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IMPACT OF POLICY AND FINANCIAL SCENARIOS ON A NEW YORK DAIRY FARM

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Foreward

This publication reports the impact of various policy and financial scenarios on a representative New York dairy farm. It was part of a much larger national effort to measure the impact of these scenarios on representative farms and ranches in 13 states. A summary report of that national effort is published as "Barry, Peter. **Financial Stress in Agriculture: Policy and Financial Consequences**. Dept. of Ag. Econ., Univ. of Illinois, AE-4621, November 1986."

However, because of space limitations the national report could not include detailed analysis of individual farm results nor a detailed record of modeling assumptions and coefficients for each farm. To alleviate that limitation this report contains that information for the representative New York dairy farm.

Farm Assumptions

The farm modeled in this report is a 100 cow New York dairy farm averaging 16,000 lbs. of milk produced per cow. It has 239 of owned tillable acres on which it produces its own roughage, half in the form of corn silage and half from hay. All concentrates are purchased. This farm is well managed and productive. It's demise would not be because of low production or insufficient size.

The farm has three qualities of soil based upon the soil classification used by the State Board of Equalization and Assessment. There are 35 acres of soil group 2 in which the crop rotation is 6 years of corn and 4 years of hay. There are 104 acres of soil group 4 in which the rotation is 5 years of corn and 5 years of hay. Finally, there are 100 acres of soil group 6 which is continuous hay, mostly grass. Legume hay is produced on soil groups 2 and 4. The yields and costs per acre are shown in Table 1. Yields were randomly generated with .25 probability of a yield decrease of 10% and a .25 probability of a yield increase of 10%. Hay and corn yields were not correlated.

All cow replacements are raised. In addition to the 100 cows there are 85 head of youngstock. Bull calves are sold as bob veal, and heifers not needed for replacements are sold as open heifers. The cows are housed and milked in a free stall with parlor. The variable costs for the heifers and cows are shown in Table 2.

Unallocated costs total $26,671. This includes $2,753 of hired labor, $10,200 for machinery repair, $2,960 for building and fence repair, $3,298 for insurance, $5,875 for property tax and $1,585 miscellaneous expenses. Family living is assumed to be $12,000 in 1986.

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Table 1. Crop Yields and Input Costs per acre for 1986

	Soil Group 2		Soil Group 4		Soil Group 6
	Hay	Corn Silage	Hay	Corn Silage	Grass Hay
Yield	3.6 tons	17.4 tons	2.9 tons	14.4 tons	2.2 tons
Growing					
Seed	$ 7.49	$18.65	$ 5.99	$18.65	$ 3.92
N		26.54		23.42	1.34
P	13.05	17.39	12.76	17.39	9.86
K	21.07	9.37	16.86	9.37	8.74
Lime	6.78	6.78	6.78	6.78	6.78
Application		5.55		5.55	
Chem	4.13	25.57	3.99	25.94	.43
Fuel	2.89	7.46	2.62	7.46	2.40
Other	2.19	1.92	2.19	1.92	2.19
Harvesting					
Fuel	11.54	10.20	8.65	9.49	6.02
Twine	5.63		4.53		3.43
Other	3.62	5.03	3.62	5.03	3.62
Total	$78.39	$136.46	$67.99	$130.92	$48.73
		---- Stochastic Yields ---			
Year 1	3.60	17.40	2.90	14.40	2.20
Year 2	3.24	15.66	2.61	12.96	1.98
Year 3	3.60	19.14	2.90	15.84	2.20
Year 4	3.96	17.40	3.19	14.40	2.42

Table 2. Dairy Enterprise Costs for 1986

	100 Cows	85 Heifers	Total
Fuel	1,585	332	1,917
Bedding	3,306	1,417	4,723
Breeding	3,669	1,144	4,813
Veterinary	4,892	515	5,407
Marketing	6,727	0	6,727
Supplies	3,665	734	4,399
Utilities	5,743	--	5,743
Other	4,408	618	5,026
Hired Labor	13,716	2,242	15,958
Purchased Feed			
Corn	12,936	2,244	15,180
Soybean meal	14,302	1,890	16,192
Other	1,627	1,827	3,454
Total	$76,576	$12,963	$89,539
Produced feed (tons)			
Legume hay	--	--	201.10
Grass hay	--	--	219.97
Corn silage	--	--	1,114.26

Machinery investment is $98,345 (market value). A $11,000 annual replacement cost is assumed. The New York as well as Federal investment tax credit is claimed. A downpayment of $3,929 is required which comes from a trade-in. The payments are amortized over 5 years. Depreciation is accelerated cost recovery at 95% of cost. This machinery replacement is conservative and reflects cautious buying of equipment. High repair costs were used.

The market value of the buildings is $43,138 with annual depreciation of $5,392. The market value of the land is $197,152. Remaining balance sheet values are as follows:

Cash	$ 3,000
Feed	20,583
Livestock	116,146
Prepaid expenses	1,181
Growing crops	5,480

As required by the project specification 3 debt/asset ratios of 20, 40 and 70 percent were specified, using the same mix of assets. Table 3 shows the beginning balance sheet values for each leverage ratio.

Base Economic Scenario

The project supplied a baseline economic scenario. This was modified to the New York economy. Milk price for the four years was derived from the 1985 farm bill assuming projected milk purchases by CCC over 5 billion lbs.

	1986	1987	1988	1989
Commodity prices				
Milk price (cwt.)	$11.75	$11.56	$11.06	$10.56
Corn silage (ton)	15.12	12.19	11.89	12.01
Legume hay (ton)	70.94	57.18	55.75	56.31
Grass hay (ton)	64.58	52.05	50.75	51.26
Cull cows	420.00	380.10	350.83	355.39
Interest rates				
Short	13.00	12.60	13.20	13.60
Intermediate	12.40	11.90	12.40	12.80
Long-term	11.80	11.40	11.90	12.30
Marketable securities	8.0	7.7	8.1	8.4
Retirement account	8.0	7.7	8.1	8.4
Growth Rates %				
production expenses	XXXX	0.8	1.3	3.7
overhead expenses	XXXX	5.5	6.4	6.4
machinery	-10.0	-10.0	-10.0	-10.0
buildings	0.0	0.0	0.0	0.0
land	0.0	0.0	0.0	0.0
family living	XXXX	4.1	5.3	4.7
purchased machinery	XXXX	-5.9	0.0	0.0

Table 3. Beginning Balance Sheets at Specified Leverage Positions

Beginning Balance Sheets	20% D/A	40% D/A	70% D/A
ASSETS			
Current Assets			
Cash	3,000	3,000	3,000
Marketable Securities	0	0	0
Inventories--grain	20,583	20,583	20,583
--livestock	3,111	3,111	3,111
Prepaid expenses	1,181	1,181	1,181
Investment in growing crop	5,480	5,480	5,480
Total Current Assets	33,355	33,355	33,355
Intermediate Assets			
Breeding stock	113,035	113,035	113,035
Machinery	98,345	98,345	98,345
Retirement accounts	0	0	0
Other	0	0	0
Total Intermediate assets	211,380	211,380	211,380
Fixed Assets			
Building	43,138	43,138	43,138
Land	197,152	197,152	197,152
Other	0	0	0
Total Fixed Assets	240,290	240,290	240,290
Total Assets	485,025	485,025	485,025
LIABILITIES			
Current loans	5,297	10,594	18,539
Inventory financing	0	0	0
Accounts payable	1,374	2,748	4,809
Accrued interest	81	162	284
Accrued taxes	0	0	0
Current of inter. and long	5,428	10,855	18,997
Contingencies	11,136	11,136	11,136
Total Cur. Liabilities	23,316	35,495	53,765
Intermediate loans	38,137	76,275	133,480
Contingencies	18,186	18,186	18,186
Total Intermediate Liab.	56,323	94,461	151,666
Long term loans	46,769	93,538	163,692
Contingencies	10,800	10,800	10,800
Total Long Term Liab.	57,569	104,338	174,492
Total Liabilities	137,207	234,294	379,922
Net Worth with cont.	347,817	250,731	105,102
Net Worth without cont.	387,938	290,852	145,224

Policy Options -- Input Adjustments

Reduction in Indebtedness

This option's intention was to decrease the farm's initial indebtedness by 35%. This was done by calculating 35% of total debt for each leverage position and reducing short term, intermediate, and long-term debt each by 35%. The beginning debt levels and reductions for each leverage ratio are shown below.

	Short Term Debt	Intermediate Debt	Long-Term Debt
20% D/A Beginning debt	$12,180	38,137	46,769
35% reduction	4,263	13,348	16,369
40% D/A Beginning debt	24,359	76,275	93,538
35% reduction	8,526	26,696	32,738
70% D/A Beginning debt	42,629	133,480	163,692
35% reduction	14,920	46,718	57,292

All debt forgiveness is treated as taxable income. Intermediate and long term debt forgiveness are entered in the area designated as loan forgiveness. To reduce short term debt an injection of funds is made. The injection is calculated on an after tax basis to maintain consistency with the tax treatment of debt forgiveness.

Reduction in Interest Rate

Interest rates on all debt outstanding were reduced by 35%. The table below shows the original and adjusted interest rates that were used.

	1986	1987	1988	1989
Short term				
Original	13.00	12.60	13.20	13.60
35% reduced	8.45	8.19	8.58	8.84
Intermediate term				
Original	12.40	11.90	12.40	12.80
35% reduced	8.06	7.74	8.06	8.32
Long term				
Original	11.80	11.40	11.90	12.30
35% reduced	7.67	7.41	7.40	8.00

Deferral of Debt Obligations

All scheduled payments of principal and interest were to be deferred for two years with this strategy. There was to be no accrual of interest in the interim. All payments were to commence in the third year at the original payment plan.

This plan was implemented by delaying all scheduled intermediate and long term principal payments by two years. A zero interest rate was entered in years 1 and 2 for all debt, and all principal payments were deferred until year 3 on

intermediate and long term debt. A summary of debt payments (principal and interest) that were reduced is shown below.

	1986	1987	1988	1989
20% D/A Original Debt Payments	$17,835	$18,120	$19,335	$20,349
Adjusted Debt Payments	1,084	2,095	20,735	21,872
40% D/A Original Debt Payments	$34,512	34,188	35,790	37,072
Adjusted Debt Payments	1,128	2,243	38,617	40,109
70% D/A Original Debt Payments	$59,511	59,957	64,815	71,410
Adjusted Debt Payments	1,150	2,321	65,373	67,407

Asset Sales, No Lease Back

Thirty-five percent of the farm assets were to be sold with this restructuring option. This was accomplished by selling 204 acres for $168,300, consisting of 104 acres of soil group 4 and 100 acres of soil group 6. The 35 acres of soil group 2, which is adjacent to the buildings were kept. The tax basis of the land sold was $64,017. Real estate taxes were reduced by $4,080. No machinery was sold.

Asset Sale and Lease Back

This restructuring option involves selling 35% of the assets and leasing back the assets that were sold. This was accomplished by selling 112 acres of land for $92,059 and the herd for $77,700. The land is then rented at $30 an acre or $3,360 and the cows and youngstock are leased at 20% of their sales value or $15,540. The livestock lease requires maintaining the herd at current numbers. Cull cows and excess youngstock are revenue the farm receives. Real estate taxes are reduced $2,264 to $3,611.

Equity Infusion

The final response strategy refers to the direct infusion of capital to reduce existing indebtedness. This strategy was implemented by injecting new equity in the amount of 35% of the farm's total indebtedness. All proceeds from the infusion were used to directly reduce debt. The injection amounts were:

20% D/A	$33,952
40% D/A	67,904
70% D/A	118,831

Results

Results from each scenario are summarized in tables A-D. Following is a brief discussion of each scenario. The discussion will highlight some of the performance measures resulting from each policy option. All discussion of net worth, solvency, profitability and liquidity will assume figures without contingencies. These measures that are calculated with contingencies are summarized in the tables. Net income will be summarized before realized and unrealized gains. With each scenario option, we will also compare the ending net worth for that policy option to the original run to see the impact the plan had on the farm's total equity position at the end of the planning period.

Original Farm

Net worth for the 20% D/A farm increased about 13% over the 4 year period while net worth for the debt to asset ratio of 40% increased 16%. The 70% debt to asset ratio farm's net worth decreased 24%. The debt to asset ratios for the 20%, 40% and 70% farms ended the four years at 14%, 29%, and 77%. Thus only the most indebted farm saw an erosion of it's D/A ratio. The 20% D/A had a positive average and ending fund availability. Although the 40% D/A had a slight positive average fund availability measure ($20) it ended the four years with a slight negative value as milk prices decreased. The fund availability for the 70% D/A farm was extremely negative, averaging -$31,036 and ending at -$46,510. The ending current ratios for the 20% and 40% D/A farms were well above 1 at 4.46 and 1.62. The ending current ratio for the 70% D/A farm was a severe .21. Average net income for the 20%, 40%, and 70% D/A farms were $7,038, -$1,787, and -$23,042 respectively. Ending returns on equity for the same leverage positions were 7.3%, 6.1% and -5.0%.

Reduction in Indebtedness

Net worth increased for the 20% and 40% D/A farms but not the 70% farm with the debt reduction plan. The table below shows the amount of debt reduced compared to the change in ending net worth for each debt to asset ratio. It also compares the difference in net worth from the original farms. The difference is only a fraction of the amount of debt reduced. Ending debt to asset ratios improved for the 20% and 40% D/A farms to 13%, 26%, but deteriorated to 72% for the 70% D/A farm.

Net Worth Changes with Debt Reduction Option

	20%	40%	70%
Amount of debt reduced year 1	$33,952	$67,904	$118,831
Total net worth change over 4 years	54,646	55,231	-12,589
Increase in Net Worth over original farm	$2,443	$8,037	$22,589

Average net income for the 20%, 40% and 70% plans were $3,483, -$7,935, and -$31,569 respectively. These are not much different from the original farms (before debt reduction). Ending returns on equity for the same leverage positions were 7.4%, 6.4%, and -2.5%. These were minor improvements over the original farm except for the 70% D/A farm where the increase was 250 basis points. Average and end fund availability was positive for the 20% D/A farm but negative for the 40% D/A farm and greatly negative for the 70% D/A ratio. Liquidity positions improved for the 20% and 40% D/A farms but was basically unaltered for the 70% D/A farms.

Reductions in Interest Rate

Net worth increased $55,113, $63,272, and $29,356 for the 20%, 40% and 70% debt to asset options under the interest rate reduction scenario. As the table below shows the net worth change from the original farms was modest for the 20% D/A farm but large for the 70% D/A farm.

Net Worth Changes from Original Farms under the Interest Rate Reduction Plan

	20%	40%	70%
Increase in Net Worth over original farm	$2,910	$16,078	$64,361

The interest reduction option resulted in increases in average net income over the original plan, although still negative for the 70% D/A farm. Average net income for the 20%, 40%, and 70% farms were $10,520, $4,731, and -$6,674 respectively. Average and ending fund availability were positive for the 20% D/A farm but negative for the 70% D/A farm. The 40% D/A farm had a positive average fund availability but it was negative at the end. Ending return on equity for the 20%, 40% and 70% debt to asset plans were 8.1%, 8.1% and 7.7% respectively.

Deferral of Debt Obligations

Total net worth increased for all three debt to asset plans under the debt deferral scenario. As the table below shows, however, the change in net worth was similar as the original plan for all D/A ratios except the 70%.

Net Worth Changes from Original Farms under the Deferral Debt Plan

	20%	40%	70%
Change in Net Worth over original farm	$2,865	-$4,630	$53,426

Average net income for the debt deferral option was higher than the original run while ending net income showed smaller increases. This was due to the smaller

amounts of interest paid in the first two years of the planning horizon. Since interest was being incurred in the final two years, net incomes decreased. Average net income for the 20%, 40%, and 70% debt to asset farms were $10,509, $4,731, and -$4,149 respectively. Average fund availability was positive but ending funding availability was negative for the 20% and 40% D/A farms. Both average and ending were negative for the 70% D/A farm. Ending returns on equity were 7.2%, 5.8% and 0.0% for the 20%, 40% and 70% debt to asset plans.

Asset Sale, No Lease Back

Net worth changes compared to the original farms for the two asset restructuring plans are summarized below. Only at the 70% debt to asset ratio does selling assets lead to a larger change in net worth.

Net Worth Changes from Original Farm under Asset Restructuring Plans

	20%	40%	70%
Sale, No Lease, Change in Net Worth over original farm	-$16,178	-$41,063	$33,324
Sale, Lease-Back, Change in Net Worth over original farm	-$108,408	-$111,593	-$77,408

Ending debt to asset ratios for the 20% and 40% plans improved substantially while the ending debt to asset ratio for the 70% plan improved modestly. Ending debt to asset ratios for the 20%, 40% and 70% plans were 7%, 16% and 50%. This option provided the highest average fund availability for the 20% and second highest for the 40% D/A farms although the ending fund availability was negative for the 40% D/A farm. Both average and ending fund availability were negative for the 70% D/A farm and not significantly different from many of the other options. Average net income for the 20%, 40% and 70% D/A farms under the sale no lease back option were $5,744, -$1,773 and -$14,194. Returns on equity for the same leverage positions were 9.5%, 9.6% and 8.4%.

Asset Sale and Lease Back

Performance measures for the asset sale lease back option were significantly worse than the no lease back scenario. Net worth changes are summarized in the table above. Ending debt to asset ratios for the 20%, 40% and 70% plans were 3%, 7% and 85%. Average fund availability was the second highest of all options for the 20% D/A farm but was negative for the 40% and 70% D/A farms. Average net income for the 20%, 40% and 70% plans under the lease back option were -$3,044, -$12,618 and -$28,494 respectively. Returns on equity for the same leverage positions were 9.4%, 8.1% and -7.9%.

Equity Infusion

Results for the equity infusion option are very similar to the debt reduction option. The results are more favorable for the equity infusion option due to the tax consequences assumed for debt reduction versus no tax liability for the equity infusion scenario. The table below summarizes ending net worth changes compared to total dollars of equity injected into the plan.

Net Worth Changes from under Equity Infusion

	20%	40%	70%
Total equity injected year 1	$33,952	$67,904	$118,831
Total net worth change from year 1	84,292	99,558	104,495
Change in Net Worth over original farm	$32,089	$52,364	$139,950

Ending debt to asset ratios for the 20%, 40% and 70% plans were 13%, 26% and 50%. Average fund availability was positive for all D/A ratios. In fact it was the only scenario where the 70% debt to asset farm experienced positive fund availability. The ending fund availability, however, was negative on the 40% and 70% D/A farms. Average net income for the 20%, 40% and 70% plans were $9,327, $1,858 and -$12,223. Ending returns to equity were 7.3%, 6.3% and 3.4% for the same leverage options.

Sensitivity Analysis

The analysis above was performed using reasonable assumptions on production and economic variables. A change in some of those variables could have a dramatic impact on the performance of the farms. Perhaps the most significant variables are those that affect gross or net income. In these dairy farms that could result from higher or lower milk price, production per cow, or purchased feed costs. Rather than analyze the impact of each of these and other variables separately it was decided to adjust gross income to simulate the impact of changes in any number of variables.

Gross income was increased 20% each year from the previous amount and is referred to as an optimistic scenario. At the same time real estate values were increased 20% the first year but with 0% value changes the remaining three years. For a pessimistic scenario gross income was decreased 10% each year and real estate values were decreased 10% the first year with 0% value changes the remaining three years.

The results of the optimistic and pessimistic results are summarized in Table D, where they can be compared to the normal summarized results.

Pessimistic Projection

The pessimistic scenario as expected leads to very pessimistic results. Under the previous normal projections none of the debt to asset ratio farms faired extremely well although the 20% D/A farm at least experienced positive average net income. Now, however, even the 20% D/A farm experienced a large negative average-net income of -$12,535 and experienced a net worth loss of -$15,688. As with the normal scenario, the interest reduction plan had the most significant impact on the performance of the 20% D/A farm, although average net income was still negative.

With the 40% and 70% D/A farms under the pessimistic conditions, the debt deferral plan had the greatest impact, although the farms' financial conditions continued to deteriorate. The debt deferral plan was also the second best scenario for the 20% D/A farm.

Optimistic Projection

The optimistic projection is an interesting scenario because it returns the dairy farms to the more favorable conditions of 1979 and 1980. As a result all debt to asset ratio farms' performances improved tremendously. In fact, the 70% D/A ratio farm's performance was the most impressive, as it would pay to be highly leveraged. The 70% D/A farm had an ending return on equity of 17.82% while the return on equity was only 12.33% on the 20% D/A farm.

Since the optimistic projection returned the farms to conditions of profitability it would appear moot to dwell on financial correction scenarios. In fact, many of the scenarios had no significant impact on general performance. Yet, the asset sale and lease back generated a high ending return on equity, and interest reduction or debt deferral boosted average net income and net worth. The equity infusion provided the greatest net worth increase as expected, but then generated a low rate of return on equity.

Summary

Under the normal projection results it appears that the 20% D/A farm would survive but the 40% and 70% D/A farm would have extreme difficulties. This is consistent with findings elsewhere. Of the scenarios analyzed, it appears that interest rate reduction or debt deferral would be the most helpful to these farms, although the 70% farm would still have a difficult financial time.

If net income fell 10% (and real estate decreased in value 10%) even the 20% D/A farm would experience financial difficulty. Again interest rate reduction or debt deferral appears to be the most beneficial to these farms, although the survival of the 40% D/A farm as well as the 70% D/A farm would be questionable.

An increase of net income by 20% (and real estate value increase of 20%) returned all farms to condition of profitability. In fact the 70% D/A farm, being highly leveraged, did quite well financially. Interest rate reduction or debt deferral assisted these farms somewhat but debt reduction would not necessarily be attractive nor would equity infusion.

Table A. Summary Financial Measures for 20% Debt to Asset Plan

	Original	Debt Reduc.	Interest Reduc.	Deferral Debt	Asset sale No-lease	Asset sale Lease	Equity Infusion
20% Summary							
Average Net Income	7,038	3,483	10,520	10,509	5,744	(3,044)	9,327
Ending Net Income	1,090	1,700	5,390	1,673	8,789	889	4,274
Average Fund Availability	7,879	6,676	8,607	11,137	35,430	21,348	15,901
Ending Fund Availability	9,860	12,610	3,143	(783)	8,352	7,065	2,026
Average Cash Flow Coverage	10.82	13.18	13.58	77.74	17.86	.34	10.96
Ending Cash Flow Coverage	9.69	11.56	11.78	9.10	15.58	71.64	9.85
With contingencies							
Ending D/A	.2659	.2513	.2678	.2904	.2370	.1727	.2706
Ending Current Ratio	2.5369	2.7040	2.4964	2.4938	6.1381	6.3009	2.9449
Ending Current + Inter.	3.3505	3.6852	3.3143	3.0082	3.3965	4.0684	3.2956
Total Change Net Worth	28,856	32,745	29,990	25,534	979	(65,863)	49,850
Average Return on assets	.0358	.0256	.0350	.0320	0.0251	.0032	.0388
Ending Return on assets	.0223	.0214	.0233	.0249	.0305	.0057	.0265
Average Return on equity	.0927	.0821	.1013	.1011	.0930	.0440	.0937
Ending Return on equity	.0834	.0844	.0931	.0832	.1106	.1055	.0850
Without contingencies							
Ending D/A	.1422	.1293	.1414	.1580	.0706	.0266	.1338
Ending Current Ratio	4.4601	5.1528	4.3889	4.3315	7.1427	16.7276	5.1773
Ending Current + Inter.	8.3142	10.4858	8.4038	7.1037	11.9142	27.5451	9.2921
Total Change Net Worth	52,203	54,646	55,113	55,068	36,025	(56,205)	84,292
Average Return on assets	.0358	.0256	.0350	.0320	.0251	.0032	.0388
Ending Return on assets	.0223	.0214	.0233	.0249	.0305	.0057	.0265
Average Return on equity	.0822	.0728	.0898	.0894	.0826	.0424	.0829
Ending Return on equity	.0726	.0737	.0809	.0717	.0946	.0936	.0732

Table B. Summary Financial Measures for 40% Debt to Asset Plan

	Original	Debt Reduc.	Interest Reduc.	Deferral Debt	Asset sale No-lease	Asset sale Lease	Equity Infusion
40% Summary							
Average Net Income	(1,787)	(7,935)	4,731	4,585	(1,773)	(12,618)	1,858
Ending Net Income	(9,447)	(8,022)	(2,075)	(10,689)	(1,822)	(11,546)	(5,546)
Average Fund Availability	20	(1,654)	4,040	4,228	10,876	(684)	13,111
Ending Fund Availability	(8,425)	(2,766)	(1,053)	(9,948)	(8,195)	4,032	(4,524)
Average Cash Flow Coverage	5.75	7.05	7.25	71.91	9.67	50.27	5.86
Ending Cash Flow Coverage	5.28	6.41	6.46	4.92	8.72	33.77	5.38
With contingencies							
Ending D/A	.4073	.3789	.3999	.4514	.2963	.1529	.3982
Ending Current Ratio	1.0877	1.1410	1.4506	1.1261	1.6754	3.2434	1.7210
Ending Current + Inter.	2.3877	2.7714	2.4779	2.0727	2.5559	4.2366	2.5007
Total Change Net Worth	30,854	40,980	43,996	19,082	(2,492)	(43,763)	66,719
Average Return on assets	.0387	.0201	.0370	.0313	.0221	(.0193)	.0435
Ending Return on assets	.0199	.0184	.0210	.0222	.0184	(.0381)	.0255
Average Return on equity	.0922	.0660	.1152	.1169	.0984	.0184	.0964
Ending Return on equity	.0719	.0747	.0957	.0699	.1112	.0857	.0763
Without contingencies							
Ending D/A	.2885	.2631	.2790	.3221	.1550	.0735	.2598
Ending Current Ratio	1.6209	1.7753	2.1618	1.6588	1.8666	7.0474	2.5648
Ending Current + Inter.	4.1388	5.3041	4.4232	3.4618	5.0853	10.5467	5.0618
Total Change Net Worth	47,194	55,231	63,272	42,564	6,131	(64,399)	99,558
Average Return on assets	.0387	.0201	.0370	.0313	.0221	(.0193)	.0435
Ending Return on assets	.0199	.0184	.0210	.0222	.0184	(.0381)	.0255
Average Return on equity	.0792	.0568	.0988	.0997	.0873	.0266	.0825
Ending Return on equity	.0609	.0639	.0810	.0577	.0960	.0811	.0634

Table C. Summary Financial Measures for 70% Debt to Asset Plan

	Original	Debt Reduc.	Interest Reduc.	Deferral Debt	Asset sale No-lease	Asset sale Lease	Equity Infusion
70% Summary							
Average Net Income	(23,042)	(31,569)	(6,674)	(4,146)	(14,194)	(28,494)	(12,223)
Ending Net Income	(35,959)	(33,291)	(16,223)	(29,825)	(17,782)	(33,544)	(20,993)
Average Fund Availability	(31,036)	(32,050)	(14,668)	(7,383)	(16,773)	(24,130)	4,592
Ending Fund Availability	(45,510)	(36,498)	(26,774)	(40,700)	(21,994)	(29,636)	(31,544)
Average Cash Flow Coverage	3.18	3.77	4.19	69.10	5.47	7.04	3.46
Ending Cash Flow Coverage	2.71	3.14	3.68	2.90	4.79	5.29	3.19
With contingencies							
Ending D/A	.8743	.8263	.7349	.7828	.5919	.9017	.6435
Ending Current Ratio	.1998	.2029	.3169	.3578	.1501	.3078	.5057
Ending Current + Inter.	.8965	.9837	1.2060	1.1380	1.2193	.9404	1.5613
Total Change Net Worth	(46,396)	(23,981)	17,964	(810)	13,119	(84,505)	74,667
Average Return on assets	.0359	.0112	.0362	.0312	.0137	(.0177)	.0454
Ending Return on assets	.0159	.0159	.0160	.0192	(.0009)	(.0513)	.0238
Average Return on equity	.0276	(.0511)	.1690	.1931	.1019	(.1022)	.1002
Ending Return on equity	(.0766)	.0357)	.1054	(.0015)	.0968	(.0921)	.0451
Without contingencies							
Ending D/A	.7640	.7160	.6240	.6596	.5013	.8459	.5039
Ending Current Ratio	.2117	.2151	.3506	.4007	.1536	.3297	.5989
Ending Current + Inter.	1.0486	1.1697	1.5021	1.4403	1.4810	1.0510	2.3253
Total Change Net Worth	(35,005)	(12,589)	29,356	18,424	(1,681)	(112,413)	(104,945)
Average Return on assets	.0359	.0112	.0362	.0312	.0137	(.0177)	.0454
Ending Return on assets	.0159	.0159	.0160	.0192	(.0009)	(.0513)	.0238
Average Return on equity	.0215	(.0365)	.1242	.1411	.0893	(.0485)	.0746
Ending Return on equity	(.0491)	(.0246)	.0773	(.0011)	.0841	(.0786)	.0339

Table D.1 Summary by Liquidity, Profitability, Solvency and Coverage

		Current & Inter Ratio	Average Net Inc.	Ending RE	Ending DA	Total NW Change	Average Fund Avail.	Ending Cash Flow Cov.
20% Summary								
Normal								
1	Original Plan	8.3142	7,038	.0726	.1422	52,203	7,879	9.69
2	Debt Reduction	10.4858	3,483	.0737	.1293	54,646	6,676	11.56
3	Interest Reduction	8.4038	10,520	.0809	.1414	55,113	8,607	11.78
4	Deferral Debt	7.1037	10,509	.0717	.1580	55,068	11,137	9.10
5	Asset Sale - No lease	11.9142	5,744	.0946	.0706	36,025	35,430	15.58
6	Asset Sale - lease	27.5451	(3,044)	.0936	.0266	(56,205)	21,348	71.64
7	Equity Infusion	9.2921	9,327	.0732	.1338	84,292	15,901	9.85
Optimistic Projection								
1	Original Plan	8.3728	32,446	.1233	.1297	182,224	30,532	10.03
2	Debt Reduction	9.8284	29,371	.1232	.1197	186,609	29,809	11.97
3	Interest Reduction	8.3351	34,749	.1266	.1299	191,459	32,835	12.17
4	Deferral Debt	7.6621	35,867	.1217	.1399	195,929	36,494	9.41
5	Asset Sale - No lease	10.9334	30,025	.1513	.0789	138,926	59,712	16.08
6	Asset Sale - lease	18.0784	23,395	.1630	.0434	59,156	47,787	74.12
7	Equity Infusion	9.1862	34,228	.1194	.1228	223,326	40,802	10.18
Pessimistic Projection								
1	Original Plan	5.7534	(12,535)	.0212	.1778	(15,688)	(4,165)	9.56
2	Debt Reduction	7.9676	(13,781)	.0243	.1530	(4,009)	(3,059)	11.44
3	Interest Reduction	7.3686	(8,256)	.0328	.1578	1,428	114	11.63
4	Deferral Debt	5.6437	(7,299)	.0207	.1855	(14,340)	(1,286)	8.94
5	Asset Sale - No lease	9.5248	(13,292)	.0396	.0855	(43,004)	16,395	15.23
6	Asset Sale - lease	20.4986	(21,763)	.0226	.0333	(124,866)	(5,384)	70.04
7	Equity Infusion	7.4926	(10,821)	.0247	.1565	5,526	1,138	9.64

Table D.2 Summary by Liquidity, Profitability, Solvency and Coverage

		Current & Inter Ratio	Average Net Inc.	Ending RE	Ending DA	Total NW Change	Average Fund Avail.	Ending Cash Flow Cov.
40% Summary								
Normal								
1	Original Plan	4.1388	(1,787)	.0609	.2885	47,194	20	5.28
2	Debt Reduction	5.3041	(7,935)	.0639	.2631	55,231	(1,654)	6.41
3	Interest Reduction	4.4232	4,731	.0810	.2790	63,272	4,040	6.46
4	Deferral Debt	3.4618	4,585	.0577	.3221	42,564	4,228	4.92
5	Asset Sale - No lease	5.0853	(1,773)	.0960	.1558	6,131	10,876	8.72
6	Asset Sale - lease	10.5467	(12,618)	.0811	.0735	(64,399)	(684)	33.77
7	Equity Infusion	5.0618	1,858	.0634	.2598	99,558	13,111	5.38
Optimistic Projection								
1	Original Plan	4.9487	26,779	.1393	.2421	159,751	18,302	5.41
2	Debt Reduction	6.2663	20,668	.1390	.2202	168,169	16,665	6.58
3	Interest Reduction	4.9334	30,161	.1451	.2413	173,279	21,684	6.63
4	Deferral Debt	4.5538	32,961	.1347	.2576	184,480	29,849	5.09
5	Asset Sale - No lease	6.1158	25,325	.1755	.1365	120,298	37,974	9.04
6	Asset Sale - lease	11.6593	17,087	.1952	.0708	33,930	21,138	34.84
7	Equity Infusion	6.1644	30,449	.1280	.2138	242,338	38,949	5.58
Pessimistic Projection								
1	Original Plan	1.5396	(26,756)	(.0413)	.5085	(71,511)	(24,949)	4.42
2	Debt Reduction	1.7658	(29,965)	(.0296)	.4664	(52,771)	(23,683)	5.17
3	Interest Reduction	2.1284	(17,018)	.0085	.4174	(31,881)	(15,211)	6.00
4	Deferral Debt	2.2002	(12,795)	.0169	.4229	(26,549)	(8,122)	4.83
5	Asset Sale - No lease	3.4423	(21,013)	.0147	.2241	(52,172)	(2,978)	8.55
6	Asset Sale - lease	2.3882	(32,007)	.0435	.2659	(134,598)	(17,673)	21.23
7	Equity Infusion	2.6231	(20,866)	(.0065)	.3731	(528)	(6,981)	5.19

Table D.3 Summary by Liquidity, Profitability, Solvency and Coverage

		Current & Inter Ratio	Average Net Inc.	Ending RE	Ending DA	Total NW Change	Average Fund Avail.	Ending Cash Flow Cov.
70% Summary								
Normal								
1	Original Plan	1.0486	(23,042)	(.0491)	.7640	(35,005)	(31,036)	2.71
2	Debt Reduction	1.1697	(31,569)	(.0246)	.7160	(12,589)	(32,050)	3.14
3	Interest Reduction	1.5021	(6,674)	.0773	.6240	29,356	(14,668)	3.68
4	Deferral Debt	1.4403	(4,146)	(.0011)	.6596	18,424	(7,383)	2.90
5	Asset Sale - No lease	1.4810	(14,194)	.0841	.5013	(1,681)	(16,773)	4.79
6	Asset Sale - lease	1.0510	(28,494)	(.0786)	.8459	(112,413)	(24,130)	5.29
7	Equity Infusion	2.3253	(12,223)	.0339	.5039	104,945	4,592	3.19
Optimistic Projection								
1	Original Plan	2.7912	18,926	.1782	.4332	160,135	8,532	3.18
2	Debt Reduction	3.4888	5,755	.1786	.4037	162,443	2,874	3.85
3	Interest Reduction	2.7824	25,575	.2071	.4323	166,215	10,052	3.89
4	Deferral Debt	2.4844	28,025	.1663	.4669	164,996	19,402	3.00
5	Asset Sale - No lease	2.8060	17,874	.2758	.2734	101,775	7,766	5.28
6	Asset Sale - lease	3.3631	8,294	.3462	.4225	9.182	4,873	6.39
7	Equity Infusion	3.9045	24,361	.1444	.3622	269,172	35,791	3.32
Pessimistic Projection								
1	Original Plan	.7040	(49,824)	(1.1295)	1.0373	(162,019)	(57,819)	2.33
2	Debt Reduction	.7956	(54,559)	(.5080)	.9535	(124,267)	(55,040)	2.70
3	Interest Reduction	.9178	(30,713)	(.1618)	.8662	(85,571)	(38,707)	3.26
4	Deferral Debt	1.0406	(23,053)	(.2242)	.8252	(65,870)	(23,891)	2.70
5	Asset Sale - No lease	.9083	(36,107)	(.2299)	.8274	(93,043)	(38,687)	3.89
6	Asset Sale - lease	.5958	(51,634)	1.8391	1.3043	(212,284	(47,270)	4.14
7	Equity Infusion	1.3716	(35,794)	(.1069)	.6860	2,391	(16,481)	2.98