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# MARKETING LOAN IMPACTS—RICE AND COTTON

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The 1985 Food Security Act is designed to make agricultural commodities more competitive in the world market. This is to be accomplished by lowering the loan rate level, reducing its effectiveness as a price floor, and/or providing payment-in-kind (PIK) certificates. The rice and cotton programs' objectives are to protect farm income and to lower carryover stocks to workable levels through the use of marketing loans and a competitive price.

## **New Program Concepts**

Changes in the farm bill have implications on market prices, the amount of government payments to farmers, and effectiveness of the loan rate in establishing a market price floor. The loan rate was effective in setting a price floor in previous farm programs. During the 1980s this floor price, along with a strong dollar, pushed U.S. crop price levels above those of the world and stocks increased significantly. To lower the loan rate, however, would make the \$50,000 payment limit increasingly restrictive and discourage program participation.

The rice marketing loan program was implemented as of April 15, 1986, for the 1985 crop as well as the new crop. Although the cotton program was announced in early 1986, it did not become effective until August 1 for the 1986 crop. A marketing loan program was authorized to bypass the payment limit and allow U.S. commodities to compete in international markets. Because the cotton marketing loan was announced well in advance of implementation, it created an unusual market situation. This caused some sales to be delayed until after August 1. Less than 2 million bales were exported in the 1985-86 marketing year as buyers waited for a price drop that turned out to be 40 cents per pound.

## 1986 Rice Program

The general provisions of the 1986 rice program are summarized in Table 1.

**Table 1. Comparison of 1985 and 1986 Rice Program Provisions**

Program Provision	1985	1986
Target Price (\$/cwt.)	11.90	11.90
Loan Rate (\$/cwt.)	8.00	7.20
Maximum Deficiency Payment (\$/cwt.)	3.90	4.70
Minimum Loan Repayment (\$/cwt.)	NA	3.60
Acreage Reduction	20%	35%
Paid Land Diversion	15%	0%
Advance Deficiency Payment (\$/cwt.)	1.90	1.41

The marketing loan provision of the 1986 rice program is a simpler mechanism than that established for cotton. A producer who complies with the program provisions may redeem rice placed under Commodity Credit Corporation (CCC) loan at (1) the prevailing world market price, as determined by the Secretary of Agriculture, or (2) 50 percent of the loan rate for 1986-87 crops (\$3.60/cwt.), whichever is higher. In no case may the loan be repaid at a rate higher than the announced loan level (Glaser, p. 22).

Should the world market price, as announced by the United States Department of Agriculture (USDA), result in a loan repayment level below the minimum \$3.60/cwt., producers will be eligible for generic negotiable marketing certificates. The certificate's value will be equal to the difference between the loan repayment rate and the prevailing world market price multiplied by the quantity of eligible rice redeemed. The certificates issued under this provision would be valid for eight months from the last day of the month in which the certificate was issued.

An example of the way the program would operate, including the PIK provision, is presented in Table 2. The example assumes a 100-acre rice base and hypothetical prices and yields.

## 1986 Cotton Program

The 1985 Food Security Act provides the Secretary of Agriculture with the flexibility of implementing a loan repayment program under two alternatives called Plan A and Plan B. If the secretary estimates that the world market price will be less than the loan rate, then the secretary must choose either Plan A or Plan B for determination of the loan repayment rate.

Under Plan A, the loan repayment rate can be fixed at a level between 80 percent and 100 percent of the loan rate and cannot be changed for the marketing year. Under Plan B, the loan repayment

**Table 2. Rice Program Example**

Item		
1.	Target Price (\$/cwt.)	11.90
2.	National Average Loan Rate (\$/cwt.)	7.20
3.	Minimum Loan Repayment Rate (\$/cwt.)	3.60
4.	World Price (\$/cwt.)	3.40
5.	Farm Price (\$/cwt.)	3.50
6.	Deficiency Payment Rate (\$/cwt.)*	4.70
7.	Program Payment Yield (cwt./acre)	49.0
8.	Harvested Yield (cwt./acre)	58.0
9.	Base Acreage (acres)	100.0
10.	Permitted (harvested) acres	65.0
11.	Production (cwt.)	3,770.0
12.	Income Factors:	
a.	Loan Proceeds (\$)	[11 x 2] +27,144
b.	Less Loan Repayment (\$)	[11 x 3] -13,572
c.	Plus Certificate Value (\$)	[11 x (3 - 4)] +754
d.	Plus Market Value (\$)	[11 x 5] +13,195
e.	Plus Deficiency Payments (\$)	[6 x 7 x 10] +14,970
f.	Equals Total Income (\$)	42,491
13.	Variable Costs of Production (\$)	[10 x \$225] 14,625
14.	Net Income (\$)	[12f - 13] 27,866

\*Payments are subject to \$50,000 payment limitation. Payments received under marketing loan program and marketing certificate program are not subject to payment limitation.

rate would fluctuate with the world market price. The Secretary of Agriculture selected Plan A and elected to lower the loan repayment level by the maximum 20 percent below the announced loan rate for the 1986 crop.

When a loan repayment rate less than the loan rate is in effect, loan deficiency payments will be paid to eligible producers who agree to forego loan eligibility at a rate equal to the difference between the loan rate and the loan repayment rate. The loan deficiency payment is not subject to the \$50,000 payment limit. Fifty percent of the loan

**Table 3. Basic Cotton Price Example Structure Under the 1986 Cotton Program**

<b>\$.81</b> Target Price	<b>\$.26</b> Maximum Deficiency Payment is subject to \$50,000 individual limit.
<b>\$.55</b> Base Loan Rate	
<b>\$.26</b> Maximum Deficiency Payment	
<b>\$.55</b> Base Loan Rate	<b>\$.11</b> Loan Deficiency Payment to producer who foregoes loan, no payment limit.
<b>\$.44</b> 80% Loan Repayment Rate	—half in cash
<b>\$.11</b> Loan Deficiency Payment	—half in certificate redeemable in cotton
<b>\$.44</b> 80% Loan Repayment Rate	<b>\$.20</b> Difference in Loan Repayment Rate and adjusted price paid to first handler in certificate redeemable in CCC cotton for 9 months only.
<b>\$.24</b> Adjusted World Price of U.S. Cotton*	
<b>\$.20</b> Difference in Loan Repayment Rate (First Handler Certificate)	

\*This figure will change each week in line with Northern European Price adjusted to U.S. location and base quality (41-34, 3.5-4.9 mike).

NOTE: Example does not include 4.3 percent reductions due to Gramm-Rudman.

deficiency payment will be paid in cash and 50 percent in commodity certificates redeemable only in cotton.

Table 3 shows the relationship of the 81-cent target price to the base loan rate of 55 cents with a maximum 26-cent deficiency payment. The 80 percent loan repayment rate is 44 cents, which results in an 11-cent loan deficiency payment.

The example assumes an adjusted world price of 24 cents per pound. Thus, the difference between the repayment rate and world price is 20 cents. As a result, the first handler certificate has a value of 20 cents for each pound purchased. The certificate is redeemable only in CCC cotton for nine months.

If the adjusted world price is below the loan repayment level (80 percent of base loan), the CCC must issue negotiable marketing certificates to first handlers of cotton. The value of the certificates is based on the difference between the loan repayment rate and the adjusted world market price.

### **Determining Adjusted World Price for U.S. Cotton**

The procedure for determining the adjusted world price of U.S. upland cotton is based upon the average quotations for the preceding Friday through Thursday for Middling (M) 1-3/32 inch cotton (cost, insurance, freight) in Northern Europe. The Northern Europe price is adjusted to average U.S. location by deducting the average difference for a 156-week period, excluding June, July and August each year, between price quotations for Memphis Territory and California/Arizona M 1-3/32 inch cotton in Northern Europe and average price quotations in the United States. This price is further adjusted for quality and location by using the U.S. loan rate schedule.

The adjusted world price is determined weekly and announced by USDA after 4:00 p.m. Eastern Time each Thursday. The adjusted price is subject to further adjustments (coarse count) for any grade of upland cotton with a staple of 1 inch or shorter or for any staple length of upland cotton with a grade which has a price support loan discount for grade and staple of 8 cents per pound or higher.

The use of negotiable commodity certificates redeemable in upland cotton is authorized under several provisions of the 1986 upland cotton program. Certificates include inventory protection, first handler, loan deficiency, additional yield and generic. Inventory protection payments were made to anyone holding free stocks of cotton on August 1, 1986, to offset for the price drop to the world price. The certificates will expire in nine months.

First handler certificates will be issued basically on 1986-crop upland cotton purchased directly from producers. Merchants, cotton co-

operatives and producers selling direct to mills or for export are eligible for approval as first handlers. However, as with inventory adjustment certificates, first handler certificates can be used only to obtain upland cotton under loan for nine months.

### **Differences in Rice and Cotton Marketing Loans**

The marketing loan programs for rice and cotton are somewhat different in their implementation for the 1986 crop. While the basic market impacts are similar, the procedures and interactions of reaching a world competitive price are not the same. The loan repayment rate for 1986 cotton is handled under Plan A wherein producers may repay their loans at 80 percent of the announced base loan of 55 cents. And, when the adjusted world price is less than the repayment rate, the difference is made up in cotton PIK certificates to first handlers.

As previously stated, for rice, producers may repay their loans at the prevailing world market price, or 50 percent of the loan rate. The Secretary of Agriculture may offer negotiable marketing certificates and cash if the world price drops below the 50 percent repayment rate.

The cotton marketing loan, with 80 percent repayment levels and PIK, tends to expose the government to less direct cash outlay and the producer to less Gramm-Rudman. Program payments go to both producers and merchants and the market price to growers is higher when adjusted world price is below loan repayment rate. The higher price "floor" to growers that gravitates toward the repayment rate might encourage plantings outside the program. With a fixed loan repayment rate for the season, if world price goes above it, then government cost increases. First handler certificates may be large to high volume traders.

Under the market loan provisions for rice, government cost exposure is limited when world price rises since there is no fixed loan repayment level. Payments distributed over a wide area to producers rather than a relatively few large merchant businesses are fairly simple to administer, compared with the cotton program's loan repayment to producers foregoing the loan and PIK certificates to first handlers. With the 50 percent repayment level for rice, there is a greater incentive for program participation when prices are low. However, there is a large direct government cash outlay when prices are depressed. Also, the exposure to a large Gramm-Rudman impact is greater than for cotton.

While the marketing loan programs differ in provisions for implementation, both commodities are trading in the world market at

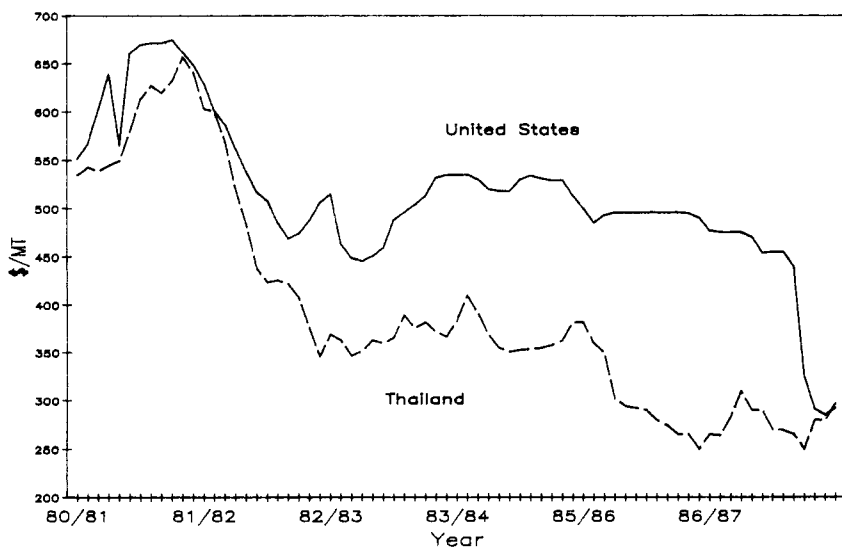
competitive price levels. The cotton marketing loan is rapidly reducing CCC loan stocks because certificates are redeemable only in cotton. And, because of the delayed implementation of the cotton marketing loan, purchases of U.S. cotton have been bunched at the start of the 1986 marketing year.

### Results of Marketing Loan to Date

*Rice.* The institution of the rice marketing loan in April has produced some interesting results in the export of U.S. rice. While initial signals are positive, several caveats must be raised to prevent reaching too optimistic conclusions from these short-term results.

As presented in Figure 1, the initial impact of the marketing loan for rice has been to bring the price relationship between the United States and Thailand back into line with the condition of the early 1980s when U.S. rice export volume was at its peak. During 1981, the difference between U.S. #2 milled 4 percent bagged rice and Thailand 100 percent grade A bagged rice, cost and freight Rotterdam, was under \$20 per metric ton and, during one month, narrowed to within \$1. By July of 1985, the price gap between U.S. and Thai rice had jumped to \$240 per metric ton. Since the institution of the marketing loan, the price difference has eased considerably, and U.S. rice is trading at about a \$5 per ton premium.

Figure 1. U.S. vs Thai Rice Prices C&F Rotterdam (\$/MT)



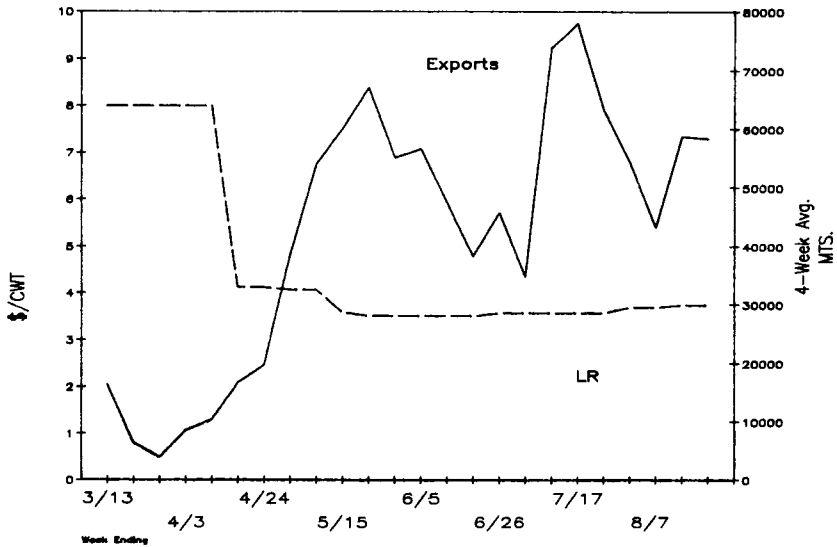


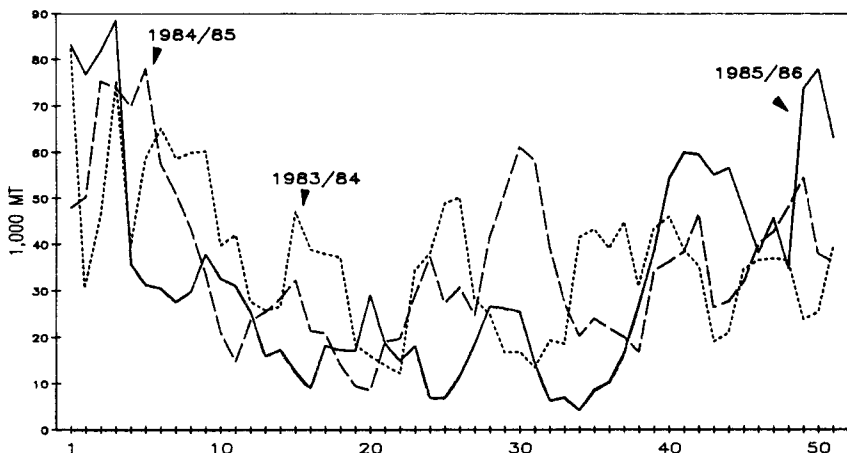
Figure 2. U.S. Rice Export Sales and Loan Repayment Levels 1986

As indicated in Figure 2, the decline in U.S. price was followed by a dramatic increase in export sales volume. Measured on a four-week moving average basis, U.S. export rice sales increased from a low of 3,906 metric tons in mid-March to around 67,000 metric tons by mid-May. The four-week moving average has remained in the 35,000 to 77,000 metric ton range since then. This increase in sales activity resulted following the loan repayment rate decline from \$8 to the \$3.50 to \$3.70 range. While this initial response leads to optimistic expectations, some further analysis is necessary.

The degree to which the lowering of the loan rate and, hence, market price levels led to direct increases in export sales is diminished somewhat by the general pattern of sales over time. As illustrated in Figure 3, U.S. rice export sales have generally shown a modest upswing in the final weeks of the marketing year. The four-week moving average of sales during June and July of 1983-84 and 1984-85 has consistently exceeded April and May sales. In addition, the average sales in March and April of 1985-86 were surprisingly low by historic standards. This evidence suggests that the increased sales activity following the lowering of U.S. prices may have been at least partially the result of delayed purchases that would have been made earlier had the market not anticipated the upcoming price declines.



Figure 3. Rice Sales 4-Week Moving Average 1983/84, 1984/85, 1985/86 (Marketing Year August–July)



Another significant factor is the increased purchases by Brazil resulting from a severe drought. While the lower U.S. price undoubtedly was a factor in the Brazilian purchases, the marketing loan program has no effect on Brazilian weather. Barring a continued crop shortfall, these purchases would not be expected in future years.

Finally, some analysts have suggested that the decline in the U.S. dollar over the 1985–86 period may have led to some increased activity. For rice, this does not seem to be a major factor. The currencies of many of the United States' largest rice customers, such as Iraq and Saudi Arabia, have not declined while others have seen only modest declines.

In summary, the marketing loan program for rice has been followed by a general upsurge in export sales, that much is certain. What is still in debate is whether the initial increase will be sustainable. The United States has lost some significant markets in the past few years. As indicated in Table 4, purchases by countries other than those listed have dropped dramatically since 1981–82.

Most notable among those have been the loss of Nigeria and Korea. Exports to Korea and Nigeria in 1981–82 were equal to 38 percent of the total U.S. exports in 1985–86. Korea has not imported any rice since 1984, while Nigeria has cut back on imports from 666,000 metric tons in 1982 to 100,000 metric tons in 1986, but has purchased those imports from other suppliers. The trend toward increased production and a greater degree of self-sufficiency in Asia and other areas is going to continue in the future.

Table 4. Total Accumulated Exports of Rice by Country Ranked in Descending Order for Marketing Year 1985/86 Compared with the 4 Previous Marketing Years (1,000 Metric Tons)

Country	1985/86		1984/85		1983/84		1982/83		1981/82	
	Exports	Rank	Exports	Rank	Exports	Rank	Exports	Rank	Exports	Rank
Iraq	479.8	1	420.1	1	231.6	2	326.9	1	270.1	4
Philippines	151.9	2	0.1	74	--	--	--	--	--	--
Saudi Arabia	151.8	3	232.1	2	253.1	1	268.2	2	264.9	5
Brazil	126.1	4	--	--	--	--	--	--	--	--
Canada	97.5	5	94.7	5	90.7	7	92.3	8	95.6	9
Belgium	91.4	6	140.2	3	136.0	4	112.3	6	99.1	8
Senegal	78.6	7	69.1	9	11.4	26	24.1	19	0.5	62
Liberia	75.9	8	57.7	10	80.5	9	93.8	7	90.5	10
Rep. of South Africa	55.1	9	83.8	7	152.9	3	112.7	5	122.7	6
Dominican Republic	51.7	10	--	--	--	--	--	--	20.0	19
Guinea (Conakry)	44.8	11	30.4	16	15.8	23	15.5	24	--	--
Jamaica	44.6	12	54.0	11	49.4	15	42.3	14	28.9	16
Netherlands	37.8	13	71.1	8	64.4	12	63.0	11	79.4	12
Switzerland	34.6	14	27.0	17	35.4	18	61.0	12	118.9	7
Jordan	25.3	15	5.4	33	1.0	60	0.5	61	18.3	20
Somali Republic	24.8	16	16.8	23	18.8	22	34.2	15	6.3	34
Madagascar	24.1	17	42.1	13	37.0	17	27.8	18	12.9	26
Mali	22.0	18	25.0	20	4.1	42	--	--	--	--
Trinidad & Tobago	21.1	19	7.7	29	7.9	31	6.5	32	5.6	36
Mozambique	14.7	20	32.5	15	--	--	--	--	--	--
Sweden	12.2	21	19.0	21	15.6	24	14.3	25	13.9	25
Turkey	12.0	22	--	--	9.6	29	--	--	--	--
Spain	11.6	23	18.6	22	103.3	6	5.0	40	4.6	43
Sierra Leone	11.6	24	6.2	32	5.8	38	20.3	20	2.1	49
Netherlands-Antilles	11.4	25	8.6	27	7.0	34	5.8	37	5.3	37
Morocco	10.0	26	10.5	24	21.0	21	5.3	39	--	--
Other	81.0		440.9		690.9		866.5		1463.1	
TOTAL	1802.8		1913.5		2043.2		2198.3		2722.7	

*Cotton.* The 40-cent-per-pound drop in U.S. cotton prices on August 1 triggered a tremendous volume of sales. Export commitments by the end of August were near 4 million bales, compared with total shipments of 1.85 million in the 1985 season. Domestic sales also have increased at a rapid pace. Of course, economic principles indicate that with about a 60 percent decrease in price, consumption should increase.

The price decline, however, seems to have bottomed out. Therefore, if prices increase, it would be expected that sales will slow. The big uncertainty is how much? Domestic cotton use is expanding. In addition, the marketing loan gives U.S. mills a much lower price to compete with foreign textile imports.

Since raw cotton imports are restricted, U.S. mills have been at a severe competitive disadvantage. As shown in Figure 4, they were paying 25 to 30 cents more per pound for cotton in mid-1986 than foreign mills. They also were competing against a large volume of textile imports further encouraged by the strong dollar. With a lower price and weaker dollar, domestic use should climb to at least 7 million bales, up from 6.4 million in 1985.

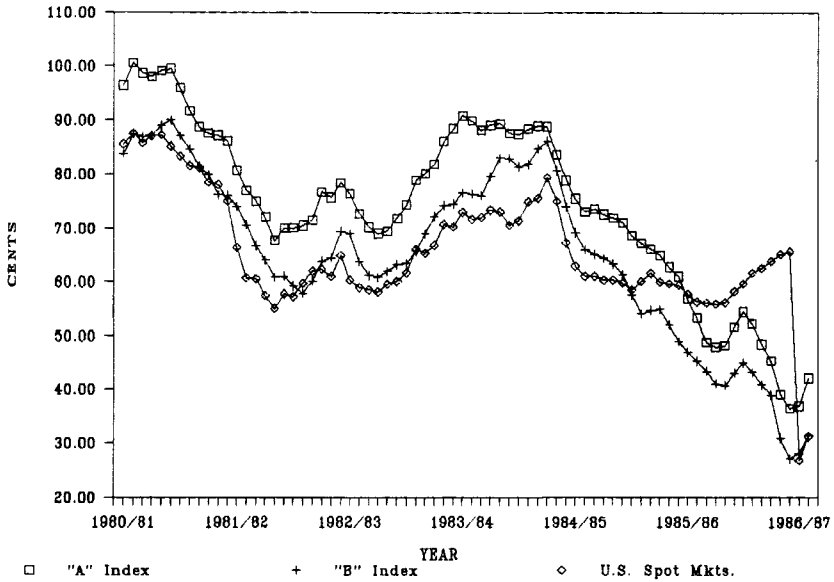
The market loan gives a slight advantage to U.S. mills as the average landed costs as adjusted in the world price formula are greater than costs of moving cotton to mills from most U.S. production areas.

The surge in export sales is likely to slow because many of the best customers by late August have bought large quantities of U.S. cotton. As shown in Table 5, major customers except for Canada have purchased more cotton already than in 1985. It is reasonable to believe that many mills had their needs covered well into 1987 by early September.

Japan has purchased 40 percent more cotton than last season and about 50 percent of the average purchases for the past five seasons. The purchases already equal almost 25 percent of total expected consumption. They usually buy about 50 percent of their total cotton needs of about 3 million bales from the United States. Japanese buyers prefer to spread out purchases and other exporting countries still appear capable of delivering cotton at the low world prices. It appears reasonable to expect U.S. purchases from Japan to slow.

Total purchases by South Korea of 878,000 bales may be close to 70 percent of expected U.S. volume and more than half of normal total imports. If U.S. imports reached about 80 percent of the total, then only another 400,000 bales may be needed from the United States. Taiwan purchases are at a level of more than 50 percent of the expected consumption and near the highest level of U.S. purchases in recent times. Hence, Taiwanese buying may turn slow.

Figure 4. Cotton Prices: Northern Europe "A" & "B" Indices & U.S. Spot Mkts



On balance, U.S. exports for the 1986 season are very likely to approach the 7 million bale level. That indicates many of the key export markets for U.S. cotton were well covered after the first month of the new marketing year. Sales over the next eleven months may be spread out over time.

Table 6 illustrates that the marketing loan certainly increased sales when the new program started. The marketing loan began with record cotton supplies and a very weak market. Several years of increasing foreign production, a very strong dollar and large textile imports set the stage for market forces to drive U.S. prices to a low level. Low prices should encourage demand. How, and how fast, state and centrally-planned governments react to low prices for adjustments in production is somewhat difficult to anticipate. The U.S. program of target prices will maintain a strong incentive to push for high yields on acreage planted. Therefore, a fairly high level of production can be expected.

### Conclusion

Even with the marketing loan, the level of world trade in rice may increase only moderately, if any, in the next few years. As a result,

Table 5. U.S. Cotton Exports, Selected Countries and Marketing Years (1,000 Running Bales)

Country	Total All Imports									
	82/83	83/84	84/85	85/86	86/87* Thru 8/21	Largest Purchase**	82/83	83/84	84/85	
South Korea	1219.40	1173.90	1212.20	468.90	878.70	1219.40 (82/83)	1516.00	1602.00	1601.00	
Japan	1257.00	1735.30	1480.40	529.70	739.80	1735.30 (83/84)	3138.00	3338.00	3123.00	
Thailand	350.20	462.40	466.90	35.50	730.80	744.80 (81/82)	1044.00	1171.30	1293.00	
Indonesia	234.40	342.90	252.00	97.10	168.00	342.90 (83/84)	520.00	603.00	620.00	
Italy	105.90	259.90	318.10	87.20	152.50	318.10 (84/85)	1085.00	1155.00	1171.00	
West Germany	111.50	169.40	153.00	32.20	117.70	169.40 (83/84)	1039.00	988.00	1069.00	
Philippines	67.90	54.60	58.70	8.80	109.20	67.90 (82/83)	69.00	82.00	86.00	
France	47.50	130.70	117.80	8.30	55.10	130.70 (83/84)	870.00	775.00	730.00	
Portugal	41.00	67.70	93.00	8.00	54.10	93.00 (84/85)	596.00	668.00	721.00	
Canada	230.80	220.10	198.10	84.90	7.10	230.80 (82/83)	245.00	248.00	225.00	
Total	3665.60	4616.90	4350.20	1360.60	3013.00	5052.30	10132.00	10630.30	10639.00	
Other	1199.00	1822.20	1592.80	413.90	--	--	9309.00	8604.80	9651.00	
Grand Total	4864.60	6446.10	5943.00	1774.50	--	--	19441.00	19235.10	20290.00	

\*Outstanding sales and accumulated exports to date.

\*\*For a Season Since 7/5/76 from U.S.

Source: USDA, FAS, U.S. Export Sales, various issues.

**Table 6. U.S. Upland Cotton Export Sales and Exports, in Running Bales, for Week and Year, Marketing Years 1985-1986 and 1986-87**

Description	Marketing Year			
	1985-86		1986-87	
	Through August 29		Through August 28	
	<u>Week</u>	<u>Marketing Year</u>	<u>Week</u>	<u>Marketing Year</u>
Outstanding sales	-	1,085,100	-	3,501,600
Exports	34,800	162,800	127,600	373,200
Total Export Commitments	-	1,257,900	-	3,874,800
New Sales	9,400	-	208,800	-
Buy-Backs & Cancellations	12,400	-	7,000	-
Net Sales	-3,000	-	201,800	-
Sales Next Marketing Year	-	11,100	14,600	57,200

Source: Export Sales Reporting Division, Foreign Agricultural Service, USDA.

the United States will likely face a continuing problem in maintaining export markets for rice. The marketing loan program will make U.S. rice competitive in world markets but will likely have little effect on production trends worldwide. Barring fluctuations in market demand due to disastrous weather, a tough road lies ahead for the rice industry to expand exports.

At the beginning of the 1986 marketing year under the cotton marketing loan, indications suggest U.S. sales will be large. The sales partly result from purchases delayed from 1985. For the longer run, however, a competitive price only opens the door for maintaining markets. It does not assure that the U.S. cotton industry can fully compete in the world market dominated by state trading countries. The level of exports depends largely on the relative costs of production and marketing, the level of U.S. government support and each exporting country's desire to maintain and subsidize their agricultural industry in order to generate trade dollars.

The marketing loan concept is necessary to effectively compete in the world market but may not be sufficient. The marketing loan removes the U.S. price umbrella over world markets, yet it provides a safety net on farm income. Further, the level of supply management is reduced, though not eliminated. Smaller carryover and government stocks are possible. The total economy benefits from the economic activity associated with a larger-sized agricultural industry and a more highly productive U.S. agriculture results. However, during periods of depressed prices, prudent marketing incentives are lost since government absorbs costs below loan rates. The competitive prices assist U.S. textile mills to better cope with low cost imports. The marketplace will signal foreign competitors to share in adjusting production levels.

In the international trade arena, the marketing loan impact has some limitations. American farm exports compete largely against

foreign governments that historically have been willing to subsidize their producers and exports. As a result, foreign agricultural production trends are up. Farmers in the United States must rely on highly productive operations to compete against low cost foreign labor with rapidly improving technology.

The need to develop strong trade policies and trade agreements remains central to maintaining expanding exports. The relative strength of the dollar compared with currencies of other trading countries is also extremely important to the flow of trade. For rice and cotton to compete with foreign production, a balanced program of macroeconomic policy, coordinated trade policies and a market-sensitive but flexible farm policy needs to be packaged, supported and implemented.

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