The Export Enhancement Program (EEP) provides subsidy payments to exporters allowing them to sell U.S. commodities at prices below U.S. market prices. Such subsidy payments are generally made in the form of generic commodity certificates redeemable for government-owned commodities. Lower prices cause exports of U.S. commodities to be greater than they would be without the subsidies. How much exports increase depends on demand conditions in world markets and on how other exporters adjust their prices in response to U.S. subsidies.

Greater export demand effectively reduces supplies available for domestic uses, raising the domestic price. How much prices rise depends on how responsive the various domestic uses of grain, including stockholding, are to price changes. A second key factor is how responsive domestic production is to actual or anticipated price increases. During any marketing year U.S. production cannot be changed. However, if an export subsidy causes expected prices to be higher or expected stocks to be lower than they would otherwise be, production may increase, reducing any potential price rise. Production can rise because farmers increase plantings in anticipation of higher prices or, perhaps more important, because the Administration sets acreage reduction program requirements lower than it otherwise would.

The 1991 Rural Development, Agriculture and Related Agencies Appropriations Act capped fiscal year 1991 EEP subsidies at $425 million, which was almost completely used up by mid-March 1991. The CBO baseline estimate for certificates used to pay for EEP subsidies was $425 million. However, the EEP spending cap was eliminated when the Dire Emergency Supplemental Appropriations Act of 1991 was enacted on April 11, 1991. Without the ceiling, EEP subsidies are expected to reach $900 million by the end of fiscal year 1991. Compared with the CBO February 1991 baseline (the focus of this report), uncapping EEP should lead to greater wheat exports, reduced deficiency payments, and higher outlays from generic certificates.

baseline, with an adjustment for the dairy program.[1] As the 1990 farm program legislation neared completion, it became clear that some of the baseline assumptions were obsolete. Most of the difference between these estimates is accounted for by two provisions that (1)

1. The 1991 budget resolution baseline for commodity programs differed from the June 1990 CBO CCC baseline in projecting costs of the dairy program. The budget resolution baseline assumed that the milk price support was held constant at $10.10 per cwt in January 1991 and the resulting outlays were held at that level in later years. Thus, the 1991 budget resolution, in effect, planned for an increase in dairy program spending of $1.09 billion over 1991-1995 relative to the June 1990 CBO projection that assumed extension of the 1985 farm bill.

Furthermore, the new legislation makes it unlikely that cash sales of corn (included in the February 1991 baseline because EEP certificates were limited) will occur.

CBO estimates that the legislative action to eliminate the EEP spending cap will raise CCC outlays by about $120 million over the 1991-1993 period compared with outlays in the February 1991 baseline. The costs of the legislation were scored as discretionary, even though the EEP is a part of CCC spending, a mandatory account. This is because the legislation was contained in an appropriations bill. However, since most of the bill's provisions (enacted mainly to pay for a variety of urgent needs in defense, foreign aid, and administrative costs of unemployment insurance) were declared an emergency by the President and the Congress, the domestic discretionary spending cap set in the Budget Enforcement Act was not considered to have been violated.

CBO estimates that higher EEP subsidies allowed in the legislation will affect government expenditures in a number of ways compared with the assumptions underlying CBO's February 1991 baseline. An additional $475 million in generic certificates are assumed to be issued as the program runs at an estimated level of $900 million, up from the capped level of $425 million. These additional certificate issuances raise outlays compared with those in CBO's February 1991 baseline, mainly in 1991, because CBO assumes they will be redeemed for government-owned corn that would otherwise have been sold for cash. Higher domestic wheat prices caused by higher subsidized exports reduce wheat deficiency payments in 1992. However, deficiency payments rise slightly in 1993 because CBO expects the Secretary of Agriculture to reduce the size of future acreage reduction programs in response to lower domestic supplies of wheat.

The Administration's estimate of the impact of the EEP legislation on outlays differed from CBO's. The Office of Management and Budget estimated that changes in the EEP program would be fully offset by changes in CCC commodity price supports. Thus, it scored no outlays for increased EEP certificate issuances in any year.

mandated the size of the 1991 wheat and feed grain acreage reduction programs and (2) reduced payment acres and increased planting flexibility. This section discusses why the new estimates differ so much from the earlier ones.

Mandated 1991 Wheat and Feed Grain Acreage Reduction Programs

Two similar provisions in the 1990 legislation effectively mandated the size of 1991 acreage reduction requirements.

Wheat. The 1990 farm bill requires that the Secretary of Agriculture set the size of the 1991 acreage reduction program for wheat at 15 percent. (The acreage reduction requirement is the portion of a producer's crop acreage base that must be left unplanted in order to qualify for program benefits.) Increases in acreage reduction requirements reduce outlays by reducing both the number of acres that are eligible to receive deficiency payments and the payment rate applied to those acres, to the extent that it reduces production and raises market prices. This provision was originally estimated to reduce outlays by $435 million in 1991 and $510 million in 1992 relative to the June 1990 CBO baseline that assumed a 1991 wheat acreage reduction requirement of only 5 percent.

TABLE 6. COMPARISON OF NEW AND OLD COST ESTIMATES FOR THE 1990 FARM PROGRAM LEGISLATION
(By fiscal year, in millions of dollars)

	1991	1992	1993	1994	1995	1991-1995
Cost Estimate Based on June 1990 Market Assumptions	-1,504	-3,025	-2,031	-1,971	-2,114	-10,645
Changes						
Mandated 1991 acreage Reduction programs for wheat and feed grains[a]	724	1,126	0	0	0	1,850
Reduced payment and increased planting flexibility	482	1,291	1,108	726	441	4,047
Other	-228	352	15	92	120	351
Total Changes[b]	978	2,769	1,123	817	561	6,248
Cost Estimate Based on February 1991 Market Assumptions	-526	-256	-908	-1,154	-1,553	-4,397

SOURCE: Congressional Budget Office's February 1991 projections.

a. The mandated feed grain acreage reduction program excludes oats.

b. The change is the February 1991 estimate less the June 1990 estimate.

However, CBO's current view is that this provision will not reduce outlays at all because it simply mandated the acreage reduction program that would have been chosen by the Secretary of Agriculture anyway. Conditions in the world wheat market have weakened considerably since the early summer of 1990 when the old baseline was developed. Market prices were pressured downward by bumper wheat crops both domestically and around the world. The Secretary of Agriculture indicated his intention to combat mounting wheat surpluses by raising the 1991 wheat acreage reduction requirement to 15 percent well before the Congress required it in the 1990 farm program legislation. As a result, even though this provision was credited with savings against an outdated baseline, in reality it has no effect on wheat production, prices, or outlays.

Feed Grains. The reconciliation act set a minimum size for the 1991 feed grain acreage reduction program of no less than 7.5 percent.[2] This provision was originally estimated to reduce outlays by $289 million in 1991 and $616 million in 1992 compared with the June 1990 baseline, which assumed an acreage reduction requirement of 5 percent. In January 1991, the Secretary announced the size of the 1991 program at the statutory minimum size. However, the legislation only generates outlay reductions if the provision causes him to announce a larger acreage reduction than he would have otherwise.

Recent changes in the corn market outlook suggest that this acreage reduction program decision probably would have been made even without the requirement in the law. Corn exports during the 1990 marketing year, which began September 1990, have slumped badly compared with what was expected earlier. In part, this was because low world wheat prices have encouraged grain importing countries to purchase wheat instead of U.S. corn. Also, spring wheat producers participating in the 1991 program are expected to plant more corn and other feed grains on their unpaid flexible acres than was expected earlier because of the dismal outlook for wheat prices. As a result, the Secretary of Agriculture would have probably announced a 1991 feed grain acreage reduction program of 7.5 percent anyway, so the statu-

2. This provision excluded oats because the 1990 farm bill eliminated authority to have an oats acreage reduction program.

tory minimum has no effect on feed grain production, prices, or outlays. Together, the 1991 mandated acreage reduction program provisions account for $1.85 billion of the difference between the new and old cost estimates.

Reduced Payment Acres and Increased Planting Flexibility

This provision accounts for the bulk of the remaining difference in cost estimates. As discussed in the previous section, it is expected to result in acreage shifts from program crops--feed grains, wheat, cotton, and rice--to nonprogram crops such as soybeans. The budgetary impact of this provision depends heavily on whether or not the Secretary of Agriculture is assumed to accommodate these acreage shifts by reducing the size of program crop acreage reduction programs. CBO has long maintained that including adjustments in the size of acreage reduction programs is an appropriate part of commodity program analyses because the Secretary of Agriculture sets acreage reduction requirements primarily to maintain the international competitiveness of U.S. crops and to ensure adequate domestic supplies. However, during the 1990 farm bill debate the agriculture committees requested that CBO analyze the reduced payment acre provision with and without such adjustments. The provision was estimated to reduce CCC spending by about $9.1 billion over the 1991-1995 period when acreage reduction programs (ARP) were held constant at baseline levels, but was estimated to reduce spending by only about $5.0 billion when acreage reduction program adjustments were allowed, a difference of nearly $4.05 billion over the five-year period.

The final form of the legislation included a provision that does not allow the Secretary of Agriculture to reduce the size of acreage reduction programs below those levels assumed in the CBO June 1990 baseline for the 1992 through 1995 crops of wheat and feed grains. At the time of enactment, CBO's estimate included the larger savings for the reduced payment acre provision because the minimum ARP provision was expected to prevent the Secretary of Agriculture from reducing ARPs relative to June 1990 baseline assumptions. However, the minimum ARP provision contains two waivers that, because of changing

market conditions, now make the larger savings estimate appear unlikely.

The first waiver suspends the reconciliation act's minimum acreage reduction requirements in all years if the level of soybean stocks is below 325 million bushels on September 1, 1991. While this condition was not met under CBO's June 1990 baseline projections, by the time the legislation was enacted in November 1990 the soybean market situation had changed enough that the waiver appeared likely to be triggered.

Even if the condition that triggers the first waiver is ultimately not met, the reconciliation act provides for a second waiver of the minimum ARP provision. This waiver suspends minimum acreage reduction requirements for wheat and feed grains in any crop year the Secretary of Agriculture projects that the level of carryover stocks is less than 34 percent in the case of wheat and 20 percent in the case of feed grains (excluding oats). As with the first waiver, the condition that would trigger this waiver was not met under market assumptions underlying the June 1990 baseline, but it is met in the new projections with respect to feed grains.

In the case of wheat, the minimum acreage requirements will continue under the current market outlook. However, the wheat market outlook has deteriorated enough that the ARP minimums are not expected to constrain the Secretary's choice of acreage reduction program for several years to come.

Other Changes in the Estimates

A number of other provisions of the 1990 legislation have been reestimated with a slightly different budgetary effect than before. In aggregate, the new estimates of other provisions result in additional costs of about $350 million over 1991 through 1995 compared with the original estimate. Nearly half of this increase stems from the higher expected costs of not allowing the milk price support to fall below $10.10 per cwt.

CHAPTER III

THE OUTLOOK FOR MAJOR COMMODITIES

Plantings were up in 1990 and are expected to be up for all major program crops except wheat in 1991. Acreage reduction requirements for participants in the government's wheat, feed grains, upland cotton, and rice programs either fell or remained the same in 1990 relative to the previous year's level. The size of 1991 acreage reduction programs has been reduced from the previous year's level in all program crops, except wheat. The flexibility provisions of the 1990 farm program legislation allow producers to shift some acreage between crops in reaction to market prices without losing eligibility for future government payments. Such shifts, for example, are expected to contribute to reduced plantings in wheat and increased cotton plantings in 1991.

Use is expected to be down or relatively flat in the 1990 and 1991 marketing years compared with 1989 for most major crops. The exceptions are rice in both years and soybeans in 1991. Stocks carried out of the 1990 marketing year are generally expected to rise relative to the previous year, especially in wheat where large harvests both domestically and around the world have depressed prices. For rice and cotton, the 1990 legislation requires that acreage reduction requirements be set to raise levels of ending stocks considered to be low in 1989 and 1990.

Prices for all major program commodities except cotton are projected to be down in 1990 and 1991 marketing years from the 1989 level. Farm price and income support outlays are expected to rise for wheat, cotton, rice, and soybeans for fiscal year 1991 compared with the previous year, while dropping for feed grains. However, outlays for feed grains and cotton are expected to jump sharply in 1992, while declining moderately for wheat, rice, and soybeans.

CORN

The 1990 corn harvest turned out to be relatively large even though the crop was planted later than normal because of poor weather during the spring. Total use of corn is expected to be down from year-ago levels because excessive global supplies of wheat have sharply reduced prices and caused many grain-importing countries to replace feed grain purchases with inexpensive wheat. Corn prices are lower than last year reflecting the downward pressure exerted on them by the wheat market situation. The outlook for 1991 and beyond is for steady growth in the demand for corn led by increased exports. However, CBO projects corn prices to remain around current levels because it expects the Secretary of Agriculture to encourage growth in domestic production by gradually reducing acreage reduction requirements. Government feed grain program outlays, which are dominated by the corn program, are projected to peak at $3.8 billion in fiscal year 1992 before falling steadily to $2.8 billion by 1996.

Government Programs

The 1990 farm bill continues the corn target price at $2.75 per bushel for the 1991 through 1995 crops. However, as indicated in Chapter I, the reconciliation act reduces a participating producer's acreage that would otherwise be eligible for deficiency payments by 15 percent. These acres, termed unpaid flexible acres, may continue to be planted to corn or to another program or nonprogram crop except for fruits and vegetables. As with corn, target prices for the other feed grains--grain sorghum, barley, and oats--are continued at 1990 crop levels. However, beginning with the 1991 crop, barley deficiency payments will be calculated based on the difference between the target price and the market price of barley used for livestock feed.

The 1990 farm bill continues to give the Secretary of Agriculture broad authority to set the size of feed grain acreage reduction programs between zero and 20 percent of base acreage, land that would "normally" be planted to corn, except that an acreage reduction program may not be established for oats in any year. Also, the reconciliation act sets a minimum size for the 1991 corn, grain sorghum, and barley acreage

reduction program of 7.5 percent, and the Secretary has announced the 1991 program at this minimum level. As part of expanding the Conservation Reserve Program (CRP) to 40 million acres, corn base acreage entered in the CRP is projected to rise from 4.1 million acres in 1990 to 4.8 million acres in 1995. The 1990 farm bill also made minor changes in the formula used to determine feed grain loan rates that will raise them slightly compared with the 1990 crop level. The baseline assumes the corn loan rate will rise from the announced $1.63 per bushel for the 1991 crop to $1.68 for the 1992 and 1993 crops before falling slightly to $1.64 by 1996.

Production

The 1990 corn harvest was 7.93 billion bushels, up 5 percent from a year earlier. (Table 7 summarizes production and use projections for corn; Box 5 on page 46 explains important concepts found in all tables in this chapter.) Corn yields were above average despite the fact that plantings had been delayed because of poor spring weather. Assuming normal weather during the upcoming growing season, CBO projects 1991 production at a record 8.3 billion bushels. In February 1991 the Department of Agriculture reported that farmers plan to plant 77.5 million acres of corn this year, which suggests that they intend to keep most of their unpaid flexible acres in corn rather than soybeans, a primary crop alternative in the major corn growing regions. After 1991, CBO projects that relative market prices will increasingly favor soybeans, and that farmers will respond by shifting more acreage out of corn into soybeans. However, the baseline assumes continued growth in corn production as the Secretary gradually reduces corn acreage reduction requirements and yields continue to grow between 1 percent and 1.5 percent per year.

Use

Total use in the 1990 marketing year, which began in September 1990, is expected to fall nearly 2 percent below the 1989 level, mainly because of lower exports. Record global supplies of wheat have greatly

TABLE 7. CORN SUPPLY AND USE (By crop year)

	Actual	Projected						
	1989	1990	1991	1992	1993	1994	1995	1996
				Millions of Acres				
Base Acres (Net of CRP)	82.7	82.6	82.7	82.5	82.5	82.5	83.2	83.7
				Percentage of Base Acreage				
Acreage Reduction Program	10.0	10.0	7.5	7.5	5.0	5.0	5.0	5.0
Participation in ARP	80	78	75	76	78	76	75	75
				Millions of Acres				
Total Idled Acres[a]	14.6	14.2	12.2	12.4	11.1	11.1	11.2	11.2
Acres Planted	72.3	74.2	77.0	76.1	77.0	77.0	77.4	77.5
Acres Harvested	64.7	67.0	69.3	68.5	69.3	69.3	69.7	69.7
				Bushels per Acre				
Yield per Harvested Acre	116.3	118.5	120.0	121.8	123.5	125.1	126.6	128.1
Program Yield	104.0	103.4	103.4	103.4	103.4	103.4	103.4	103.4
				Millions of Bushels				
Supply								
Beginning stocks	1,930	1,344	1,318	1,555	1,597	1,641	1,659	1,661
Production	7,525	7,933	8,321	8,347	8,555	8,669	8,822	8,936
Total (Including imports)	9,457	9,279	9,641	9,903	10,154	10,313	10,484	10,598
Use								
Food, seed, and industrial	1,289	1,325	1,361	1,399	1,439	1,480	1,522	1,565
Feed and residual	4,456	4,835	4,675	4,687	4,734	4,760	4,826	4,858
Exports	2,367	1,801	2,051	2,220	2,339	2,414	2,475	2,501
Total	8,113	7,961	8,086	8,307	8,513	8,653	8,823	8,925
Ending Stocks	1,344	1,318	1,555	1,597	1,641	1,659	1,661	1,674
Farmer-Owned Reserve	387	0	0	0	0	0	0	0
CCC-owned stocks	233	307	292	283	274	265	256	247
Outstanding CCC loans	112	110	280	280	265	250	230	210
Free stocks[b]	611	902	982	1,033	1,102	1,144	1,174	1,216
				Dollars per Bushel				
Prices								
Target price	2.84	2.75	2.75	2.75	2.75	2.75	2.75	2.75
Season average price	2.36	2.30	2.26	2.24	2.24	2.27	2.30	2.31
Loan rate	1.65	1.57	1.63	1.68	1.68	1.65	1.64	1.64
Deficiency payment rate	0.58	0.53	0.59	0.61	0.61	0.51	0.48	0.47

SOURCES: Actual data from Department of Agriculture; projections from Congressional Budget Office's February 1991 baseline.

NOTES: See Glossary for an explanation of terms. CRP = Conservation Reserve Program; ARP = Acreage Reduction Program.

a. Includes acres idled by annual acreage reduction programs, including the 0/92 program, and base acres enrolled in the 10-year Conservation Reserve Program.

b. Privately held stocks not being used as collateral for government loans.

reduced world wheat prices and caused grain importers to shift away from corn to less expensive wheat. Also, the Soviet Union is purchasing sub-stantially less U.S. grain than in recent years because of bumper crops and a shortage of hard currency. The drop in total corn use would be much more pronounced if it were not for a large increase in corn feed-ing by the domestic livestock industry indicated by both the January and March grain stocks reports. CBO currently expects 1990 corn feed use to be a record 4.84 billion bushels. Corn feeding has been spurred by high cattle and hog prices relative to corn prices, a large increase in the number of cattle placed in feedlots, and a relatively small supply of sorghum.

Use is expected to rebound in the 1991 marketing year led by a recovery in exports. Corn exports should be stronger as the excessive supply situation in the wheat market eases and grain production in the Soviet Union returns to a more normal level. However, the rebound may be limited by continued strength in the U.S. dollar and slow economic growth in Europe and Japan. Also, the rebound in total use is likely to be tempered by an easing of domestic corn feeding as cattle movement to feedlots slows.

Corn use in later years is expected to grow between 1 percent and 3 percent per year, spurred mainly by continued growth in exports and corn feeding. Also, domestic use of corn for ethanol production is expected to accelerate in response to higher oxygenation requirements for motor fuels required in the Clean Air Act.

Prices and Stocks

CBO estimates 1990 carryover stocks at 1.32 billion bushels, about the same as last year and the lowest level since 1983. Despite such a modest inventory level, the 1990 marketing year season-average farm price is expected to be only about $2.30 per bushel. Excessive supplies of wheat have helped keep corn prices lower than they otherwise would have been this season. Assuming that normal weather produces a record 1991 corn harvest, CBO projects that market prices will remain around current levels for another year and stocks will rise by over 200 million bushels. In later years, CBO expects prices to rise very slowly, below the general rate of inflation, as the Secretary of Agriculture

stresses export competitiveness in setting corn acreage reduction requirements.

Corn and sorghum nonrecourse loans held by farmers in the farmer-owned reserve program are maturing during the spring of 1991. These loans were made several years ago when loan rates were higher than current market prices. When the loans mature, CBO expects farmers to forfeit about 375 million bushels of corn and 10 million bushels of sorghum to the government in lieu of repayment. CBO expects the Department of Agriculture to begin releasing these stocks to the market over the next couple of years. The baseline assumes USDA will release around 200 million bushels during the summer of 1991 (before the end of the 1990 marketing year) and the remainder during the 1991 marketing year.

Government Costs

In fiscal year 1991, CBO projects that combined outlays for the corn, grain sorghum, barley, and oats programs will fall to $2.3 billion, down from $2.7 billion in 1990 to the lowest outlay total for feed grains since 1984 (see Table 8). These outlays include cash receipts of $0.5 billion from the assumed sale of government-owned corn and sorghum. In 1991, cash sales are assumed because current law restricts the issuance of generic commodity certificates under the Export Enhancement Program (see wheat section) that would otherwise be available to be exchanged for government-owned corn (see Box 5). In later years, cash receipts are not projected because the baseline assumes stock releases are made primarily in return for certificates.

Outlays are projected to peak at $3.8 billion in 1992 because of higher corn deficiency payments, no corn sales for cash, and higher outlays for minor feed grains. Corn deficiency payments made in fiscal year 1992 are projected to rise nearly $0.8 billion from the previous year even though no increase is expected in crop year 1991 deficiency payments over the previous crop year. The fiscal year 1992 level is an increase over an artificially low level for 1991. The Department of Agriculture greatly overestimated the 1990 crop deficiency payment

rate when it made advance deficiency payments to farmers in fiscal year 1990. As a result, the final installment of 1990 crop payments, made in fiscal 1991, was much smaller than normal. Beyond 1992, feed grain program outlays are expected to fall slowly to $2.8 billion by 1996.

TABLE 8. CORN AND FEED GRAIN PROGRAM OUTLAYS
(By fiscal year, in millions of dollars)

	Actual	Projected					
	1990	1991	1992	1993	1994	1995	1996
Corn Program Outlays							
Net Lending							
Loans made	1,480	1,698	1,694	1,702	1,726	1,583	1,586
Cash loans repaid	-1,557	-1,569	-1,385	-1,668	-1,729	-1,593	-1,599
Net Loans	-77	129	309	34	-3	-10	-13
CCC Storage, Transportation, and Handling Costs	137	176	109	103	100	97	94
Direct Cash Payments							
Deficiency							
Advance	1,937	1,152	1,224	1,292	1,054	996	967
Regular	344	1,052	1,750	1,797	1,895	1,546	1,460
Reserve storage	155	91	0	0	0	0	0
Other	-1	0	0	0	0	0	0
Subtotal	2,436	2,295	2,974	3,088	2,949	2,542	2,427
Other Outlays	-46	481	-20	-15	-15	-15	-15
Total Outlays	2,450	2,119	3,372	3,211	3,032	2,614	2,493
Feed Grain Program Outlays							
Sorghum, Barley, and Oats	271	172	412	396	396	350	331
All Feed Grains (Including corn)	2,721	2,291	3,784	3,607	3,427	2,963	2,824

SOURCES: Actual data from Department of Agriculture; projections from Congressional Budget Office's February 1991 baseline.

BOX 5
IMPORTANT CONCEPTS IN THE COMMODITY SUPPLY, USE, AND OUTLAY TABLES

The tables in this chapter are designed to be self-explanatory, though sometimes additional information is needed to understand how the various elements fit together.

The number of acres planted to program crops cannot be directly calculated from information in the tables. Planted acres of corn, for example, equal the sum of acreage planted by program participants and by nonparticipants. Participating producers may plant on their corn program base acreage, less the acreage that must be idled under the corn acreage reduction program. This amount represents a ceiling on acreage planted in corn for the participating producer. Participating producers can, and sometimes do, plant less than the maximum and receive program benefits on the acres planted. Under the 1990 legislative provisions on planting flexibility, participating producers can plant any crop (except fruits and vegetables) on 15 percent of base acreage on which no deficiency payments are made, and on an additional 10 percent if they voluntarily forgo payments. Nonparticipating producers are free to plant corn on any amount of acreage regardless of the size of their base acreage. However, corn producers who participate in another crop program, but not in the corn program, cannot plant corn in excess of their program base acreage, unless they plant corn on their unpaid flexible acres.

The total deficiency payment rate in some cases cannot be derived from the price information provided in the tables. Box 2 describes the calculation.

Data in the supply and use tables are for crop, or marketing, years while those in the program outlay tables are for fiscal years. The calendar period covered by a marketing year varies by crop--only the dairy marketing year coincides with the fiscal year. In the crop programs, outlays in any fiscal year can stem from costs associated with several different crop years. During fiscal year 1990, for example, corn deficiency payments were made on the 1989 and 1990 crops. Nonrecourse loan costs for corn in fiscal year 1990 were mostly associated with the 1989 corn crop. In wheat, which is harvested earlier than corn, some nonrecourse loan costs for the 1990 crop year appear in fiscal year 1990.

WHEAT

Higher global output and stocks have depressed prices and U.S. exports in the 1990 marketing year (which began June 1990) compared with the drought years of 1988 and 1989. Despite lower exports, total use is projected to remain close to the previous year's level because lower prices (expected to average $1.12 per bushel below last year) are

encouraging increased wheat feeding by the domestic livestock industry. Assuming normal weather during the 1991 growing season, the baseline projects that wheat production will fall as yields return to a more normal level and acreage falls because of increased 1991 acreage reduction requirements and the introduction of planting flexibility options in the 1990 legislation. In subsequent years, participating producers are expected to shift land out of wheat and into other crops on their unpaid flexible acres because wheat prices are projected to remain relatively weak. The outlook is for gradual increases in prices and declines in stocks through 1996 as use increases and the Secretary of Agriculture is assumed to set acreage reduction requirements to reduce excess stocks. Outlays by the government are expected to peak at almost $3.2 billion in fiscal 1991, but to decline sharply thereafter, dropping to $1.7 billion by 1996.

Government Programs

Numerous provisions of government farm programs continue to affect wheat farmers, traders, and consumers. Several provisions continue to affect potential supplies, including the Conservation Reserve Program and the 0/92 program, both of which are expected to idle acres in return for government payments. The 1990 legislation requires participating producers to idle 15 percent of their base acreage in 1991, significantly above the requirement of the previous two years. The 1990 legislation also reduces acreage eligible for deficiency payments by 15 percent but allows that land to be planted to other crops besides wheat, beginning with the 1991 crops. However, shifts of acreage away from winter wheat in 1991 are not expected to be large because the legislation allows 1991 winter wheat producers to avoid the 15 percent payment acre reduction (and, thus, planting flexibility on those acres) if they choose to have their deficiency payments calculated using the season average farm price rather than the price during the first five months of the marketing year. CBO projects that most winter wheat producers will choose to retain full payment acres and give up planting flexibility in 1991. However, participating 1991 spring wheat producers are expected to shift part of their unpaid flexible acres out of wheat and into soybeans and minor oilseeds.

Other program provisions that will affect wheat include a freezing of the target price at $4.00 per bushel. The program yield on which government payments to producers are based is assumed to remain frozen. Loan rates are set based on a new formula that raises them compared to previous law. The farmer-owned reserve for wheat was opened at the Secretary's discretion for the 1990 crop and is assumed to remain open for the 1991 crop, accepting up to 300 million bushels. The 1991 agriculture appropriations bill capped issuances of generic certificates as payment to exporters for subsidies in the Export Enhancement Program for fiscal year 1991 at $425 million.[1]

Production

As shown in Table 9, wheat production rose dramatically in 1990 as excellent weather conditions resulted in a record U.S. average yield and as harvested acreage rose to its highest level since 1982. Contributing to the large harvested acreage was an acreage reduction requirement of only 5 percent of base and a one-time only program option whereby participating producers were allowed to plant wheat in excess of base acreage in exchange for accepting smaller deficiency payments. Production is expected to drop by 18 percent in 1991 and build slowly thereafter, remaining below the 1990 level through 1996. In response to the stock buildup that has followed from the 1990 harvest, participating producers must idle 15 percent of their acreage in 1991. In subsequent years, CBO projects that the Secretary of Agriculture will slowly reduce the size of acreage reductions programs as excess stocks diminish. However, the 1990 farm bill limits the Secretary's discretion in changing the size of future acreage reduction programs. The Secretary may not reduce the acreage reduction requirement for the coming year below 10 percent if he projects that stocks carried over from the current marketing year will exceed 40 percent of use.

About 23 million acres of wheat base are expected to be idled under various annual and long-term programs. The Conservation Reserve Program has taken out of production for a 10-year period about 10 million acres of wheat base by 1990--about 10 percent of total wheat base--and that is expected to grow to over 11 million acres by 1995.

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1. New legislation has eliminated the EEP funding ceiling (see Box 4).

TABLE 9. WHEAT SUPPLY AND USE (By crop year)

	Actual	Projected						
	1989	1990	1991	1992	1993	1994	1995	1996
				Millions of Acres				
Base Acres (Net of CRP)	82.3	80.5	80.5	80.1	79.7	79.3	78.8	78.8
				Percentage of Base Acreage				
Acreage Reduction Program	10.0	0/5	15.0	12.5	12.5	10.0	10.0	5.0
Participation in ARP	78.2	82.9	82.1	79.7	79.1	79.7	78.0	78.4
				Millions of Acres				
Total Idled Acres[a]	17.9	16.7	23.1	21.6	21.9	20.7	21.1	18.0
Acres Planted	76.6	77.3	68.6	68.9	68.2	69.2	68.7	71.8
Acres Harvested	62.2	69.4	58.6	59.3	58.6	59.5	59.0	61.8
				Bushels per Acre				
Yield per Harvested Acre	32.7	39.5	38.3	38.4	39.0	39.5	40.2	40.4
Program Yield	33.8	34.0	34.0	34.0	34.0	34.0	34.0	34.0
				Millions of Bushels				
Supply								
Beginning stocks	702	536	1,045	1,041	1,034	989	967	898
Production	2,037	2,739	2,247	2,279	2,286	2,352	2,371	2,494
Total (Including imports)	2,762	3,296	3,313	3,342	3,342	3,363	3,360	3,414
Use								
Food, seed, and industrial	832	844	857	869	876	895	906	923
Feed and residual	160	422	401	327	299	274	262	260
Exports	1,233	985	1,014	1,112	1,179	1,226	1,294	1,359
Total	2,225	2,251	2,272	2,308	2,354	2,396	2,463	2,542
Ending Stocks	536	1,045	1,041	1,034	989	967	898	872
Farmer-Owned Reserve	137	20	195	270	195	170	130	85
CCC-owned stocks	117	150	150	150	150	150	150	150
Outstanding CCC loans	37	190	140	35	35	35	35	35
Free stocks[b]	245	685	557	560	609	612	583	603
				Dollars per Bushel				
Prices								
Target price	4.10	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Season average price	3.72	2.60	2.54	2.63	2.74	2.83	2.93	3.00
Loan rate	2.06	1.95	2.04	2.04	2.05	1.95	1.85	1.88
Deficiency payment rate	0.32	1.28	1.50	1.47	1.36	1.17	1.07	1.00

SOURCES: Actual data from Department of Agriculture; projections from Congressional Budget Office's February 1991 baseline.

NOTES: See Glossary for an explanation of terms. CRP = Conservation Reserve Program; ARP = Acreage Reduction Program.

a. Includes acres idled by annual acreage reduction programs, including the 0/92 program, and base acres enrolled in the 10-year Conservation Reserve Program.

b. Privately held stocks not being used as collateral for government loans.

Another 13 million acres--17 percent of the wheat base excluding the CRP acreage--is expected to be idled in annual programs in 1991. CBO projects that the level will be halved by 1996 as the acreage reduction requirement is relaxed.

Plantings are also affected by the flexibility provisions of the 1990 agriculture legislation. Only about 1 million acres are expected to switch out of wheat into other crops in 1991. This will come mostly from the unpaid flexible acres of participating spring wheat producers. In later years, shifting out of wheat is expected to grow because participating winter wheat producers will lose deficiency payments on 15 percent of their base as well. The level of acreage shifts is a function of relative market returns between wheat and alternative crops.

Total supplies are projected at 3.3 billion to 3.4 billion bushels a year over the baseline period, higher than in the last two years, but much below the levels from 1981 through 1987. Production in most years of the projection period is expected to fall short of use, resulting in a gradual reduction in stocks each year.

Use

Food use is expected to remain the dominant category of domestic use, growing slowly each year. Responding to the huge size of the 1990 crop, wheat feed use in the summer quarter of 1990 set a record, with an implied feed and residual use of over 400 million bushels. Wheat prices declined during the summer and ranged from $3.08 in June to $2.46 in September, compared with a range of $3.37 to $3.85 for the previous two summers. Traditionally, wheat prices are significantly above corn, as wheat is used predominantly as a food product. But with the large 1990 crop, wheat prices fell, resulting in prices close to those for corn and other feed grains during the summer of 1990. Feed use in the summer of 1991 is expected to remain quite large and prices to remain depressed, but for the rest of the baseline period feed use is projected to fall to more normal levels.

Exports in 1990 have fallen off sharply because of large global supplies and depressed import demand. Export subsidies under the Export

Enhancement Program have exceeded $40 per ton, about 35 percent of the export price. The 1991 agriculture appropriations act capped fiscal year 1991 EEP subsidies at $425 million, which had been almost completely used by mid-March 1991. Exports are expected to be the third lowest in 18 years. In the baseline, overseas sales in 1991 are expected to remain low, as new export subsidies cannot begin until October 1. Exports are expected to pick up in later years and to again exceed domestic use of wheat.

The EEP spending cap was eliminated when the Dire Emergency Supplemental Appropriations Act of 1991 was enacted on April 11, 1991. Without the ceiling, EEP subsidies are expected to reach $900 million by the end of fiscal year 1991. Budgetary effects are explained in Box 5.

Prices and Stocks

Wheat stocks are expected to almost double by the end of the 1990 marketing year. The bulk of these stocks is privately held because the old farmer-owned reserve loans, which amounted to nearly 140 million bushels at the beginning of the marketing year, are assumed to be forfeited. Government-owned 1990 carryover stocks are expected to be near the legislated minimum of 147 million bushels for the Food Security Wheat Reserve.

The 1990 farm bill gives the Secretary of Agriculture authority to open the farmer-owned reserve (FOR) for entry when the market is in an excess supply condition (see Chapter I). The Secretary of Agriculture used that authority and opened the 1990 crop to reserve entry. When the FOR is open, grain serving as collateral for maturing nine-month government loans can be entered in the reserve instead of being forfeited to the government. Under the FOR program, the government pays producers to store their grain for up to 27 months. The 1990 legislation gives farmers more freedom to sell FOR grain and repay government loans than was previously allowed. CBO assumes that the reserve will remain open for 1991 crop wheat loans and a total of 300 million bushels will be placed in the FOR from the 1990 and 1991 crops. For these crops, farmers' use of the nine-month loan program is

expected to rise because of the attractiveness of ultimately entering that grain into the reserve and receiving storage payments. In later years, CBO assumes that, as wheat prices rise, the Secretary declines to use discretionary authority to offer reserve entry, even when loan repayments bring the total held in the reserve below 300 million bushels.

Ending stocks are expected to drop slowly from the 1990 level. By 1996, stocks are expected to be only 34 percent of use compared to 46 percent for 1990 and 1991. Loan rates are expected to remain low, below $2.00 per bushel for most of the baseline period. With relatively low loan rates and rising prices in later years, farmers have little incentive to use the nine-month loan program, especially if the Secretary is not expected to offer reserve entry.

Average market prices are expected to decline in crop year 1991 as exports remain depressed. Prices during the summer of 1991 are projected to be lower than a year earlier, but to rise during the year. Prices will be supported by reserve entries to the extent that the market believes the FOR storage subsidy adds to the total demand to hold stocks.

In later years, prices are expected to rise, reaching $3.00 per bushel by 1996. These prices are much below the prices since 1979, except for crop years 1986 and 1987, when the 1985 farm bill sharply reduced loan rates. Prices surged in 1988 and 1989 because of drought-reduced supplies. Prices fell sharply in 1990 because of larger supplies, but they have remained significantly above the loan rate. Wheat production is expected to be more responsive to market prices because the 1990 legislation gives participating farmers more freedom to plant alternative crops.

Government Costs

As shown in Table 10, outlays are expected to increase dramatically in fiscal year 1991 to almost $3.2 billion, 31 percent of total CCC outlays. The sharp rise in direct payments to producers is responsible for the bulk of the increase in outlays. The deficiency payment rate of $1.28

for the 1990 crop was four times that of the previous year. The rate is expected to rise for the 1991 crop, but the number of payment acres is expected to fall. Direct cash payments to producers may fall from almost $2.8 billion in fiscal year 1991 to $1.7 billion by fiscal year 1996 as market prices rise and the deficiency payment rate falls in tandem. Storage costs for the reserve provide farmers with $40 million to $76 million a year from 1992 through 1996.

Net loan, CCC storage, and handling costs are projected at almost $500 million in 1991 because nine-month loans entering the farmer-owned reserve reduce loan repayments. However, in later years, higher market prices will cause farmers to sell reserve grain and repay government loans. Thus, net loan outlays are projected to be negative during 1993 through 1996.

TABLE 10. WHEAT PROGRAM OUTLAYS
(By fiscal year, in millions of dollars)

	Actual	Projected					
	1990	1991	1992	1993	1994	1995	1996
Net Lending							
Loans made	502	659	701	578	505	410	382
Cash loans repaid	-260	-219	-609	-658	-707	-512	-454
Net Loans	242	440	92	-80	-202	-102	-71
CCC Storage and Handling Costs	47	58	52	52	52	52	52
Direct Cash Payments							
Deficiency							
Advance	661	1,023	917	837	747	664	666
Regular	62	1,752	1,625	1,335	1,217	1,125	993
Reserve storage	26	1	52	76	62	48	40
Subtotal	749	2,776	2,593	2,248	2,026	1,837	1,699
Other Outlays	-232	-124	22	22	22	22	22
Total Outlays	806	3,151	2,760	2,242	1,899	1,810	1,702

SOURCES: Actual data from Department of Agriculture; projections from Congressional Budget Office's February 1991 baseline.

RICE

Rice prices are expected to remain below 1989's high level as more acreage is planted and stocks rise along with use. Projected government outlays remain large because of near maximum deficiency payment rates and large marketing loan benefits.

Government Programs

Target prices remain frozen at $10.71 for the baseline period and loan rates are assumed to be $6.50 per hundredweight, the minimum allowed under the 1990 legislation. The deficiency payment rate is calculated as under the previous farm legislation until crop year 1994 when the calculation considers the calendar year market price as well as the five-month crop year price.

The acreage reduction program for 1991 requires the idling of only 5 percent of base acres compared to 20 percent and 25 percent in the two previous years. The acreage reduction requirement is set to generate carryover stocks equal to 16 percent to 20 percent of use in the three previous years. Other legislative changes that may affect rice production include unpaid flexible acres on 15 percent of base acres and a guaranteed minimum deficiency payment rate for 50/92 acres.

Production

The announced acreage reduction program percentage for rice is set at 5 percent for the 1991 crop, the lowest ever (see Table 11). The required acreage reduction for program participation has ranged from 20 percent to 35 percent in every year since 1986. Because stocks carried over from the 1990 marketing year are expected to be low and legislation requires that acreage reductions be set to keep ending stocks from exceeding 16 percent of previous years' use, the Secretary sharply reduced the ARP requirement for 1991. Other factors the Secretary probably considered were the possibility of planting shifts to alternative crops on unpaid flexible rice acres, the popularity of the 50/92 program in rice areas, and the reduced water availability in California.

TABLE 11. RICE SUPPLY AND USE (By crop year)

	Actual	Projected						
	1989	1990	1991	1992	1993	1994	1995	1996
				Thousands of Acres				
Base Acres (Net of CRP)	4,168	4,154	4,154	4,154	4,154	4,154	4,154	4,154
				Percentage of Base Acreage				
Acreage Reduction Program	25	20	5	7.5	10	7.5	7.5	5
Participation in ARP	94	95	95	95	95	95	95	95
				Thousands of Acres				
Total Idled Acres[a]	1,184	1,034	595	581	675	581	581	487
Acres Planted	2,731	2,887	2,934	3,037	2,947	3,037	3,037	3,127
Acres Harvested	2,687	2,813	2,914	3,017	2,927	3,017	3,017	3,107
				Pounds per Acre				
Yield per Harvested Acre	5,749	5,507	5,562	5,607	5,673	5,720	5,777	5,826
Program Yield	4,864	4,850	4,850	4,850	4,850	4,850	4,850	4,780
				Millions of CWT				
Supply								
Beginning stocks	26.7	26.3	24.1	26.2	31.9	30.9	32.8	32.8
Production	154.5	154.9	162.1	169.2	166.0	172.6	174.3	181.0
Total (Including imports)	185.4	186.0	191.4	201.1	204.3	210.2	214.4	221.6
Use								
Food, seed, and industrial	79.4	84.0	87.0	90.1	93.8	97.3	101.1	105.5
Feed and residual	2.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Exports	76.8	73.0	73.3	74.1	74.6	75.1	75.5	76.0
Total	159.1	162.0	165.3	169.2	173.4	177.4	181.6	186.5
Ending Stocks	26.3	24.1	26.2	31.9	30.9	32.8	32.8	35.1
CCC-owned stocks	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Free stocks and outstanding CCC loans[b]	26.0	24.0	26.2	31.9	30.9	32.8	32.8	35.1
				Dollars per CWT				
Prices								
Target price	10.80	10.71	10.71	10.71	10.71	10.71	10.71	10.71
Loan rate	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Season average price	7.30	6.75	6.90	6.75	6.80	6.80	6.80	6.80
World price	5.78	5.25	5.60	5.45	5.50	5.50	5.50	5.50
Deficiency payment rate	3.56	4.19	3.71	3.96	3.91	3.91	3.91	3.91

SOURCES: Actual data from Department of Agriculture; projections from Congressional Budget Office's February 1991 baseline.

NOTES: See Glossary for an explanation of terms. CRP = Conservation Reserve Program; ARP = Acreage Reduction Program; cwt = hundredweight.

a. Includes acres idled by annual acreage reduction programs, including the 50/92 program, and base acres enrolled in the 10-year Conservation Reserve Program.

b. Privately held stocks not being used as collateral for government loans.

A large part of the unpaid flexible acreage of participants in the rice program is expected to be planted to cotton and soybeans on farms that also grow those crops. Also, the 1990 legislation continues to allow producers who plant on at least 50 percent of their permitted acreage to receive 92 percent of the deficiency payment, but the rate is now guaranteed to be no less than the announced deficiency payment rate. Thus, the producer knows the minimum payment rate before the planting decision is made, in contrast to previous years when the final rate could be lower than the announced expected rate depending on the movement of market prices. For 1991, participation in the 50/92 program is expected to rise sharply for rice, mostly because of the water shortages faced by California medium grain rice producers.

The combination of these factors is expected to result in only a modest increase in 1991 rice planting acreage compared with the previous year. The attractiveness of planting to other crops and using the 50/92 program is expected to continue throughout the baseline period. Acreage reduction requirements for 1992 to 1996 are expected to remain low relative to the 1980s. Yields are expected to rise slightly, but to remain below the 1989 record level until the end of the baseline period. Planted acreage is projected to rise from 2.8 million in 1990 to 3.1 million in 1996 and output is expected to rise from 155 million hundredweight to 181 million.

Use

Growth in domestic use of rice for food, seed, and in brewing is expected to outpace export growth over the next six years. The baseline assumes stagnant export demand mainly because purchases by Iraq, which accounted for 15 percent to 20 percent of total U.S. rice exports prior to its invasion of Kuwait, are not expected to recover to pre-invasion levels during the projection period. The baseline assumes some export growth will occur in Latin America, Eastern Europe, and elsewhere because of greater use of the Public Law 480 concessional aid program and the Export Enhancement Program subsidies. U.S. exports are expected to grow only slowly from the 73 million hundredweight projected for 1990 marketing year, well below the levels seen during the boom years of the 1980s.

Prices and Stocks

Stocks at the end of the 1990 crop year (July 31, 1991) are expected to fall to 24.1 million hundredweight, the lowest level since 1980 and only 15 percent of projected total use. In later years, stocks are expected to rise in accordance with the 1990 legislation that directs the Secretary of Agriculture to set annual acreage reduction requirements to achieve ending stocks equal to 16 percent to 20 percent of past years' use. Rice stocks are held entirely by market participants, farmers, millers, and traders, rather than by the government.

Rice prices are expected to remain slightly above the loan rate throughout the baseline period. Prices are expected to remain below the levels reached in the early-to-mid-1980s, when annual prices ranged from $8.04 per cwt to $12.80 per cwt. Prices from 1990 to 1996 are expected to range between $6.75 and $6.90 per cwt.

Government Costs

Outlays for fiscal year 1990 were $667 million, somewhat above the previous year (see Table 12). Lower final deficiency payments for the 1989 crop were more than offset by higher advance payments for the 1990 crop. A smaller 1990 acreage reduction requirement combined with an increased deficiency payment rate estimated by the Department of Agriculture in order to make advance payments were responsible for the increase. Costs for crop year 1990 are expected to exceed those of subsequent years because both the deficiency payment rate and payment acres are higher than expected in the later years. The 1990 crop deficiency payment rate is close to its maximum because prices during the first five months of the marketing year were below the loan rate. For crop years 1991 through 1996, the flexibility provisions of the 1990 legislation reduce acres on which payments can be made. So, even though planted acres rise with the projected reduction in the annual acreage reduction requirements, payment acres fall by 0.1 million to 0.3 million acres from the 1990 level.

Loan costs were almost $200 million in fiscal year 1990, up from virtually nothing the previous year. Over the baseline projection per-

iod, the bulk of each crop is expected to be put under loan and all loans are expected to be repaid. However, loan costs are projected to range between $149 million and $216 million a year because, under the rice marketing loan program, producers are allowed to repay their government loans at the world price adjusted to the farm level, which is projected to be about $1.00 per cwt. below the loan rate throughout the projection period. After rising to $776 million in 1991, total outlays are projected to range between $659 million and $687 million from 1992 through 1996.

TABLE 12. RICE PROGRAM OUTLAYS
(By fiscal year, in millions of dollars)

	Actual	Projected					
	1990	1991	1992	1993	1994	1995	1996
Net Lending							
Loans made	887	911	983	1,017	1,006	1,042	1,057
Cash loans repaid	-698	-695	-834	-851	-850	-878	-890
Net Loans	188	216	149	166	156	164	166
CCC Storage and Handling Costs	2	0	0	0	0	0	0
Direct Cash Payments							
Deficiency							
Advance	220	215	220	211	218	218	221
Regular	255	346	290	303	290	299	299
Subtotal	475	561	510	514	508	517	520
Other Outlays	1	0	0	0	0	0	0
Total Outlays	667	776	659	680	664	681	687

SOURCES: Actual data from Department of Agriculture; projections from Congressional Budget Office's February 1991 baseline.

COTTON

The near-term cotton outlook is for strong demand and high prices for the second consecutive year. Because of a tight market in 1989, the acreage reduction requirement for 1990 was cut in half to 12.5 percent. Although production increased by 33 percent, stocks are expected to continue to tighten as both domestic and export demands remain strong. The season average price for the 1990 marketing year, which began August 1990, is expected to be 7 percent higher than the previous year.

Cotton program outlays in fiscal year 1990 were negative (indicating net receipts) because of relatively low deficiency payments and huge savings in net lending because of large cash repayments of crop loans. Outlays in 1991 are projected to be relatively low at $394 million because of continued high prices and a relatively tight supply/demand balance.

Production in 1991 is expected to be up 9 percent because the Secretary of Agriculture lowered the 1991 acreage reduction requirement to 5 percent and relatively strong cotton prices are expected to result in increased cotton plantings on the unpaid flexible base acreage of other program crops. These factors are expected to more than offset declines in cotton acreage in the drought-plagued West.

Government Programs

The 1990 farm bill established the target price for upland cotton at the level of 72.9 cents per pound for each of the 1991 through 1995 crops, also the level effective for the last year of the 1985 farm bill. Deficiency payments will continue to be offered to program participants, but 15 percent of their crop acreage base will no longer be eligible to receive payments. As with other program crops, these unpaid flexible acres can continue to be planted to the program crop or to other program crops or to nonprogram crops other than fruits and vegetables. The Department of Agriculture has announced a 1991 crop advance deficiency payment rate of 4 cents per pound (equal to 40 percent of the projected deficiency payment rate) available to producers at signup.

The loan rate for price support loans continues to be set by formula, based on a moving average of spot cotton prices. For 1991, the upland cotton loan rate is established at 50.77 cents per pound. Although the marketing loan provisions remain in place with some modifications, farm prices are expected to remain well above the loan rate over the baseline period, so the program will have no effect.

The 1990 farm bill requires the Secretary of Agriculture to establish acreage reduction requirements to achieve carryover stocks equal to 30 percent of estimated use, or close to 5 million bales. The new provision is expected to cause lower ARPs and market prices than would have occurred under the old law, which established a carryover target of 4 million bales. For the 1991 crop, the acreage reduction requirement has been announced at 5 percent.

Supply and Demand

Production. As shown in Table 13, the 1991 crop of upland cotton is projected to be 16.6 million bales, up 9 percent from 1990. A major determinant of the large crop is the low 5 percent acreage reduction requirement. Participation in the cotton program has remained high, just below 90 percent for several years. Thus, the drastic reduction in ARP levels from 25 percent just two years ago allows for a substantial increase in plantings.

In addition, cotton is probably the most profitable crop alternative for southern participants in grain programs on their unpaid flexible acres. Because this program flexibility is new, there is a lot of uncertainty about the willingness of producers to plant an alternative crop on flexible acreage. Estimates of cotton acreage planted on the base acreage of other program crops have ranged from about 0.5 million to 1.5 million (about 4 percent to 12 percent of total cotton plantings).

Finally, there has been wide concern over drought conditions in the West, where irrigated cotton production is a large share of the total crop and the extremely high yields pull the national average up dramatically. Expected decreases in California plantings, along with

TABLE 13. UPLAND COTTON SUPPLY AND USE (By crop year)

	Actual	Projected						
	1989	1990	1991	1992	1993	1994	1995	1996
				Millions of Acres				
Base Acres (Net of CRP)	14.56	14.38	14.50	14.50	14.50	14.50	14.50	14.50
				Percentage of Base Acreage				
Acreage Reduction Program	25.0	12.5	5.0	15.0	12.5	12.5	12.5	12.5
Participation in ARP	89	87	87	87	88	89	89	89
				Millions of Acres				
Total Idled Acres[a]	4.71	3.21	2.18	3.45	3.15	3.17	3.17	3.16
Acres Planted	10.21	12.20	13.86	11.87	12.10	12.09	12.10	12.10
Acres Harvested	9.17	11.48	13.06	11.18	11.40	11.39	11.40	11.40
				Pounds per Acre				
Yield per Harvested Acre	602	638	611	630	640	650	660	670
Program Yield	592	592	592	592	592	592	592	592
				Millions of Bales				
Supply								
Beginning stocks	7.03	2.79	2.67	4.49	4.39	4.59	4.71	4.73
Production	11.50	15.25	16.63	14.67	15.20	15.42	15.67	15.91
Total (Including imports)	18.53	18.05	19.30	19.16	19.59	20.01	20.38	20.64
Use								
Domestic mill	8.68	8.45	8.51	8.59	8.80	9.01	9.22	9.34
Exports	7.24	7.03	6.40	6.28	6.30	6.40	6.53	6.62
Total (Including unaccounted)	15.92	15.48	14.91	14.87	15.10	15.40	15.76	15.96
Ending Stocks	2.79	2.67	4.49	4.39	4.59	4.71	4.73	4.78
CCC-owned stocks	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Outstanding CCC loans	0.43	0.47	2.01	1.81	2.07	2.27	2.19	2.23
Free stocks[b]	2.34	2.20	2.48	2.58	2.52	2.44	2.54	2.55
				Dollars per Pound				
Prices								
Target price	0.734	0.729	0.729	0.729	0.729	0.729	0.729	0.729
Loan rate	0.500	0.503	0.508	0.520	0.532	0.533	0.533	0.518
Loan prepayment rate	0.500	0.503	0.508	0.520	0.532	0.533	0.533	0.518
World price	0.650	d	d	d	d	d	d	d
Season average price[c]	0.640	0.678	d	d	d	d	d	d
Calendar-year average price	0.603	0.656	d	d	d	d	d	d
Deficiency payment rate	0.131	0.073	0.083	0.132	0.132	0.149	0.155	0.154

SOURCES: Actual data from Department of Agriculture; projections from Congressional Budget Office's February 1991 baseline.

NOTES: See Glossary for an explanation of terms. CRP = Conservation Reserve Program; ARP = Acreage Reduction Program.

a. Includes acres idled by annual acreage reduction programs, including the 50/92 program, and base acres enrolled in the 10-year Conservation Reserve Program.

b. Privately held stocks not being used as collateral for government loans.

c. Price for 1990 is a weighted average based on marketings during the first eight months of the crop year, not a projection for 1990.

d. Government agencies are prohibited from publishing cotton price projections.

expected increases in Texas and Oklahoma plantings, have led to a reduced national yield forecast. The national upland cotton yield is projected to be down 4 percent in 1991 from a year ago, instead of the normal trend growth of 1 percent to 2 percent.

The acreage reduction requirement for 1992 is projected to be increased to 15 percent, as stocks are rebuilt during the 1991 marketing year. ARP levels for 1993 through 1996 are projected to remain at 12.5 percent. Production of upland cotton is projected to increase from just below 15 million bales to just below 16 million bales over the period, as trend growth in yield boosts production with fairly constant plantings.

Use. Domestic mill use has been exceptionally strong for several seasons. Early in the 1990 crop year, mill use exceeded expectations and seemed to indicate a pace as high as that of the previous year. The pace has slowed in recent months in response to the general economic slowdown and competition from polyester. For the year, mill use is expected to be down about 3 percent from the 1989 crop year.

Exports are expected to decline about 3 percent from last season, but to remain strong at 7 million bales. Recent sales to China have been large, and the U.S. share of world cotton trade may pressure exports above the current forecast. Recent cotton price strength is expected to dampen foreign demand for U.S. cotton, however. Over the longer term, high cotton prices are expected to induce greater foreign production and lead to weaker export demand.

Prices and Stocks. Cotton prices have shown exceptional strength during the 1990 marketing year for the second consecutive season, exceeding even last year's high monthly average by several cents per pound. However, the large 1991 crop is expected to break the price strength recently exhibited, and continued lower ARPs are projected to keep prices from rising significantly in later years.

Stocks of upland cotton are projected to stay tight through the 1990 marketing year, but rebuild in 1991, increasing almost 70 percent. The new requirement to establish ARPs to maintain a 30 percent stocks-to-use ratio is projected to lead to carryover stocks of about 4.5

million to 4.8 million bales--barring unforeseen demand or supply shocks.

Government Costs

As shown in Table 14, cotton program outlays are projected at $394 million in fiscal year 1991. Although up sharply from 1990, this level of outlays is low compared with the cotton program's recent history. The projection is determined by relatively low deficiency payments and net lending costs because of the tight market situation. Outlays in 1992 are projected to be up dramatically. Part of the increase is from larger deficiency payments, but most is from higher net lending costs, as stock rebuilding is projected to be substantial during that fiscal year.

Outlays for 1993 through 1996 are projected to remain relatively high at roughly $600 million to $800 million per year as deficiency payments rise. Larger deficiency payments are the result of a relaxation of the recent supply/demand tightness leading to lower prices for later years in the projection period.

SOYBEANS

The soybean market outlook is dominated by excessive supplies brought on by weak foreign demand for U.S. soybeans and products. Stocks carried out of the 1990 marketing year, which ends August 1991, are expected to rise nearly 30 percent from the previous year's level. Assuming normal weather during the 1991 growing season, farm prices are expected to remain weak as the planting flexibility provision of the 1990 legislation encourages farmers to plant more soybeans and other oilseeds. In later years, prices are expected to move somewhat higher as exports recover. Soybean program outlays are projected to reach nearly $120 million in fiscal year 1991 as weak prices cause farmers to increase their use of the price support loan program. However, in later years, outlays are expected to be substantially less or negative because a 2 percent loan origination fee, imposed by the 1990 legislation, will discourage farmer use of the loan program.

TABLE 14. UPLAND COTTON PROGRAM OUTLAYS
(By fiscal year, in millions of dollars)

	Actual	Projected					
	1990	1991	1992	1993	1994	1995	1996
Net Lending							
Loans made	906	1,077	1,183	1,110	1,199	1,231	1,250
Cash loans repaid	1,451	1,066	808	1,158	1,131	1,179	1,269
Net Loans	-545	11	375	-49	68	52	-19
CCC Storage and Handling Costs	3	1	0	0	0	0	0
Direct Cash Payments							
Deficiency							
Advance	212	221	257	268	305	319	316
Regular	220	181	227	368	383	437	456
Subtotal	432	402	584	636	688	756	772
Other Outlays	31	-21	0	0	0	0	0
Total Outlays	-79	394	859	588	757	808	753

SOURCES: Actual data from Department of Agriculture; projections from Congressional Budget Office's February 1991 baseline.

Government Programs

The 1990 legislation raises the soybean loan rate from $4.50 per bushel in 1990 to $5.02 and establishes loan rates for minor oilseeds beginning with the 1991 crops. Nonrecourse loan rates are established for sunflower seed, canola, rapeseed, safflower seed, flaxseed, and mustard seed at a level comparable with soybeans, but not less than 8.9 cents per pound. The 1990 legislation requires the Secretary of Agriculture to allow producers to repay oilseed loans at the lower of the loan rate or the market price. However, the 1990 legislation also requires producers to pay a 2 percent fee if they choose to use the oilseed loan program.

Production

The 1990 soybean harvest is estimated at 1.92 billion bushels, virtually the same as the previous year's crop (see Table 15). Relative to the previous year, excellent growing conditions generated increased yields that offset lower soybean plantings. In recent years, U.S. soybean plantings have tended lower because of intense competition for export sales from South American soybean producers and domestic farm programs that generally rewarded farmers for planting corn and other program crops rather than soybeans (U.S. soybean plantings in 1990 were 15 percent below the 1984 level). The planting flexibility provisions of the 1990 legislation are expected to increase soybean plantings, particularly after 1991. CBO expects only an increase of about 1 million acres in U.S. soybean plantings because market prices continue to favor program crops, particularly corn, over soybeans. Assuming normal weather this growing season, CBO expects 1991 production to rise to 1.94 billion bushels. In later years, CBO expects soybean production to grow between 1.4 percent and 2.2 percent per year.

Use

Foreign demand for U.S. soybeans has been very anemic during the 1990 marketing year. Soybean exports are expected to be down 7 percent below year-earlier levels because of a record foreign oilseed crop, smaller soybean imports by the European Community, and reduced U.S. sales to Japan and Taiwan. However, total use is expected to be down only about 1 percent because increased soybean meal use is partially offsetting lower bean exports. Favorable hog and poultry prices relative to soybean meal have encouraged meal use by the domestic livestock industry. CBO expects that a smaller South American harvest and weak prices will boost soybean exports in the 1991 marketing year. Total use should be large enough to keep carryover stocks from expanding a second year in a row. In later years, CBO expects total use to rise between 1.5 percent and 2.3 percent per year as exports continue to grow.

TABLE 15. SOYBEAN SUPPLY AND USE (By crop year)

	Actual	Projected						
	1989	1990	1991	1992	1993	1994	1995	1996
				Millions of Acres				
Acres Planted	60.8	57.8	58.9	59.6	59.9	59.8	59.8	60.1
Acres Harvested	59.5	56.5	57.8	58.5	58.8	58.7	58.7	59.0
				Bushels per Acre				
Yield per Harvested Acre	32.3	34.0	33.5	33.8	34.2	34.5	34.9	35.2
				Millions of Bushels				
Supply								
Beginning stocks	182	239	309	305	298	302	300	292
Production	1,924	1,922	1,936	1,978	2,008	2,027	2,047	2,076
Total	2,109	2,163	2,247	2,285	2,308	2,331	2,349	2,370
Use								
Crushings for oil and meal	1,146	1,175	1,204	1,227	1,236	1,245	1,255	1,266
Seed, feed, and residual	101	100	100	100	100	100	100	100
Exports	623	578	638	660	670	685	702	721
Total	1,870	1,853	1,942	1,987	2,006	2,030	2,057	2,087
Ending Stocks	239	309	305	298	302	300	292	284
CCC-owned stocks	0	0	0	0	0	0	0	0
Outstanding CCC loans	20	50	55	45	37	30	22	19
Free stocks[a]	219	259	250	253	265	270	270	265
				Dollars per Bushel				
Prices								
Season average price	5.70	5.66	5.54	5.70	5.94	6.01	6.09	6.16
Loan rate	4.53	4.50	5.02	5.02	5.02	5.02	5.02	5.02

SOURCES: Actual data from Department of Agriculture; projections from Congressional Budget Office's February 1991 baseline.

a. Privately held stocks not being used as collateral for government loans.

Prices and Stocks

Soybean stocks carried out of the 1990 marketing year are expected to be nearly 30 percent greater than the previous year's level and the largest carryover since the 1986 marketing year. The 1991 carryover is projected to remain at this relatively high level, but as exports increase in later years, stocks are expected to fall slowly toward more normal levels. Farm prices are projected to fall to $5.54 per bushel in

the 1991 marketing year compared with an estimated $5.66 in 1990. Prices in later years are expected to rise between 1 percent and 3 percent per year.

Government Costs

Soybean program costs are projected to rise to $119 million in fiscal year 1991, up from $5 million in fiscal year 1990 (see Table 16). Farmers are expected to increase their use of the government's nonrecourse loan program given the weakness in market prices. In later years, however, soybean program outlays will be very small or negative. Net repayments of nonrecourse loans and receipts from the new loan origination fee will keep soybean program outlays either very low or negative. Significant outlay exposure in the oilseed marketing loan program will occur only if soybean prices fall below the new loan rate level of $5.02 per bushel. Market prices below this level appear to be quite unlikely.

TABLE 16. SOYBEAN PROGRAM OUTLAYS
(By fiscal year, in millions of dollars)

	Actual	Projected					
	1990	1991	1992	1993	1994	1995	1996
Net Lending							
Loans made	937	1,109	753	753	502	377	301
Cash loans repaid	-925	-990	-705	-803	-542	-412	-341
Net Loans	12	119	48	-50	-40	-35	-40
Loan Origination Fee	0	0	-15	-15	-10	-8	-6
Other Outlays	-7	0	0	0	0	0	0
Total Outlays	5	119	33	-65	-50	-43	-46

SOURCES: Actual data from Department of Agriculture; projections from Congressional Budget Office's February 1991 baseline.

DAIRY

The average price received for all milk at the farm was a record high $13.78 per cwt in 1990, up 24 cents from 1989. Prices were high for most of the year despite year-over-year milk production increases in every month. The farm price of milk declined in the fall, and was well below year-earlier record monthly levels by the end of 1990. For 1991, prices are expected to be down about 15 percent from the average of 1990.

The increases in milk production led to surplus conditions in manufactured products of cheese and nonfat dry milk in the fall of 1990, so that government purchases of these products resumed after few or no purchases since 1988.

At $505 million, fiscal year 1990 dairy program outlays were the lowest since 1979, and were well below outlays for recent years. In 1991, outlays are projected to increase to $739 million, as increases in cheese and nonfat dry milk purchases outweigh offsetting receipts from a producer assessment and a decline in butter purchases.

Government Programs

The support price for milk was set at a minimum $10.10 per cwt by the 1990 farm bill (see Table 17). The Secretary of Agriculture is directed to project net removals (government purchases of cheese, butter, and nonfat dry milk at prices which are a function of the milk support price) and possibly adjust the support price for milk annually. He is directed to increase the level of support if he projects calendar year net removals to fall below 3.5 billion pounds milk equivalent on a *total milk solids basis*.[2] The support level for milk in a subsequent year could come back down to the minimum if removals are projected to be above 5 billion pounds. CBO projects the support price to remain at $10.10 per cwt, as projected net removals far exceed 3.5 billion pounds.

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2. Table 17 displays the supply and use balance for milk on a milk equivalent *milkfat basis*, and measured over a fiscal year. Thus, net removals in the table are not comparable to the quantities relevant here. Projected calendar year net removals in billions of pounds on a total milk solids basis are 7.2 in 1991, 7.3 in 1992, 6.5 in 1993, 6.2 in 1994, 5.9 in 1995, and 5.8 in 1996.

TABLE 17. DAIRY SUPPLY AND USE, AND DAIRY PROGRAM OUTLAYS (By fiscal year, in millions of dollars)

	Actual	Projected					
	1990	1991	1992	1993	1994	1995	1996
Supply							
Herd Size (Millions)	10.137	10.127	10.051	9.924	9.795	9.699	9.630
Yield (Cwt per cow)	145.21	148.83	152.69	156.59	160.43	164.27	168.23
(Billions of pounds)							
Beginning Commercial Stocks	5.3	5.3	6.1	6.0	5.1	5.0	5.0
Production	147.2	150.7	153.5	155.4	157.1	159.3	162.0
Imports	2.7	2.5	2.5	2.5	2.5	2.5	2.5
Total	155.2	158.5	162.0	163.9	164.7	166.9	169.5
Use (Billions of pounds)							
Commercial	139.8	142.3	145.8	149.3	150.3	152.7	155.4
Farm	2.1	2.1	2.1	2.1	2.1	2.1	2.1
CCC Net Removals[a]	8.0	8.1	8.1	7.5	7.3	7.0	7.0
Ending Commercial Stocks	5.3	6.1	6.0	5.1	5.0	5.0	5.0
Prices (Dollars per cwt)							
Support Price	10.10	10.10	10.10	10.10	10.10	10.10	10.10
All Milk Price[b]	13.78	11.52	11.41	11.42	11.45	11.48	11.39
Outlays (Millions of dollars)							
Purchases	399	846	830	754	717	678	659
Dairy Termination Program	189	100	11	0	0	0	0
Other	83	62	66	59	57	52	51
Subtotal	671	1,009	906	814	774	730	710
Assessments[c]	8	50	161	172	174	177	180
Other Receipts	159	220	205	164	151	137	124
Subtotal	166	270	366	337	326	314	304
Net CCC Outlays	505	739	540	477	449	416	407

SOURCES: Actual data from Department of Agriculture; projections from Congressional Budget Office's February 1991 baseline.

NOTE: cwt = hundredweight.

a. Net purchase of dairy products (milk equivalents on a milkfat basis) for the purpose of supporting the farm price of milk.

b. Average price received by farmers for milk.

c. Offsetting receipts from farmers based on sales of milk.

The 1990 farm bill also provides for a producer assessment if calendar year net removals are projected above 7 billion pounds milk equivalent on a total milk solids basis. Under the CBO baseline, this assessment would be triggered in 1992 only. The 1990 budget reconciliation act provides for another producer assessment of 5 cents per cwt in 1991, and 11.25 cents per cwt in subsequent years.

Production

Milk production is projected to rise as the result of the net effect of two trends: a gradually declining cow herd but increasing milk per cow. Production in 1991 is projected to increase by about 2 percent as the herd declines marginally while milk per cow increases by 2.5 percent.

For the remainder of the baseline period, the cow herd is projected to decline steadily from 1991 to 1996--about 5 percent over the entire period. Milk per cow is projected to increase by about 13 percent over the same period, leading to production increases amounting to 7 percent by 1996.

Use

Recent demand for cheese and butter has been strong, while fluid milk sales remain fairly steady and nonfat dry milk use has been sharply lower. Commercial use of nonfat dry milk was boosted in 1989 by large commercial exports. These exports now appear to be a one-shot phenomenon, as world prices for nonfat dry milk, as well as other dairy products, are once again well below domestic support levels.

The commercial use of all milk on a milkfat basis is projected to increase because of population growth and falling real prices of dairy products. Use is projected to be up almost 2 percent in 1991, and an additional 9 percent by 1996.

Prices and Stocks

The average price received for all milk at the farm in the beginning of 1990 was near a record monthly high at $15.70 per cwt. The monthly price declined to $13.40 per cwt by April, but rose counterseasonally through late summer, only to fall counter-seasonally and quite dramatically in the fall. By December, the all-milk price had fallen to $12.20 per cwt.

Although butter prices remained stable near the government purchase price, cheese and nonfat dry milk prices collapsed in the fall months. By the end of 1990, the wholesale price of cheese was 25 percent below summer highs, while the wholesale price of nonfat dry milk was down by 33 percent.

Buyers of manufactured dairy products apparently feared shortages in availability as had occurred in 1989, bidding up the prices of products and raw milk in mid-year. After rebuilding commercial stocks and relaxing their concerns that cheese and nonfat dry milk production would be low, buyers drastically reduced the price they were willing to pay for these products, and possibly drew upon accumulated stocks to meet current demand. For the rest of 1991, prices of manufactured products are projected to remain near price support levels, with possible seasonal rises in the fall as markets tighten. Farm prices for milk are expected to follow this pattern as well.

Government Costs

Government outlays for the dairy program were $505 million in fiscal year 1990, the lowest since fiscal year 1979. Purchases of nonfat dry milk were negligible and no cheese was purchased to support milk prices in 1990. However, early 1991 has already seen substantial purchases of these products, as well as brisk purchases of butter. Thus, outlays for product purchases are expected to more than double in 1991 from the previous year. Somewhat offsetting the increase in purchases, Dairy Termination Program payments are expected to decline, and receipts from producer assessments and export sales from government inventory are expected to increase. Net program outlays are projected to be $739 million in 1991.

Dairy program outlays for the rest of the baseline period decline from $477 million in 1992 to $407 million in 1996, as purchases gradually decline and producer assessments increase to offset outlays.

LAND USE

Planted acreage of the major supported crops--feed grains, wheat, upland cotton, rice, soybeans, and minor oilseeds--is expected to fall to 241 million acres in 1991, down nearly 3 million acres from a year ago (see Table 18).[3] In 1991, planted area is expected to increase in all major crops except for a drop of more than 10 million acres in wheat and no change in rice. The largest increase in percentage terms is expected to come in upland cotton and minor oilseeds. Acreage idled under the 1991 acreage reduction, 0/92, and 50/92 programs is expected to rise dramatically in wheat but fall in all other program crops. Participating program crop producers are expected to shift some of their unpaid flexible acreage out of their traditional program crops and into cotton, soybeans, and minor oilseeds. Cotton plantings are expected to moderate in 1992, causing the acreage planted to major crops to bottom at 240 million acres. In later years, acreage is expected to grow slowly, reaching 246 million acres by 1996.

The planting flexibility provisions of the 1990 legislation are expected to generate an expansion in nonprogram crop plantings, particularly in soybeans and other oilseeds. Oilseed acreage is expected to rise almost 3 million acres by 1996 from the 1990 level. The Conservation Reserve Program is expected to have nearly 39 million acres of cropland idled under long-term contracts by 1995, an increase of nearly 5 million acres from the 1990 level (an additional 1 million acres of noncropland wetland easements is expected to be enrolled). To accommodate these increases, CBO projects that the Secretary of Agriculture will reduce acreage reduction requirements rather than allow the area planted to program crops to fall. As a result, land idled under annual programs is expected to fall each year of the projections period beginning in 1992.

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3. Winter wheat and oats are included in this total on a harvested acre basis because these crops are often used as a cover crop on base acreage idled under the government annual acreage reduction programs. Harvested acres are used to avoid double counting with idled acreage.

TABLE 18. LAND COMMITTED TO THE MAJOR SUPPORTED CROPS (By fiscal year, in millions of acres)

	Actual	Projected					
	1990	1991	1992	1993	1994	1995	1996
Acreage Planted to Major Crops							
Corn	74.2	77.0	76.1	77.0	77.0	77.4	77.5
Sorghum, Barley, and Oats[a]	24.6	26.3	26.5	27.4	27.7	28.0	28.0
Soybeans	57.8	58.9	59.6	59.9	59.8	59.8	60.1
Sunflowers and Other Minor Oilseeds[b]	2.1	2.8	2.7	2.7	2.7	2.7	2.7
Wheat[c]	70.3	59.7	60.2	59.6	60.5	60.0	62.7
Upland Cotton	12.2	13.9	11.9	12.1	12.1	12.1	12.1
Rice	2.9	2.9	3.0	2.9	3.0	3.0	3.1
Subtotal	244.1	241.4	240.1	241.5	242.8	243.1	246.3
Acreage Idled Under Annual Programs							
Corn	10.1	7.9	8.0	6.5	6.4	6.4	6.4
Sorghum, Barley, and Oats	6.0	5.0	5.0	4.5	4.3	4.0	4.0
Wheat	7.0	13.4	11.5	11.4	9.8	9.6	6.6
Upland Cotton	1.8	0.9	2.2	1.9	1.9	1.9	1.9
Rice	1.0	0.6	0.6	0.7	0.6	0.6	0.5
Subtotal[d]	25.9	27.8	27.2	24.9	22.9	22.5	19.4
Cropland Enrolled in the Conservation Reserve Program[e]							
Corn	4.1	4.2	4.4	4.5	4.7	4.8	4.8
Sorghum, Barley, and Oats	6.4	6.4	6.5	6.6	6.6	6.7	6.7
Wheat	9.6	9.7	10.1	10.5	10.9	11.4	11.4
Upland Cotton	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Other	12.5	12.8	13.4	14.0	14.5	14.5	14.5
Subtotal	33.9	34.5	35.7	36.9	38.0	38.7	38.7
Total	303.9	303.7	303.0	303.0	303.8	304.3	304.4

SOURCES: Actual data from Department of Agriculture; projections from Congressional Budget Office's February 1991 baseline.

a. Acreage harvested to oats is used in this total.

b. Next to sunflowers, flaxseed has the largest planted acreage of the minor oilseeds.

c. Acreage harvested to winter wheat is used in this total.

d. Includes land idled in the annual acreage reduction program, and in the 0/92 and 50/92 programs.

e. CRP acreage attributed to the program crops is base acreage only.

APPENDIX

WORLD TRADE ASSUMPTIONS FOR SUPPORTED FARM COMMODITIES

Tables A-1 through A-7 provide details of assumptions underlying the export projections for corn, coarse grains, wheat, rice, cotton, soybeans, and soybean meal. The global trade tables for these commodities give projections for major competitors and major markets through 1996.

The global level of commodity trade is expected to rise slightly in the 1991-1996 period. Actual levels of global commodity trade will depend on the prices of these commodities, including subsidies and credit, and of their substitutes; on production decisions; and on weather in the producing countries. Since trade in commodities is heavily influenced by production and trade policies in various countries, any new bilateral or multilateral trade agreement will influence trade levels in future years. No major changes are incorporated in these forecasts.

The United States is expected to continue as the dominant exporter of corn, coarse grains, and soybeans, accounting for about two-thirds of total exports in total coarse grains and soybeans, and over four-fifths of global corn trade. In wheat the United States is expected to increase its market share from the low 1990 level and to account for about one-third of global trade by mid-decade. Rice exports from the United States are forecast to drop marginally to a little below one-fifth of the world total. The U.S. share of cotton trade may drop during the first half of the decade, but is expected to remain above one-quarter of global trade. In soybean meal, U.S. exports are expected to remain at less than one-fifth of the total during the baseline period.

TABLE A-1. WORLD CORN TRADE ASSUMPTIONS IN THE FEBRUARY 1991 CBO BASELINE
(By trade year, in millions of metric tons)

	Actual	Projected						
	1989	1990	1991	1992	1993	1994	1995	1996
Exports								
United States	59.9	45.7	52.1	56.4	59.4	61.3	62.9	63.5
Major Competitors								
Argentina	3.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5
China	3.2	6.0	3.5	3.5	3.5	3.5	3.5	3.5
South Africa	2.9	0.3	1.3	1.3	1.3	1.3	1.3	1.3
Thailand	1.3	0.8	0.7	0.7	0.7	0.7	0.7	0.7
Subtotal	7.4	7.1	5.5	5.5	5.5	5.5	5.5	5.5
Rest of World	5.7	6.1	5.4	4.3	3.9	4.4	5.4	7.3
Total	73.0	58.9	63.0	66.2	68.8	71.2	73.7	76.3
U.S. Share (Percent)	82	78	83	85	86	86	85	83
Imports								
Major Importers								
China	0.5	0.0	0.3	0.4	0.5	0.6	0.7	0.9
Eastern Europe	3.5	2.1	2.2	2.4	2.5	2.7	2.8	3.0
European Community	3.1	3.5	3.3	3.3	3.3	3.3	3.3	3.3
Japan	16.2	16.2	16.4	16.5	16.7	16.9	17.0	17.2
Soviet Union	17.8	8.0	9.0	9.9	10.8	11.9	13.1	14.4
Subtotal	41.1	29.8	31.1	32.4	33.8	35.3	37.0	38.8
Rest of World	31.9	29.1	31.9	33.8	35.0	35.9	36.7	37.5
Total	73.0	58.9	63.0	66.2	68.8	71.2	73.7	76.3

SOURCE: Congressional Budget Office, February 1991 projections.

NOTE: The world corn trade year begins in October; for example, the 1991 trade year runs from October 1991 through September 1992.

European Community trade excludes trade within the EC.

TABLE A-2. WORLD COARSE GRAIN TRADE ASSUMPTIONS IN THE FEBRUARY 1991 CBO BASELINE
(By trade year, in millions of metric tons)

	Actual	Projected						
	1989	1990	1991	1992	1993	1994	1995	1996
Exports								
United States	69.1	53.4	59.3	63.7	67.0	69.2	71.0	71.8
Major Competitors								
Argentina	4.5	5.5	5.0	5.0	5.0	5.0	5.0	5.0
Australia	2.8	1.9	2.0	2.1	2.2	2.4	2.5	2.7
Canada	4.5	4.9	5.0	5.2	5.4	5.5	5.7	5.9
European Community	8.5	7.4	7.6	7.9	8.1	8.3	8.6	8.8
South Africa	2.9	0.3	1.3	1.3	1.3	1.3	1.3	1.3
Thailand	1.3	0.8	0.7	0.7	0.7	0.7	0.7	0.7
Subtotal	24.4	20.8	21.7	22.2	22.7	23.2	23.8	24.3
Rest of World	6.6	10.5	7.9	7.5	7.4	7.6	8.2	9.4
Total	100.1	84.7	88.9	93.4	97.1	100.0	103.0	105.6
U.S. Share (Percent)	69	63	67	68	69	69	69	68
Imports								
Major Importers								
China	1.1	0.7	1.0	1.1	1.2	1.3	1.4	1.6
Eastern Europe	5.1	3.9	4.1	4.2	4.4	4.6	4.8	5.0
European Community	4.5	5.6	4.6	4.6	4.6	4.6	4.6	4.6
Japan	21.8	20.9	21.8	21.2	22.1	21.6	22.4	21.9
Soviet Union	23.0	12.0	12.2	14.0	15.4	16.2	17.8	18.9
Subtotal	55.4	43.1	43.6	45.1	47.6	48.2	51.0	52.0
Rest of World	44.7	41.6	45.3	48.2	49.5	51.8	52.0	53.6
Total	100.1	84.7	88.9	93.4	97.1	100.0	103.0	105.6

SOURCE: Congressional Budget Office, February 1991 projections.

NOTE: The world coarse grain trade year begins in October; for example, the 1991 trade year runs from October 1991 through September 1992.

European Community trade excludes trade within the EC.

TABLE A-3. WORLD WHEAT TRADE ASSUMPTIONS IN THE FEBRUARY 1991 CBO BASELINE
(By trade year, in millions of metric tons)

	Actual	Projected						
	1989	1990	1991	1992	1993	1994	1995	1996
Exports								
United States	33.5	26.8	27.6	30.3	32.1	33.4	35.2	37.0
Major Competitors								
Argentina	5.6	6.6	6.7	6.7	6.8	6.9	6.9	7.0
Australia	10.9	10.5	10.9	11.0	11.1	11.3	11.4	11.5
Canada	17.0	17.5	19.3	20.4	21.2	21.9	22.3	22.7
European Community	21.0	20.5	20.7	20.9	21.1	21.3	21.5	21.8
Subtotal	54.5	55.1	57.5	59.1	60.3	61.3	62.1	63.0
Rest of World	8.7	10.5	9.6	8.2	8.1	8.8	9.2	9.8
Total	96.6	92.4	94.7	97.6	100.5	103.5	106.6	109.8
U.S. Share (Percent)	35	29	29	31	32	32	33	34
Imports								
Major Importers								
China	13.0	10.0	10.3	10.8	11.4	11.9	12.5	13.1
Egypt	7.0	6.5	6.6	6.8	6.9	7.0	7.2	7.3
European Community	2.5	3.5	2.5	2.5	2.5	2.5	2.5	2.5
Japan	5.6	5.6	5.7	5.7	5.8	5.9	5.9	6.0
Soviet Union	14.6	12.0	13.0	13.5	14.0	14.5	15.0	15.5
Subtotal	42.7	37.6	38.1	39.3	40.6	41.8	43.1	44.4
Rest of World	53.9	54.8	56.6	58.2	59.9	61.7	63.5	65.4
Total	96.6	92.4	94.7	97.6	100.5	103.5	106.6	109.8

SOURCE: Congressional Budget Office, February 1991 projections.

NOTE: The world wheat trade year begins in July; for example, the 1991 trade year runs from July 1991 through June 1992.

European Community trade excludes trade within the EC.

TABLE A-4. WORLD MILLED RICE TRADE ASSUMPTIONS IN THE FEBRUARY 1991 CBO BASELINE
(By trade year, in millions of metric tons)

	Actual	Projected						
	1989	1990	1991	1992	1993	1994	1995	1996
Exports								
United States	2.97	2.42	2.32	2.34	2.36	2.37	2.39	2.40
Major Competitors								
Australia	0.45	0.47	0.47	0.48	0.50	0.51	0.53	0.54
Burma	0.46	0.20	0.40	0.41	0.42	0.42	0.43	0.44
China	0.32	0.30	0.30	0.35	0.40	0.40	0.40	0.40
European Community	0.96	0.95	1.04	1.00	1.00	1.00	1.00	1.00
Pakistan	0.78	0.84	0.95	1.00	1.03	1.06	1.09	1.12
Thailand	6.04	3.93	4.10	4.18	4.27	4.35	4.44	4.53
Subtotal	9.01	6.69	7.26	7.42	7.61	7.75	7.89	8.04
Rest of World	3.12	3.16	2.69	2.76	2.80	2.90	3.00	3.11
Total	15.10	12.27	12.27	12.52	12.77	13.02	13.28	13.55
U.S. Share (Percent)	20	20	19	19	18	18	18	18
Imports								
Major Importers								
European Community	1.24	1.15	1.09	1.15	1.20	1.20	1.20	1.20
Indonesia	0.41	0.04	0.05	0.05	0.06	0.06	0.06	0.06
Iran	1.00	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Iraq	0.54	0.36	0.20	0.21	0.22	0.23	0.24	0.26
Nigeria	0.30	0.20	0.20	0.20	0.21	0.21	0.22	0.22
Subtotal	3.49	2.60	2.54	2.62	2.68	2.70	2.72	2.74
Rest of World	11.61	9.67	9.74	9.90	10.08	10.32	10.56	10.81
Total	15.10	12.27	12.27	12.52	12.77	13.02	13.28	13.55

SOURCE: Congressional Budget Office, February 1991 projections.

NOTE: The world milled rice trade year begins in January, and is the same as a calendar year.
European Community trade excludes trade within the EC.

TABLE A-5. WORLD COTTON TRADE ASSUMPTIONS IN THE FEBRUARY 1991 CBO BASELINE
(By trade year, in millions of metric tons)

	Actual	Projected					
	1989	1990	1991	1992	1993	1994	1995	1996
Exports								
United States (Upland cotton)	7,242	7,026	6,402	6,281	6,304	6,397	6,532	6,620
Major Competitors								
China	863	900	1,000	1,100	1,200	1,300	1,400	1,500
Egypt	211	160	210	260	310	360	410	460
Mexico	212	170	175	180	186	191	197	203
Pakistan	1,371	1,500	1,575	1,654	1,736	1,823	1,914	2,010
Paraguay	942	1,000	1,040	1,082	1,125	1,170	1,217	1,265
Sudan	750	400	410	420	431	442	453	464
Turkey	205	600	700	770	847	932	1,025	1,127
Soviet Union	3,330	2,500	2,400	2,300	2,200	2,100	2,000	1,900
Subtotal	7,884	7,230	7,510	7,766	8,035	8,318	8,616	8,930
Rest of World	8,832	9,775	10,239	10,346	10,298	10,168	9,984	9,833
Total	23,958	24,031	24,151	24,393	24,637	24,883	25,132	25,383
U.S. Share (Percent)	30	29	27	26	26	26	26	26
Imports								
Major Importers								
China	1,874	1,900	2,000	2,100	2,200	2,300	2,400	2,500
Eastern Europe	3,060	2,135	2,285	2,435	2,585	2,735	2,885	3,035
European Community	4,593	4,915	4,965	5,015	5,065	5,115	5,165	5,215
Hong Kong	1,199	1,200	1,220	1,240	1,260	1,280	1,300	1,320
Indonesia	1,292	1,560	1,576	1,591	1,607	1,623	1,640	1,656
Japan	3,165	2,750	2,775	2,800	2,825	2,850	2,875	2,900
South Korea	2,040	2,000	2,025	2,050	2,075	2,100	2,125	2,150
Taiwan	1,125	1,000	950	900	850	800	750	700
Subtotal	18,348	17,460	17,796	18,131	18,467	18,803	19,140	19,476
Rest of World	5,610	6,571	6,356	6,261	6,169	6,080	5,992	5,907
Total	23,958	24,031	24,151	24,393	24,637	24,883	25,132	25,383

SOURCE: Congressional Budget Office, February 1991 projections.

NOTE: The world cotton trade year begins in August; for example, the 1991 trade year runs from August 1991 through July 1992.

European Community trade excludes trade within the EC.

TABLE A-6. WORLD SOYBEAN TRADE ASSUMPTIONS (EXCLUDING MEAL AND OIL) IN THE FEBRUARY 1991 CBO BASELINE
(By trade year, in millions of metric tons)

	Actual	Projected						
	1989	1990	1991	1992	1993	1994	1995	1996
Exports								
United States	17.0	15.7	17.4	18.0	18.2	18.6	19.1	19.6
Major Competitors								
Argentina	3.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7
Brazil	3.9	3.5	3.6	3.7	3.8	3.9	4.0	4.1
Subtotal	6.9	7.6	7.8	8.0	8.2	8.4	8.6	8.8
Rest of World	3.3	2.9	1.4	1.1	1.2	1.1	0.9	0.7
Total	27.1	26.2	26.5	27.0	27.6	28.1	28.6	29.1
U.S. Share (Percent)	62.5	60.0	65.6	66.5	66.2	66.3	66.8	67.4
Imports								
Major Importers								
Eastern Europe	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8
European Community	13.2	12.7	12.6	12.5	12.4	12.3	12.2	12.1
Japan	4.7	4.4	4.5	4.6	4.7	4.8	4.9	5.0
Mexico	0.9	1.3	1.3	1.3	1.3	1.4	1.4	1.4
Taiwan	2.1	1.9	1.9	1.9	2.0	2.0	2.0	2.1
Soviet Union	0.7	0.5	0.7	0.9	1.1	1.3	1.5	1.7
Subtotal	22.3	21.5	21.7	22.0	22.3	22.6	22.9	23.2
Rest of World	4.8	4.8	4.8	5.0	5.3	5.5	5.7	5.9
Total	27.1	26.2	26.5	27.0	27.6	28.1	28.6	29.1

SOURCE: Congressional Budget Office, February 1991 projections.

NOTE: The world soybean trade year begins in October; for example, the 1991 trade year runs from October 1991 through September 1992.

European Community trade excludes trade within the EC.

TABLE A-7. WORLD SOYBEAN MEAL TRADE ASSUMPTIONS IN THE FEBRUARY 1991 CBO BASELINE
(By trade year, in millions of metric tons)

	Actual	Projected						
	1989	1990	1991	1992	1993	1994	1995	1996
Exports								
United States	4.6	4.5	4.6	4.6	4.7	4.8	4.9	5.0
Major Competitors								
Argentina	4.8	5.5	5.8	6.1	6.4	6.7	7.0	7.3
Brazil	9.4	8.0	8.2	8.4	8.6	8.8	9.0	9.2
European Community	4.3	4.2	4.1	4.0	3.9	3.8	3.7	3.6
Subtotal	18.4	17.7	18.1	18.5	18.9	19.3	19.7	20.1
Rest of World	3.2	3.6	3.4	3.3	3.3	3.2	3.1	3.0
Total	26.1	25.7	26.1	26.5	26.9	27.3	27.7	28.1
U.S. Share (Percent)	17.5	17.4	17.5	17.6	17.6	17.7	17.8	17.9
Imports								
Major Importers								
Eastern Europe	4.1	3.9	4.0	4.0	4.1	4.1	4.2	4.2
European Community	12.8	12.5	12.3	12.1	11.9	11.7	11.5	11.3
Soviet Union	3.0	2.5	2.8	3.0	3.3	3.5	3.8	4.0
Subtotal	19.9	19.0	19.1	19.2	19.3	19.4	19.5	19.6
Rest of World	6.2	6.8	7.0	7.3	7.6	7.9	8.2	8.6
Total	26.1	25.7	26.1	26.5	26.9	27.3	27.7	28.1

SOURCE: Congressional Budget Office, February 1991 projections.

NOTE: The world soybean meal trade year begins in October; for example, the 1991 trade year runs from October 1991 through September 1992.

European Community trade excludes trade within the EC.

GLOSSARY

Acreage Reduction Program (ARP): A program in which producers agree not to plant part of their crop acreage base in the supported crop. Participation is voluntary and unpaid, but producers must participate to receive deficiency payments and other program benefits. Reduction percentages are announced annually by the Secretary of Agriculture, who is empowered to adjust the percentages within specified ranges based on a commodity's stocks-to-use ratio.

Base Acreage: Acreage that would "normally" be planted to a crop. The crop acreage base is calculated as the average of acreage planted and considered planted to the crop during the past three to five years, depending on the crop, and is adjusted each year. Acreage that is considered planted acreage includes land idled under government programs, land that could not be planted because of natural disaster, and unpaid flexible acreage.

Commodity Credit Corporation (CCC): A wholly-owned government corporation created in 1933 to stabilize and support farm income and prices. Most of the activities of the corporation are carried out by the Agricultural Conservation and Stabilization Service of the U.S. Department of Agriculture. CCC activities are financed through borrowings from the U.S. Treasury and appropriations made to reimburse it for losses realized in its operations.

Conservation Reserve Program (CRP): A long-term land retirement program with objectives that include reducing soil erosion, improving water quality, and increasing tree planting. Landowners receive annual rental payments and assistance in putting an approved vegetative cover on the land in exchange for agreeing to devote the land to conserving uses during the 10-year term of the contract.

Crop Years or Marketing Years: The 12-month period beginning around harvest time, during which a crop is marketed. The wheat crop year begins in June, the rice and cotton crop year in August, and the corn and soybean crop year in September. The crop year is identified by the calendar year in which the crop is harvested. The 1991 wheat crop, for example, is harvested during calendar year 1991, even though most of it was planted during the fall of 1990. The 1991 wheat crop year, therefore, extends from June 1991 through May 1992.

Deficiency Payment: A direct payment made to participating producers when the average market price falls below the target price for the crop. The total deficiency payment, which can be paid in a combination of generic commodity certificates and cash, equals the product of the producer's payment acres, program yield, and the deficiency payment rate. Generally, the deficiency payment rate equals the difference between the target price and the greater of the market price or the nonrecourse loan rate.

Several types of deficiency payments are made. Advance deficiency payments are made when producers sign up for a program (usually prior to planting) and are up to 50 percent of the estimated total deficiency payment. Regular deficiency payments are made roughly midway into the marketing year--after five months of price information has been reported for wheat, feed grains, and rice and after the preceding calendar year's price is known for cotton. The regular deficiency payment rate is the difference between the target price and the greater of the five-month price (or calendar year price in cotton) and the basic nonrecourse loan rate. If season average market prices are below the basic loan rate, then additional payments are made equal to the difference between the basic loan rate and the higher of the season average price or the announced loan rate. Beginning in crop year 1994 the deficiency payment will be calculated using the lesser of the season average market price and the five-month market price plus $0.10 for wheat and $.07 for feed grains. For rice the calculation will use the lesser of the calendar year market price or the five-month market price plus an appropriate amount.

Export Enhancement Program (EEP): A program offering subsidies to allow U.S. agricultural commodities--mostly wheat--to be sold to certain foreign purchasers at prices below U.S. market prices. The program was designed primarily to compete directly with the European Community's subsidized grain sales. To date all subsidies have been paid in generic certificates, but cash payments are not precluded.

Farmer-Owned Reserve (FOR): A storage program designed to ensure adequate stock levels to dampen sharp price movements in wheat and feed grains. The reserve can be opened for entry of wheat or feed grains for a specific crop year based on price and stock ratios. If opened for entry, farmers can extend nonrecourse loans and place their grain in storage, usually on their own farms. The CCC makes quarterly storage payments. Farmers can remove their grain from storage at any time by repaying the loan, or can exchange their grain for generic commodity certificates.

Food Security Reserve: A minimum of 147 million bushels of wheat intended to enable the United States to respond to unanticipated food emergencies in developing countries. The food security reserve can be maintained either through annual forfeitures in the nonrecourse loan program or through open-market purchases.

Generic Commodity Certificates: Negotiable, dollar-denominated certificates received by CCC program participants in lieu of cash payments. Generic certificates can be used to redeem outstanding regular or reserve nonrecourse loans, exchanged for CCC-owned stocks, or, in some cases, exchanged for cash.

Loan Origination Fee: A fee charged at the time a commodity is placed under loan. The 1990 budget reconciliation act established fees for soybeans and other oilseeds.

Loan Rate: *See* Nonrecourse Loans

Marketing Assessment: A payment made to the CCC for each marketed quantity of specified commodities. Such commodities include dairy, peanuts, sugar, honey, and tobacco. In addition, malting barley produced by program participants also is assessed. For wool and

mohair, an assessment is subtracted from the payments made to the producer.

Marketing Loan Program: A program in which a producer may repay a nonrecourse commodity loan at a per-unit rate that is lower than the rate used to compute the value of the loan when granted. For example, a rice grower can place one hundredweight (cwt) of rice under loan and receive the nonrecourse loan rate of $6.50. If the world market price, adjusted to the farm level, turns out to be less than $6.50 per cwt, say $5.00, then the producer can satisfy the terms of the loan and regain clear title to the crop by paying $5.00 to the CCC. Marketing loans protect farmers' returns while reducing or eliminating the price-supporting function of the nonrecourse loan program. Participants are limited to $75,000 in marketing loan benefits per crop year.

Marketing Years: *See* Crop Years.

Nonrecourse Loans: Loans offered to producers participating in CCC programs for wheat, feed grains, soybeans, other oilseeds, cotton, rice, sugar, and honey. When a loan is made, the producer's crop is pledged as collateral and the total amount of the loan equals the amount of crop pledged times the nonrecourse loan rate. These are nonrecourse loans because the commodity can be forfeited to satisfy the loan fully even if its market price has fallen below the nonrecourse loan rate. Producers can repay their loans with cash or, effectively, with generic commodity certificates. The formula for the basic loan rate is specified in the law. The announced loan rate in wheat and feed grains is the final rate used and may be below the basic rate, depending on the commodity's stocks-to-use ratio. After adjusting the basic loan rate for the stocks-to-use ratio, the Secretary of Agriculture may reduce the adjusted rate another 10 percent.

Optional Flexible Acres: The option to plant an alternative crop on up to 10 percent of base acres, in addition to the 15 percent allotted to unpaid flexible acres. However, the farmer must forfeit deficiency payments that would otherwise be earned by planting the program crop on those acres. On optional flexible acres the potential program payment will figure into the planting decision.

Payment Acres: Acres on which farmers who participate in the annual commodity programs are eligible to receive deficiency payments. The participating farmer is eligible for payments on total base acres minus the unpaid acres idled under the ARP, minus the unpaid flexible acres, and minus any optional flexible acres on which the farmer chooses to plant alternate crops. Producers receive payments only on acres planted to the program crop up to the maximum eligible level. Payments can be received on unplanted acres only under the 50/92 and 0/92 programs or if weather prevents planting.

Payments Limitation: The limitation on the annual amount of farm program payments (excluding loans) that can be received by any individual. The current limitation is $50,000 per "person." A "person" can be an individual or a corporation. An individual can receive up to $100,000 by collecting $50,000 as an individual and $25,000 each as a 50 percent shareholder in a maximum of two corporate entities. This maximum can be achieved only by operators of relatively large farms who are actively engaged in farming and have organized their farm businesses to maximize benefits. Marketing loan benefits and deficiency payments made as a result of lowering the loan rate below the basic loan rate are not subject to the $50,000 limitation but are subject to a $75,000 limit per person. A separate $50,000 limit applies to Conservation Reserve Program rental payments.

Posted County Price (PCP): A price used to convert the dollar-denominated generic certificates into quantities of commodity. PCPs are set for each county based on actual prices in certain major grain markets, such as Kansas City, Portland, and Chicago.

Program Yield: A yield figure assigned to each farm and used to calculate program payments. Current program yields are calculated as the average of program yields during 1981 through 1985, with the high and low years removed.

Target Price: A price level established by law to calculate deficiency payments for wheat, feed grains, cotton, and rice.

Unpaid Flexible Acres: The 15 percent of farm base acreage on which no deficiency payments are made beginning with the 1991 crop year. A

farmer can plant any crop except fruit or vegetables on that acreage and not lose crop acreage base or be penalized in terms of program benefits. On those unpaid flexible acres the farmer will make the planting decision based on relative market returns between the program crop and alternative crops.

50/92 and 0/92: Provisions in the farm law allowing producers to receive 92 percent of their deficiency payments even though they plant as little as 50 percent of the payment acreage in the crop program (in 50/92 available to cotton and rice producers) or even though they do not plant any of the program crop (in 0/92 available to wheat and feed grain producers). Prior to enactment of the 1990 farm bill, such acreage had to be devoted to conservation uses. However, beginning in 1991, producers may plant minor oilseeds (sunflower, flaxseed, canola, and others) on 0/92 acres, but must give up either the deficiency payments or eligibility for the oilseed marketing loan.