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Analysis of the Effects of Proposed House and Senate Farm Bills on Rice Returns

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(Revised)

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Analysis of the Effects of Proposed House and Senate Farm Bills on Rice Returns¹

Introduction

This report reflects analysis of projected gross returns under the proposed farm programs – H.R. 2646 the House Bill that passed the House floor on October 5th, the Senate Bill that passed the Senate Agriculture Committee on November 15th and the Cochran/Roberts Bill that was defeated previously in committee.

Assumption tables are included that clearly reflect all parameters of these Bills at the time this report was produced in early December. As it is likely that the political process continues in an interactive mode, it is important to note clearly the assumptions behind this reported analysis. Questions have come up as to how the savings account option under the Cochran/Roberts Bill will be implemented. If revisions are made and reported we will update the projected gross returns at that time.

For the above reasons it is very important to carefully review program parameters as reported in Table 1. Returns are generated from their program parameters plus projected program prices developed by FAPRI for H.R. 2646, S. 1731, and Cochran/Roberts.

This analysis focuses on the expected gross return associated with the parameters of H.R. 2646 as passed by the House, Senate Bill S. 1731 passed by the Senate Agriculture Committee and the Cochran/Roberts as reported to the Senate Ag Committee.

This is the second report by AFPC comparing these programs using a total gross return analysis. For those not familiar with this process the comparisons reflect the expected gross return per unit of commodity should the program become law. What does it require to do this analysis? The following sequence is important:

- First: A clear understanding of program parameters that defines government support in all areas.
- Second: A reasonable set of estimates on expected market prices as this is the starting point in determining loan deficiency payments and counter cyclical payments. It should be noted that market prices are taken from FAPRI.

¹ Estimates in this report have been modified relative to a report released at the St. Louis Rice Producers meeting held on Saturday December 1, 2001. An error was made in calculating total gross returns for the rice program under S. 1731. The error, pertaining to the updating of program yields, resulted in a much lower total return under S. 1731 and suggested substantially less support relative to the other two programs.

By Monday December 3, this mistake was discovered and corrected. On Tuesday, December 4 these corrections were sent directly to staff members of Senator Harkin and Senator Cochran. AFPC at Texas A&M bears the responsibility for this mistake and takes total responsibility for making it. We have changed our internal procedure to insure that this does not occur again. We have also contacted staff members directly to discuss the mistake and the corrected projections.

- Third: Expected shifts in Base acres and changes in farm program yields corresponding to the three programs' provisions for optional updating are critical assumptions. Also included are the varying payment fractions.
- Fourth: Expected receipts from the market and the various program provisions are added to calculate a total expected gross return. In general, returns come from four areas:
- # Market Price
 - # Loan Deficiency Payments
 - # Fixed Payments
 - # Counter Cyclical or as in the Cochran/Roberts proposal a Savings Account

Results

The House (H.R. 2646) and Senate (S. 1731 and Cochran/Roberts) proposals for the new farm bill are similar in terms of the tools used to support producer incomes. Each continue fixed (AMTA) payments, marketing loans, allow for base updating, and two (H.R. 2646 and S. 1731) initiate a new counter-cyclical program to support producer incomes when prices are low. A simulation model was developed by the Agricultural and Food Policy Center (AFPC) that allows for comparison of projected rice returns and government costs under risk. Table 1 contains the specific assumptions used to model each proposal.

Table 2 contains a comparison of expected rice gross receipts under the three proposals for the 2002 to 2006 period. Total gross receipts under H.R. 2646 were highest over the period followed by the Cochran/Roberts proposal and S. 1731. FAPRI's projected market prices would likely be lowest under the Cochran/Roberts proposal and highest under S. 1731.

Commodity prices projected by FAPRI are somewhat above current market levels. However, since each proposal contains a counter-cyclical component, the relative gross receipts would be unchanged if lower prices had been projected. Several price levels were analyzed and the relative performance of gross receipts was the same across the three Farm Bill proposals.

The relative performance of the three proposals across commodities is indicated in Table 3. All commodities other than cotton, barley and soybeans would have higher average gross receipts per unit of production over the 2002-2006 period under H.R. 2646. S. 1731 generates the highest receipts for cotton, barley and soybeans.

This analysis conducted by AFPC indicates that H.R. 2646 provides more income support for the rice industry than either of the other two proposals. The Cochran/Roberts proposal provides the next highest level of income support followed by S. 1731.

Table 1. Assumptions Behind the Gross Receipts/Unit of Production Analysis for H.R. 2646, S. 1731, and Cochran/Roberts Amendment.

	H.R. 2646		S. 1731			Cochran/Roberts	
	2002-2006	2002-2006	2003	2004	2005	2006	2002-2006
Loan Rates							
Wheat (\$/bu.)	2.5800	3.0000					2.5800
Corn (\$/bu.)	1.8900	2.0800					1.8900
GS (\$/bu.)	1.8900	2.0800					1.8900
Barley (\$/bu.)	1.6500	2.0000					1.6500
Oats (\$/bu.)	1.2100	1.5000					1.2100
Cotton (\$/lb.)	0.5192	0.5500					0.5192
Rice (\$/cwt.)	6.5000	6.8500					6.5000
Soybeans (\$/bu.)	4.9200	5.2000					4.9200
Target Prices							
Wheat (\$/bu.)	4.0400	3.4500					0.0000
Corn (\$/bu.)	2.7800	2.3500					0.0000
GS (\$/bu.)	2.6400	2.3500					0.0000
Barley (\$/bu.)	2.3900	2.2000					0.0000
Oats (\$/bu.)	1.4700	1.5500					0.0000
Cotton (\$/lb.)	0.7360	0.6800					0.0000
Rice (\$/cwt.)	10.8200	9.3000					0.0000
Soybeans (\$/bu.)	5.8600	5.7500					0.0000
Fraction Fix Pay Rate	0.85	1.00					0.85
Fixed Payment Rates							
Wheat (\$/bu.)	0.5300	0.4500	0.4500	0.2250	0.2250	0.1130	0.7292
Corn (\$/bu.)	0.3000	0.2700	0.2700	0.1350	0.1350	0.0680	0.4128
GS (\$/bu.)	0.3600	0.3100	0.2700	0.1350	0.1350	0.0680	0.4953
Barley (\$/bu.)	0.2500	0.2000	0.2000	0.1000	0.1000	0.0500	0.3440
Oats (\$/bu.)	0.0250	0.0500	0.0500	0.0250	0.0250	0.0130	0.0344
Cotton (\$/lb.)	0.0667	0.1300	0.1300	0.0650	0.0650	0.0325	0.1418
Rice (\$/cwt.)	2.3500	2.4500	2.4500	1.2250	1.2250	0.6125	3.2300
Soybeans (\$/bu.)	0.4200	0.5500	0.5500	0.2750	0.2750	0.1380	0.5779
Production Assumptions							
Wheat (m. acre)	78.40	70.40					78.40
Corn (m. acre)	81.50	78.90					81.50
GS (m. acre)	13.60	10.60					13.60
Barley (m. acre)	11.10	8.40					11.10
Oats (m. acre)	6.70	4.50					6.70
Cotton (m. acre)	16.44	16.80					16.44
Rice (m. acre)	4.17	4.00					4.17
Soybeans (m. acre)	74.00	73.40					74.72
Program Yields							
Wheat (bu./acre)	34.50	43.00					34.50
Corn (bu./acre)	102.60	140.20					102.60
GS (bu./acre)	56.90	67.80					56.90
Barley (bu./acre)	46.70	54.70					46.70
Oats (bu./acre)	50.70	62.50					50.70
Cotton (lb./acre)	600.00	654.70					600.00
Rice (cwt./acre)	48.17	55.00					48.17
Soybeans (bu./acre)	38.28	40.30					38.83
Farm Savings Account							
Farm Savings Account	None	None					Yes
Cap in 2002							\$600,000,000
Cap in 2003							\$800,000,000
Cap in 2004							\$1,000,000,000
Cap in 2005							\$1,200,000,000
Cap in 2006							\$1,200,000,000

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Table 2. Comparison of Returns per Unit of Production for Rice Across Three Farm Bill Options: H.R. 2646, S. 1731, and Cochran/Roberts Amendment, 2002-06.

	2002	2003	2004	2005	2006
	(\$/cwt.)				
H.R. 2646					
Market	6.494	6.907	6.977	7.200	7.358
LDP	2.214	1.942	1.895	1.748	1.644
Fixed Payment	1.964	1.955	1.943	1.931	1.925
CCP	1.363	1.136	1.105	0.940	0.861
Gross Receipts	12.035	11.940	11.921	11.818	11.788
S. 1731					
Market	6.454	6.871	6.937	7.148	7.301
LDP	2.591	2.315	2.272	2.132	2.032
Fixed Payment	2.600	2.603	1.294	1.285	0.641
CCP	0.000	0.000	0.918	0.772	1.261
Gross Receipts	11.644	11.789	11.420	11.337	11.234
Cochran/Roberts					
Market	6.494	6.907	6.977	7.200	7.358
LDP	2.214	1.942	1.895	1.748	1.644
Fixed Payment	2.660	2.663	2.647	2.630	2.622
Savings Acct.	0.021	0.029	0.036	0.045	0.045
Gross Receipts	11.390	11.541	11.556	11.622	11.669

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**Table 3. Comparison of Gross Receipts per Unit of Production for Three Farm Program Options:
H.R. 2646, S. 1731, and Cochran/Roberts Amendment, 2002-2006.**

Commodity	2002	2003	2004	2005	2006	Average
Rice (\$/cwt.)						
HR 2646	12.04	11.94	11.92	11.82	11.79	11.90
S 1731	11.64	11.79	11.42	11.34	11.23	11.49
C/R	11.39	11.54	11.56	11.62	11.67	11.56
Cotton (\$/lb.)						
HR 2646	0.783	0.782	0.779	0.776	0.771	0.778
S 1731	0.806	0.806	0.778	0.776	0.765	0.786
C/R	0.753	0.753	0.755	0.758	0.758	0.756
Wheat (\$/bu.)						
HR 2646	4.17	4.14	4.11	4.08	4.08	4.11
S 1731	3.96	3.97	3.87	3.86	3.79	3.89
C/R	3.77	3.84	3.87	3.92	3.99	3.88
Corn (\$/bu.)						
HR 2646	2.68	2.69	2.68	2.69	2.70	2.69
S 1731	2.62	2.63	2.57	2.60	2.58	2.60
C/R	2.50	2.52	2.53	2.57	2.62	2.55
Sorghum (\$/bu.)						
HR 2646	2.86	2.86	2.85	2.86	2.84	2.85
S 1731	2.55	2.52	2.50	2.52	2.50	2.52
C/R	2.65	2.67	2.68	2.72	2.75	2.70
Barley (\$/bu.)						
HR 2646	2.82	2.84	2.84	2.84	2.86	2.84
S 1731	2.96	2.96	2.87	2.88	2.84	2.90
C/R	2.83	2.85	2.86	2.89	2.92	2.87
Oats (\$/bu.)						
HR 2646	1.81	1.83	1.84	1.85	1.83	1.83
S 1731	1.76	1.77	1.77	1.78	1.78	1.77
C/R	1.48	1.50	1.51	1.53	1.55	1.51
Soybeans (\$/bu.)						
HR 2646	5.89	5.91	5.93	5.97	5.99	5.94
S 1731	6.02	6.05	6.01	6.04	6.02	6.03
C/R	5.72	5.77	5.84	5.91	5.96	5.84

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