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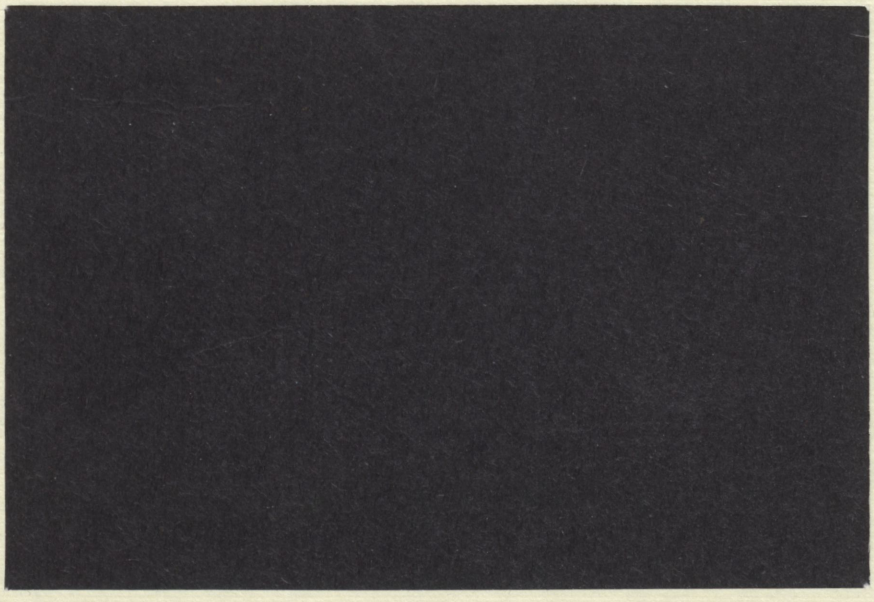

AN ANALYSIS OF THE VARIABLE LOAN REPAYMENT OPTION FOR THE 1985 FARM BILL

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Executive Summary

The Variable Loan Repayment Program (VLRP) protects prices received by participating farmers but not the world market prices for major agricultural commodities. Domestic and international commodity market prices are free to seek equilibrium levels under the VLRP, as would be the case with the free market Administration proposal for the 1985 Farm Bill (see FAPRI #3-85). The essential difference between the free-market and VLRP options for the Farm Bill is that the VLRP provides for a period of transition to a free market U.S. agriculture. A major advantage of the VLRP over the design of the present 1981 Farm Bill is that the VLRP does not place the U.S. government at risk for support of floor or loan rate prices in world markets.

Major conclusions of the analysis of the VLRP under updated projections of U.S. and world economic conditions are:

- Net farm income under the VLRP over the evaluation period, 1986/87 through 1989/90, ranges between $22 and $27 billion per year.

- Market prices and exports of major program commodities are approximately the same under free market and VLRP options.

- The performance of the livestock sector is similar under VLRP and free market programs with increased output and lower market prices in response to lowered feed prices.

- Government costs for the VLRP are high but are somewhat below the costs of the 1981 farm program as it is currently operated.

- The VLRP is a compromise for those concerned with U.S. competition in world markets and maintenance of farm income. With the VLRP, government and U.S. agriculture share in costs of adjustment to a more market-oriented agriculture.

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I. Introduction

A common theme in many of the alternatives to the Administration proposal for the 1985 Farm Bill (Congressional Record, Vo. 131, No. 18, S1840, S877) is a more gradual transition toward a market agriculture. One of these alternatives that has received relatively broad attention is a Variable Loan Repayment Proposal (VLRP). This proposal features loans to producers at predetermined rates that can be repaid to the government at the price the commodity commands in the free market or the loan price, whichever is lower. Target prices would continue to be utilized to encourage participation in the set-aside program and support farm income. The additional potential subsidy to producers under the VLRP is the difference between the loan rate and the free market price during admissible repayment periods. The key feature of the VLRP is that domestic U.S. prices and world prices are determined by market forces. Thus, all production moves through non-government channels each year with the minor exception of PL480 exports. Government removals to support farm prices through CCC acquisition or farmer held reserves, are stopped.

Since this variable repayment loan program is offered as an alternative to the Administration proposal for the 1985 Farm Bill, the analysis and results to follow can be compared to an earlier FAPRI report (FAPRI Staff Report #3-85). In that report the Administration proposal for the 1985 Farm Bill was evaluated. Generally, the FAPRI results were not dissimilar to the information on the consequences of the Administration proposal for the 1985 Farm Bill provided by the Secretary Congressional testimony.

II. Evaluation Procedure

The evaluation procedure for analyzing the VLRP Farm Bill proposal is similar to that detailed in FAPRI Staff Report #1-85 and conducted for the period 1984/85 through 1989/90. The five-year evaluation period is necessary, given the usual life of an omnibus Farm Bill and the fact that the full consequences of the policy change occur over several years. Agricultural markets and the agricultural sector respond slowly even to major policy changes, due to annual production periods for crops and reproduction lags for livestock. The evaluation through 1989/90 provides perspective for the potential direction of ultimate adjustments in domestic and international markets for major agricultural commodities and the U.S. agricultural sector.

The evaluation process for the Farm Bill options over the five year period is sequential. That is, the evaluation process can be viewed as occurring in two phases. In the first phase, the FAPRI sector model is solved under assumed external factors and policy parameters within a particular crop year. In the second phase, the FAPRI sector model is "rolled forward" from year to year to develop estimates of the policy consequences under conditions external to agri-

culture over subsequent years. An important feature of the model is that it solves simultaneously across major commodity markets.

Annually, the process involves:

- Detailing the economic assumptions for the domestic and foreign economies.

- Determining foreign production and consumption levels, export supplies, and import demands.

- Specifying the U.S. agricultural policy parameters by program commodity.

- Determining U.S. production, domestic and foreign consumption, and average annual prices in major crop and livestock markets based on the policy parameters and domestic economic conditions.

- Aligning domestic and foreign markets to establish price, consumption, and production equilibria.

- Calculating farm income, government cost, and other industry performance variables.

Across the years, the model must be "tuned" to assure feedback between years and that intertemporally consistent responses in domestic and foreign markets have been incorporated.

III. The Variable Loan Repayment Program

The VLRP studied is a stylized version of several "market loan" program proposals. Under some versions of the market loan program, the acreage base is reduced by a conservation buy-out. Conservation buy-out provisions are not incorporated in the current analysis. The acreage base is determined as under the 1981 Farm Bill.

The VLRP, as already indicated, is designed ultimately to take U.S. agriculture to a more market oriented structure. However, the adjustment to a more free market agriculture is more gradual. The function of the cushioning mechanism holds net farm incomes at relatively constant levels during a transition period when export markets are responding to the lower market prices permitted by the absence of the loan rate floor that existed under the 1981 Farm Bill and previous programs. Government costs of the program are thus associated with the maintenance of farm incomes and, to a more limited extent, the management of supply. However, the market prices are allowed to float at world levels consistent with Administration and other free market proposals.

The smoothing of the transition to a more market oriented U.S. agriculture is achieved by freezing loan rates, target prices, and reserve entry and lowering release prices to the loan rate levels. The only differences in these price parameters from those provided in the 1981 Farm Bill involve the release prices. For corn, the release price in 1986/87 is reduced from $3.25 to $2.55. For wheat, the release price is reduced from $4.45 to $3.30.

The acreage base continues to be determined as under the 1981 Farm Bill. Thus, in the short run at least, there will be excess capacity with the prices that farmers actually receive differentiated from the market prices and held artifically at levels consistent with past loan rates. This excess capacity is "managed" in the VLRP by set-asides, which have the effect of balancing farm income and government cost.

Finally, government budget exposure under the VLRP is increased by the potential difference between the loan rates and the prices at which the farmers can repay loans. The farmers have the option of repaying loans at the loan rate or at a market price, whichever is lower. For the present analysis, differences between the average annual farm prices for the commodities and the loan rates are used to calculate government costs and direct payment impacts of this provision. It is important to emphasize the recourse nature of these loans. An implication of the VLRP is that the government will not acquire stocks beyond levels planned for a security reserve.

The specific parameters for the variable loan rate program used for the present evaluation exercise are reported in Table 1. This table shows loan rates, target prices, entry prices, release prices, set-asides and paid diversion levels. The implicit payments to farmers redeeming commodity loans at lower market prices are provided subsequently in Tables 3 through 7.

IV. Domestic and Foreign Assumptions and Projections

The solution to the FAPRI modeling system for the U.S. agricultural sector is conditioned on assumptions and projections about the domestic U.S. economy and foreign economies. The foreign economy assumptions are important because they affect the demands and supplies in the export market. The general economic assumptions for the U.S. and foreign economies were supplied by Wharton Econometric Forecasting Associates.

Selected assumptions and projections utilized in evaluating the VLRP with the FAPRI modeling system are provided in Table 2. Obviously, this conditioning information for the policy evaluation is not complete. However, the rates of change indicated in Table 2 are indicative of the general economic conditions presumed for the U.S. economy and for the economies of regions important to international agricultural commodity markets. Highlights of these assumptions are:

- Real economic growth rates in U.S. GNP of 2.6 to 3.5 percent for the period 1985 to 1990.

- An inflation rate of 3.7 to 4.9 percent, higher in the later years than in nearby years.

- Civilian unemployment dropping from a rate of 7.4 percent in 1985 to 6.7 percent in 1989, then rising to 7.6 percent as the economy slows in 1990.

- Short-term interest rates, as reflected by the three-month treasury bill rate, falling in 1986 then rising to 9 percent by 1990. Moody's AAA Bond Rate falling to 10.8 by 1986 then rising to a steady level above 11 percent.

Table 1

VALUES FOR SELECTED POLICY PARAMETERS APPLIED IN THE ANALYSIS

Crop and Year	Variable Loan Repayment Program						
	Loan Rate	Target Rate	Reserve Entry	Reserve Release	Set Aside	Paid Diver.	Pmt. Rate
			Dollars per Bushel				
Corn							
84/85	2.55	3.03	2.55	3.25	10	--	--
85/86	2.55	3.03	2.55	3.25	10	--	--
86/87	2.55	3.03	--	2.55	20	NAC[a]	--
87/88	2.55	3.03	--	2.55	20	NAC	--
88/89	2.55	3.03	--	2.55	20	NAC	--
89/90	2.55	3.03	--	2.55	20	NAC	--
			Dollars per Bushel				
Wheat							
84/85	3.30	4.38	3.30	4.45	30	10-20	PIK 80 %
85/86	3.30	4.38	3.30	4.45	20	10	$2.70/bu
86/87	3.30	4.38	--	3.30	25	NAC	--
87/88	3.30	4.38	--	3.30	25	NAC	--
88/89	3.30	4.38	--	3.30	25	NAC	--
89/90	3.30	4.38	--	3.30	25	NAC	--
			Cents per Pound				
Cotton							
84/85	56	81	--	--	25	--	--
85/86	56	81	--	--	30	10	30
86/87	57	81	--	--	25	NAC	--
87/88	57	81	--	--	25	NAC	--
88/89	57	81	--	--	25	NAC	--
89/90	57	81	--	--	25	NAC	--
			Dollars per cwt				
Rice							
84/85	8.14	11.90	--	--	25	--	--
85/86	8.14	11.90	--	--	20	15	$3.50/cwt
86/87	6.55	8.74	--	--	20	NAC	--
87/88	6.08	7.70	--	--	20	NAC	--
88/89	5.51	6.61	--	--	20	NAC	--
89/90	5.30	6.01	--	--	20	NAC	--

[a]No acreage control with paid divesion.

Table 2

DOMESTIC AND FOREIGN ECONOMIC ASSUMPTIONS AND PROJECTIONS

Conditioning Assumptions	Years					
	1985	1986	1987	1988	1989	1990
United States						
Real GNP % change	2.6	2.6	3.2	3.5	3.1	0.4
GNP Deflator % change	3.7	4.1	4.4	4.8	4.9	4.9
Civilian Unemployment Rate	7.4	7.6	7.4	6.9	6.7	7.6
3-month T. Bill Rate	7.6	6.9	7.6	8.1	8.4	9.0
Moody's AAA Corporate Bond Rate	11.7	10.8	11.1	11.1	11.2	11.4
Foreign/Domestic						
Foreign Currency/Dollar % change	2.5	-4.7	-7.7	-3.7	-1.3	-0.5
Real GNP % change						
Latin America	3.0	4.0	4.2	3.2	3.0	3.1
Pacific Basin	6.4	6.7	5.7	5.9	5.8	6.6
Europe	2.4	1.9	2.5	2.3	2.1	1.4
Centrally Planned	3.0	3.1	3.4	3.3	3.2	2.5

SOURCES: Wharton Econometric Forecasting Associates, Long Term Forecast - June 1985 and World Economic Outlook, May 1985.

- The U.S. dollar appreciating in 1985 and then depreciating relatively sharply from 1986 to 1988 and at slower rates in subsequent years.

- Annual growth rates in real gross domestic product of 3.0 to 4.2 percent for Latin America, 5.7 to 6.7 percent for the Pacific Basin countries, 1.4 to 2.5 percent for Europe, and slightly greater than 3 percent for the centrally planned economies.

Critical to these economic projections is a presumed continuation of the large U.S. budget deficit. This budget deficit is responsible, in part, for the high real rates of interest and the relatively slow but steady rate of growth for the U.S. economy until 1990. For the world economy, a medium growth path is presumed. Important in these projections is that the Pacific Basin nations will continue to grow at a relatively rapid rate compared with countries in other regions of the world. In addition, Africa like Latin America, although not shown, is projected to rebound from depressed current economic conditions and achieve annual growth rates comparable to those of the centrally planned economies, around 3 percent by the end of the decade.

V. Evaluation for Crops and Livestock

The evaluation of the VLRP proposal for the 1985 Farm Bill was conducted using the policy parameters detailed in Section III and the domestic and foreign economic assumptions and projections reviewed in Section IV. The evaluation for crops is on a crop year basis, 1983/84 through 1989/90. The comparable livestock figures are for calendar years 1984 through 1990.

The VLRP evaluation is reviewed by commodity. First, the outcomes for the five major program crops under the VLRP are reviewed. Then, the outcomes for the selected components of the livestock sector are provided. The analysis excludes dairy. Livestock commodities evaluated are beef, pork, and poultry.

Wheat (Table 3)

- The VLRP with a 20 percent set-aside holds wheat acreage for the period 1986/87 through 1989/90 at between 75-78 million acres.

- Domestic use is nearly constant and exports increase by only 17 percent over current levels by 1989/90.

- Total carryover continues to grow and, since market prices remain below the loan, reserve stocks are not released.

- Farm prices fall sharply in 1986/87 and remain below $3.00 throughout the period.

- With the loan repayment differential and the deficiency payment, returns per acre over variable costs for participants are held well above the returns for nonparticipants.

- Annual government costs move from $2.7 billion in 1986/87 to near $3 billion for the last three years.

Table 3

FAPRI POLICY PROJECTIONS FOR WHEAT UNDER THE VLRP PROPOSAL

Variable	USDA	Projection (Crop Year)					
	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
				Million Acres			
Planted Acres	76.4	79.2	75.1	77.7	76.8	75.8	76.0
				Million Bushels			
Domestic Use	1,111	1,185	1,098	1,054	1,052	1,053	1,049
Total Exports	1,429	1,430	1,433	1,537	1,559	1,602	1,666
Total Carryover	1,399	1,387	1,416	1,490	1,547	1,558	1,541
				Dollars per Bushel			
Farm Price	3.53	$3.38	$3.32	$2.93	$2.85	$2.92	$2.98
Loan Repayment Subsidy	--	--	--	$0.37	$0.45	$0.38	$0.32
Deficiency Payment	0.65	$1.08	$1.08	$1.08	$1.08	$1.08	$1.08
				Dollars per Acre			
Participant Returns over Variable Costs	--	$73.00	$71.50	$61.80	$60.80	$60.30	$58.10
Nonparticipant Returns over Variable Costs	--	$61.20	$57.50	$37.95	$33.30	$33.80	$32.50
				Million Dollars			
Direct Payments and Subsidies	--	--	$2,130	$2,212	$2,457	$2,509	$2,446
Total Cost*	--	--	$2,661	$2,743	$2,988	$3,039	$2,976

*FAPRI estimates of crop year non-recoverable costs. Not consistent with ASCS estimates of fiscal year costs.

Corn (Table 4)

- Corn acreage declines gradually over the period as a consequence of the lower market price and a 20 percent set-aside every year.

- By the end of the four year period corn exports are about 5 percent higher and domestic use about 10 percent higher than current levels.

- Carryover stocks are maintained at about 2.0 billion bushels, but some reserves are released in 1988/89 and 1989/90.

- Farm prices fall sharply in 1986/87 then recover to loan rate levels. The release of reserve stocks at the loan rate keeps prices from rising above the loan rate in the last two years.

- Loan repayment subsidies and deficiency payments keep participant returns per acre over variable costs well above that of nonparticipants.

- Annual government costs decline from $2.8 billion in 1986/87 to about $2.5 billion by 1989/90.

Soybeans (Table 5)

- Soybean acreage declines slightly during the first three years. Because of this acreage path, farm prices of soybeans rise sharply in 1988/89 and remain higher in 1989/90, causing acreage to increase.

- Domestic use rises less than 10 percent over the period, but exports grow more than 25 percent.

- The loan rate under the VLRP is frozen at $5.02 per bushel, but it has little effect on farm prices.

- Returns over variable costs increase as market prices move above the loan rate in 1988/89 and 1989/90.

- The farm price fell below $5.02 only in 1986/87, generating a small government cost of $29 million.

Rice (Table 6)

- Rice acreage remains near current levels, as do prices and net returns over variable cost.

- Over the four year period, domestic and export use increase by 8 and 20 percent, respectively. Carryover deviates relatively little from current levels, but the government releases some stocks for PL480 exports.

- Participant net returns are maintained at a fairly stable level, but nonparticipant returns decline substantially over the period to less than $100 per acre. The major factor in this difference is the deficiency payment.

Table 4

FAPRI POLICY PROJECTIONS FOR CORN UNDER THE VLRP PROPOSAL

Variable	USDA	Projection (Crop Year)					
	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
				Million Acres			
Planted Acres	60.2	80.4	81.9	80.3	79.5	79.1	78.3
				Million Bushels			
Domestic Use	4,709	5,250	5,427	5,797	5,954	5,905	6,021
Total Exports	1,865	1,946	1,832	1,859	1,964	1,957	2,042
Total Carryover	723	1,185	1,767	1,977	1,986	2,089	2,074
				Dollars per Bushel			
Farm Price	$3.25	$2.57	$2.56	$2.06	$2.28	$2.52	$2.54
Loan Repayment Subsidy	--	--	--	$0.47	$0.27	$0.03	$0.01
Deficiency Payment	0	$0.48	$0.48	$0.48	$0.48	$0.48	$0.48
				Dollars per Acre			
Participant Returns over Variable Costs	--	$149.10	$150.40	$110.90	$117.60	$127.60	$126.20
Nonparticipant Returns over Variable Costs	--	$118.90	$121.20	$66.60	$86.70	$111.10	$108.90
				Million Dollars			
Direct Payments and Subsidies	--	--	$2,212	$2,182	$2,021	$1,688	$1,943
Total Cost*	--	--	$3,305	$2,846	$2,665	$2,265	$2,490

*FAPRI estimates of crop year non-recoverable costs. Not consistent with ASCS estimates of fiscal year costs.

Table 5

FAPRI POLICY PROJECTIONS FOR SOYBEANS UNDER THE VLRP PROPOSAL

	USDA	Projection (Crop Year)					
Variable	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
				Million Acres			
Planted Acres	63.1	67.7	65.0	64.1	63.3	63.8	67.0
				Million Bushels			
Domestic Use	1,062	1,102	1,089	1,179	1,223	1,213	1,211
Total Exports	743	690	731	804	828	860	883
Total Carryover	176	244	381	348	241	164	175
				Dollars per Bushel			
Farm Price	7.81	$5.79	$5.47	$4.99	$5.39	$6.17	$6.23
Loan Rate	5.02	$5.02	$5.02	$5.02	$5.02	$5.02	$5.02
Loan Repayment Subsidy	--	--	--	$0.03	0	0	0
				Dollars per Acre			
Returns over Variable Costs	--	$89.20	$92.60	$75.80	$87.40	$112.20	$110.30
				Million Dollars			
Government Cost*	--	--	0	$29	0	0	0

*FAPRI estimates of crop year non-recoverable costs. Not consistent with ASCS estimates of fiscal year costs.

Table 6

FAPRI POLICY PROJECTIONS FOR RICE UNDER THE VLRP PROPOSAL
(Rough Equivalent)

Variable	USDA	Projection (Crop Year)					
	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
				Million Acres			
Planted Acres	2.19	2.80	2.47	2.71	2.87	2.72	2.78
				Million cwt			
Domestic Use	49.1	58.7	64.4	66.2	67.1	68.3	69.6
Total Exports	70.3	62.0	60.0	63.2	68.1	73.1	71.3
Total Carryover	46.9	64.3	59.8	62.3	68.1	61.1	58.4
				Dollars per cwt			
Farm Price	8.76	$8.14	$8.27	$8.00	$7.56	$8.03	$8.01
Loan Repayment Subsidy	--	--	--	0	$0.44	0	0
Deficiency Payment		$3.90	$3.71	$3.90	$3.90	$3.90	$3.90
				Dollars per Acre			
Participant Returns over Variable Costs	--	$249.90	$227.80	$244.20	$230.20	$229.30	$213.90
Nonparticipant Returns over Variable Costs	--	$156.20	$146.80	$123.10	$91.40	$101.30	$81.00
				Million Dollars			
Direct Payments and Subsidies	--	--	$379	$322	$371	$358	$351
Total Cost*	--	--	$395	$336	$387	$336	$353

*FAPRI estimates of crop year non-recoverable costs. Not consistent with ASCS estimates of fiscal year costs.

- Government costs remain steady at about $300-400 million per year.

Cotton (Table 7)

- Cotton acreage remains fairly stable at slightly below current levels.

- Domestic use of cotton is relatively unchanged, while exports fall in 1985/86 and then rise gradually to near current levels by the end of the period.
- Carryover remains relatively high throughout the period of analysis.

- Only one small loan repayment subsidy is required, and deficiency payments decline slightly towards the end of the evaluation period.

- Returns over variable cost are relatively high in 1984/85 due to unusually good yields. Net returns never reach this level again during the period of analysis, but they do rise as prices improve. Net returns to participants under the VLRP are always more than twice as large as returns to nonparticipants.

- Government costs under the VLRP begin at about $1 billion per year and decline slowly to less than $700 million.

Livestock (Table 8)

- Pork and poultry prices generally decrease over the evaluation period in response to lower feed grain and high protein feed costs. The rates of price decline reflect the production cycles for the different livestock commodities. Beef has the longest production cycle, and prices over this period are determined more by the cycle than by changing input prices.

- Per capita consumption levels for beef decline to around 65 pounds. Chicken consumption holds steady at about 55 pounds per capita. Pork consumption increases slowly from 60 to 64 pounds per capita.

- Total meat consumption per capita over the evaluation period remains near current levels.

VI. Farm Income and Government Cost

In this section the farm income and government cost implications for the VLRP are summarized. The direct payment figures are simply transcribed from Tables 3 to 7. The cost and income figures are factored-in using the procedure sketched in Section II.

Farm Income (Table 9)

- Direct government costs hold at near $6 billion over the evaluation period. These costs reflect a participation rate of 60 percent in the VLRP and will be higher if more farmers participate.

Table 7

FAPRI POLICY PROJECTIONS FOR COTTON UNDER THE VLRP PROPOSAL

Variable	USDA	Projection (Crop Year)					
	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
				Million Acres			
Planted Acres	7.93	11.15	10.90	10.80	10.50	10.20	10.40
				Million Bales			
Domestic Use	5.93	5.30	5.35	5.44	5.23	5.33	5.25
Total Exports	6.79	6.49	5.40	6.10	5.98	6.24	6.36
Total Carryover	2.78	4.05	4.66	4.53	4.65	4.32	4.32
				Dollars per lb.			
Farm Price	0.66	$0.58	$0.59	$0.54	$0.59	$0.62	$0.66
Loan Repayment Subsidy	--	--	--	$0.03	0	0	0
Deficiency Payment	--	$0.25	$0.24	$0.24	$0.24	$0.21	$0.17
				Dollars per Acre			
Participant Returns over Variable Costs	--	$162.80	$119.50	$120.30	$131.20	$150.50	$143.70
Nonparticipant Returns over Variable Costs	--	$94.20	$59.00	$25.70	$48.40	$59.40	$69.50
				Million Dollars			
Direct Payments and Subsidies	--	--	$970	$1,017	$969	$872	$721
Total Cost*	--	--	$1,109	$1,033	$985	$791	$626

*FAPRI estimates of crop year non-recoverable costs. Not consistent with ASCS estimates of fiscal year costs.

Table 8

FAPRI POLICY PROJECTIONS FOR LIVESTOCK UNDER THE VLRP PROPOSAL

Commodity and Variable	1984	1985	1986	1987	1988	1989	1990
Beef							
Omaha Price ($/cwt.)	$65.34	$69.08	$68.03	$71.94	$71.86	$70.84	$70.32
Commercial Production (million lbs.)	23,596	22,519	21,675	19,796	19,595	20,123	20,643
Per Capita Consumption (lbs. retail weight)	78.8	76.1	70.1	65.4	64.2	65.1	65.8
Retail Price ($/lb.)	$2.42	$2.52	$2.59	$2.65	$2.71	$2.73	$2.78
Chicken							
Wholesale Price, 12 city ($/lb.)	$0.55	$0.52	$0.49	$0.47	$0.45	$0.43	$0.42
Production All Chicken (million lbs.)	13,010	13,559	13,788	14,147	14,317	16,400	16,893
Per Capita Consumption (lbs. retail weight)	53.0	54.7	54.2	55.2	55.3	55.2	55.1
Retail Price ($/lb.)	$0.83	$0.84	$0.79	$0.76	$0.74	$0.71	$0.71
Pork							
7 Market Price ($/cwt.)	$48.86	$53.33	$52.60	$50.35	$45.06	$41.30	$41.49
Commercial Production (million lbs.)	14,718	14,334	14,410	15,093	15,727	16,140	16,178
Per Capita Consumption (lbs. retail weight)	62.7	59.3	60.6	61.9	63.5	64.3	64.0
Retail Price ($/lb.)	$1.69	$1.76	$1.82	$1.76	$1.71	$1.66	$1.67

Table 9

FAPRI POLICY PROJECTIONS OF FARM INCOME AND GOVERNMENT PAYMENTS UNDER THE VLRP PROPOSAL

Year	1984	1985	1986	1987	1988	1989	1990
			-- Billions of Dollars --				
Cash Receipts from Marketings							
Crops	69.5	69.5	65.4	63.5	68.5	73.0	74.6
Livestock	73.0	71.2	70.5	70.7	69.1	67.4	67.2
Direct Government Payments and Subsidies	8.0	6.0	6.1	6.1	5.7	5.7	5.8
Total Farm Cash Receipts	153.4	146.6	142.1	140.5	143.5	146.2	147.8
Net Farm Income	35.3	23.7	24.7	27.3	26.1	23.8	21.6
Net Farm Income (1972 $)	11.4	7.5	7.7	8.2	7.6	6.6	5.7

- Total farm cash receipts decrease to $140 billion in 1987 but recover to the 1985 level by 1990.

- Net farm income is in the $23 to $27 billion range. This net farm income is about $10 billion higher than earlier FAPRI estimates under the free market Administration program.

- The direct government cost of about $6 billion per year under the VLRP raises net farm income about $10 billion over the free market level.

- Even with the $6 billion government costs, net farm income in 1972 dollars declines by approximately $2 billion.

Government Costs (Table 10)

- Government payments and subsidies for feed grains and soybeans decline from $2.5 billion in 1986/87 to $1.9 billion in 1988/89 and then increase in 1989/90.

- The total government costs for food grains remain relatively constant. The substantial excess capacity in wheat base acreage as compared to feed grains is indicated by the comparative cost figures.

- The cotton costs decline steadily over the evaluation period to about $.72 billion.

- Total nonrecoverable government costs move from $7.3 billion to $6.7 billion under the VLRP. In general, the VLRP figures estimate the cost of holding farm income relatively constant within a particular program structure over the evaluation period.

VII. Conclusion

Our evaluation of the variable loan repayment program provides a contrast with the FAPRI evaluation of the free market Administration proposal for the 1985 Farm Bill (AAA85). Price paths under the two programs for the basic agricultural commodities are similar in pattern but higher for the VLRP due to its stronger supply control provisions. Farm prices projected under the VLRP frequently drop below the loan rate, which was held at 1985/86 levels during the evaluation period. This results from the removal of the loan rate as a price floor. Farm prices of major agricultural commodities generally rebound in 1988/89 and 1989/90, due to increased feed grain use for livestock and the responsiveness of export markets to the lower prices of previous years. Essentially, the supply of competitors adjusts to the removal of the price floor in the U.S.

The government cost figures show that the VLRP is costly compared to free market options. Specifically, $28 billion in non-recoverable government expenditures is estimated as required under the VLRP for the period 1986/87-1989/90. However, this government expenditure results in an improvement in farm income over the period 1986 through 1990 of $40 billion (a return of about $1.60 in net farm income for every dollar of increased government cost under the VLRP). The VLRP holds annual net farm income near the estimated level for 1985. Generally,

Table 10

GOVERNMENT DIRECT FARM PAYMENTS AND OTHER COSTS FOR CROPS
UNDER THE VLRP PROPOSAL

Year	Crop Years 1986/87	1987/88	1988/89	1989/90
	-- Millions of Dollars --			
Direct Payments and Subsidies				
Total Feed Grains and Soybeans	$2,541	$2,326	$1,942	$2,236
Total Food Grains	$2,533	$2,827	$2,866	$2,796
Total Cotton	$1,017	$969	$872	$721
Total Direct Government Payments	$6,092	$6,122	$5,681	$5,848
Total Other Government Non-Recoverable Costs for Crops*	$1,224	$1,208	$1,005	$891
Total Non-Recoverable Government Costs for Grains and Cottons	$7,316	$7,330	$6,686	$6,739

*Includes storage costs, defaults, and foregone interest from farmer-owned reserve. Loan defaults, a large component of this figure, are not included in government estimates of cost.

the VLRP produces a higher, a more stable net farm income trajectory and higher government costs than the free market Administration proposal.

The direct payments to wheat farmers remained high at about $2.5 billion under the VLRP as in the current 1981 program. This is because of the excess capacity for wheat relative to the base acreage. Government costs for the feed grains and cotton are reduced slightly by crop year 1989/90. Soybeans benefit more from the supply restriction provisions of the corn and wheat programs than from government payments. One possibility for reducing direct government costs of the VLRP, and the wheat acreage in particular, would be a long term conservation buy-out or reserve. It is likely that if base acreage were bid-out under such an acreage retirement program, the bulk of the land would come from the wheat base.

Our earlier analysis of the free market option (FAPRI #3-85) indicated that the path toward a more market-oriented agricultue could mean financial ruin to many current producers and high costs to financial institutions. The VLRP represents a compromise for those concerned with U.S. competition in world markets as well as the maintenance of stable farm income levels. Market prices are permitted to fall to market clearing levels, but the cost of this adjustment is shared by the government until the expected rise in exports materializes. Our analysis suggests that it will take more than four years for a market response to be realized that can produce current net farm income levels without high cost government programs.