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AFPC POLICY ISSUES PAPER
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THE IMPACT OF THE COTTON AND RICE
MARKETING LOAN ON FARMER RELEASE OF
COMMODITIES

Department of Agricultural Economics
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THE IMPACT OF THE COTTON AND RICE MARKETING LOAN ON FARMER RELEASE OF COMMODITIES

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Marketing loans in cotton and rice, Findley adjustments, generic certificates, and export enhancement programs in wheat and feed grains were implemented with the passage of the 1985 farm bill. The objective of these programs is to ensure that U.S. commodities are priced competitively and move into the market place. Problems, however, have surfaced in the effectiveness of these programs in achieving this objective as government owned CCC inventories are depleted and the market must entice producers to sell the commodity under their control.

A farm policy dilemma that is currently receiving attention is the impact of farm program price support and storage provisions on farmer decisions to sell commodities and, therefore, make them available for use in domestic and international markets. It is generally recognized that when the price support level (loan rate) rises above the world market price, U.S. commodities are not competitive in export markets. It is less frequently recognized that even when the market price is above the loan rate, farmers may refuse to make commodities available to the market, thus exacerbating the competitive position. Future price expectations, the degree of risk aversion, farm program provisions and other institutions such as cooperative pooling, contract selling provisions, storage costs, interest rates, and futures market options influence the availability of commodities offered to the market at any point in time.

This paper is designed to set forth some researchable hypotheses concerning the impact of farm loan program and storage provisions on farmers' decisions regarding storage and sales strategies. Special attention is given to the marketing loan program as implemented in cotton and rice. Subsequently, alternatives for dealing with the problem of farmer release of commodities under the marketing loan are discussed. It is believed that the issue discussed is sufficiently important and unexplored that it could be the basis for one or more research projects. The results have implications for all commodities utilizing price support loans.

Three Farm Program Case Situations

The 1985 farm bill contains three different farm program provisions regarding price support loans and storage policy that merit further study as to their impact on farmer sales (release): including the regular price support loan as applied to wheat and feed grains, the marketing loan as applied to cotton, and the marketing loan as applied to rice.

Regular Price Support Loan

The wheat or feed grains farmer who participates in the farm program can take out Commodity Credit Corporation (CCC) commodity loans at harvest and is solely responsible for the storage and interest costs. However, interest costs are forgiven by the CCC if the commodity is forfeited at the end of the loan period (normally 9 months but may be extended). Storage, however, must be paid by the farmer. Loan implementation requires that commercial storage be paid "up front" by the farmer when the commodity is placed in commercial storage.

Once the farmer has decided to utilize the CCC loan as a marketing strategy, conventional economic theory argues that for the farmer to make a "sell" decision, the market price must rise above the loan rate plus accumulated interest and the variable cost of storage. The "store" decision, therefore, is based upon the expectation that the market price will rise to more than cover the cost of storage and interest. The farmer decision to extend the loan past 9 months, if available, would once again depend on *added* storage, interest costs and price expectations. Of course, risk and the time value of money play a role.

To deal with the "release" problem in feed grains and wheat, the 1985 farm bill materially increased emphasis on the use of generic PIK certificates (certs). Certs were paid to farmers in lieu of cash for benefits due farmers under a number of government programs. The certs were, in turn, used to break commodity out of loan (PIK and Roll) and/or release CCC stocks. The effect of cert action is to drive down the market price and, thereby, make U.S. grains more competitive in the world market. The effectiveness of PIK and Roll type strategies depends on the relationship between actual market prices and the government's repayment rate (posted county prices). Since the feed grain markets are more domestically influenced, most of the certificate

exchanges were concentrated in the feed grains. Enhanced export competitiveness in wheat, therefore, was complemented by aggressive use of export enhancement programs (EEP) designed to recapture world markets lost during the period of the high valued dollar.

Under EEP, the government utilized CCC stocks forfeited under the loan to supplement stocks held commercially and, thereby, reduce the average price paid by buyers. EEP thus accomplished the dual objectives of getting rid of CCC stocks and making the U.S. price competitive with the world market price. Continuation of the use of certs to release CCC commodity stocks and the use of EEP raises a number of questions regarding the increasing role of USDA as a state trader and its effect in directly influencing trade and market prices. A state trader is a government or quasi-government agency which acts as a monopolist in selling (or buying) commodities on behalf of its farmers (consumers). The state trader issue, which surfaced in the USDA's auctioning of wheat for certs, is a very broad and encompassing issue under current farm programs.

Marketing Loan in Cotton

The 1985 farm bill introduced the marketing loan in cotton. By allowing CCC loan repayment at the theoretical (adjusted) world price, the cotton marketing loan has been promoted as the salvation for solving the release problem inherent in the regular CCC price support loan. This expectation has not been realized. It is hypothesized that one reason the cotton marketing loan has failed to solve the release problem lies in the specific implementation provisions relating to the regular CCC loan rate, storage, interest and the CCC loan period. However, marketing loan release problems are very similar in theory and practice to that encountered under the regular price support loan in wheat and feed grains.

The cotton marketing loan provides that upon delivery to a CCC approved warehouse, the farmer is advanced the loan rate for the quality of cotton delivered. The loan is held by the farmer until sale at which point the farmer pays off the loan at the "world market price" which, by definition, is a widely recognized and used formula. When the loan is "paid off," the farmer is not responsible for either interest or storage costs if the world market price is below the loan rate. The willingness of the government to pay interest and storage costs extends over an 18

month period. It is hypothesized that the willingness of the government to pay interest and storage costs, as well as the ability of the farmer to forfeit cotton to the CCC in full payment of the loan, discourages producers from "releasing" the commodity to the market. This is theoretically the case because the farmer has "free use" of the revenue from cotton at the loan rate and the potential for gain if either:

- the market price rises above the loan rate, or
- the "equity value" of cotton in the loan rises.

The term "equity value" refers to a market which has developed that transfers the right to sell the cotton from the farmer to the merchant. In other words, "equity" represents the value merchants place on gaining control of the cotton. From a farmer perspective, "equity" represents the value of the government storage and interest subsidy as well as expectations regarding future cotton prices and/or equity values. Because of future price expectations, producers may continue to hold commodities in the loan even though prices rise above the loan rate and, therefore, equity values may exist regardless of whether the market price is above or below the loan rate.

Currently, the equity value on Texas High Plains cotton is about \$0.05 per pound on a loan rate of approximately \$0.47 per pound. It is believed that equity values have ranged from \$0.01 to \$0.14 pound. (There appears to be no public record kept of equity values on a historic basis.) Using this example, the farmer receives a loan of \$0.47 at harvest and can pay off at the announced world market price of \$0.41 (assumed) or can receive an equity value of \$0.05 per pound in return for "releasing" the right to the CCC loan to the merchant. The announced adjusted world cotton price is derived by formula based on the A Index (Northern Europe price for middling, 1 3/32 inch) adjusted to U.S. quality and location. The merchant is effectively paying the adjusted world market price (\$0.41) plus the equity value for the cotton. The farmer who sold equity would realize \$0.47 (initial CCC loan) plus \$0.05 equity (from the merchant), plus a deficiency payment of the difference between the target price and the loan rate or the average price received by farmers, whichever is higher (\$0.234 maximum rate in 1989).

Experience in cotton has indicated that the marketing loan, contrary to expectation, has not moved cotton into the export market as effectively as had been predicted. When the marketing

loan was first initiated, the market price fell abruptly as the government subsidized the release of cotton through the issuance of first handler certificates to merchants and utilized its CCC inventory to pressure the market place. After this initial period of adjustment, market prices have exceeded loan levels, and the adjusted world price has either exceeded or hovered within ten cents/pound of the loan rate when equity values are considered.

There may also be evidence that the United States is supporting the world market price. This support may be provided by the structure of international trade in cotton, whereby most of the quotes utilized in the A Index are made by state trading nations. The A Index, therefore, may be subject to manipulation. There is no incentive for state traders to cut their price when they know that the marketing loan formula provisions will result in the U.S. price simply following downward the state traders' price. The United States has assumed, therefore, through the implementation of the marketing loan, the role of a "price leader." As such, the United States sets the price (effectively the announced loan rate), and the competitors will price as much cotton as they feel is either economically or politically feasible. It does not make sense that state traders would get into a price war when the demand is sufficient to utilize all they have to offer with the self-imposed U.S. price umbrella. If they did, they only cut their own prices and would not necessarily gain market share. The result then is that U.S. cotton remains as a residual supplier and the loan rate continues to set the floor regardless of what is done with "known" adjusted world price mechanisms (A Index).

Does this mean that U.S. cotton will continue to be noncompetitive in the world market? The answer to this question appears to be that it will until the point is reached where the 18 month loan expires. At that point, producers lose control of the cotton, either to the merchants or it is forfeited to the CCC. The CCC could then be forced to issue another round of first handler certificates or other forms of export subsidies. In other words, the USDA may once again approach state trader status and cotton prices would again fall. The answer will depend on the state trader decisions of our government. Of course, the government pays the cost of the export subsidy as well as a higher marketing loan payment while the excess stocks are worked off.

Marketing Loan in Rice

The basic marketing loan concept in rice is similar to that in cotton. There are, however, uniquenesses in implementation, in terminology, and in the importance of cooperatives utilizing pooling techniques. It is hypothesized that the uniquenesses have had important impacts on the performance of the rice marketing loan relative to the cotton marketing loan. The differences between the two programs do not change the concerns about the impact on release and, therefore, on the effectiveness of the marketing loan in moving commodities into the export market.

The rice loan is extended only over a nine month period. The producer is responsible for storage costs (unlike cotton). Interest costs are assumed by the CCC when rice is forfeited or repaid at world rice price levels below the loan rate. The announced "world market price" or repayment rate for rice is less specific in terms of disclosure than the cotton A Index formula. While the Thailand price and transportation costs are prime factors in the formula for determining the rice world market price, a number of other unspecified factors frequently referred to as the "Thai premium" are considered. This "black box," used to determine the world price, has made the announced world rice price determination process quite controversial.

One important consideration (and difficulty) in setting the announced world market price for rice is the existence of four distinctly different markets:

- the "producer premium market,"
- the commercial export market,
- the GSM credit and EEP export market, and
- the PL 480 market.

An announced world market price which is low in the commercial market (relative to Thailand) may be high in the GSM credit market. Alternatively, the price may be low for brown rice and high for milled rice. As a matter of strategy, millers charge that USDA has kept the announced world market price too high. In other words, they would like to see a lower "Thai premium."

Another consideration (and difficulty) in setting the announced world price is what Thai price to use. That is, the reported Thai price may only be an announced or quoted price rather

than the actual transaction price. If the transaction price is lower than the announced price, even a zero Thai premium may not be competitive. This difficulty of determining a world rice price is comparable to the potential for manipulation of the A Index in cotton.

The pricing system under the rice marketing loan appears to have developed similar to cotton, although different terminology is involved. That is, while in cotton the merchant pays "equity" for the right to redeem cotton from the loan, in rice a "producer premium" is paid. In addition to quality, the size of this "producer premium" is hypothesized to reflect the industry's need to free rice of a given quality from producer control via the CCC loan program for use in either the domestic, commercial export, or GSM credit export markets. Interest carrying costs, expectations for a change in the size of the producer premium, the future cost of storage and competitive factors in the market for rough rice are, of course, considered in determining the size of the "producer premium". Of these, the domestic market, generally, is the price leader in "producer premium" determination (which is probably the same in cotton).

In addition to arguing that the announced world market price for rice is too high, exporters charge that the "producer premium" is pricing them out of the world market. This is the same argument that was made previously with regard to the cotton equity. As a result, rice millers have suggested subtracting the producer premium from the announced world market price. As a result of a lower announced world price, the effect would be a larger marketing loan subsidy from the government. In addition, a lower announced world price could mean a higher domestic premium because U.S. rice is more competitive in the world market. In other words, increased movement of rice into the world market results in bidding the domestic premium higher in order to encourage producers to release rice and satisfy the higher level of foreign demand. The world price action and domestic premium react in a circular manner -- whenever one is reduced, the other would tend to rise; offsetting at least part of the effect of the more competitive announced world price.

Despite such export competitiveness issues, the rice release problem does not appear to be as severe as in cotton. It is hypothesized that this results from rice's shorter loan period, the fact that storage costs are born by the farmer and the larger share of rice milled and/or pooled by

cooperatives. Compared to independent rice farmers, the cooperatives have greater incentives to release the rice from the loan to utilize milling capacity and serve established markets.

It is interesting to note that in Texas, the release of rice from the loan did not become a problem until ARI went private. Associated with ARI's privatization was a larger share of independent farmers selling on the spot market. In California, where contracts with independent millers are the main alternative to cooperative marketing agreements, the independent miller can call the rice whenever it is needed and pay off the marketing loan. This is comparable to transfer of title which occurs in cotton with the sale of "equity." It is also interesting to note that the release problem in cotton is not as severe in cotton producing areas such as California where Calcot pools a substantial share of the cotton. In cotton, the difference in release is commonly attributed to the higher quality of California cotton, but the authors suggest the cooperative dominance of the California cotton market may be an important factor.

Policy Options and Consequences

There are no easy solutions to the release problems presented by either the marketing loan or the regular price support loan. Several of the proposals which have been made are, at best, temporary, only reduce the magnitude of the problem, or may reflect a lack of understanding the economic forces at work.

Continue the Current Policy

Continuing the current policy inevitably results in a high level of government involvement in moving commodities into the world market and, therefore, high government costs. In addition, government program induced price, surplus, and cost cycles may result. That is, during periods when USDA is releasing stocks, low prices and high government costs could be anticipated while after the stocks are released, prices would rise only to induce a rebuilding of the stocks. Stocks rebuilding is aggravated by target price levels that consistently encourage farmers to produce.

Adjust Marketing Loan Implementation

Several suggestions have been made for adjusting the implementation of the marketing loan program in either cotton or rice. While several of these suggestions have the potential for making

commodities more competitive, they would not solve the release problem inherent in the current loan program. For example, it is frequently suggested that a "black box" comparable to the rice world market price establishment procedure ought to be adopted for cotton. Such a "black box" replacement for the adjusted world price formula would make the U.S. repayment price less visible to foreign competitors, but would do nothing to solve the release problem. Similarly, reducing the cotton loan period to 9 months or eliminating the storage and interest subsidy would reduce the producer incentives to hold but would not necessarily solve the release problem. The cotton release problem would be placed on a more equal basis to Texas rice by making these changes. Likewise, reducing the set aside for rice and cotton would increase the volume of commodity for sale but would not assure release and/or competitiveness in world markets. Lowering the loan repayment rate by means such as changing the world price formula is likewise a red herring. A lower loan repayment level will likely result in a higher equity/domestic premium, and further aggravate the payment limit problem.

Implement a Recourse Loan

A recourse loan would eliminate the option of CCC forfeiture. In other words, the commodity would have to be marketed sometime during the loan period. The loan would have to be paid off at the end of the period. A recourse loan in the absence of extensions and subsidies on interest or storage would materially reduce or eliminate the release problem. The function of the loan would be limited to encouraging orderly marketing as opposed to supporting prices or acquiring government stocks. Such a move, however, would meet stiff political opposition from producers who would lose many of the price support benefits provided by the non-recourse program.

Eliminate the Loan

Eliminating the loan would restore the original concept of the marketing loan moving commodities into the world market. However, severe payment limit problems would be encountered. Under the current cotton and rice program, marketing loan payments resulting when the announced world market price falls below the loan rate, are not included in the \$50,000 payment limit. If the loan were eliminated, all direct producer payments could be subject to the

payment limit. The results would be major structural changes including further division of farm operations and/or extensive use of cash rental arrangements and inefficiency. It goes without saying that this alternative would likewise meet stiff opposition from the producers.

Conclusion

The conclusions of this analysis are:

- Despite the marketing loan, farmer release and forfeiture of cotton to the CCC are major problems. While these problems are not as great in rice, the issues are still present and can be expected to periodically create problems.
- Exports in both cotton and rice are still highly dependent on export subsidies and special export initiatives involving certificates, EEP and so forth. This dependence on export subsidies is comparable to the conditions that exist in wheat and feed grains.
- Areas with a dominant cooperative structure appear to be able to use the marketing loan more effectively in adding liquidity to the market.
- In charting the future course of farm programs, it is extremely important that the objectives of farm policy be understood and agreed upon. Income enhancement is difficult or impossible to achieve without large government payments per farm operator, restrictions on exports, or severe limits on the eligibility for payments which are vigorously enforced. The absence of direct payments either runs the risk of imposing high loan rates with its export suppressing consequences, or requires a recourse loan.

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