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GOVERNMENT PROGRAMS AND THE MARKET FOR GRAINS

by

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Introduction

Numerous government programs effect the market for grains. Some of these have a direct impact and need to be built into annual marketing strategies to maximize returns. Farmers have faced the need to evaluate alternative returns from participation in government price and income support programs that require compliance with announced wheat and feed grain set-aside or to produce outside of the programs and "face the market". Even with compliance a marketing analysis is needed to decide whether to sell or place commodities under loan for a nine month period or to enter the farmer held reserve for up to three years.

Other forms of government involvement in grain markets are less direct and are designed both for other purposes or to have a longer term impact on the growth of markets. These include various activities that seek to expand or stabilize sales in both domestic and foreign markets. Some of the more important are our domestic food distribution programs, the gasohol program and our international programs designed to expand export sales through negotiations to reduce barriers facing American farm products in foreign markets, programs to promote the sale of farm products in foreign countries, programs to expand sales through export credits and our programs to provide food assistance for humanitarian and other purposes.

The material that follows discusses some of these programs and in particular will present options available through the Food and Agriculture Act of 1977 to place 1981 crop grains under government loan or in the reserve. New legislation has recently been passed to replace the Food and Agriculture Act of 1977 and its general content and implications will be presented.

Current Programs

Production conditions for both wheat and feed grains were generally favorable in 1981 resulting in crops that have placed pressures on markets. Wheat production totaled about 2.7 billion bushels on 88 million acres planted. This production along with carry-over resulted in a total supply of slightly over 3.7 billion bushels. A record corn crop of 8.1 billion bushels was produced through record yields and plantings of about 84 million acres. As a result prices are below year earlier levels.

Deficiency Payments. If the national weighted average market price received by farmers during the first five months of the marketing year [June through October for wheat and barley; October through February for corn and sorghum] is below the target price, deficiency payments may be made to eligible producers. Deficiency payment rates are the difference between the target price and the higher of [1] the national weighted average market price received for the first five months of the marketing year or [2] the national average loan rate. Because no acreage restrictions were in effect for 1981 crops, all producers could become eligible for deficiency payments and regular disaster payments by reporting their planted acreage to their ASCS office. Producers are not required to plant within their normal crop acreage [NCA] for their farms to qualify for program benefits. Since the average farm price for wheat for the first five months of the crop year is above the regular and reserve loan rates but below the target price of \$3.81 a bushel, a deficiency payment will be made on the basis of the difference between the target price and the average market price. This payment has been calculated at 15¢ per bushel. The target price and the loan rate for corn are identical at \$2.40 per bushel, hence, no deficiency payment will be made.

Marketing Options. At each harvest farmers are faced with decisions on sale or storage of commodities and the use of government options provided in Food and Agriculture Legislation through the regular loan and the farmer held reserve programs. They face several options in marketing their grain:

1. They can sell at current market prices and complete the marketing process with known returns.

2. They can hold grain on their own account for higher prices later on. The cost of holding grain involves explicit or implicit interest charges and on farm or commercial storage costs.

3. They can place grain under the regular price support loan for a nine month period to provide both downside protection and flexibility to market later if prices rise.

4. They can immediately enter the reserve program and achieve a degree of downside protection but are not permitted to sell for three years unless prices reach a certain level.

Regular Loan Program. In the regular loan program non-recourse loans are available from county ASCS offices for wheat, rye, barley and oats through March 31 and for corn and sorghum through May 31 of 1982. Loans mature on demand but no later than the last day of the 9th calendar month following the month the loan is made. Loan rates are established for all counties to reflect the national average rates. The initial interest rate established on 1981 crop loans is 14.5 percent but the crop will carry a floating interest rate subject to periodic adjustment to reflect the cost to the Commodity Credit Corporation [CCC] of borrowing money from the U.S. Treasury.

Table 1 computes the price and costs of putting wheat and corn under a nine month loan. These budgets are based on an assumed cost

Table 1. Evaluation of Government Loan Strategy for Wheat and Corn

Option	Wheat		Corn	
9 month loan				
Loan rate		$3.20		$2.40
Storage cost on farm 1¢ per mo.	-.09		-.09	
Net value of loan at takeover with farm storage		3.11		2.31
Commercial storage cost (4¢/mo.)	-.36		-.36	
Net value of loan at takeover with commercial storage		2.84		2.04
Interest cost for 9 months at 14.5%* (3.86¢/mo. wheat and 2.90¢/mo. corn)	-.348		-.261	
Minimum price needed to repay loan plus interest		3.548		2.461
Net value with farm storage (3.548 - .09) and (2.461 - .09)		3.458		2.571
Net value with commercial storage (3.548 - .36) and (2.461 - .36)		3.188		2.301

*The interest charge has been reduced to 12.25 percent as of January 1, 1982.

of farm storage of 1¢ per bushel per month and 4¢ per bushel per month for commercial storage. Interest is charged at an annual rate of 14.5 percent.

If grain is left under loan for the full nine months and taken over by government, these costs will result in a declining net value of the loan to a level of $3.11 cents per bushel for wheat and $2.31 per bushel for corn if crops are stored on the farm. The comparable values for wheat and corn with commercial storage are $2.84 per bushel for wheat and $2.04 per bushel for corn. Minimum downside risk is the loan value minus storage cost. It would seem advisable, therefore, with farm storage to place commodities under loan if the price is below the loan rate by 9 to 10¢ per bushel. With commercial storage the minimum price would have to be 36¢ below storage to assure complete downside risk protection.

The other aspect of the loan program is its use as a tool to hold grain for later sale at expected higher prices. An immediate cash flow is received equal to the loan value and payment of interest on the loan is deferred until the sale is made. Interest for the nine month period amounts to about 35¢ per bushel for wheat and 26¢ per bushel for corn. Thus an initial decision to place commodities under loan would be based on the expectation that prices will increase at least enough to cover the interest and storage cost. With present loan rates this price for wheat would be $3.64 per bushel and for corn $2.75 per bushel with farm storage and $3.91 for wheat and $3.02 for corn with commercial storage costs.

However, once in storage decisions on redeeming the loan depend on a price sufficient to repay the loan and cover interest payments that will be incurred as a result of the decision to redeem. At the end of 9 months this value for wheat is $3.55 ($3.20 + 35¢) and for corn $2.46 ($2.40 + 26¢). The total net return from storage and redemption will be below these values by the amount of storage costs incurred. The net return for wheat and corn with farm storage at the end of the 9 month period are $3.46 and $2.57 respectively. With commercial storage the levels decline to $3.19 per bushel for wheat and $2.30 per bushel for corn. It will, however, pay to redeem the loan at any price that more than covers the loan plus interest even though storage costs that have been incurred are not fully recovered. At any price above the value of the loan plus interest there will be an increase net return as compared with turning grain over to the government.

Loans can be repaid at any time and the breakeven value relative to market prices can be calculated by deducting storage costs and adding the interest commitment that would be made at redemption of the loan. For example, based on the loan value of wheat of $3.20 per bushel the net value at the end of three months would be $3.29 and at the end of six months $3.37.

The loan program thus can be used to provide downside protection as well as providing a basis for increasing profits if prices increase sufficiently to cover costs that are incurred. Current participation rates for the loan program have been heavy. As of December 30, some 500 million bushels of the 1981 corn crop have been placed under the regular loan. This reflects an expectation that prices will increase from current levels during the nine month period of the loan.

Reserve Loans. The second major option for 1981 wheat and corn [as well as 1980 crop under the regular loan program] is the farmer held reserve. Reserve agreements are for three years. Farmers receive annual payments in advance for storage whether the grain is stored on or off the farm. Interest charges are waived after the first year on reserve loans. When prices rise to a trigger level the reserve is released and farmers may repay their loan along with interest for up to one year or keep their grains in the reserve. After release storage payments stop and interest charges resume (if they have been terminated as stipulated for the second and third years of the reserve). The current trigger level for wheat is $3.65 per bushel and for corn $3.15 per bushel.

Table 2 computes the prices and costs involved in putting wheat and corn in the reserve program. The first option with three year reserve and then takeover shows the minimum downside protection in the program. The loan rate is $3.50 per bushel for wheat and $2.55 per bushel for corn. To these amounts it is necessary to add storage payments of 26.5¢ per bushel and deduct storage costs to get the net value of the loan if left for the full three year period. Assuming again a 1¢ per bushel storage cost for on farm storage the net value of the loan for wheat at the end of the period is $3.93 and for corn $2.98. The increase above the original loan value with farm storage reflects the differential between the 26.5¢ annual storage payment and the lesser assumed 12¢ per bushel storage cost (14.5¢ per bushel per year). With commercial storage the net value of the loan declines to $2.75 per bushel for wheat and $1.80 per bushel for corn reflecting the excess (21.5¢ per bushel per year of storage cost over the storage payment.

The net loan values indicate the downside risk coverage for the total period of the loan. The net position with farm storage is similar to the degree of downside protection in the regular loan period. The increased level of loan for wheat and corn of 30¢ to 25¢ respectively are approximately enough to cover the added farm storage cost of 1¢ per month due to the longer time period involved. With commercial storage rates, however, the downside protection is substantially reduced from the levels involved in the regular loan program.

Commodities in the reserve cannot be sold and loans repaid unless prices reach release levels. It is thus important to know the net value of the release price whenever market prices reach this level. These figures are shown for release at the end of one year in the second part of Table 2. These values are computed by adding storage payments to

Table 2. Evaluation of Farmer Held Reserve Strategy for Wheat and Corn

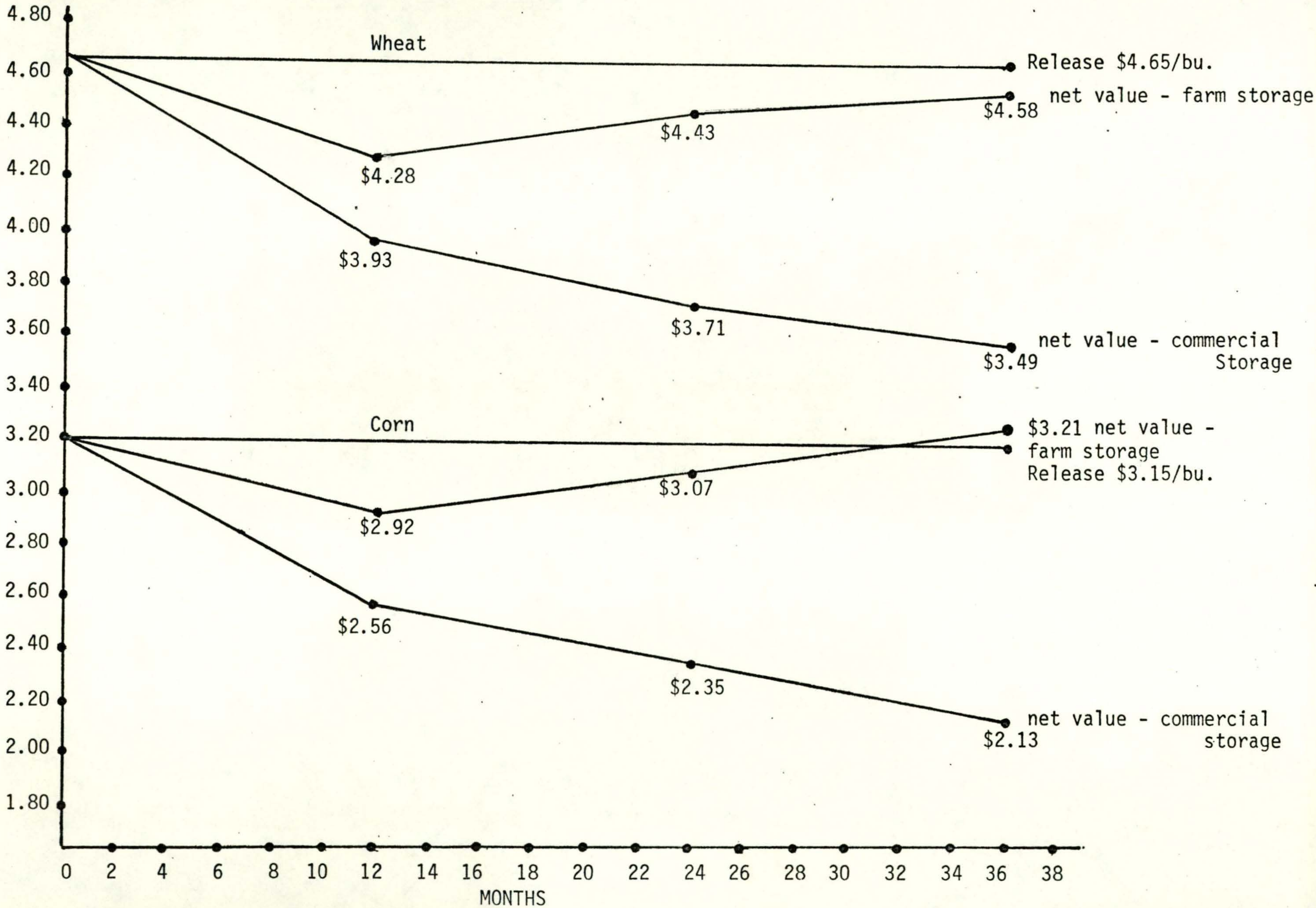
Option	Wheat		Corn	
3 year reserve then take-over				
Loan rate		$3.50		$2.55
Storage payment @ 26.5¢/ year (2.2¢ per month)	+.795		+.795	
Storage cost on farm @ 1¢/mo.	-.36		-.36	
Commercial storage @ 4¢/mo.	-1.44		-1.44	
Net value of reserve loan at take-over with farm storage		3.935		2.985
Net value of reserve loan at take-over with commercial storage		2.755		1.805
3 year reserve and release after 1 year				
Release price		4.65		3.15
Storage payment @ 26.5¢/ year (2.2¢ per month)	+.265		+.265	
Storage cost on farm @ 1¢/mo.	-.12		-.12	
Commercial storage @ 4¢/ mo.	-.48		-.48	
1 year interest @ 14.5% on loan value	-.507		-.370	
Net value with farm storage		4.288		2.925
Net value with commercial storage		3.928		2.565

the release price and subtracting from this total interest payments and storage costs. The net value of the release price at the end of one year is \$4.29 for wheat and \$2.92 for corn with farm storage. These values decline to \$3.93 for wheat and \$2.56 for corn if commercial storage is used.

Figure 1 indicates how these values change from the time commodities are placed in the reserve through the entire three year program. The decline in the first year is due to the combined effect of interest charges and storage. After the first year the relation between storage payments and storage cost determine changes in the net value since no further interest is charged. Whenever a loan is redeemed all costs and payments cease and prepaid storage must be refunded. The net value of the release then can be computed for any point in time as the sum of the loan plus storage minus interest payments for one year minus storage costs and the refund of prepaid storage if any is required. It should be noted that farmers need not sell and redeem their loan if commodities reach the release price level.

The farmer held reserve provides the basis for increased returns from crop sales. These increased returns can result both from better prices and from gains that will accrue if storage payments exceed storage costs, as would likely be the case for farmers who have on farm storage. Participation has been heavy. As of December 30, about 650 million bushels of 1980 and 1981 corn were in the reserve. These potential gains, however, must be interpreted carefully. Allowing a risk premium and for inflation, the purchasing power of a dollar earned two or three years hence is worth less than a dollar earned today. We need to discount future income at

Net Value of Release Price for
Farmer Held Reserve



some interest rate that represents alternative potential earnings in order to compare them to present market returns. Examples of the relationship between net price and discounted value based on values in Table 2 are shown in Table 3. Further there is no guarantee that the market will be strong enough to trigger sales from the reserves any time during the three year period. Thus there is no guarantee that any gains will accrue other than those that potentially can arise from the differential between storage payments and storage costs.

Table 3. Wheat: Net Value of Cash Sales Relative to Reserve Program Options With Farm Storage

	Net Price	Cash Flow	Discounted Net Price
1. Market sale	$3.40	$3.40 now	$3.40
2. Loan and take over	3.93	3.50 now .43 in 3 years	3.82
3. Loan and release 1 year	4.28	3.50 now .78 in 1 year	4.21
4. Loan and release 2 years	4.43	3.50 now .93 in 2 years	4.26
5. Loan and release 3 years	4.58	3.50 now 1.08 in 3 years	4.31

Discount rate = 10 percent

Evaluation. The following points need to be kept in mind in making decisions on whether to place commodities under regular loan or in the reserve program:

1. The regular loan program provides a short term downside risk guarantee that is equivalent to the loan value minus storage costs.

2. The regular loan program also provides flexibility to take advantage of upward price movements over the ensuring

nine month period and can increase crop returns to the extent that price movements are sufficient to more than cover storage and interest costs incurred.

3. The reserve program provides downside risk protection over a longer period of time and because storage payments exceed probable on-farm storage cost, storage earnings can accrue.

4. The reserve program also provides the flexibility for selling at a higher price if market prices rise sufficiently at any time during the three year period of the loan. If prices rise to the release level during the first year of the program, additional gain will accrue through the differential between storage payments and storage costs. If sales are made at the release level during the second and third year of the program, these gains plus an interest subsidy for the period beyond one year will be obtained.

The above evaluations and data provide rough guidelines on the potential gains and losses from entering the regular loan or the reserve program. Yet while the kinds of trade offs involved can be easily visualized it is difficult to calculate percisely the expected return from putting grains in the reserves. First one must guess (establish probabilities) whether grain price increases will be sufficient to offset the net cost involved in the programs and in the case of the reserve program there is the question of whether prices will at any time during the three year peirod reach a level that permits release. For the regular loan program, short term market outlook is crucial and if prices do not rise during this period the additional uncertainty of whether 1981 crop will be eligible for the reserve program at the end of the period is important. If neither a favorable price option nor transfer to the reserve program becomes available, the regular loan program serves only to provide a minimum downside risk. The same is true of the reserve program if prices do not improve sufficiently to bring on release. At current market prices relative to loan levels farmers generally can expect to gain from either program only if market prices improve in the future.

The Agriculture and Food Act of 1981

New legislation has been passed that will provide the framework for farm and food policy for the years 1982 through 1985. The legislation is comprehensive and includes 17 titles dealing with price supports and other issues. Its general thrust is similar to the 1977 Act but some important differences exist. The following pages discuss some of the provisions that will be of most direct concern to Michigan farmers.

Price Supports for 1982-1985 Crops. Target prices for wheat for these years are set at levels not less than \$4.05, \$4.30, \$4.45, and \$4.65 per bushel for each year beginning in 1982. Target prices for corn for the same period are set at not less than \$2.70, \$2.86, \$3.03, and \$3.18 per bushel respectively. For both crops the Secretary has been given discretion to establish higher prices based on changes in per acre costs of production. This later provision represents a new feature in farm price support legislation. The Act also requires that target prices for grain, sorghum, oats, and if designated by the Secretary, barley, to be at such rates as are determined to be fair and reasonable in relation to the target price on corn. Payment limits for crops are continued at present levels--\$50,000 per person for all payments each year expect disaster payments which also are continued at the old level of \$100,000 per person per year.

Non-recourse loans and purchases will continue to be a component of the wheat and feed grain programs. The minimum loan level for wheat has been set at $3.55 per bushel for the period and the minimum support loan level for corn is set at $2.55 per bushel. The Secretary has authority to raise the loan rate on wheat if necessary to maintain its competitive relationship with other grains.

Authority to reduce the loan level for wheat and corn up to 10 percent if market prices are no greater than 105 percent of the loan level has been continued. However, in no event can the prices be reduced below $3 per bushel for wheat and $2 per bushel for corn. Further if action is taken to reduce the loan level, offsetting compensation must be made by increasing the target price payments for the affected crops by an amount that will provide the same total return to producers as if the action on loan and purchase rates had not been taken. If there are no target price payments in effect, separate payments must be made and the overall payment limitation will not apply in this later instance.

Several features of the previous legislation designed to facilitate program administration will be continued. There will continue to be a national program acreage established each year. This acreage must be established for wheat by August 15 and for corn by November 15 of the preceding year. Later adjustments, however, may be made.

The program allocation factor which also will be continued for use in determining farm program acreage. The allocation factor along with a yield determination will effect final total deficiency payments. Deficiency payments will continue to be based on prices received by farmers during the first five months of the marketing year as in the previous legislation. The payment will be determined by multiplying the payment rate in each year times the farm program acreage times the farm program payment yield established for the farm.

Disaster payments continue to be a part of the crop program but will be administered on a restricted basis due to the availability of the expanded crop insurance program. In general disaster payments will be available only in conditions where losses have created an economic emergency for the producer and where federal crop insurance and indemnity payments and other forms of assistance made available by the federal government are insufficient to alleviate the emergency or where no crop insurance is available to cover the loss because of transitional problems in establishing the federal crop insurance program.

The legislation continues authority for the Secretary to require a reduction in acreage planted to wheat and/or feed grains through an acreage limitation program. The limitation is determined by applying a uniform percentage reduction to the wheat and/or feed grain acreage base (acreage planted for harvest the previous year) for each farm. This appears to imply a relatively crop specific program. A percentage of the acres on each farm must be devoted to conservation uses when an acreage limitation program is in effect.

The Secretary also has the option to institute a set-aside program where producers would have to set-aside and devote to conservation purposes acreage equal to a specified percentage of total crop acreage planted for harvest. In addition, he may offer producers a paid land diversion program if he determines such payments will assist in obtaining necessary adjustment to total acreages. This later program may be offered whether or not an acreage limitation or set-aside program is in effect. The amounts payable to producers under this program may be determined by bids submitted by producers for diversion contracts--a new element of program management and one that can have far reaching implications.

Total acreage planted to wheat and/or feed grains need not be within a farmer's normal planted acreage unless a set-aside program is in effect. In this case the set-aside, diverted, and planted acreage cannot exceed the normal planted acreage on individual farms. Further, compliance with program provisions for any commodity may be required as a condition of eligibility for loans, purchases, or payments if a set-aside is in effect but not if an acreage limitation program is in effect.

A program for the support of soybeans is included with the loan level set at 75 percent of the simple average price of beans received by farmers over the preceding five marketing years, excluding the high and low years but with a minimum support level of $5.02 per bushel. As with wheat and feed grains if prices do not exceed 105 percent of the loan level in any year, the support level may be reduced but by not more than 10 percent per year with a minimum of $4.50 per bushel. No provision is made for acreage reductions on soybeans and they are not eligible for the reserve program nor can any storage payments be made to producers.

The 1981 Act requires that a farmer held reserve program be established for both wheat and feed grain. The Secretary may set an upper limit on the amount of commodity placed in the reserve but this cannot be less than 700 million bushels for wheat and 1 billion bushels for feed grain. Conditions for implementing the program are very similar to those under the 1977 Act but the specific terminology of release and call price is not used. Instead the Secretary is authorized at a time when the market price has attained a "specified" level to increase the rate of interest on loans and design other methods to encourage orderly marketing of wheat and feed grains. Substantial penalties continue to exist if a producer redeems his loan before the price has reach the level predetermined by the Secretary at which release can be made. Loan can be called prior to maturity only if emergency conditions warrant making commodities available on the market.

Dairy Products. The dairy program has changed substantially in that minimum prices have been specified and support levels are related to the level of surplus production and government expenditures. The minimum price support for 3.67 percent milk will remain at $13.10 per hundred weight through September 30, 1982. Thereafter the minimum price will increase to $13.25 per hundred for fiscal year 1983, $14 for 1984 and $14.60 for 1985. On the basis of current inflation rates, these levels are likely to be well below 70 percent parity. However, if in any year it is expected that the net cost of federal programs to the government will be less than $1 billion the minimum support will be set at 70 percent of parity. Further if government price support purchases are expected to be less than 4 billion pounds milk equivalent in fiscal 1983, 3.5 billion pounds in 1984 or 2.69 billion pounds in 1985 the minimum price support for the year will increase to 75 percent of parity.

Other features of the Act continue the dairy indemnity program, deal with certain aspects of marketing orders and authorize the Secretary to use to the fullest extent practicable the authorities under the Commodity Credit Corporation Charter Act and the Agricultural Trade Development and Assistance Act of 1948 [PL-480] and other available authorities to reduce inventories of dairy products held by the CCC.

Sugar. After a lapse of about 3 years sugar price supports are reinstituted by the 1981 Act. Through March 31, 1982 the Act mandates support of cane sugar prices through purchase of processed products that will approximate a raw cane sugar price of $16.75 per pound. The price of sugar beets will be supported at a level considered reasonable in relationship to the support for cane sugar. Beginning in October of 1982, domestically grown cane sugar will be supported through non-recourse loans at not less than 17 cents per pound for raw sugar. This level is increased to 17.5 cents per pound for the 1983 crop, 17.75 cents per pound for the 1984 crop and 18 cents per pound for the 1985 crop. Sugar beets will continue to be supported at a level considered reasonable in relationship to cane sugar.

International Issues. The Act deals with international issues more extensively than previous legislation. It establishes an export credit revolving fund for use by the Commodity Credit Corporation without fiscal year limitations. The bulk of the fund would be used to finance commercial export sales of commodities. The fund also can be used to finance both private and CCC export sales of breeding animals and can be used to improve handling, marketing, processing, storage or distribution facilities in countries receiving U.S. products. However, only local currency generated by U.S. agricultural commodity sales can be used for the financing of these facilities. The bill provides no specific authorization for appropriation of funds to initiate the program.

Another provision requires the Secretary of Agriculture to develop a standby export subsidy program for agricultural commodities to deal with unfair foreign competition. The program can be used only if the President determines action is needed to eliminate foreign programs that have substantially displaced U.S. agricultural exports or reduced prices in foreign markets below levels at which U.S. commodities could be supplied. The need for Presidential determination means that interagency agreement will be required to activate a subsidy program hence the Department of Agriculture's flexibility in using this provision will be substantially limited.

Another provision deals with embargo protection. If this program is invoked producers of the commodity involved would be compensated either by establishing a loan level of 100 percent of parity, making direct payments to producers or a combination of the two. The program would not be triggered if the sales suspension restricts all U.S. exports to a country or region or if sales of the commodity to the country or area do not exceed three percent of total U.S. export sales of the specific commodity during the preceding year. The Secretary is also required to develop a comprehensive contingency plan that examines ways to alleviate adverse effects of export embargoes on agricultural products.

The Act extends the Agricultural Trade, Development and Assistance Act of 1954 [PL-480] and establishes a maximum appropriation for Title I (concessional sales) of $1.9 billion per calendar year. The maximum authorization for expenditures under Title II programs (donations) was increased from $750 million to $1 billion. A few other changes were made--the most important of which is to permit setting the prices of commodities used in PL-480 programs below but at no time above the export market price. This permits flexibility which had not previously existed in pricing PL-480 commodities and allows the potential for increased volume of concessional exports. Heretofore all concessional exports had to be valued at the current export market price.

Resource Conservation. A title on resource conservation is included that either represents new legislation or is a significant change from the 1977 Act. The elements include special areas conservation program, small watershed program, matching grants for conservation activities, a conservation loan program, a reservior sedimentation reduction program, resource conservation and development program, farm land protection policy and a number of other elements.

Other Provisions. The Act deals extensively with food stamps and commodity distribution and makes some changes in existing programs. These changes relate largely to operational aspects including such things as eligibility requirements, work requirements, household definition and other factors in program administration.

A major title in the Act deals with national agricultural research, extension and teaching policy. The Act continues most provisions of previous legislation but makes a number of changes including the requirement that a new assistant secretary of agriculture be appointed to cover these areas of responsibility. Beyond that a number of program changes have been added particularly in relation to specific research efforts needed in agriculture.

A final two sections of the bill deal with credit, rural development, and family farms plus floral research and consumer information.

Evaluation. As indicated at the outset the new bill is comprehensive and in some parts provides relatively detailed program specifications. As compared with previous legislation the most important extensions are those related to international relationships and resource conservation and management. Because operating specifications have not been developed as yet for most parts of the bill a comprehensive evaluation is not possible. Some of the more important points to note, however, are the following:

The price support loan and reserve programs will operate similar to those in the 1977 Act. Deficiency payments will be made when the U.S. average price received by farmers in the first five months of the crop year is below the target price. While the release and call level terminology is not included the secretary has discretion to specify a price at which storage payments will no longer be made and interest charges on the loan will not be waived in the reserve program. A difference from previous legislation is that target prices for each year of the bill have been specified for major commodities. These are minimum price levels and the secretary has discretion to establish higher levels but this would appear unlikely at the present time.

An important question is the relationship between these target prices and probable rates of increase in production costs. The rates of increase in target prices vary among commodities and seem to show no consistent pattern. The target price for corn increases 12 percent from its current level to 1982, thereafter increases of 5 to 6 percent are built in. For wheat the increase is 6 percent for each of the first two crop years and then drops to 3 percent and increases slightly to 4 percent for the 1985 crop. For milk the increase in 1982 from the present level is only 1 percent, thereafter the increases are 5 and 4 percent per year. If these milk price minimums hold, the support level will likely be almost \$2.50 per hundred below 70 percent of parity and over \$3.50 per hundred below 75 percent of parity by 1985. This represents a substantial change in dairy policy.

A second point to make is that program operation will continue to present farmers with a substantial degree of uncertainty. The normal crop acreage concept is retained with flexibility to make changes until late in the crop year. There are three options that can be used in restricting crop acreage two of which--the acreage reduction program and the set-aside program would be related to compliance for the loan and reserve program. The paid diversion program on the other hand, could operate independently of the loan program. The paid diversion also adds the new element of a farmer bid procedure as the basis for diversion payments.

A general component of the uncertainty involved in the program is that the Secretary can exercise discretion in implementing a wide range of operational elements. This includes prices above the minimum level specified, the relationship between loan rates and target prices, the setting of and the basis for acreage control program and a number of other things. This has to be combined with the fact that political pressures related to farm program operations come from many sources. It is also true that interagency involvement in food and agriculture has increased substantially hence the decision process within the administrative branch of government has dispersed with sometimes unpredictable results, particularly in the case of decisions related to international markets. In the case of export subsidies no decision can be made without full interagency review through the special trade representatives office. This in itself lends uncertainty as to how programs will be implemented.

Another unique feature of the 1981 Act is the extent of concern with the operations of food programs particularly the food stamp program. A lengthy section is included in the Act related to the specifics of operations with a view toward limiting both use and abuse of the program. The Act also deals with experimentation in the use of new forms of distribution including consideration of direct income payment in leiu of food donations. If this later approach materializes it could represent a move toward making food programs a part of our general welfare program and potentially could have major implications for the future of the food programs in the Department of Agriculture.

Another element of the Act that represents a substantial new emphasis compared with previous legislation, is the section dealing with resource conservation. This apparently is related to recently developing concern with soil erosion and the depletion of natural aquifer in some areas of the country. This may protend an important future resource oriented direction in food and agricultural policy that ultimately can become as important as food distribution and commodity price policy. If this is true, a new set of trade offs will be involved in developing food and agricultural policy.

Another general perspective that arises in the legislation is that while the Secretary retains and probably has been given increased discretion in operations of commodity programs, greater detail of program specifications seems to have been inserted in other sections. This is particularly true in dealing with food distribution programs and those dealing with national agricultural research, extension and teaching policy. International issues also have been given greater attention. The reasons for the greater detail in sections where it exists is not easily apparent.

Finally it should be kept in mind that while this legislation covers four years, this does not mean that there will be no additional food and agricultural legislation during that period. During the past four years the Act of 1977 was amended by the Emergency Agricultural Act of 1978, Dairy Legislation of 1979, the Agricultural Adjustment Act of 1980, the Agricultural Act of 1980 and the Federal Crop Insurance Act of 1980. These resulted in a substantial amount of changes particularly in the operation of the price support and loan programs. They also had an impact on the sugar program, the PL-480 program, and the food stamp program and, of course, established a crop insurance program. Thus whether the existing 1981 legislation will stand intact for the full four years or be substantially altered through new legislation is itself an uncertainty of the future.

Foreign Market Expansion*

Since passage of the Agricultural Trade Development and Assistance Act of 1954 [PL-480] the United States government has undertaken a range of activities related to the development, expansion, and maintenance of foreign markets for U.S. agricultural products. The approach used is to carryout trade servicing, including credit, and promotion activities in situations where this will enhance exports of U.S. agricultural products. Overall program priorities are to maintain and expand sales levels in established commercial markets, to expand demand for traditional

*Based on internal USDA documents.

commodities and introduce new products, and to carryout development activities for selected commodities in new markets.

These programs are designed to be supplemental to normal commercial activities. Obviously such factors as price, quality, availability, and financing are critical to achieve export sales. However, at times these programs may be useful to long term development activities by providing information and expertise on availability and utilization of products and through a facilitating function that helps bring buyers and sellers together. These programs also can be viewed as seeking to overcome a number of market imperfections. Imperfections include inadequate product distribution, transportation and trading systems, discriminatory foreign government procurement procedures, discriminatory customs practices and licensing procedures and difficulties of conducting business due to differences in customs and business operating procedures.

Market Development. The major effort in the U.S. Department of Agriculture's multifaceted export promotion program is carried on jointly with market development cooperators, namely farm oriented business groups representing their commodity interests. Activities by the cooperators are implemented under contractual arrangement with the Foreign Agricultural Service of the U.S. Department of Agriculture. Currently the Foreign Agricultural Services is working with 54 cooperators representing some 2.5 million farmers. Cooperators are generally commodity organizations such as the American Soybean Association and Great Plains Wheat or are operating farmer cooperatives such as Sunkist Orange Growers. Promotion activities are proposed in annual marketing plans developed by the cooperator and submitted to the Foreign Agricultural Service. Each cooperator is required to submit an annual fiscal and activity report. Once the plans and activities are approved a joint program of action is developed by the Foreign Agricultural Service and the cooperating enterprise.

Two basic approaches to market promotion are used--trade servicing and consumer promotion. Trade servicing activities generally are used for bulk commodities such as soybeans and feed grains and are designed to encourage direct sales and impart information to potential buyers and related government agencies with regard to price, availability, useage, technical application and the like. Often the impact of these activities may be indirect and thus are difficult to measure.

Consumer promotion is used by cooperator groups representing producers of semi-processed and processed products that do not lose their identity before reaching the ultimate consumer. Both generic and brand promotion are used. Generic promotion is designed to have a longer term impact and is intended to create a favorable image for the product in the minds of consumers. The approach used is similar to such U.S. promotion as "a day without orange juice is a day without sunshine".

Brand promotion is intended to convey a message about a specific brand product to a target group. U.S. government involvement in this kind of activity has the primary purpose of assisting private firms or cooperatives in establishing their specific product in foreign markets. Once the product is established government involvement is reduced with the intention of complete withdrawal and the assumption of full financial responsibility by the cooperating organization.

Beyond the cooperator program the U.S. Department of Agriculture carries out a number of activities that cannot be performed with an individual cooperator program. These activities may support several cooperator programs and may relate to developing the potential market for farm products not covered by existing cooperator programs. They are designed to exploit promotional opportunities in situations where a collective effort provides greater impact at less cost than multiple action by individual groups.

These activities generally fall into two categories, exhibitions and information services. Exhibitions involve such things as livestock feed demonstrations, in-store promotions and media advertising. Information services, such as the trade opportunity referral service [TORS] are designed to provide a link between foreign buyers and domestic sellers of U.S. products through two way communication that serves both prospective buyers and prospective sellers. The USDA program also provides current market intelligence through a data gathering service that covers some 90 foreign countries as well as providing expertise on the foreign supply and demand situation and outlook and information on relevant trade laws and customs regulations covering a wide range of commodities and many countries.

Development of these programs is based on a number of criteria related to U.S. participants, the commodity selected, and the countries considered for the program. U.S. cooperator participants are non-profit U.S. agricultural trade organizations capable of representing all or at least a broad segment of the producers and related industry, willing to cooperate in long term programs aimed at developing and maintaining markets and able to provide competent staff and financial support. Commodities selected are those which U.S. producers are capable of producing for export on an ongoing basis, where U.S. sales organizations are able to back up promotional activities with adequate supplies and where U.S. products have a reasonable basis for competing in the market. Country selection for the programs is based on consideration of whether U.S. commodities can be offered for sale on a fair competitive basis, whether necessary infastructure to handle U.S. products is available, whether trade barriers are so repressive as to reduce market access and where there is a reasonable expectation of market growth.

The program is intended to facilitate achievement of expanded U.S. exports. However, most promotional activities in the program are not amenable to evaluation by measuring sales or volumes of exports resulting directly from specific program activities. Despite problems of quantifying to develop proof of export additionality these programs continue to be generally accepted and supported through Congressional appropriations and private funding, indicating that at least there is a belief that they are beneficial to American agriculture and to the nation as a whole.

Export Credit. Another important aspect of U.S. export programs has been Commodity Credit Corporation [CCC] export financing. These programs have been designed to expand U.S. farm exports to markets in the middle of the financial spectrum--countries which are reasonably good credit risks but require additional credit that cannot be obtained directly from commercial sources.

Credits are granted to the extent funds are available on request from buying countries if program managers conclude that repayment constitutes an acceptable risk and if the financing is likely to result in additional U.S. exports and is unlikely to replace sales that would otherwise be made.

The export credit program has involved three major activities. One is to provide short term [up to 36 month] credit for direct purchase of commodities. A second has been to finance intermediate length livestock breeding programs [up to 5 years] and to finance market facilities [up to 10 years] that would facilitate expansion of imports particularly of U.S. commodities. A third aspect of the program has been risk assurance for use in cases where credit is necessary to increase or maintain U.S. exports to a foreign market and where private financial institutions are unwilling to provide financing without CCC guarantees.

These programs have operated at varying levels over the years. At present and in part because of budget constraints no appropriations have been authorized for direct U.S. government financing of credits either for direct sale of commodities or for intermediate financing of livestock herds or market facilities. These programs remain available and could be used if funded.

The main activity at present is risk assurance. In this program the Department of Agriculture will guarantee up to 98 percent of the value of the loan and 8 percent of the interest commitment. For fiscal year 1982 the total authorized level of assurance is $2.5 billion dollars of which somewhat more than one-half had been committed as of December 28, 1981. These presumably represent sales that would not have been made without the program. A new and more direct linkage to farmers may develop in the future through use of this program by the banks for cooperatives which are presently planning to provide export financing for farmer cooperatives directly involved in international trade.

PL-480. Another government program that has some relevance to growth in U.S. agricultural markets is the PL-480 concessional sales program. Under title I of this program the U.S. government finances at substantial concessional rates the sales of agricultural commodities to developing countries. Actual sales are made by private U.S. suppliers to foreign government agencies or private entities. Repayments to the United States by recipient governments are made in subsequent years as specified usually over a period of 20 or more years. In some cases principle repayments are deferred up to 10 years and with a very low interest rate total repayment is spread over a period of up to 40 years.

While the PL-480 programs serves humanitarian and other purposes, it also can have a development effect in low income foreign countries. Growth in the demand for U.S. agricultural exports in many countries is closely related to income levels. Food consumption and imports often increase more than proportionate to increased income levels. Even modest changes in per capita income, therefore, can have a sizeable effect on U.S. agricultural exports. This is especially true in the case of developing countries whose agricultural sector is unable to respond to increased demand with proportional increases in production. Thus to the extent that PL-480 concessional sales stimulate economic development they will have the direct effect of expanding markets for U.S. food grains.

As economies grow further into middle income ranges further expansion often occurs as consumer demand for livestock products increases. At present the most rapidly growing markets for U.S. agricultural products are middle income developing countries that both maintain a need for food grain imports and are rapidly expanding their need for feed grains to support growing livestock production.

The Policy Component of Market Development. An important element in being able to expand foreign markets lies in minimizing the restraints in the form of policy measures imposed in foreign countries that reduce their agricultural imports or result in export subsidies that increases competition on world markets. Dealing with these kinds of policy issues is an ongoing activity in the U.S. Department of Agriculture.

A major multilateral trade negotiation [MTN] was concluded in 1979 aimed at establishing an improved framework for trading of agricultural commodity. These negotiations resulted in the modest reduction of some tariffs both by the United States and by other countries and the expansion of quotas for sale of U.S. agricultural products in a number of cases. In addition to specific concessions on particular products a number of international codes or trading rules were established. Of these the most important to agriculture are those dealing with the use of export subsidies in international trade and with the use of product standards as a trade control measure. In general it is expected that these new codes will over time provide greater opportunities for U.S. agricultural products in world markets though their implementation has been sufficiently limited to date that it is not yet possible to gauge the extent of their effect.

Aside from these broader negotiations, continuous activity seeks to deal with various kinds of inappropriate trade practices involving import restrictions, export subsidies, technical standards, customs evaluation procedures, the role of state trading and other activities that inhibit U.S. agricultural export. Recent major emphasis is being placed on attempting further reductions in barriers in the European Economic Community. An interesting evaluation in the Department of Agricultural Economics at Michigan State University for the Foreign Agricultural Service indicates that if EEC feed grain import levies were eliminated there would be an increase in U.S. exports to that area resulting in a significant increase ($4.5 billion in 1985) in U.S. net farm income.

Evaluation. A broad range of ongoing activities is undertaken by government designed to improve the international climate for agricultural trade and to directly promote or assist the export of U.S. agricultural products. The expansion of U.S. exports over the past two decades has been due largely to economic growth or production short falls abroad and to the efficiency and capacity of U.S. producers this growth probably has been facilitated by an active export promotion strategy based on the market development program to stimulate foreign demand, the Commodity Credit Corporation exports credit sales program to increase foreign buying power and the continuous effort through policy initiatives to reduce trade barriers. While these activities do not impinge directly on decisions made by farmers they have implications for long term development of markets and needed to be considered in developing expectations for prices in both the short run and in the long run and thus have substantial indirect impact on production and marketing decisions.

Domestic Programs

In addition to foreign market programs certain domestic programs have the potential for major impact on market growth for U.S. grains.

Gasohol. The most important of these is the use of corn for gasohol production. The program as initially developed established a target for production of gasohol equal to at least 10 percent of total U.S. gasoline consumption by 1990.

If fully implemented, the program would use approximately 25 percent of the U.S. corn crop. This is only slightly less than the percentage of the crop currently being exported and if fully implemented would have a substantial market impact. Price relationships among crops would shift and realine production, utilization and trade patterns. The price of corn and the production of corn would increase at the expense of soybeans, wheat and probably other feed grains. The overall grain prices would rise and result in higher costs of production to livestock producers. Cash crop production would expand and total farm income would increase substantially and undoubtedly have a secondary effect of accelerating concentration in agricultural production. With increasing feed costs losses would initially occur to livestock producers and this would result in production cutbacks, higher prices and because of relatively elastic demand lower consumption levels. In total there would be a major income redistribution effect that would benefit agriculture in total but would shift income substantially within agriculture.

The program as currently being implemented involves substantial federal subsidies and in addition subsidies have been provided by a number of states through exemption of gasohol from excise taxes.

Diverting this quantity of corn to gasohol production would reduce exportable surpluses and affect world grain prices. This, in turn, would result in an income transfer from importers to exporters and would exacerbate balance of payments problems for many food importing countries.

The consequences would be most severe in low income food deficit countries and very poor in all countries. Because substantial gasohol production would tighten supply-demand balances and tend to prevent stock accumulation the program may result in substantial increased instability in grain markets.

The present status of this program is uncertain. Gasoline prices have stabilized. Recent research indicates that there is little likelihood that gasohol will become competitive with alternative energy sources. Support for the program in the U.S. government seems to have waned. Whether production by 1990 will approach that projected in the initial legislation is questionable.

It is unlikely that gasohol based on corn will become fully competitive at any conceivable price of corn relative to petroleum at any time in the near future. This does not mean that some growth in production will not occur. Specific conditions may exist where products or by-products from forestry management or agriculture can profitably be used. It is unlikely, however, that this kind of development will be extensive without government subsidies and hence the ultimate scope of the program is uncertain. Even modest development, however, would have some impact on corn markets, hence farmers want to be aware of trends and the emerging scope of the gasohol program.

Domestic Food Distribution. Another program with consequences for grain markets is our domestic food distribution programs. These have taken several forms including school lunch program, a school milk program, a program for women, infants and children [WIC] and most importantly the food stamp program. The current food stamp program has grown from a modest beginning in 1965 to a level where it involves distribution to nearly 20 million people and represents $10 to $12 billion of the U.S. Department of Agriculture budget. It is currently under evaluation. In part this is associated with the general effort to restrain budget expenditures and in part with misuse of the program. The new food and agricultural act has reduced the total budget by some $2 billion. While this program probably does not directly effect food grain consumption very much, it does impact total food expenditures largely in the form of increased expenditures for livestock products by recipient families.

Evaluation. The gasohol and food distribution programs are not designed primarily as programs to expand markets for farm products. The gasohol program was established to reduce U.S. dependence on petroleum imports. A secondary objective is to contribute to the improvement in the U.S. balance of payments. Domestic food distribution programs, though initially established as a tool for market expansion have evolved to programs guided largely by nutrition objectives and efforts to overcome poverty. Fulfilling these objectives, however, can create a positive effect on growth in markets for U.S. farm products. This will be particularly true in the case of gasohol production if the program objectives are met or even approached.