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## THE COMMODITY SUPPLY MANAGEMENT PROGRAM

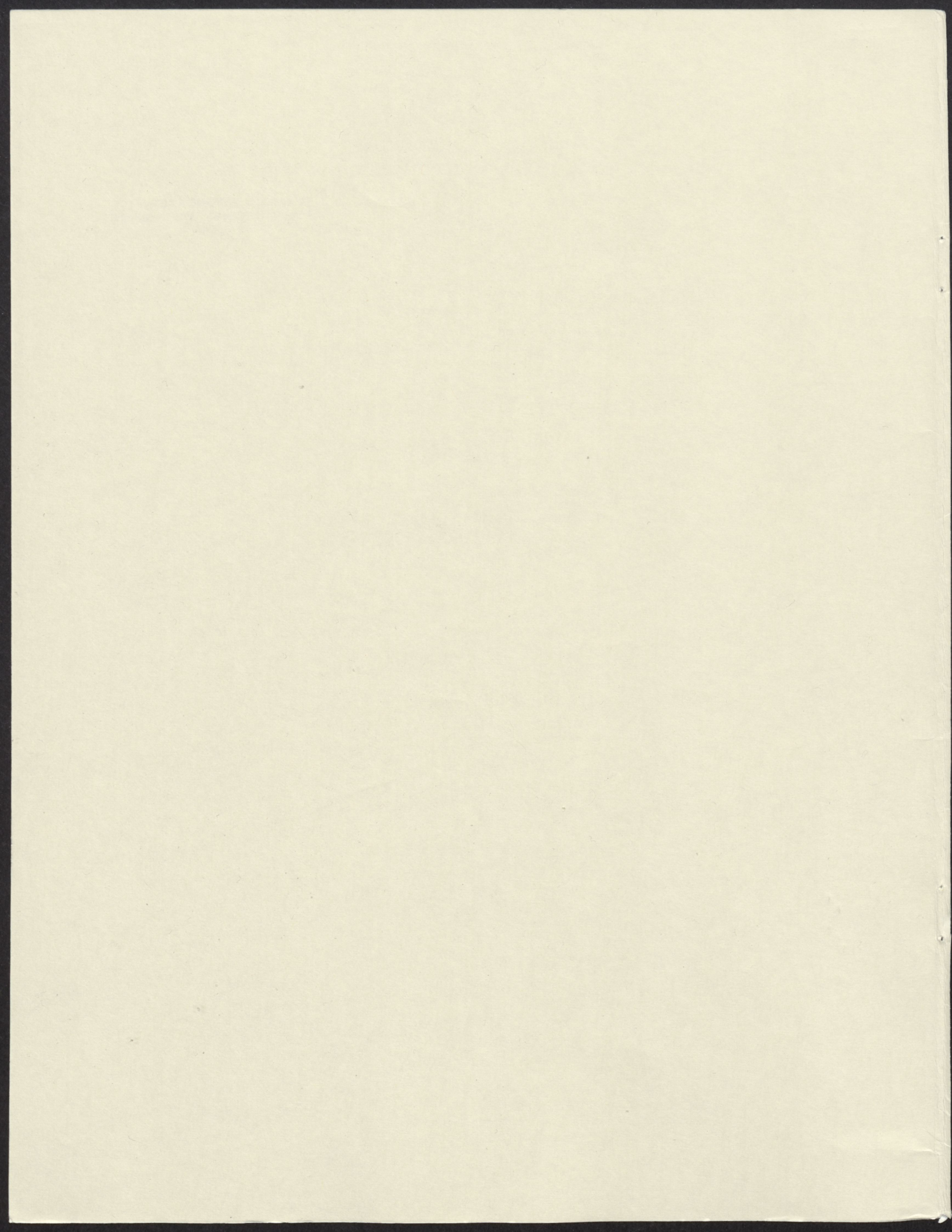
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## EXECUTIVE SUMMARY

Primary characteristics of the Commodities Supply Management Program fall into three broad categories: first, the major crops and dairy industry are protected at higher prices set at 71% of parity in 1987 to be escalated by 1% per year to a maximum of 80% of parity; second, in order to insure that export markets are maintained, a cartel arrangement is established with major competitors in the world market to insure current levels of trade shares at the corresponding higher support prices; and third, federal financial assistance aimed at current farm financial pressures is provided to qualifying farmers. Evaluation of these features was undertaken by Food and Agriculture Policy Research Institute (FAPRI) via use of a large scale econometric model of the U.S. and international agricultural economies. The enactment of successful trade agreements plus mandatory controls are key to this analysis. Evaluation of this program was conducted over the ten-year period 1986 through 1995. Comparison relative to the Food Security Act of 1985 (FSA-85) are given below.

FAPRI is an independent analytical group, sponsored by Congress and the Universities of Missouri and Iowa State to provide objective economic impact statements regarding various farm legislative proposals. As such, FAPRI does not endorse or denounce any particular farm bill.

### Net Farm Income:

Net Farm Income averages \$46.3 billion versus \$25.4 billion under FSA-85, an average increase of 82%. Further, while farm income declines at the end of the projection period for FSA-85, it increases through the 1990s under the production control program. By 1995, farm income is \$58.5 billion, 211% higher than base levels.

The mix of revenue sources shifts under the mandatory control program. In 1985, receipts for the three major meat categories, beef, pork and poultry, totaled 31% of cash receipts. In 1995, under the control program, these three meats account for only 21% of cash receipts.

Production expenditures increase relative to FSA-85 levels due mainly to higher feed costs. Total production expenses are projected to be \$24.9 billion higher in 1995 under the manda-

tory control program. \$15.8 billion of this increase comes from feed cost changes.

### Government Cost:

The cost associated with operating the mandatory production control program averages \$10.3 billion compared to an estimated \$15.7 billion under FSA-85. This average decline of 34% is even greater during FY-89 and FY-90 as government stocks are reduced. In these two years, total cost for commodities is \$13.0 billion versus \$33.4 billion for FSA-85.

Costs increase near the end of the program as the government purchases higher-priced grains and oilseeds for hunger programs. The maximum level projected for hunger programs in FY-95 is \$6.7 billion.

The financial assistance program entails outlays for interest payment and initial loans. Over the FY-87 through FY-95 period, the net cost of the program is



\$2.7 billion, an average annual cost of \$0.3 billion.

#### Consumer Food Purchases:

.Over the period of analysis, total food CPI averages 8% above FSA-85 levels. However, this differential is 14% by 1995.

.Total per capita consumption of beef, pork and broilers averages 6% below FSA-85 levels at 181 pounds per capita. Consumption at the end of the period is 11% lower than baseline levels at 170 pound per capita.

.Expenditures on meats increase an average of 5% above FSA-85 levels. By 1995, expenditures reach \$363 per capita under parity versus \$316 per capita under the baseline, a 15% difference.

.The aggregate price of the beef, pork and broiler bundle grows from a low \$1.61 per pound in 1988 to \$2.14 per pound in 1995. The 1995 parity meat bundle price is 30% higher than the FSA-85 level.

.In 1986 beef, pork and broilers constituted 41%, 30%, and 29% of the meat bundle respectively. Under the production control program the mix is made up of 32% beef, 27% pork and 41% broilers by 1995. While this trend is also evident under FSA-85, the shift away from red meats to poultry is less dramatic.

.Total food expenditures average 7% above FSA-85 levels for the analysis period increasing to \$504 billion, up from \$471 billion under FSA-85. By the end of the period, the spread between the control program and FSA-85 food expenditures is \$65.5 bil-

lion, approximately \$250 more per capita.

#### Crops Sector:

.Farm prices for major crops and dairy are mandated to increase approximately 130% relative to the FSA-85 Bill.

.Total base ASCS area for the eight major crops is 302 million acres. Current projections for the average area planted under FSA-85 for 1987 through 1995 are at the 253 million acre level, 16% below the base. Utilizing the assumption of yields frozen at 1986 base levels, the parity allotment averages 27% below the 302 million acre base at 222 million acres planted. With yields based on trend projections, the area requirements fall to 195 million acres, 107 million acres less than the base area.

.The cartel arrangement results in a total export volume decline of 18%. However, value increases an average 78% from \$16.5 billion to \$29.4 billion.

.Cash receipts for crops combined with direct payments average \$104.2 billion under the production control program 27% over the \$82.3 billion level of crop and direct payments receipts of FSA-85.

.Returns per acre over variable costs double from an average of \$80 under FSA-85 to \$160 under parity.

#### Livestock Sector:

.The disinvestment path currently observed in the beef industry is

accelerated with a short term increase in beef production. Longer term production averages 17% below FSA-85 levels dropping to 23% lower than FSA-85 values by 1995.

.Initial breeding herd liquidation increases pork production in 1988 over FSA-85 levels. Production falls 33% below FSA-85 levels in 1991. Reduced production is sufficient to raise barrow and gilt prices to \$58-\$61 per hundred weight for 1991 through 1995, returning some profits to the producer.

.Poultry production continues to increase under the mandatory control program, exceeding FSA-85 levels by 1990. The increase in broiler prices, led by higher beef and pork prices, offsets increased feed cost. Overall, broiler gains are associated with higher production efficiency.

.Milk production drops significantly from an average of 150 billion pounds per year under FSA-85 to 123 billion pounds under parity, about 18%. Milk cow slaughter increase in 1987 to bring milk production in line with parity guides.

.Cash receipts to livestock increase by 8% from 1987 through 1995. The dairy and poultry sectors provide the bulk of this growth with receipts to these two categories moving from \$34.0 billion to \$50.1 billion. Receipts for beef and pork move from \$40.3 billion to \$28.7 billion during the same period.

#### Other:

.The input industry is significantly impacted with additional planted area reduction resulting in \$3-\$5 billion less gross sales per year relative to FSA-85.

.The downtrend in land prices is reversed in the near term. Longer term income gains most likely will be capitalized in land prices. Significant gains would accrue to current land owners. However, new producer buying land at higher prices would be under tight financial pressure not dissimilar to that currently experienced by 30% of U.S. farmers.

.This supply management program is dependent upon enactment of:

- Bilateral agreements between export competitors to limit supplies to current trade share percentages and at the higher prices.

- Mandatory supply controls based on historical production patterns.

- Interest-free loans to qualifying farmers.

- A 36 month transition period of limited grain sales to family farms or ranchers at CCC cost of acquisition.

- Tariffs to prevent underselling of U.S. markets at higher prices.



## INTRODUCTION

Although the Food Security Act of 1985 (FSA-85) was passed by Congress and signed by the President over one year ago, considerable interest in alternative farm policy programs prevails. Among these is the Commodities Supply Management Program (CSMP). Because of this interest and the sharp differences in the design of the two above mentioned programs, evaluation of the CSMP was undertaken by the Food and Agriculture Policy Research Institute (FAPRI). FAPRI is an independent analytical group, sponsored by Congress and the Universities of Missouri and Iowa State to provide objective economic impact statements regarding various farm legislative proposals. As such, FAPRI does not endorse or denounce any particular farm bill.

A large scale econometric model of the U.S. and international agricultural economies was used in this analysis. General economic outlook is based on the world forecast provided by Wharton Econometric Forecasting Associates (WEFA) of Philadelphia, Pennsylvania. The program design is very similar to the current version of the Harkin/Gephardt Bill. However, key modifications have been made by a working committee chaired by Helen Waller, President of the National Save the Family Farm Coalition. This committee has worked closely with FAPRI and Harkin/Gephardt staff members in Washington, D.C.

Primary characteristics of CSMP fall into three broad categories: first, the major crops and dairy industries are protected by prices set at 71% of parity in 1987 to be escalated by 1% per year to a maximum of 80% of parity; second, a cartel arrangement is established with major competitors in the world market to insure current levels of trade shares at the higher support prices; and third, financial assistance is provided to qualifying farmers to help ease farm financial pressures. Another significant feature necessary

for the success of this program involves the implementation of tariffs for all protected commodities to prevent foreign markets from undercutting the domestic agricultural sector. Additionally, in order to ease the transition to higher prices, producers of livestock on family-sized farms or ranches will be allowed to purchase up to \$50,000 per year of accumulated CCC feedgrain and wheat at government acquisition cost. The transition period will last thirty-six months or until CCC stocks are depleted.

## ANALYTICAL PROCESS

The analytical procedure used to produce the FAPRI ten-year projection of the CSMP involved a sequential process to insure a balance between the export market, the U.S. livestock industry, and corresponding acreage allotments. The first phase evaluated the U.S. livestock and dairy industries to determine livestock prices and feed requirements. The second phase estimated the export demand, assuming a cartel of exporting countries which maintains both 1986 trade shares and the higher U.S. mandated prices. Imposed on this solution were higher levels of food aid to help compensate for price increases. The third phase determined requisite production and acreage levels based on livestock and dairy feed utilization, miscellaneous other domestic requirements and export demand. Aggregate data were evaluated to reflect consumer price indices for food, net farm income, and total government cost.

CSMP estimates were then compared to an evaluation of FSA-85. The ten-year forecast results based on the latter program design are explained in detail in FAPRI #3-1986 and will serve as a baseline of comparison for CSMP. Documentation for the econometric models utilized in the projection is available in CARD Staff Reports 86-SR1, 86-SR2, and 86-SR3, and CNFAP Reports #5 and #9.

# **COMMODITIES SUPPLY MANAGEMENT PROGRAM PARAMETERS**

In general, the explicit assumptions associated with the CSMP are as follows:

**PRICES:** Set at 71% of parity in 1987, increasing 1% per year adjusted for the cost of production according to the USDA parity formula. Higher mandated prices are given in Tables 2 and 3 of the Appendix.

**COMMODITIES:** Wheat, corn, sorghum, oats, barley, soybeans, cotton, rice, and dairy.

## **EXPORT PROGRAMS:**

- Exports maintained at parity prices.
- World demand estimated assuming U.S. parity prices for exports.
- Trade shares for major exporting countries set relative to 1986 market share.
- Trade shares to remain constant over time. Bonus exports used to discourage noncompliance.
- Disaster relief used to mitigate impact on third world importing countries by balancing internal supply and demand relative to projected internal growth.

**TOTAL CROP ACRES:** Any acre which was planted, or intended to be planted, to a commodity during the five preceding crop years.

**NATIONAL ACREAGE ALLOTMENT:** Number of acres necessary to produce the marketing quota for a commodity. Allotment is determined on the basis of Agricultural Stabilization and Conservation Service (ASCS) yield values.

**SET-ASIDE ACRES:** The number of acres that must be set aside or otherwise diverted from the production of a commodity to be eligible to receive a loan, purchase or payment certificate.

## **SET-ASIDE PERCENTAGE AND TARGETING:**

Set-aside percentages will be determined such that projected supply and demand balance for the commodities under the program. The formula to determine set-aside requires progressively greater percentages because rising production yields outpace demand increase. The set-aside percentage is applicable to the crop acreage base of the producer. Maximum and minimum set-aside percentages are based on farm size: maximum set-asides are 35% for the largest farms declining to 15% for soybean area, 20% for feedgrain area, and 25% for wheat area.

**SET-ASIDE ADJUSTMENT:** Producers may shift up to 20% of eligible crop acreage in any one year.

**MILK MARKETING CONTROL:** A milk marketing allocation factor will be determined such that the supply of milk satisfies both domestic and export demand.

**TRANSITION PROGRAM:** Livestock producers on family-size farms or ranches may purchase feedgrain and wheat from CCC stocks at acquisition cost. Purchases for any one producer are limited to no more than \$50,000 per year. The program will last thirty-six months or until stocks are depleted.

**TARIFF RESTRICTION:** Import tariffs are imposed on all crop commodities and dairy products to ensure that foreign products do not undercut the domestic parity price. Quantities of imported commodities shall not exceed the amount allowed under Section 22 of the Agriculture Adjustment Act of 1933 and the Agriculture Marketing Agreement Act of 1937. Textile imports are restricted to 1980 levels by the 1985 textile bill. Imports of livestock and meat products were held at the same levels as projected under the FSA-85 ten-year forecast (FAPRI #3-86).



**CONSERVATION RESERVE:** Limited by the program to 45 million acres.

**EXCESSIVE STOCKS:** The Secretary of Agriculture shall reduce excessive stocks over a five year period, not to exceed 20% during any crop year. Reduction can be accomplished in the following ways:

- PIK or export enhancement program to maintain U.S. share of the world agricultural export market.
- In the case of declared disaster in an area, provide assistance to livestock producers with an established history of operation.
- Divert carry-over stocks to food and hunger programs.
- Provide incentives for the production of ethanol.

**FARM DEBT RESTRUCTURING LOANS:** Financial assistance will be provided to farmers with debt to asset ratios of at least 40%, appropriate levels of farm income, and the ability to cash flow after receiving up to \$30,000 per year for a maximum of three years in interest-free loans. Repayment begins in the sixth year consisting of five equal annual payments. Creditors must agree to write down one-half of the percentage that asset values have depreciated since the date the loan was made.

#### **FOREIGN AND DOMESTIC ECONOMIC SITUATION**

WEFA projects moderate rates of real growth in the U.S. and foreign economies with the likelihood of recession in the U.S. in 1989. Pacific Basin countries show an average 5% annual growth. Latin America and Africa show 3% annual growth. Domestic interest rates remain below levels experienced in the early 1980s with a AAA Moody Corporate Bond Rate ranging between 8.2% and 9.4% throughout the forecast period. With inflation rates between 3.5% and 5.5%, this implies a real interest rate

of about 4.5% to 5.0%. The federal deficit is projected to decline over the forecast period from \$213 billion in 1986 to \$67 billion in 1995. Significantly, the price of light Arabian crude oil is forecast to decline to \$15 per barrel by 1987. WEFA projects 4% annual increases until 1991 when prices stabilize at \$24 per barrel and remain at that level through the rest of the forecast period. The U.S. dollar weakens slightly then holds throughout the evaluation period.

#### **PROJECTIONS**

Observations on the ten year projections and their policy implications are summarized for the U.S. agriculture and foreign and domestic markets. Tables that highlight the projected path U.S. agriculture might take under CSMP and FSA-85 are included in the Appendix.

#### **CROPS**

The Harkin/Gephardt bill substantially changes the voluntary nature of previous farm legislation. If enacted and approved by a producer referendum, farmers would be forced to take land out of production in order to market grain legally. Further, the international market for grain would undergo substantial modification with the formation of export cartels. One of the strongest assumptions in this analysis is that these cartels could in fact be successfully formed.

This section highlights the changes expected to occur in the crops sector of U.S. agriculture under CSMP. Tables 4-11 show specific program parameters, supply use, prices and government cost for the eight major crops. Note that two parity planted acreage paths are presented in each table. The first path is related to quota acreage based on ASCS historical yields for the average farm. The second path reflects the most likely planted acreage if farmers con-

tinue to utilize current levels of inputs to achieve the desired U.S. total production quota.

**Corn:** CSMP has two dramatic initial impact on corn. First, farm price for corn (Figure 1) more than doubles the first year. Second, the area planted to corn shrinks considerably.

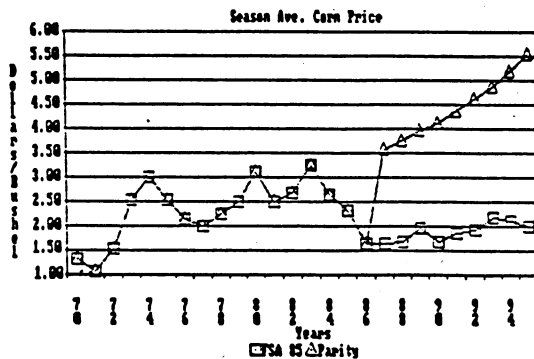


Figure 1

Reacting to the higher price of corn, domestic use (Figure 2) declines 15% below 1986 values the first year. This is in sharp contrast with domestic use under FSA-85 which shows slight increases. By the end of the period, domestic use under CSMP falls 24% below baseline levels. Contributing largely to this decline is a 20% reduction in livestock numbers.

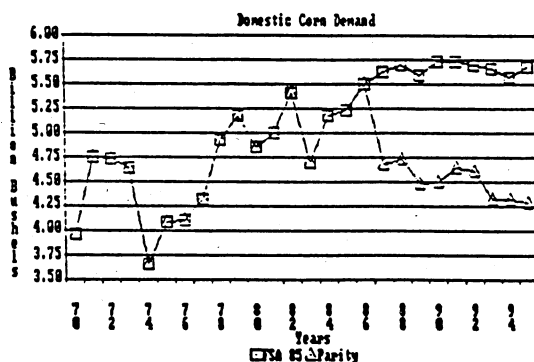


Figure 2

Exports (Figure 3) decline in reaction to higher prices and average 15% below the baseline through the forecast period. This drop is smaller

than domestic use for several reasons. Most importantly, the assumed multilateral trade agreements preclude cross-substitution on the supply side. Secondly, several major markets, including Japan, have very little internal potential to counter higher prices with significant shifts in internal production. Also, levels of PL-480 and AID shipments are increased. Heavier use of stocks for relief programs, combined with stricter supply controls and diversion of supplies to the gasohol industry, contributes to a substantial reduction in ending stocks.

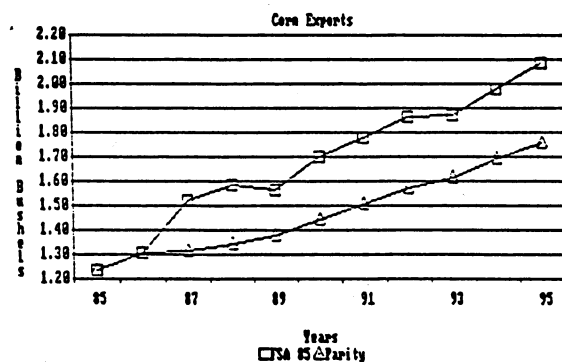


Figure 3

The magnitude of cutbacks in planted acreage under CSMP depends on initial assumptions. Quota or allotment area is based on a yield frozen at 105.6 bushels per acre. This area shrinks 26% from 1986 values. However, since planted acreage is projected to decline under FSA-85 as well, allotment or quota acreage falls a modest 6% below the baseline.

Since production will be assigned a marketing certificate, it is likely that planted area may actually be below the quota or allotment base. Trend yields would reflect a more dramatic reduction (Figure 4). In 1987, acreage declines by 37% from 1986 levels. During the remainder of the period, acreage averages 25% below the baseline.

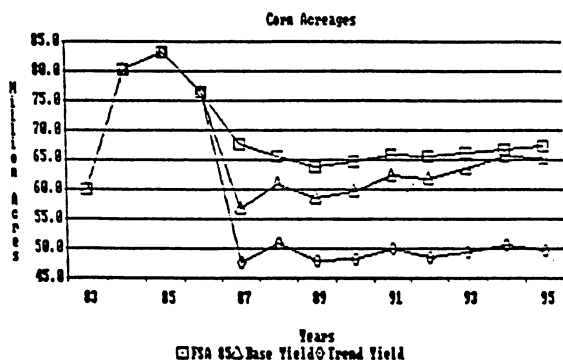


Figure 4

Government costs range well below baseline estimates. Since mandated programs preclude the use of deficiency payments, program costs are directly associated with the long term conservation reserve, necessary paid diversion and corresponding stock activity that includes relief shipments plus subsidies to the gasohol industry.

**Soybeans:** As with corn, CSMP causes an immediate and sharp increase in farm prices for soybeans over 1986 levels (Figure 5) and more than doubles average returns per acre. However, unlike corn, immediate drops in acreage planted are much smaller.

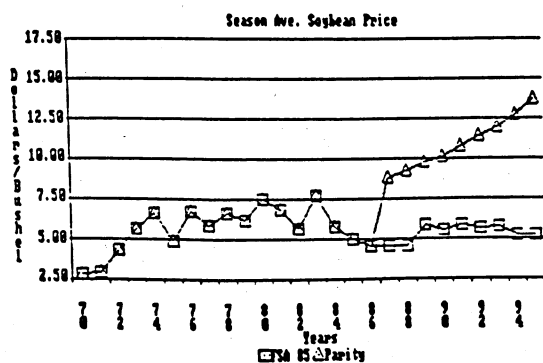


Figure 5

Domestic uses responds to higher prices, averaging 16% below FSA-85 estimates (Figure 6). While this would seem to indicate a stronger use position relative to the 20% average decline in corn, by the end of the period both commodities fall to 24% below the base.

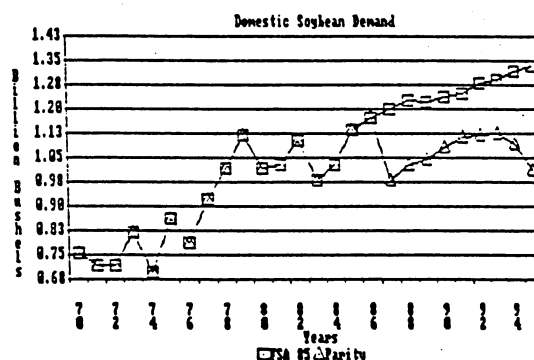


Figure 6

In 1987 and 1988, export demand (Figure 7) modestly increases in response to higher soy product prices. However, during the remainder of the analysis period, exports fall from 10% to 18% below the baseline.

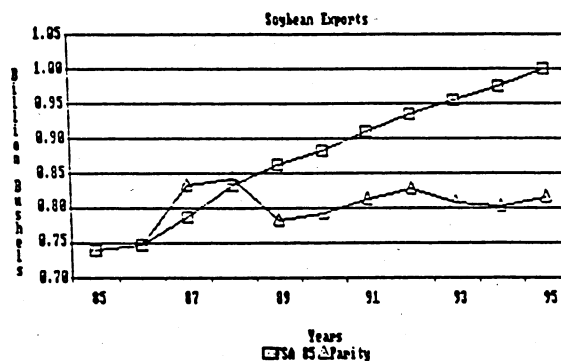


Figure 7

The FSA-85 baseline for soybean planted areas is projected to range from 50 million acres in 1987/88 to 67.5 million in 1995/96. With frozen base yields, allotment areas fall a slight 4% below baseline projections. However, trend yields would cause planted acreage to fall an average 7.3 million acres (12%) below the baseline (Figure 8).

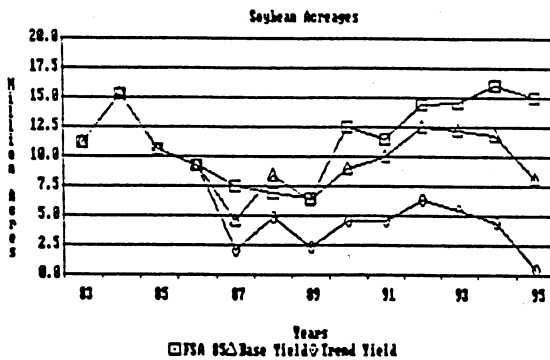


Figure 8

In contrast to the other commodity crops, government costs increase sixfold under CSMP relative to FSA-85. The major difference in costs is due to purchases of soybeans at market price to satisfy the needs of hunger programs.

**Wheat:** Under CSMP, farm prices are more than double baseline prices and steadily increasing through the period (Figure 9). As a result, returns per acre are also doubled those projected under FSA-85.

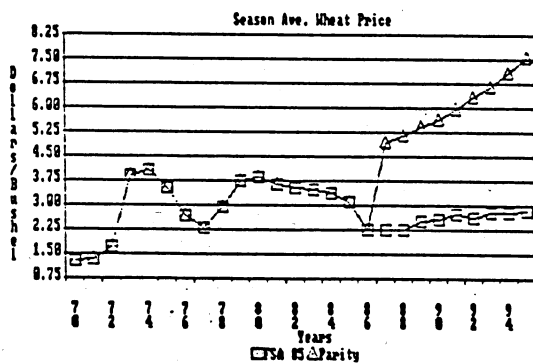


Figure 9

In spite of steeply higher prices, domestic use declines moderately, averaging 170 million bushels below FSA-85 projections (Figure 10). This reflects the more inelastic market for wheat.

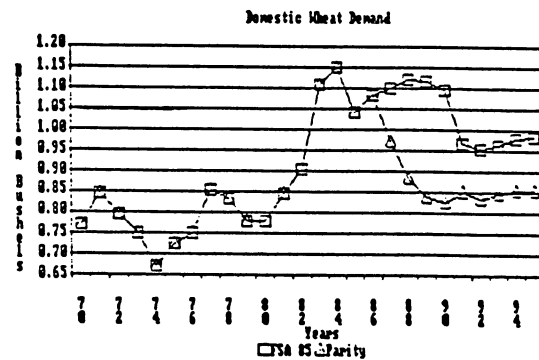


Figure 10

Exports, on the other hand, show a more significant departure from the baseline (Figure 11). Although projected to increase under both programs, by the end of the period parity exports will fall 560 million bushels short of the baseline. Multilateral agreements are designed to protect current trade shares in the world market. However, it is likely that importing regions have a good potential for expanding internal production.

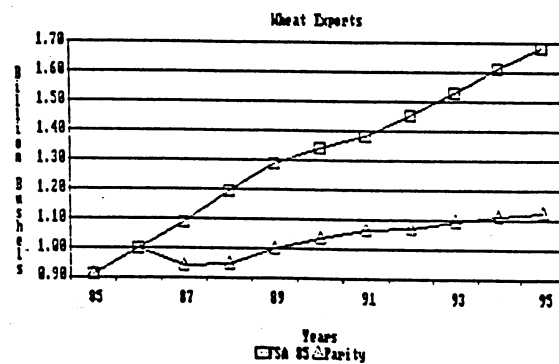


Figure 11

Yields are likely to range above 40 bushels per acre. Therefore, planted area will average 51 million acres during the forecast period, 15 million acres below the baseline average (Figure 12). Even given base yields frozen at 37.1 bushels per acre, planted acreage shrinks by 16% as compared to baseline projections.

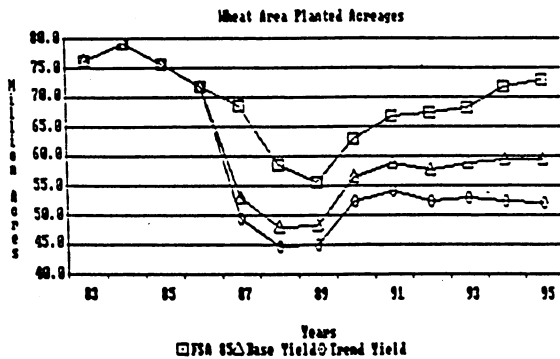


Figure 12

Ending stocks are projected to fall from 1.9 billion bushels in 86/87 down to 1.23 billion in 95/96. Half of this inventory is associated with a projected carryover of CCC-owned stocks. These will be maintained at 700 million bushels to insure the viability of food aid programs.

Government costs under FSA-85 average \$4.3 billion per year as contrasted to \$4.0 billion under the parity option. By the end of the period, government costs are higher under the parity program than under FSA-85. Although a mandatory program precludes deficiency payments, it maintains PL-480 costs for food aid, long term conservation reserve, reduced acreage, and other stock activity.

**Barley:** Returns per acre for barley almost double during the decade under CSMP, reflecting an increase in farm price from \$3.23 to \$4.86. This triples the rate of returns expected under FSA-85.

Domestic use is projected to average 86 million bushels below baseline estimates. Exports change marginally, with a very small percentage of barley entering the world market under either scenario.

Under FSA-85, planted area expands from 11 to 12 million acres by the end of the decade. It is likely that planted area will average 8.8 million acres, 2.7 million below baseline estimates. However, allotment is only

2 million acres below FSA-85 average.

Government costs average \$63 million per year. The baseline average is \$422 million.

**Sorghum:** Farm prices for sorghum more than double under the parity program. Higher prices are reflected in an annual decline of almost 25% in domestic use and 16% in exports as compared to FSA-85.

Planted areas are projected to hold around 16.3 million acres through the 1990s under FSA-85. Actual yields are projected to average about 64.8 bushels per acre. Therefore, planted acreage is likely to fall an average of 23% below the baseline. Allotment area falls 23%.

Government costs are significantly reduced because there are no deficiency payments and costs for storage and the PL-480 programs are moderate.

**Oats:** Farm prices are projected to increase from \$2.10 to \$3.23 by 1995/96 with returns per acre averaging \$45 as compared to \$13 under baseline estimates. Domestic use is projected to be at or near baseline levels.

Since the parity program does not permit double cropping patterns, planted area is likely to be half that projected under FSA-85, falling to an average 7 million acres with base yields and to 6.4 million acres with trend yields.

After three years, the oat program will cost the government nothing while the baseline average is \$131 million.

**Cotton:** By the end of the decade, farm prices and returns per acre for cotton will more than double those projected under FSA-85. One likely response to higher prices would be a shift from the current 40% cotton, 60% polyester blend to 20% cotton, 80% polyester. However, restriction of imported manufactured cotton products to 1980 levels should cause domestic use to exceed projected baseline levels in spite of higher prices and changes in fabric content. Exports should increase slightly under



both programs, with parity falling 1.8 million bales below baseline projections.

Planted acreage remains about 0.6 million acres below the 11.7 million acre baseline given yields of 574 pounds per acre. Higher trend yields would cause planted acreage to fall 1.8 million acres below the base.

Under the parity program, government costs are significantly reduced, averaging \$291 million annually as compared to \$1.4 billion with FSA-85.

**Rice:** By 1995, parity prices for rice increase from \$14.04 to \$21.67 per hundredweight, over three times FSA-85 estimates. Across the period, annual returns per acre average \$287 under parity and \$113 under FSA-85. Domestic use reflects the impact of higher prices, averaging 54 million hundredweight per year, 13 million below the baseline.

Relative trade shares of rice have shifted significantly over the last three years. Therefore, in establishing trade shares for the projection period, a weighted average of the 1984, 1985, and 1986 trade shares was used. This allows for the export of 50-51 million hundredweight of rice under the parity program as opposed to the 91 million average under FSA-85.

Ending stocks quickly fall from 48 million hundredweight in 1987/88, stabilizing at or near 40 million for most of the period. Projected yields average 642 pounds per acre. Based on these yields, planted acreage should average 1.7 million acres, 900,000 acres below baseline.

While average annual government cost through the decade is \$628 million compared to a baseline average of \$759 million, toward the end of the period costs under parity will exceed those for FSA-85.

**Caveats to the Crops Analysis:** This analysis strongly assumes a successful export cartel and the use of grain giveaway programs to third world

countries. FAPRI also examined the impact of dropping the cartel through the 1990/91 crop year. Without a cartel, exports fall below the projected CSMP levels by an additional 12% for corn, 4% for soybean and meal, and 13% for wheat. The gap between the analysis with and without the cartel expands at the end of the period, indicating that these effects would become even more noticeable in the future.

### CROPS SUMMARY

CSMP raises the prices for all crops substantially. On average, the price of crops increase 130% over levels expected under FSA-85. The higher price of crops, coupled with the export cartel, produces cash receipts to crops 27% over the \$82.3 billion level of FSA-85. The direct government payment portion of crop cash receipt is much smaller, however.

This increase in crop cash receipt is not without cost. One of the direct impacts on crops is the idling of even more acreage than would occur under FSA-85. In 1986, the base area for the eight crops examined in this study was 302 million acres. Under the FSA-85, from 1987 to 1995, an average 255 million acres will be planted and 15% of all crop land will be removed from production. Under CSMP, the area falls by a further 12-36%, depending on yield assumptions (Figure 13).

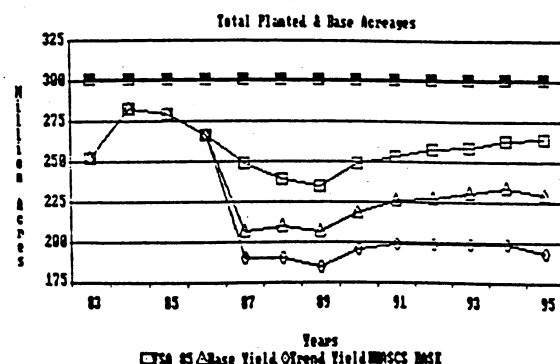


Figure 13

This has substantial implications for the inputs industry. Under the FSA-85, expenditures for variable cost of production are projected to total \$38.7 billion in 1995. Utilizing the yield assumptions from above, this level drops 24% to \$29.6 billion. Industries which are dependent on the number of acres in production, such as fertilizer, pesticide or fuel companies, would suffer a substantial drop in revenues.

The legislation is clearly aimed at the crop producer, and even more specifically at the smaller crop producer. The increase in prices is high enough to provide a substantial increase in returns over variable cost per acre, even when set-aside area is included.

### LIVESTOCK

Of the numerous farm policy programs offered for consideration, none is likely to alter the structure and conduct of the livestock industry more than one which mandates the rise of feed prices to levels 80% of parity. This section and Tables 12 and 13 highlight the changes expected to occur in the livestock sector of U.S. agriculture under the parity policy option described earlier. These changes are contrasted with simulated production, consumption and price levels based on a continuation of the assumptions and program parameters from FSA-85. Under several of the "market-oriented" policy programs offered for consideration, the livestock industry would respond to lower feed-grain and protein prices with increased production. However, under the CSMP, grain and protein prices rise sharply and continuously over the analysis period, causing the red meat sector to contract while broiler production continues to expand modestly.

**Beef:** Relative to the baseline scenario associated with FSA-85, the shift to a parity-oriented pricing scheme for feedgrain and protein (and other) commodities will result in two major changes in the beef sector. First, higher

prices will result in a sharp and immediate liquidation of the cattle herd, increasing production in the short run but reducing the potential for production in the long run (Figure 14). By the end of the analysis period, the cattle herd would be at or below 70 million head (relative to 94 million head under FSA-85) and production would be less than 17 billion pounds (23% below the projected baseline level). Second, a major shift in the type of meat produced would occur concurrently with the shift toward less production. As feed costs increase toward an 80% parity level, producers shift away from grain-fed animals and utilize available forage to add weight to beef. Non-fed beef slaughter would rise sharply in the early years of the analysis period due to sharp liquidation of cows and the shift away from fed beef.

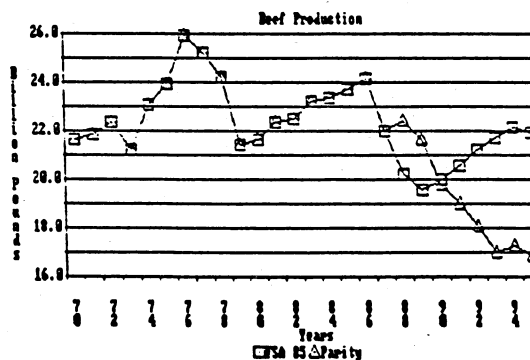


Figure 14

If a parity program were to be adopted, a restructuring of the type of animal used in grain feeding would need to occur. Typically, feeder cattle are purchased at weights ranging from 600 to 700 pounds per head. A high protein feed program adds roughly 400 to 600 pounds of weight gain to these feeders. Feed costs associated with parity grain prices would be prohibitively expensive for weight gains of that magnitude. A shift toward purchasing feeders at heavier weights and feeding less grain could reduce costs of production and would be desirable from a feedlot

operator's perspective. However, given a sharply reduced feeding program and the physiology of the type of beef animals currently used for feeders, these animals probably would not grade high enough to generate a reasonable return to the operator. In the long run, the higher costs of beef production associated with parity crop pricing would likely push the industry toward an animal which matures (finishes) at a lighter weight and could be forage-fed for a substantial part of the weight-gaining process. Such an adjustment would be costly to current feedlot operators.

Because of the sharp liquidation of beef occurring in 1988/89, farm prices (Omaha 900-1100 choice steers, Figure 15) would be substantially lower than those associated with FSA-85. Farm prices would then rise sharply in 1990 and continue higher through 1995 to more than 40% above the projected price for FSA-85. Because of higher attendant feed costs over this period, farm prices for feeder cattle (Kansas City 600-700 pounds) would drop even more sharply in 1988/89 and remain below the fed cattle prices throughout the analysis period. In order for feedlot operators to generate some profit over the period, feeder cattle prices would be bid \$5 to \$9 per hundredweight below fed cattle levels. These reductions in prices would provide further incentives for cow-calf operators to reduce herd size over the period. Ultimately, the forage base in the U.S., with its relatively low opportunity cost, would likely limit the liquidation process.

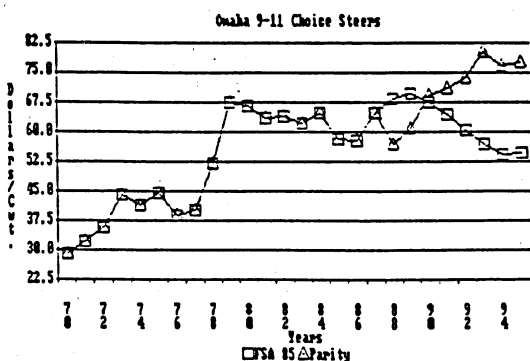


Figure 15

Beef consumption rises in 1988 with the liquidation of the herd, but then falls to less than 55 pounds per capita (retail weight) by 1995, 29% below the level projected for FSA-85 (Figure 16).

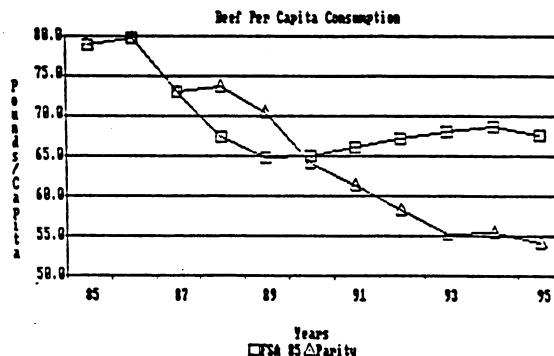


Figure 16

Conversely, retail beef prices fall sharply in 1988 and remain well below FSA-85 prices through 1989 (Figure 17). As beef supplies and consumption decline, retail prices rise sharply through 1995 to more than 43% above observed 1985 levels and more than 30% above the FSA-85 level projected for 1995.

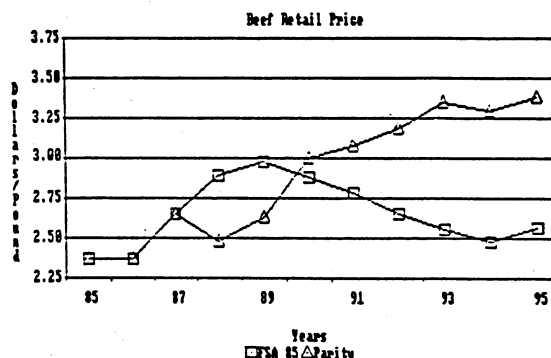


Figure 17

**Pork:** Although hogs are relatively more efficient converters of feedgrains to meat than are beef, the pork industry does not benefit from the ability to convert forage to weight gain as does the beef industry. Consequently, the effects of rising feed costs on pork production are dramatic and immediate. Within one year of higher costs of production, the size of the breeding herd

is reduced 10% followed by an additional 10% decline in 1989. As liquidation occurs in 1988, pork production is projected to rise 11% over 1987 levels only to decline by 9% in 1989 as slaughter falls with economic losses to the industry (Figure 18). The 1989 production estimate of 13.8 billion pounds is 15% below the level of 16.3 billion pounds under FSA-85. This difference is even more dramatic in 1990. By the end of the analysis period, pork production is estimated to be 11.5 billion pounds, 22% below the observed 1985 level and 25% below the projected level under FSA-85.

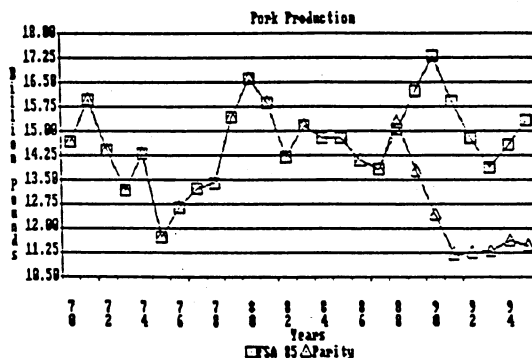


Figure 18

Farm prices for barrow and gilts (and sows) fall sharply in 1988 under parity but then rise throughout the period. By 1995, barrow and gilt prices (seven terminal markets) under parity are 31% higher than in 1985 and 43% above the projected price with FSA-85 (Figure 19).

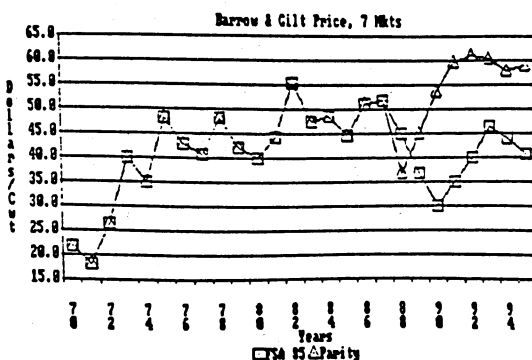


Figure 19

Consumption moves parallel to production. Per capita consumption rises in 1988 with liquidation but then falls over the analysis period to 46 pounds by 1995 (Figure 20). Retail

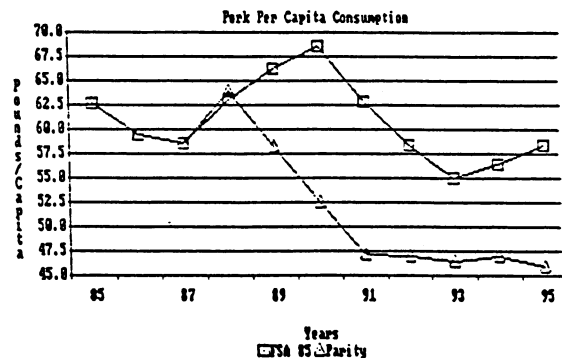


Figure 20

prices fall in 1988 but rebound sharply in 1989 and continue higher through 1995 (Figure 21). By the end of the period, retail pork price is 54% above the 1985 level and 48% above the projected price in 1995 under FSA-85.

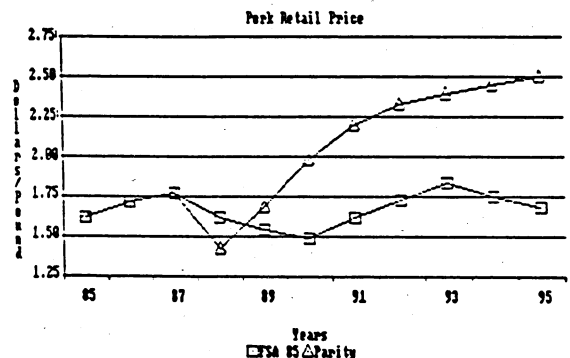


Figure 21

Broilers: Even with liquidation and lower prices of beef and pork, broiler production increases in 1988 and 1989 under CSMP (Figure 22). However, by 1990 and beyond, broiler production under parity exceeds FSA-85 levels. Although costs of production rise sharply for the broiler industry, farm and wholesale broiler prices follow the increase in the beef and pork sectors but at a slower rate. As a result,

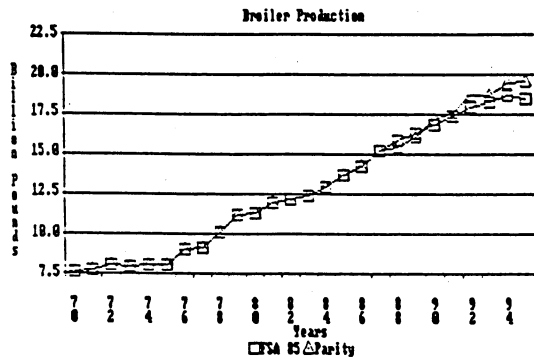


Figure 22

wholesale broiler price (12-City RTC) in 1995 under CSMP is projected to be only 19% higher than the 1985 price (Figure 23).

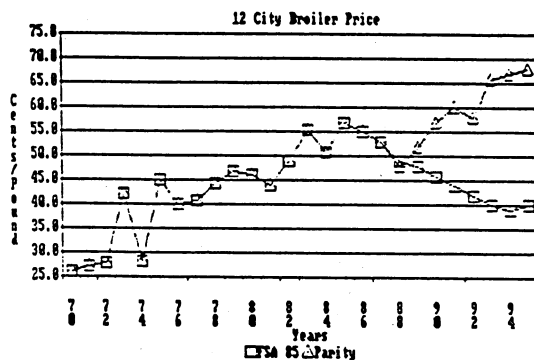


Figure 23

Broiler consumption rises from 55 pounds per capita in 1985 to almost 70 pounds in 1995 under parity, a 26% increase (Figure 24). Quite obvious in this CSMP analysis is the continued substitution of cheaper broiler meat for more expensive red (beef and pork) meat. The retail price of broilers rises to \$0.92 per pound by 1995 under parity but this is a relatively modest 18% increase over 1985 compared to 43% for beef and 54% for pork (Figure 25).

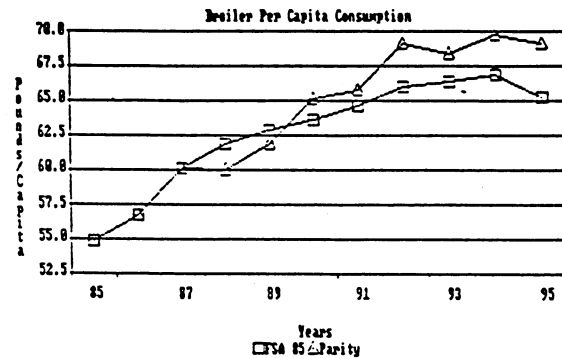


Figure 24

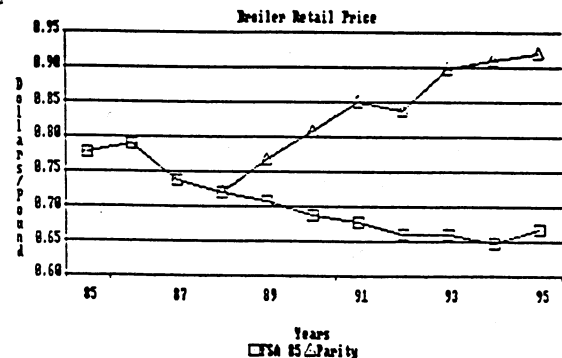


Figure 25

**Meat:** A parity pricing program for crops would result in large red meat liquidation in 1988/89. Prices to farmers and consumers would be lower than under FSA-85. However, consumers would soon begin paying sharply higher prices for beef and pork and modestly higher prices for broilers. As a result, a shift toward broiler meat and away from beef and pork should occur (Figure 26). Of the beef, pork and broiler purchases in 1986, the consumer ate about 41% beef, 30% pork and 29% broilers. By 1990, these shares are projected to change to 35% beef, 29% pork, and 36% broilers under the parity policy option. By 1995, shares would shift to 32% beef, 27% pork and almost 41% broilers.



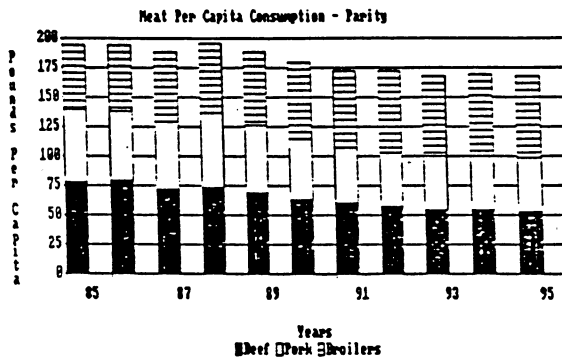


Figure 26

Because of sharply higher prices, beef and pork would retain significant expenditure share throughout the period (Figure 27). In 1985, consumers spent 56% of meat expenditure on beef, 31% on pork and only 13% on broilers. By 1995, these respective shares were 51%, 32% and 18%. The analysis suggests that in 1985 consumers spent about \$332 per capita on these three meat items (Figure 28). Under parity, expenditures increase to \$363 per person, a 9% increase. However, the consumer purchases only 170 pounds of these products, a 14% decline from the 197-pound level in 1985. In addition, the substitution of chicken for beef and pork has kept the aggregate meat bundle price increase to only 24% (\$2.14 in 1995 versus \$1.72 in 1985). Had consumption shares remained constant, expenditures for the meat bundle would be sharply higher.

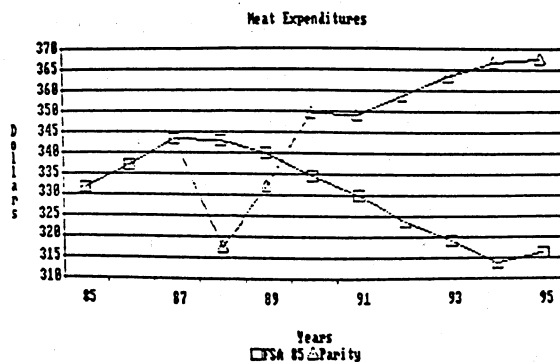


Figure 27

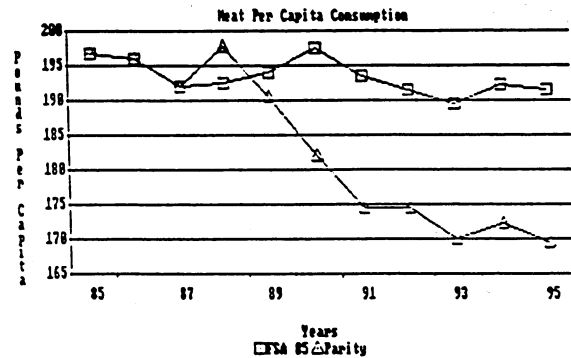


Figure 28

#### Caveats to the Livestock Results:

Analysis of this type is difficult because the data on which the econometric models are estimated tend to fall within a narrower range than do the data suggested by the parity option. As a result, the parity program analysis required some additional assumptions to be imposed on the model. For example, retail prices of the magnitude projected in the analysis would result in a flooding of imported meats into the U.S. market. For this analysis, import and export levels of livestock and meats were held at the same levels as under the FSA-85 analysis. Reducing imports further from those levels would drive U.S. prices higher.

Second, provisions of the parity program allow qualifying livestock producers to purchase up to \$50,000 worth of grain at prices far below parity prices through 1990. Consequently, low volume livestock producers benefit relative to large producers. This analysis was based on a "blend" of grains purchased at parity prices with those purchased at the reduced price through 1990. By 1995, all prices were at the 80% of parity level.

## LIVESTOCK SUMMARY

CSMP is designed to gradually bring crop prices to an 80% level of parity. While more than doubling of prices generates considerable revenue for the crop sector, it causes immediate as well as far reaching adjustment problems to the livestock industry. Sharply higher feed costs turn expected profits to losses for beef and pork producers and result in an immediate reduction in the breeding herds. With substantially lower supplies, prices for beef, pork, and poultry ultimately respond upward. In the long run, the beef and pork breeding herds are sharply below the levels predicted under the FSA-85 analysis. Beef producers attempt to compensate for high corn and soybean meal costs by utilizing greater forage and less feed. The pork industry has far less flexibility in this regard. Consumers increase the rate at which they substitute less expensive chicken for higher priced beef and pork relative to FSA-85. In spite of this substitution per capita expenditures are almost 15% higher and consumption is 12% lower in 1995 under CSMP relative to FSA-85

## DAIRY

Under FSA-85, dairy herd size falls about 4% in 1987 due to completion of the whole herd buyout program before rebuilding to 10.8 million head in 1991. A more significant reduction in herd size results under the parity program. About 9.2 million head provide the milk production levels necessary to achieve an average farm price of \$16.95 during 1987. Herd size remains at this level until 1991 and then declines slightly.

Total milk production follows very different paths under FSA-85 and parity (Figure 29). Under FSA-85, production declines 3% to 140.5 billion pounds in 1987 then increases to almost 159 billion pounds by 1995. Under parity, milk production falls 16% in 1987 to 121 billion pounds and then increases to only 125 billion pounds by 1995.

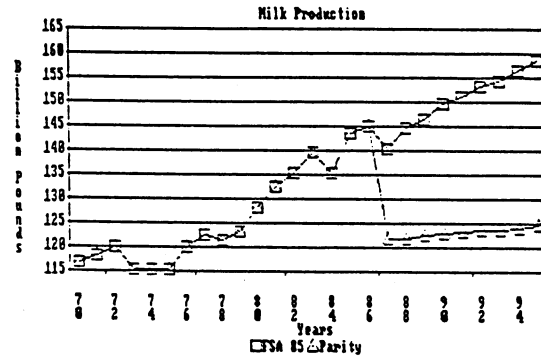


Figure 29

The divergence in production paths is clearly reflected in both farm and retail prices (Figure 30). Under FSA-85, farm prices decline 18% from \$12.35 in 1986 to \$10.13 in 1991 when the legislation expires. This is in sharp contrast to the projected 112% increase in farm prices under parity, rising from \$12.35 in 1986 to \$26.17 in 1995.

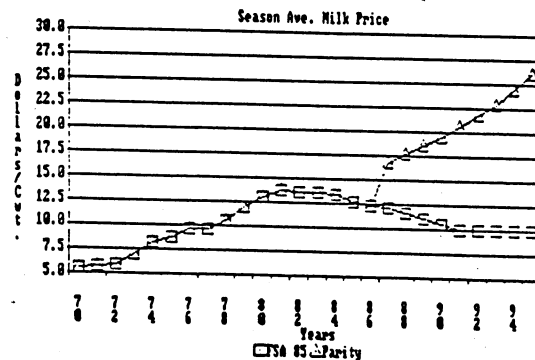


Figure 30

## NET FARM INCOME

Net income to the farming sector is considerably higher under the mandatory production control program than under FSA-85 (Table 15 and Figure 31). Increase in inventory values cause a sharp rise in farm income the first year. However, by the second year, increases in production costs coupled with lower livestock receipts and falling direct government payments, lead to a 26% decline in net farm income

with a smaller decline the following year. In spite of these declines, net farm income is still higher under the parity program than under FSA-85.

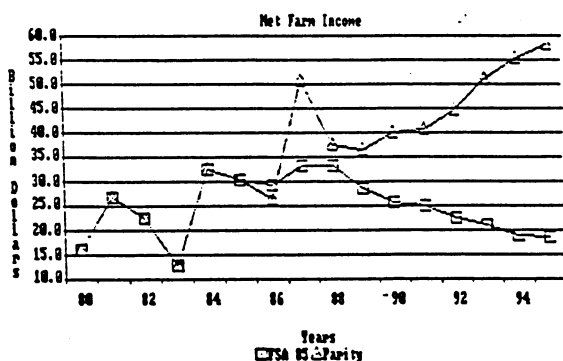


Figure 31

The following six years sees a recovery in income, with an eventual rise to \$58.5 billion. This is primarily due to higher levels of crop and dairy receipts. Cash receipts to crops plus direct payments exceed \$100 billion in 1991 and \$125 billion in 1995. Livestock receipts also increase to just over \$86 billion by 1995. However, the proportion of livestock receipts derived from dairy reaches 42% by 1995, as opposed to 18% under FSA-85 for the same period.

This indicates a substantial decline in beef and pork receipts under the mandatory control program. Receipts to cattle and hogs fall from \$40.9 billion in 1987 to \$28.9 billion in 1988 under the parity program. Due to reduced levels of cattle and hog slaughtering under the mandatory program, livestock prices cannot increase sufficiently to return receipts back to the \$30 billion level. As the mix of fed to non-fed animals slaughtered swings to lower priced grass finished animals, cattle receipts remain around \$20 to \$22 billion versus the \$28 to \$31 billion level observed in 1985/86. Hog receipts do recover to pre-mandatory control levels in nominal terms by 1995.

Production expenditures increase by 38% over the analysis period. The sharpest percentage increase occurs in

1988, as feed costs rise by \$7.5 billion. Expenditures on other inputs such as seed and fertilizers are 24% below baseline levels in 1995. For farm income computation, the mid-level of acreage plantings generated by trend and base yields were utilized. Thus, with the lower level of plantings expected with trend yields, these expenditures would be off even further.

#### GOVERNMENT COST

The cost to the government associated with the direct operation of agriculture is, on average, 38.5% less than under FSA-85. By making participation mandatory, eliminating target prices and government loan programs, the only remaining sources of large costs are diversion, hunger and conservation program. This analysis of government cost assumes that land will be removed from production with trend yields in mind. Diversion costs, and subsequently direct payments and farm income, would be lower if the frozen base yield assumptions were utilized (Figure 32).

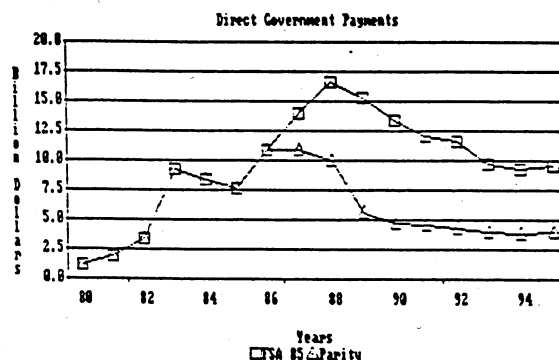


Figure 32

Costs of the program for food and feedgrains are markedly lower than under FSA-85 by FY-89. Under FSA-85, government costs for feed and food grains total \$15.9 billion, 305% higher than the \$5.2 billion under the mandatory control program. Also helping to lower costs is the elimination of federal purchases of dairy products.

Hunger program donations are made initially from government stock holdings as FHR grain is defaulted and CCC-owned stocks are drawn down. With government stock holdings reaching the strategic reserve minimum, purchases must be made at parity prices to continue such program. Thus, costs, particularly for wheat, rise markedly in FY-91 as the government makes purchases for third world hunger program. The increase in cost for all programs in the later years of the analysis is due to these same type of expenditures (Figure 33). So, while the program is less expensive than FSA-85 in all years, the commodity program costs do increase to within 30% of the baseline by FY-95.

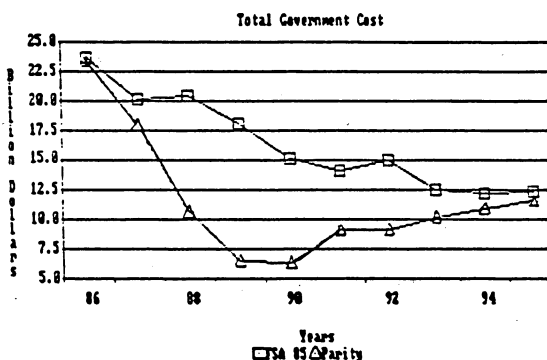


Figure 33

#### FARM DEBT RESTRUCTURING LOANS

Interest-free loans will be made to farmers with debt to asset ratios of at least 40%, appropriate levels of farm income, and the ability to cash flow after receiving the loan. Qualifying family farms can receive up to \$30,000 in loans for three consecutive years. Loan repayments are deferred for five years and then made in five annual payments from the sixth through tenth years. During the first five years, interest costs will be carried by the government.

According to Agricultural Information Bulletin #500 (USDA Economic Research Service, January 1, 1986), approximately 20% of all farms fall into this category. Over one-half of the \$204 billion national farm debt is

concentrated in this fairly small group, many of whom are likely to abandon farming without outside intervention. The substantial increase in net farm income under CSMP would generate sufficient cash flow to salvage about 50% of this group. However, the remaining 50% (120,000 farms) would require some type of additional short-term assistance.

Given wide variances in the size and location of these farms, a weighted average was used to estimate program costs (Appendix Table 17). The average loans during the three year period are \$20,000, \$18,000 and \$17,000, totaling \$55,000. This brings the total federal loan outlays to \$6.6 billion. If these loans are funded through federal bonds then the actual government subsidies are \$2.7 billion, the amount of interest payments made the first five years.

#### FOOD EXPENDITURES AND CPI FOR FOOD

Changes in farm legislation ultimately affect the consumer. The price of food under CSMP increases immediately due to the rise in dairy prices. Through 1988, disinvestment of hog and cattle herds limits the rise in food prices. However, with the completion of the disinvestment phase and the reduction in beef and pork supplies in 1990, food prices increase 7% over FSA-85 levels. The CPI for food continues to grow relative to FSA-85 level, with the gap between CSMP and FSA-85 reaching 14.4% by the final year of the analysis (Figure 34).

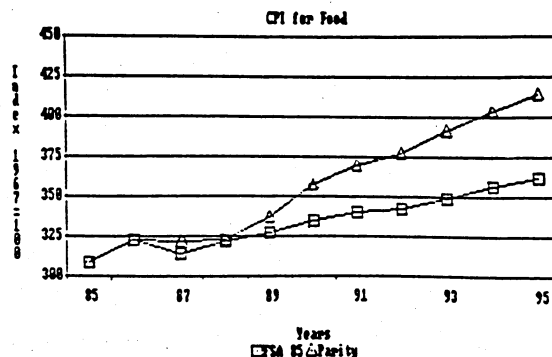


Figure 34

Expenditures on meats display an initial decline due to disinvestment, and then increases sharply by 1990. By the end of the period, the aggregate meat bundle is expected to cost \$2.14 per pound, as opposed to \$1.65 per pound under FSA-85. The price increase would have been even more substantial had the mix of the meat bundle remained constant. However, with the reduction in the overall size of the beef and pork industry, less expensive broilers take up a larger share of meat consumption. Thus the consumer is eating a larger share of \$.92 per pound broilers than \$3.39 per pound beef under CSMP than under FSA-85. Further, the total meat bundle is smaller, at 169.5 pounds per capita as opposed to the baseline level of 191.5 pounds per capita.

Food expenditures also increase relative to baseline levels (Figure 35). In 1987 and 1988, food expenditures are only slightly higher than FSA-85 values. While the growth in expenditures is less than that associated with the price level, expenditures per capita are still 12% higher under the CSMP than were observed under FSA-85. The smaller increase in expenditures than is shown in prices implies a drop in food consumption levels or a shift to a different type of diet. The \$65.5 billion increase in food expenditures in the final year over FSA-85 levels translates to a \$250 per capita per year rise of food expenditure requirements.

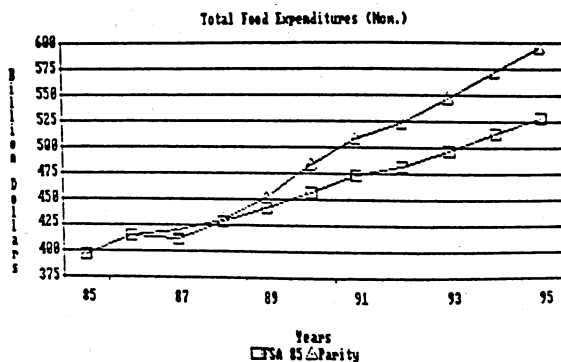


Figure 35

Any program which increases food expenditures by \$250 per capita will harm the disposable income picture of poorer families more than affluent families. Low income families spend a larger portion of their income on food than do high income families. That being the case, the move to higher retail prices and expenditure requirements for food should affect low income households more than high income households. In 1982/83, food accounted for 21% of total expenditures for families with incomes between \$5,000-\$9,999. For families with incomes between \$30,000-\$39,000, food made up only 13% of total expenditures. If incomes are utilized instead of expenditures, the proportions change to 28% and 9% respectively.

#### SUMMARY

The Commodities Supply Management Program seeks to control production for major crops and the dairy sector in order to achieve higher loan parity prices. It further proposes the establishment of an export cartel and a financial aid package that addresses current farm financial problems. If successfully implemented, CSMP would significantly change the current direction of U.S. agriculture.

In contrast to FSA-85, CSMP calls for directly incorporating financial assistance and higher price supports into a single farm bill, merging rather than separating these issues. If this is accomplished, it is fairly certain that more farms would survive but at considerable cost to consumers, the input industry and the longer term downsizing of U.S. agriculture. Spill over into the general economy has not been measured. However, previous research suggests that the income transfer to the farming sector from other segments of the general economy would trigger lower growth rates and employment.

A crude measure of the comparative net benefits to the economy of the two



programs is to sum the farm income gains and the government cost savings and compare them with the increase in consumer food expenditures. In the first three years, related to the baseline is estimated that the gains in farm income and cost savings exceed the additional consumer costs by about \$10 billion per year. However, beginning in 1990, as higher livestock and other food prices are passed on to consumers, the increased consumer costs exceed the gains to farmers and the federal treasury. By 1995, the increased costs to consumers exceed the gains to farmers and the government by about \$25 billion. This measure understates the net cost of the Harkin/Gephardt proposal to society, since it does not include the reduction in consumer welfare due to shifts to less desirable food bundles.

Major crops and the dairy sector benefit most under CSMP. Returns per acre more than double levels projected under FSA-85. Net farm income increases an average 82% and government cost is significantly reduced. Exports decline approximately 18%, but value climbs by 78%. Financial assistance removes approximately 120,000 farms from the financially endangered list and an additional 100,000 farms are cushioned by higher net farm income.

A considerable down sizing of the U.S. agricultural industry both for the crops and livestock area is projected. Sharply higher feed costs turn expected profits to losses, resulting in an immediate reduction in the breeding herd. Beef production averages 17% below expected levels under FSA-85, pork is off an additional 33% and poultry gains moderately. Milk production declines about 18%, averaging 1.6 million fewer dairy cows per year. Planted area also contracts, backing off 30-50 million acres per year. Although the implement industry may be a net gainer in the near term, the total input industry would lose between \$3-5 billion in sales.

Over the longer term, U.S. agriculture would be down sized between 20-25%. Land prices would certainly begin a

rapid increase, especially in areas associated with production quotas and corresponding marketing certificates. Past experience suggests that current holders of land would extract these differential prices from new buyers and from renters. With approximately 3% of farm land selling each year, in fifteen years almost half would have been purchased at significantly higher prices, subjecting new owners to financial pressures similar to those currently experienced but with a down sized agriculture.

For the Harkin/Gephardt proposal the critical assumption is the market-sharing cartel among the exporting countries. For the export cartel to be effective, all exporters would have to agree to sell their products at prices consistent with the U.S. loan rates, and they would also have to agree to maintain market shares at 1986 levels. This reduces the effect of the high prices on U.S. export levels, since the only permitted adjustment is in supplies and consumption of importing countries. The response of the importing countries to these higher prices is also muted by the fact that the United States would substantially increase food aid shipments to developing countries. The effective price to developing countries is substantially lower than the established export prices. By 1990/91 such export donations are set at 16% of corn exports and 39% of wheat exports compared with about 2% and 12%, respectively, in the baseline.

There is serious doubt by many analysts that it will be possible to organize and enforce the cartel. If the cartel assumption is removed, there would be two alternative for the United States. One is to have no export enhancement policy, in which case U.S. exports would drop at least twice as rapidly as they do under the cartel assumption and eventually perhaps disappear. The result would be a U.S. agriculture serving only the domestic market. In this event much larger acreage reductions would be required

over time to compensate for the reduced utilization.

A more likely possibility, and an assumption of an earlier version of the mandatory plan, is to employ a two-price system and subsidize exports. This policy is much like that of the European Community, where export subsidies are set to dispose of production exceeding domestic use and stocks targets. If a two-price system were used to assure the level of exports in the FSA-85 baseline, it would eliminate the need for a paid diversion but result in substantial costs. The cost of the export subsidy for the two-price variation begins at about \$11.2 billion in fiscal year 1987/88 and increase to about \$14 billion by fiscal year 1990/91. Thereafter, estimated costs of the export subsidy exceeds those of the FSA-85, reaching about \$26 billion by fiscal

year 1995/96. These rising costs are due to the differential between the parity-based domestic prices and the baseline world price that increases with time, and to the level of exports that also rises.

Farm financial pressure and numbers of farmers exiting agriculture are the primary focuses of this farm bill. Negative longer term consequences associated with CSMP have to be weighed against the shorter term negative implications of farm financial pressures. Gains and losses have been estimated. Income directed towards family farms of crop and dairy producers is extracted from the consumer, the input industry, and the livestock industry. The magnitude of the impact will set the stage for the next round of negotiations between those who gain and lose.

## APPENDIX

Table 1

## DOMESTIC AND FOREIGN ECONOMIC PROJECTIONS USED IN THE 10-YEAR EVALUATION OF THE FSA 85

Variable	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
<b>United States</b>												
Real GNP (% change)	3.0	2.6	3.6	2.9	0.8	5.2	3.3	3.3	2.9	2.9	2.6	2.6
GNP Deflator (% change)	3.4	2.8	3.3	4.3	5.3	3.6	4.2	4.5	4.8	5.3	5.4	5.5
Civilian Unemployment Rate (%)	7.3	7.1	6.7	6.7	7.6	7.0	6.8	6.6	6.6	6.8	7.0	7.7
3-Month T. Bill Rate (%)	7.5	5.8	5.8	6.6	7.0	6.5	5.8	5.9	6.2	6.6	6.9	7.3
Moody's AAA Corporate Bond Rate (%)	11.4	8.9	8.6	9.3	9.7	8.8	8.1	8.2	8.4	8.7	8.9	9.4
Federal Budget Surplus (Bil. \$)	-198.0	-213.3	-155.5	-180.4	-239.4	-187.7	-159.4	-134.6	-111.6	-94.5	-66.9	-113.6
<b>Foreign/Domestic</b>												
Light Arabian Crude Oil (\$/barrel)	28.0	14.0	15.0	17.0	19.0	21.0	24.0	24.0	24.0	24.0	24.0	24.0
Foreign Currency/Dollar (% change)	-17.0	-8.4	-5.3	-2.8	-1.4	2.9	1.4	2.8	1.4	1.3	1.3	1.3
Real GNP (% change)												
Africa	1.5	-3.9	-0.1	2.4	2.8	4.4	3.2	3.1	3.0	3.1	3.1	3.1
Latin America	3.4	2.2	3.7	3.4	2.4	3.7	3.7	3.6	3.6	3.6	3.5	3.5
Pacific Basin	2.3	4.3	4.8	5.1	4.8	5.9	5.5	5.2	5.3	5.3	5.2	5.2
Western Europe	2.3	2.6	2.6	2.4	2.1	2.8	2.7	2.6	2.6	2.6	2.6	2.6
Centrally Planned	4.7	3.7	3.3	3.3	3.4	3.3	3.6	3.5	3.4	3.5	3.5	3.5

SOURCES: Wharton Econometric Forecasting Associates, Long-Term Forecast and World Economic Outlook, October 1986.

Table 2  
VALUES FOR SELECTED POLICY PARITY PARAMETERS 85 AND BEYOND

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
					Dollars					
Corn	4.94	5.06	5.24	5.44	5.59	5.81	6.08	6.34	6.65	7.03
Soybeans	12.20	12.51	12.94	13.42	13.80	14.36	15.03	15.64	16.42	17.34
Wheat	6.77	6.94	7.18	7.45	7.66	7.96	8.34	8.68	9.12	9.62
Cotton	1.24	1.27	1.32	1.37	1.41	1.45	1.53	1.58	1.67	1.76
Rice	19.30	19.77	20.47	21.23	21.84	22.71	23.76	24.74	25.99	27.43
Dairy	23.30	23.87	24.71	25.63	26.36	27.41	28.70	29.87	31.37	33.13
Index of										
Prices Paid	1108	1136	1175	1219	1254	1304	1364	1421	1492	1575

Table 3  
PARITY ADJUSTMENT (PERCENT)

	Base Price	1987	1988	1989	1990	1991	1992	1993	1994	1995
Percent of		71%	72%	73%	74%	75%	76%	77%	78%	79%
Parity										
					Dollars					
Corn	0.45	3.59	3.77	3.97	4.14	4.36	4.62	4.88	5.19	5.55
Soybeans	1.10	8.88	9.32	9.80	10.21	10.77	11.42	12.04	12.81	13.70
Wheat	0.61	4.93	5.17	5.44	5.67	5.97	6.34	6.68	7.11	7.60
Cotton	0.11	0.90	0.95	1.00	1.04	1.09	1.16	1.22	1.30	1.39
Rice	1.74	14.04	14.74	15.50	16.16	17.03	18.06	19.05	20.27	21.67
Dairy	2.10	16.95	17.79	18.71	19.51	20.56	21.81	23.00	24.47	26.17

Table 4

## CORN: COMPARISON OF THE FOOD SECURITY ACT OF 1985 (FSA 85) AND THE AGRICULTURAL COMMODITY SUPPLY MANAGEMENT PROGRAM (PARITY)

Variable/Year	Source	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96
Planted Acreage (mil acres)	FSA 85	83.3	76.6	67.8	65.7	64.0	64.8	65.9	65.8	66.3	66.8	67.5
	Parity+	---	---	56.9	60.9	58.8	59.8	62.6	61.9	63.7	65.8	65.4
	Parity*	---	---	47.9	51.0	48.2	48.4	50.2	48.8	49.7	50.8	49.8
Yield (bu/acre)	FSA 85++	100.2	105.6	108.7	110.4	114.6	115.5	117.1	118.8	120.5	122.0	123.5
	FSA 85**	118.0	119.3	118.4	120.9	123.1	124.5	125.9	127.7	129.0	130.2	131.7
	Parity++	---	---	105.6	105.6	105.6	105.6	105.6	105.6	105.6	105.6	105.6
	Parity**	---	---	125.4	126.1	128.8	130.5	131.6	133.9	135.3	136.7	138.8
Production (mil bu)	FSA 85	8,865	8,223	7,065	6,990	6,930	7,101	7,300	7,393	7,529	7,655	7,824
	Parity	---	---	5,290	5,658	5,468	5,555	5,815	5,752	5,919	6,111	6,078
Domestic Use (mil bu)	FSA 85	5,245	5,509	5,635	5,709	5,595	5,747	5,743	5,706	5,678	5,578	5,689
	Parity	---	---	4,693	4,735	4,485	4,500	4,653	4,611	4,338	4,328	4,302
Exports (mil bu)	FSA 85	1,241	1,314	1,526	1,590	1,568	1,702	1,782	1,867	1,877	1,983	2,087
	Parity	---	---	1,317	1,343	1,382	1,449	1,510	1,573	1,615	1,695	1,760
Ending Stocks (mil bu)	FSA 85	4,038	5,441	5,348	5,040	4,808	4,460	4,237	4,057	4,032	4,128	4,178
	Parity	---	---	4,726	4,306	3,907	3,513	3,165	2,733	2,700	2,788	2,804
Farm Prices (\$/bu)	FSA 85	2.35	1.65	1.66	1.69	1.97	1.71	1.88	1.96	2.18	2.12	2.01
	Parity	---	---	3.59	3.77	3.97	4.14	4.36	4.62	4.88	5.19	5.55
Return/Acre# (\$/acre)	FSA 85	176.79	158.22	154.75	149.90	145.53	130.39	127.51	125.10	122.71	117.61	112.09
	Parity	---	---	193.78	207.45	214.83	222.87	243.49	261.24	282.90	310.04	335.89
Government Costs (mil \$)	FSA 85	8,746	8,502	9,833	9,092	7,963	6,650	7,389	5,548	5,084	5,347	
	Parity	---	8,142	4,513	1,762	1,770	1,939	1,952	2,700	2,969	3,299	

+ Acreage required using base yields

++ Base yields

\* Acreage required using trend yields

\*\* Trend yield adjusted for acreage and price changes

# Returns over variable costs only



Table 5

## SOYBEANS: COMPARISON OF THE FOOD SECURITY ACT OF 1985 (FSA 85) AND THE AGRICULTURAL COMMODITY SUPPLY MANAGEMENT PROGRAM (PARITY)

Variable/Year	Source	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96
Planted Acreage (mil acres)	FSA 85	63.1	61.8	60.0	59.5	59.1	65.0	64.0	67.0	67.1	68.6	67.5
	Parity+	---	---	57.2	60.9	58.9	61.6	62.5	65.1	64.8	64.4	60.6
	Parity*	---	---	54.6	57.4	54.9	57.1	57.2	58.9	58.0	57.0	53.0
Yield (bu/acre)	FSA 85	34.1	33.8	32.3	32.7	33.1	33.3	33.7	34.1	34.5	34.9	35.3
	Parity++	---	---	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8
	Parity**	---	---	32.3	32.7	33.1	33.3	33.7	34.1	34.5	34.9	35.3
Production (mil bu)	FSA 85	2,099	2,009	1,893	1,900	1,910	2,118	2,110	2,237	2,267	2,345	2,333
	Parity	---	---	1,719	1,833	1,771	1,854	1,881	1,962	1,954	1,941	1,822
Domestic Use (mil bu)	FSA 85	1,139	1,176	1,205	1,228	1,222	1,242	1,251	1,285	1,295	1,323	1,338
	Parity	---	---	982	1,033	1,047	1,087	1,118	1,121	1,130	1,096	1,013
Exports (mil bu)	FSA 85	740	748	789	834	863	884	910	936	955	976	1,001
	Parity	---	---	834	843	784	793	814	828	809	803	816
Ending Stocks (mil bu)	FSA 85	536	621	519	357	182	174	123	139	155	201	196
	Parity	---	---	524	480	420	395	344	357	371	413	407
Farm Prices (\$/bu)	FSA 85	5.10	4.65	4.63	4.65	5.90	5.57	5.96	5.67	5.78	5.30	5.28
	Parity	---	---	8.88	9.32	9.80	10.21	10.77	11.42	12.04	12.81	13.70
Return/Acre# (\$/acre)	FSA 85	105.78	90.83	82.57	81.77	121.09	107.36	119.71	107.64	109.33	90.18	86.12
	Parity	---	---	169.12	192.77	195.99	215.53	232.55	259.21	273.11	289.78	291.32
Government Costs (mil \$)	FSA 85	909	438	-96	-489	361	368	245	245	245	245	245
	Parity	---	309	707	1,108	1,432	1,461	1,715	1,819	1,935	2,062	2,062

+ Acreage required using base yields ++ Base yields

\* Acreage required using trend yields \*\* Trend yield adjusted for acreage and price changes

# Returns over variable costs only

Table 6

## WHEAT: COMPARISON OF THE FOOD SECURITY ACT OF 1985 (FSA 85) AND THE AGRICULTURAL COMMODITY SUPPLY MANAGEMENT PROGRAM (PARITY)

Variable/Year	Source	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96
Planted Acreage (mil acres)	FSA 85	75.6	71.8	68.6	58.7	55.6	63.0	67.0	67.6	68.3	71.9	73.2
	Parity+	---	---	53.0	48.2	48.5	56.6	59.0	57.9	59.1	59.5	59.6
	Parity*	---	---	49.6	44.8	45.0	52.6	54.3	52.5	53.1	52.6	52.1
Yield (bu/acre)	FSA 85++	36.3	37.1	37.3	38.2	38.1	38.1	38.7	39.0	39.2	39.5	39.8
	FSA 85**	37.5	34.3	38.2	38.7	39.1	39.2	39.4	39.8	40.2	40.5	40.8
	Parity++	---	---	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1
	Parity**	---	---	39.7	39.9	40.0	40.0	40.3	40.9	41.4	42.0	42.5
Production (mil bu)	FSA 85	2,425	2,077	2,141	2,020	1,934	2,195	2,352	2,397	2,446	2,593	2,660
	Parity	---	---	1,750	1,591	1,602	1,870	1,948	1,912	1,953	1,964	1,967
Domestic Use (mil bu)	FSA 85	1,045	1,086	1,103	1,124	1,119	1,097	967	958	963	981	984
	Parity	---	---	971	887	840	829	851	836	846	855	856
Exports (mil bu)	FSA 85	915	1,002	1,092	1,196	1,294	1,345	1,384	1,455	1,530	1,617	1,685
	Parity	---	---	943	950	1,001	1,036	1,070	1,074	1,096	1,116	1,124
Ending Stocks (mil bu)	FSA 85	1,905	1,903	1,853	1,555	1,078	833	835	821	775	773	765
	Parity	---	---	1,763	1,516	1,277	1,282	1,309	1,311	1,322	1,315	1,302
Farm Prices (\$/bu)	FSA 85	3.16	2.29	2.28	2.27	2.53	2.62	2.75	2.67	2.80	2.80	2.85
	Parity	---	---	4.93	5.17	5.44	5.67	5.97	6.34	6.68	7.11	7.60
Return/Acre# (\$/acre)	FSA 85	73.79	61.21	67.89	62.49	57.77	54.22	57.57	55.00	52.53	53.61	49.82
	Parity	---	---	68.09	67.20	66.06	68.41	76.60	80.55	87.20	94.65	102.56
<hr/>												
		FY 86	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94	FY 95	
Government Costs	FSA 85	9,475	5,434	5,901	4,918	3,397	3,850	3,692	3,247	3,565	3,406	
(mil \$)	Parity	---	4,316	4,183	2,789	2,219	4,515	4,294	4,377	4,700	4,948	

+ Acreage required using base yields ++ Base yields

\* Acreage required using trend yields \*\* Trend yield adjusted for acreage and price changes

# Returns over variable costs only

Table 7

## BARLEY: COMPARISON OF THE FOOD SECURITY ACT OF 1985 (FSA 85) AND THE AGRICULTURAL COMMODITY SUPPLY MANAGEMENT PROGRAM (PARITY)

Variable/Year	Source	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96
Planted Acreage (mil acres)	FSA 85	13.1	13.3	10.8	10.8	10.8	10.8	12.0	12.0	12.0	12.0	12.0
	Parity+	---	---	8.4	7.8	9.0	9.7	9.9	10.1	10.0	10.3	10.7
	Parity*	---	---	8.2	7.5	8.5	9.1	9.2	9.2	9.0	9.1	9.4
Yield (bu/acre)	FSA 85++	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0
	FSA 85**	51.0	50.5	52.4	53.1	53.8	54.5	55.2	55.9	56.6	57.3	58.0
	Parity++	---	---	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0
	Parity**	---	---	52.4	53.1	53.8	54.5	55.2	55.9	56.6	57.3	58.0
Production (mil bu)	FSA 85	589	628	516	523	530	537	603	611	618	626	633
	Parity	---	---	430	396	458	495	506	513	511	524	543
Domestic Use (mil bu)	FSA 85	501	490	512	518	514	527	526	544	545	549	556
	Parity	---	---	454	425	423	441	444	448	450	455	474
Exports (mil bu)	FSA 85	22	55	65	67	69	71	73	75	77	79	81
	Parity	---	---	53	55	57	59	61	63	65	67	69
Ending Stocks (mil bu)	FSA 85	323	410	358	306	262	210	223	223	228	235	241
	Parity	---	---	338	254	232	228	229	231	227	229	230
Farm Prices (\$/bu)	FSA 85	2.00	1.47	1.47	1.50	1.66	1.52	1.61	1.80	1.90	1.95	2.01
	Parity	---	---	3.23	3.37	3.52	3.66	3.83	4.05	4.28	4.54	4.86
Return/Acre# (\$/acre)	FSA 85	59.38	52.32	49.59	45.39	39.83	37.75	34.55	32.58	30.41	27.64	24.63
	Parity#	---	---	63.05	64.54	72.54	79.29	85.65	93.00	99.63	109.12	123.05
Government Costs (mil \$)	FSA 85	471	418	549	527	475	370	281	199	172	152	
	Parity	---	367	135	-174	22	43	43	51	43	35	

+ Acreage required using base yields

++ Base yields

\* Acreage required using trend yields

\*\* Trend yield adjusted for acreage and price changes

# Returns over variable costs only

Table 8

## SORGHUM: COMPARISON OF THE FOOD SECURITY ACT OF 1985 (FSA 85) AND THE AGRICULTURAL COMMODITY SUPPLY MANAGEMENT PROGRAM (PARITY)

Variable/Year	Source	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96
Planted Acreage (mil acres)	FSA 85	18.3	17.1	14.4	15.7	16.4	16.3	16.3	16.9	16.3	16.3	16.3
	Parity+	---	---	13.6	13.9	12.2	11.7	12.0	12.2	12.2	12.0	11.7
	Parity*	---	---	13.2	13.3	11.4	10.9	11.1	11.2	11.2	10.9	10.7
Yield (bu/acre)	FSA 85++	61.0	60.3	60.7	61.0	61.0	60.8	60.8	60.8	60.9	60.9	60.8
	FSA 85**	66.7	65.7	61.4	62.0	62.4	62.8	63.2	63.6	64.0	64.4	63.9
	Parity++	---	---	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3
	Parity**	---	---	61.9	63.0	64.3	64.9	65.2	65.8	66.0	66.5	66.1
Production (mil bu)	FSA 85	1,113	887	760	850	899	898	904	948	915	921	914
	Parity	---	---	820	837	735	707	726	735	738	724	705
Domestic Use (mil bu)	FSA 85	686	635	643	642	609	652	597	584	571	561	554
	Parity	---	---	574	512	455	427	464	456	442	427	406
Exports (mil bu)	FSA 85	179	242	275	298	321	334	312	332	352	354	356
	Parity	---	---	231	250	270	281	262	279	296	297	299
Ending Stocks (mil bu)	FSA 85	547	561	435	344	312	225	220	251	244	250	254
	Parity	---	---	447	394	341	308	284	282	281	279	322
Farm Prices (\$/bu)	FSA 85	2.15	1.51	1.49	1.52	1.78	1.54	1.92	1.91	2.02	1.96	1.86
	Parity	---	---	3.42	3.59	3.77	3.94	4.15	4.40	4.64	4.93	5.28
Return/Acre# (\$/acre)	FSA 85	96.36	80.04	70.60	65.94	57.20	53.53	53.25	49.66	45.10	39.72	28.30
	Parity#	---	---	78.93	80.85	77.83	77.10	82.41	87.89	92.61	97.47	103.96
Government Costs (mil \$)	FSA 85	-374	1,235	1,185	900	869	662	749	472	456	514	
	Parity	---	827	380	267	319	434	398	528	576	615	

+ Acreage required using base yields

++ Base yields

\* Acreage required using trend yields

\*\* Trend yield adjusted for acreage and price changes

# Returns over variable costs only

Table 9

## OATS: COMPARISON OF THE FOOD SECURITY ACT OF 1985 (FSA 85) AND THE AGRICULTURAL COMMODITY SUPPLY MANAGEMENT PROGRAM (PARITY)

Variable/Year	Source	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96
Planted Acreage (mil acres)	FSA 85 Parity+	13.3	14.8	15.2	15.3	15.3	15.4	14.2	14.0	13.9	13.6	13.4
	Parity*	---	---	5.8	6.3	6.8	7.2	7.3	7.3	7.5	7.7	7.8
	Parity**	---	---	5.5	5.9	6.3	6.6	6.6	6.6	6.7	6.9	6.9
Yield (bu/acre)	FSA 85++	48.0	56.7	56.7	59.0	60.0	60.8	60.8	61.2	61.7	62.2	62.7
	FSA 85**	63.6	58.8	60.3	60.8	61.2	61.7	62.2	62.7	63.1	63.6	64.1
	Parity++	---	---	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7
	Parity**	---	---	60.3	60.8	61.2	61.7	62.2	62.7	63.1	63.6	64.1
Production (mil bu)	FSA 85	519	443	410	419	423	432	410	401	398	382	372
	Parity	---	---	330	358	387	408	412	416	425	436	443
Domestic Use (mil bu)	FSA 85	541	485	470	445	447	445	432	416	403	396	389
	Parity	---	---	340	368	387	408	412	416	425	436	443
Exports (mil bu)	FSA 85	2	2	2	2	2	2	2	2	2	2	2
	Parity	---	---	2	2	2	2	2	2	2	2	2
Ending Stocks (mil bu)	FSA 85	184	169	127	114	103	103	94	92	100	98	94
	Parity	---	---	159	149	149	149	149	149	149	149	149
Farm Prices (\$/bu)	FSA 85	1.25	1.21	1.13	1.12	1.19	1.08	1.13	1.17	1.25	1.22	1.17
	Parity	---	---	2.10	2.20	2.31	2.41	2.54	2.70	2.84	3.02	3.23
Return/Acre# (\$/acre)	FSA 85	33.85	25.67	24.24	22.74	19.04	13.85	11.84	9.31	6.94	4.04	.82
	Parity	---	---	31.12	34.74	38.17	40.86	43.84	47.23	50.45	55.43	60.66
Government Costs (mil \$)	FSA 85	57	93	126	111	94	93	90	77	72	81	
	Parity	---	105	29	14	0	0	0	0	0	0	

+ Base yields

+ Acreage required using base yields

\* Acreage required using trend yields

\*\* Trend yield adjusted for acreage and price changes

# Returns over variable costs only

Table 10

## COTTON: COMPARISON OF THE FOOD SECURITY ACT OF 1985 (FSA 85) AND THE AGRICULTURAL COMMODITY SUPPLY MANAGEMENT PROGRAM (PARITY)

Variable/Year	Source	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96
Planted Acreage (mil acres)	FSA 85	10.69	9.59	10.10	11.20	11.60	11.90	12.20	12.30	12.10	11.90	12.00
	Parity+	---	---	10.32	10.42	10.54	10.81	10.98	11.44	11.60	11.82	12.00
	Parity*	---	---	10.17	9.67	9.56	9.68	9.64	9.99	10.15	10.30	10.36
Yield (lbs/acre)	FSA 85++	529	574	574	572	589	590	585	600	608	614	621
	FSA 85**	630	539	584	594	601	607	615	622	626	633	639
	Parity++	---	---	574	574	574	574	574	574	574	574	574
	Parity**	---	---	583	618	633	641	654	657	656	658	665
Production (mil bales)	FSA 85	13.43	9.78	11.58	13.14	13.79	14.32	14.88	15.19	15.02	14.93	15.20
	Parity	---	---	12.35	12.46	12.61	12.93	13.13	13.68	13.88	14.14	14.36
Domestic Use (mil bales)	FSA 85	6.40	7.01	7.14	7.28	7.43	7.50	7.58	7.77	7.86	7.99	8.14
	Parity	---	---	7.50	7.58	7.72	7.96	8.11	8.26	8.40	8.61	8.79
Exports (mil bales)	FSA 85	1.96	6.75	6.66	6.98	7.05	7.09	7.12	7.19	7.21	7.23	7.27
	Parity	---	---	5.05	5.08	5.09	5.17	5.22	5.52	5.58	5.63	5.67
Ending Stocks (mil bales)	FSA 85	9.35	5.48	3.37	2.36	1.77	1.60	1.88	2.21	2.27	2.08	1.98
	Parity	---	---	4.88	4.28	3.68	3.08	2.48	2.48	2.48	2.48	2.48
Farm Prices (\$/lb)	FSA 85	0.56	0.48	0.57	0.59	0.64	0.68	0.64	0.60	0.59	0.62	0.61
	Parity	---	---	0.90	0.95	1.00	1.04	1.09	1.16	1.22	1.30	1.39
Return/Acre# (\$/acre)	FSA 85	168.01	156.56	175.48	165.74	149.07	134.19	125.98	116.90	105.97	95.18	82.01
	Parity	---	---	169.85	174.70	183.77	190.96	199.87	218.74	232.05	251.92	273.30
Government Costs (mil \$)	FSA 85	1,444	780	468	742	(79)	347	503	655	565	575	
	Parity	---	1,543	209	208	184	179	117	80	61	42	

+ Acreage required using base yields ++ Base yields

\* Acreage required using trend yields \*\* Trend yield adjusted for acreage and price changes

# Returns over variable costs only

Table 11

## RICE: COMPARISON OF THE FOOD SECURITY ACT OF 1985 (FSA 85) AND THE AGRICULTURAL COMMODITY SUPPLY MANAGEMENT PROGRAM (PARITY)

Variable/Year	Source	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96
Planted Acreage (mil acres)	FSA 85	2.52	2.35	2.37	2.58	2.58	2.58	2.58	2.58	2.78	2.78	2.78
	Parity+	---	---	1.81	1.92	1.98	2.09	2.20	2.23	2.31	2.30	2.34
	Parity*	---	---	1.47	1.53	1.57	1.64	1.72	1.73	1.78	1.76	1.78
Yield (lbs/acre)	FSA 85++	4,699	4,904	4,903	5,318	5,632	5,882	6,043	6,190	6,243	6,281	6,319
	FSA 85**	5,437	5,552	6,050	6,165	6,205	6,245	6,285	6,315	6,355	6,395	6,435
	Parity++	---	---	4,903	4,903	4,903	4,903	4,903	4,903	4,903	4,903	4,903
	Parity**	---	---	6,050	6,165	6,205	6,245	6,285	6,315	6,355	6,395	6,435
Production (mil cwt)	FSA 85	136.0	129.5	142.8	155.0	158.0	159.0	160.0	161.1	174.6	175.7	176.8
	Parity	---	---	88.0	93.2	96.2	101.2	106.8	108.3	112.0	111.7	113.3
Domestic Use (mil cwt)	FSA 85	55.0	58.4	59.2	61.3	63.4	64.8	67.3	68.9	70.4	72.0	73.8
	Parity	---	---	46.8	48.9	51.2	53.1	55.9	56.7	57.5	58.4	59.3
Exports (mil cwt)	FSA 85	58.7	75.9	80.3	84.2	86.9	89.9	92.5	93.6	97.3	98.6	99.9
	Parity	---	---	50.0	48.0	49.0	49.7	51.1	52.0	52.9	53.7	54.5
Ending Stocks (mil cwt)	FSA 85	77.3	57.1	55.8	60.4	63.5	63.2	58.9	52.1	54.1	54.3	52.4
	Parity	---	---	48.2	44.6	40.6	39.1	38.8	38.5	40.1	39.7	39.2
Farm Prices (\$/cwt)	FSA 85	6.72	4.32	4.86	4.96	5.26	5.62	5.73	5.90	6.18	6.52	6.50
	Parity	---	---	14.04	14.74	15.50	16.16	17.03	18.06	19.05	20.27	21.67
Return/Acre# (\$/acre)	FSA 85	232.99	247.51	266.40	292.25	287.76	281.76	280.64	277.96	294.82	290.28	286.99
	Parity	---	---	188.94	212.53	232.00	255.01	285.96	309.57	339.02	362.32	396.13
Government Costs (mil \$)	FSA 85	912	874	928	845	752	722	675	722	662	655	
	Parity	---	956	486	509	524	566	612	631	666	699	

+ Acreage required using base yields

++ Base yields

\* Acreage required using trend yields

\*\* Trend yield adjusted for acreage and price changes

# Returns over variable costs only

Table 12

## DAIRY: COMPARISON OF THE FOOD SECURITY ACT OF 1985 (FSA 85) AND THE AGRICULTURAL COMMODITY SUPPLY MANAGEMENT PROGRAM (PARITY)

Variable	Source	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Milk Cows (Mil)	FSA 85 Parity	11.03	10.85	10.42	10.63	10.70	10.76	10.78	10.78	10.75	10.73	10.71
		---	---	9.15	9.18	9.17	9.17	9.14	9.10	9.07	9.06	9.04
Output per Cow (thou lb)	FSA 85 Parity	13.03	13.37	13.48	13.62	13.68	13.92	14.03	14.22	14.38	14.60	14.82
		---	---	13.24	13.29	13.36	13.42	13.50	13.59	13.64	13.71	13.79
Commercial Milk Prod. (Bil lb)	FSA 85 Parity	143.67	145.00	140.45	144.72	146.44	149.79	151.22	153.24	154.63	156.70	158.72
		---	---	121.15	122.00	122.51	123.06	123.39	123.67	123.71	124.21	124.66
Mfg Milk Commercial Use (Bil lb)	FSA 85 Parity	83.54	85.12	86.17	88.68	90.51	93.03	95.32	96.99	98.67	100.27	101.82
		---	---	70.30	71.84	73.04	74.25	75.22	75.93	76.36	77.31	78.27
Fluid Milk Consumption (Bil lb)	FSA 85 Parity	52.01	51.96	51.83	51.53	51.23	50.95	50.78	50.66	50.57	50.48	50.38
		---	---	50.85	50.16	49.47	48.81	48.17	47.74	47.36	46.91	46.39
Government Purchases (Bil lb)	FSA 85 Parity	13.17	10.85	6.21	9.66	9.86	10.97	10.27	10.74	10.54	11.11	11.67
		---	---	0	0	0	0	0	0	0	0	0
Government Cost (Mil \$)	FSA 85 Parity	2038	2388	1588	1490	1455	1564	1378	1446	1424	1505	1587
		---	---	0	0	0	0	0	0	0	0	0

## Prices

Support (\$/cwt)	FSA 85 Parity	11.97	11.60	11.29	10.60	10.10	9.60	9.10	9.10	9.10	9.10	9.10
		---	---	---	---	---	---	---	---	---	---	---
Farm, All Milk (\$/cwt)	FSA 85 Parity	12.75	12.35	12.29	11.62	11.10	10.61	10.13	10.13	10.13	10.13	10.13
		---	---	16.95	17.79	18.71	19.51	20.56	21.81	23.00	24.47	26.17



Table 13

## LIVESTOCK: COMPARISON OF THE FOOD SECURITY ACT OF 1985 (FSA 85) AND THE AGRICULTURAL COMMODITY SUPPLY MANAGEMENT PROGRAM (PARITY)

Commodity and Variable	Source	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
<b>BEEF</b>												
Omaha Price (\$/cwt)	FSA 85 Parity	58.31	58.00	64.95	68.55	70.00	67.90	64.60	60.70	57.20	54.50	55.00
Commercial Production (million lbs)	FSA 85 Parity	23,723	24,174	22,000	20,240	19,630	20,020	20,620	21,240	21,770	22,205	21,985
Per Capita Consumption (lbs retail weight)	FSA 85 Parity	79.10	79.80	73.20	67.40	64.80	65.10	66.10	67.30	68.20	68.90	67.80
Retail Price (\$/lb)	FSA 85 Parity	2.37	2.38	2.66	2.90	2.98	2.89	2.79	2.66	2.56	2.48	2.57
		---	---	2.52	2.48	2.64	3.00	3.08	3.19	3.35	3.30	3.39
<b>CHICKEN</b>												
Wholesale Price, 12 City (\$/lb)	FSA 85 Parity	0.57	0.55	0.53	0.49	0.48	0.46	0.44	0.42	0.40	0.39	0.40
Production, Broiler (million lbs)	FSA 85 Parity	13,762	14,298	15,264	15,934	16,385	16,875	17,415	17,940	18,300	18,760	18,570
Per Capita Consumption (lbs retail weight)	FSA 85 Parity	54.90	56.80	60.20	61.90	62.90	63.70	64.70	66.00	66.40	66.90	65.30
Retail Price (\$/lb)	FSA 85 Parity	0.78	0.79	0.74	0.72	0.71	0.69	0.68	0.66	0.66	0.65	0.67
		---	---	0.73	0.72	0.77	0.81	0.85	0.84	0.90	0.91	0.92
<b>PORK</b>												
7 Market Price (\$/cwt)	FSA 85 Parity	44.84	51.40	51.90	45.00	37.00	30.00	35.00	40.00	46.50	44.00	41.00
Commercial Production (million lbs)	FSA 85 Parity	14,803	14,097	13,850	15,060	16,260	17,310	15,925	14,810	13,920	14,616	15,350
Per Capita Consumption (lbs retail weight)	FSA 85 Parity	62.80	59.60	58.70	63.20	66.40	68.70	63.00	58.50	55.00	56.60	58.40
Retail Price (\$/lb)	FSA 85 Parity	1.62	1.72	1.78	1.63	1.55	1.49	1.62	1.73	1.84	1.76	1.69
		---	---	1.75	1.43	1.69	1.98	2.20	2.33	2.40	2.45	2.50
<b>Total Expenditures</b> (\$ per capita)	FSA 85 Parity	331.82	337.27	343.64	342.94	340.22	334.76	330.39	323.84	319.56	314.01	316.37
<b>Total Per Cap Consumption</b> (lbs)	FSA 85 Parity	196.80	196.20	192.10	192.60	194.20	197.50	193.70	191.90	189.70	192.40	191.50
<b>Aggregate Meat Price</b> (\$/lb)	FSA 85 Parity	1.69	1.72	1.79	1.78	1.75	1.69	1.71	1.69	1.68	1.63	1.65
		---	---	1.73	1.61	1.74	1.92	2.00	2.03	2.11	2.10	2.14

Table 14

## FOOD EXPENDITURES AND CONSUMER PRICE INDEX FOR FOOD

Variable/Year	Source	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Total Food Expenditures (Bil \$)	FSA 85 Parity	397.98	415.03	412.49	428.77	441.67	457.61	474.57	481.73	496.74	513.99	529.57
		---	---	421.09	430.18	453.09	484.70	509.80	523.79	547.59	571.80	595.06
CPI Food (1967=100)	FSA 85 Parity	309.30	323.70	314.90	321.74	327.23	334.81	341.27	343.36	349.82	356.79	362.27
		---	---	322.48	322.96	337.00	357.76	370.63	378.15	391.41	403.42	414.38
Real Food Expenditures (Index)	FSA 85 Parity	144.93	152.75	146.64	145.54	143.77	145.23	146.16	143.63	143.36	142.66	141.45
		---	---	149.69	146.02	147.49	153.82	157.01	156.17	158.03	158.70	158.94

Table 15  
NET FARM INCOME AND GOVERNMENT PAYMENTS: COMPARISONS OF THE FSA 85 AND PARITY

Variable	Source	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Billions of Dollars												
Cash Receipts from Marketings	FSA 85 Parity	142.1	134.8	131.6	131.0	131.7	134.8	136.2	136.8	138.2	139.9	142.4
		---	---	146.8	151.3	157.3	166.6	174.5	179.9	188.8	196.1	205.0
Crops	FSA 85 Parity	72.6	61.6	58.7	59.6	62.5	67.8	70.6	73.0	75.4	77.8	79.6
		---	---	69.9	84.7	88.3	93.2	98.7	103.8	109.8	115.0	121.8
Livestock	FSA 85 Parity	69.4	73.1	72.9	71.3	69.1	66.9	65.6	63.8	62.7	62.0	62.8
		---	---	76.9	66.5	69.0	73.4	75.8	76.1	79.0	81.1	83.2
Direct Government Payments & Subsidies	FSA 85 Parity	7.7	10.9	15.9	16.6	14.3	13.1	13.8	12.9	12.9	12.9	12.5
		---	---	11.0	10.0	5.7	4.8	4.7	4.3	4.1	3.9	4.1
Total Farm Cash Receipts	FSA 85 Parity	156.2	151.7	152.6	153.5	152.1	153.9	156.0	155.8	157.2	158.8	160.9
		---	---	163.8	167.3	168.9	177.4	185.2	190.2	198.9	206.0	215.1
Production Expenses	FSA 85 Parity	136.1	130.1	125.3	128.1	133.3	136.1	140.7	143.2	145.0	147.7	149.9
		---	---	127.7	136.7	143.0	147.8	156.7	160.5	164.5	169.3	174.4
Net Farm Income (nominal \$)	FSA 85 Parity	30.4	29.5	33.5	33.3	28.7	26.0	25.2	22.6	21.3	19.2	18.8
		---	---	50.8	37.5	36.6	40.3	40.9	44.9	51.4	55.4	58.5
Net Farm Income (1967 \$)	FSA 85 Parity	9.8	9.8	11.0	10.5	8.8	7.8	7.3	6.4	5.9	5.2	4.8
		---	---	16.7	11.8	11.2	12.1	11.8	12.7	14.2	14.9	15.0

Table 16

## GOVERNMENT COST

Variable	Source	FY86	FY87	FY88	FY89	FY90	FY91	FY92	FY93	FY94	FY95
Million Dollars											
Feed Grains	FSA 85	8,900	10,247	11,693	10,631	9,402	7,774	8,509	6,297	5,784	6,093
	Parity	---	9,441	5,057	1,869	2,111	2,416	2,393	3,279	3,588	3,949
Food Grains	FSA 85	10,387	5,357	5,993	5,439	4,208	4,351	4,069	3,906	3,965	3,888
	Parity	---	5,272	4,669	3,298	2,743	5,081	4,906	5,008	5,366	5,647
Soybeans	FSA 85	909	438	-96	-489	361	368	245	245	245	245
	Parity	---	309	707	1,108	1,432	1,461	1,715	1,819	1,935	2,062
Cotton	FSA 85	1,444	780	468	742	-79	347	503	655	565	575
	Parity	---	1,543	209	208	184	179	117	80	61	42
Dairy	FSA 85	2,065	2,388	1,588	1,490	1,455	1,546	1,378	1,446	1,424	1,505
	Parity	---	1,391	0	0	0	0	0	0	0	0
<hr/>											
Total	FSA 85	23,705	20,164	20,443	18,097	15,268	14,616	15,034	12,598	12,230	12,479
	Parity	---	17,957	10,641	6,482	6,469	9,137	9,131	10,186	10,950	11,700

Table 17

## FARM DEBT RESTRUCTURING LOANS

Variable	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Number of Farms Requiring Loans (Thousand)	120	120	120	120	120	120	120	120	120	120
Average Loan Level (Thousand)	20	38	55	55	55	55	44	32	22	11
Total Loans (Million)	2,400	4,560	6,600	6,600	6,600	6,600	5,280	3,960	2,640	1,320
New Loans (Million)	2,400	2,160	2,040							
Annual Interest At 10% (Million)	240	456	660	660	660	660	528	396	264	132
Loan Repayment	Government Subsidized Loans						Farm Payment Loan			
							1,320	1,320	1,320	1,320

