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AE 93006

April 1993

**IMPACTS OF DEFICIT REDUCTION
PROPOSALS ON NORTH DAKOTA FARMERS**

**Roger Johnson, Dwight Aakre, Andrew Swenson,
Laurence Crane, Marvin Duncan, and Richard Taylor**

Impacts of Deficit Reduction Proposals on North Dakota Farmers

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The Clinton Administration has prepared a spending reduction and tax increase plan to reduce the federal deficit. Most of the plan's proposals will be phased in during the next several years. The likely effects of these proposals on income of North Dakota farmers are discussed in this report.

The features of the plan likely to impact farmers are

1. A new energy tax.
2. Income tax changes.
3. Farm program provision changes.
4. Interest rate adjustments.

The features analyzed are from a Treasury Department summary of the Administration's economic plan.

New Energy Tax

The proposal would impose an excise tax on fossil fuels (coal, oil, natural gas) at a basic rate of 25.7 cents per million BTU plus a 34.2 cent per million BTU supplemental tax on oil. The tax would also be imposed on hydro and nuclear generated electricity and on imported electricity and other imported taxable products. Nonconventional fuels (including solar, geothermal, biomass, and wind), exported products, and nonfuel uses of fossil fuels would be exempt.

The tax would be phased in over a three-year period. Thus, the tax at one-third the proposed rates would apply, beginning July 1, 1994; two-thirds, beginning July 1, 1995; and the full rates effective July 1, 1996. All tax amounts would be indexed for inflation after 1997.

When fully implemented, the tax will increase gasoline costs by 7.5 cents per gallon and diesel and fuel oil prices by 8.3 cents per gallon. Electricity costs would increase about 3 percent.

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The energy tax will also increase the prices of fertilizer and pesticides because of the energy involved in their manufacture. The BTU tax will not likely apply to natural gas used as feedstock in fertilizer production. Based on fertilizer industry estimates of energy use, the impact on fertilizer prices would be:

	<u>Increased Costs</u>	
	<u>Ton of Material</u>	<u>Cwt. of N or P₂O₅</u>
Anhydrous Ammonia (82-0-0)	\$5.69	.3469
Urea (46-0-0)	5.03	.5470
Triple Super-phosphate (0-46-0)	1.30	.1410

The energy content in pesticides varies among formulations, but is small relative to the cost of the chemicals. The proposed BTU tax will add less than one percent to the cost of pesticides.

In addition to the direct costs, farmers will pay indirectly for the increased cost of transporting grain and livestock to the point of use. This cost tends to be passed on to farmers by a widening of the basis bids, which will lower the price received at the local market. The estimated reduction in local market prices from higher transportation costs to terminal markets amounts to 4.13 cents per hundred pounds for livestock and .97 cents per cwt. for crops assuming all cost increases are passed on to farmers.

Tax Changes

Individual Tax Rates

A new 36 percent income tax rate after 1992 is proposed on taxable income above the following amounts:

	<u>Income Above</u>
Married couples filing jointly	\$140,000
Heads of household	\$127,500
Single individual	\$115,000
Married, filing separate returns	\$70,000

(The 36 percent tax bracket, like other brackets, will be indexed in the coming years for inflation.)

Also, a 10 percent surtax will be applied to individuals with taxable income over \$250,000 (\$125,000 married filing separately). This would amount to a 39.6 percent marginal tax rate for taxable income above these taxable income levels.

Alternative Minimum Tax (AMT)

The alternative minimum taxable income is similar to the 1040 taxable income calculation except adjustments are made to deductions and tax preference items. Tax liability will be increased by the amount AMT is greater than income tax calculated without AMT. Different depreciation methods are required to calculate AMT. One of the Clinton Administration's AMT proposals is to require more conservative depreciation methods on certain items.

The Administration has proposed to increase the AMT rate from 24 percent to 26 percent on AMT income of less than \$175,000 and to 28 percent on AMT income greater than \$175,000. The proposed AMT income exemption amount may be increased from \$40,000 to \$45,000, if married filing jointly; from \$20,000 to \$22,500, if married, filing separately; and from \$30,000 to \$33,750, if single or head of household.

Investment Credit

Currently, there is no investment credit. However, two separate investment credits are proposed: one for small businesses with average annual gross sales less than \$5 million, and one for larger businesses with average annual gross receipts of more than \$5 million. The investment credit rules for small businesses would apply to most farms. The credit is similar to the investment credit that existed before the 1986 Tax Act. However, it applies only to the purchase of new, not used, machinery and equipment and does not apply to buildings or structural components of buildings.

Property with a depreciable life, for income tax purposes, greater than seven years qualifies for the entire regular rate of 7 percent; 7 year property qualifies for four-fifths of the regular rate; 5-year property qualifies for two-thirds of the regular rate; and 3 year property is eligible for one-third of the regular rate. The regular investment credit rate will be reduced to 5 percent for new purchases made after December 31, 1994.

The depreciable basis of the property will be reduced by the amount of the credit claimed. The credits will be subject to recapture rules for early disposal of property.

The investment credit will be subject to an annual cap, but before 1995, small businesses will have the option of electing the incremental investment tax credit that applies to large businesses. However, the incremental tax credit only allows credit on new investments above a base amount, calculated as a portion of a historical average annual total

(new and used) investment. With the incremental tax credit, credits would be subject to repayment if new investments dropped below the base.

Although the number of used machinery purchased has been greater than new units, the total dollars spent on new and used equipment has been similar. The over 500 farmers enrolled in the North Dakota Farm Business Management Education program spent about \$12.50 per acre on machinery purchases in 1990 and 1991. The investment credit on the \$6.25 per acre of new equipment would be 44 cents per crop acre at the 7 percent rate, assuming all new purchases had a life greater than 7 years for tax depreciation purposes. After 1994, the credit at the 5 percent rate would amount to 31 cents per crop acre.

Earned Income Tax Credit

Although the Administration proposes to increase the earned income credit, the details have not been presented. The earned income credit was designed specifically for low-income working families with children. Three credits are currently possible: the basic credit adjusted for family size, supplemental credit for workers with a child under one year, and credit for certain health care premium expenses. The maximum credits available in 1993 are \$1,511, \$388, and \$465, respectively.

Other Proposals

Elimination of the \$135,000 cap on earnings subject to medicare tax of 2.9 percent is proposed.

A tax exclusion of 50 percent on gains from the sale of small business stock held for a minimum of 5 years has been proposed. Certain activities, including farming, do not qualify as a small business for the capital gains exclusion.

The 25 percent deduction on health insurance as a business expense for self-employed individuals expired on July 1, 1992. The Administration has proposed to extend the deduction through December 31, 1993.

Impacts on Farmers

North Dakota farmers will be most affected by the proposed investment tax credit, extension of the health insurance deduction for the self-employed, and possibly the earned income credit. These tax law changes alone will increase after-tax income of many North Dakota farmers. Since a farmer purchases many used machinery items, the potential benefit of the investment tax credit was greatly reduced when purchases of used equipment were excluded.

Few farmers have taxable incomes high enough to be adversely affected by the proposed 36 percent income tax rate, 10 percent income tax surtax, and removal of the income cap that limits the medicare tax. Changes in the Alternative Minimum Tax (AMT) could have a modest negative impact. The proposed increase in the AMT tax rate and AMT income exclusion are about the same percent, but farmers with a high AMT income would be adversely affected.

Farm Program Changes

Cuts in farm program spending are also being proposed. The two main changes are to increase normal flex acres from their present 15 percent to 20 or 25 percent and to eliminate the 0-92 and 50-92 programs. The increased flex acres will directly affect nearly all North Dakota farmers while the 0-92 program will affect only those who have found the program advantageous in their operations. The cuts are anticipated to go into effect for the 1996 crop year.

The cost of increased flex acres depends upon the deficiency payment rate and the percent increase in flex acres. The percent of land required to be in the annual Acreage Conservation Reserve (ACR) also affects total deficiency payments and the absolute reduction in deficiency payments from higher flex acres. The Food and Agricultural Policy Research Institute at Iowa State University has projected both deficiency payments and ACR rates. The impact per base acre by crop is summarized in Table 1.

Table 1. Payment Per Base Acre of Wheat, Barley, Corn, and Oats Under Alternative Flex Acre Percentages

Item	Unit	Wheat	Barley	Corn	Oats
Payment yield	bu/acre	28.5	43.7	64.0	44.6
Deficiency payment rate ^a	\$/bu	.70	.21	.49	.23
Projected ACR ^a	%	5.0	7.5	7.5	0.0
Payment 15% flex acres	\$/base A	15.96	7.11	24.30	8.72
Payment 25% flex acres	\$/base A	13.96	6.19	21.17	7.69
Reduction in payment	\$/base A	2.00	.92	3.13	1.03

^aProjections by Food and Agricultural Policy Research Institute, Iowa State University, Ames.

Interest Rate Adjustment

Reduced interest rates for borrowers should be a significant payoff from a credible and effective deficit reduction program. The cost of servicing the federal government's debt also would decline as interest rates fell. Reductions in long-term rates would be greater than reductions in intermediate-term rates for two reasons. First, the longer the maturity on a loan, the more the interest rate charged embodies expectations about inflation rates during the time the loan is outstanding. (Continued large or growing deficits tend to create expectations that inflation may be used to make repayment of the debt easier, hence lenders add an inflation premium to interest rates charged to protect their rate of return on the loan.) Second, continued large deficits create upward pressures on interest rates as government borrowing competes with private credit demand. Lower interest rates or reduced upward pressure on interest rates would be a major benefit to agriculture since it is a capital-intensive business. Short-term interest rates assumably would not be appreciably affected as they are determined primarily by Federal Reserve monetary policies.

Financial markets have, thus far, given evidence of confidence that the president's proposed deficit reduction program has a reasonable chance to achieve its objectives. Interest rates on U.S. Treasury securities have fallen significantly since the presidential election--a decline many financial analysts have linked to the deficit reduction proposal.

U. S. Treasury interest rates form the base from which rates paid by agricultural borrowers are determined. Table 2 indicates three different interest rate scenarios that could logically result from implementing the deficit reduction program.

Interest rate adjustments are a major key to success for the deficit-reduction plan. It is believed that reducing the deficit relieves the upward pressure on interest rates. Low and stable interest rates will help to offset many of the negative effects that the increased tax part of the deficit-reduction plan will have on the health of the economy.

The impact on interest rates in Table 2 is based on three scenarios:

- 1) Interest rates will not change further because the bond market has already discounted for the anticipated benefits of the deficit-reduction package.
- 2) Once the deficit-reduction package is in place, the impact on long- and intermediate-term interest rates will be twice as great as expected in scenario 1 (i.e., the package is more successful in reducing the deficit than the market anticipates in scenario 1).
- 3) The deficit-reduction package is not passed, and interest rates revert to their November 1, 1992 levels.

Table 2. Anticipated Interest Rates (Treasury Yield Curve) and Basis Point^a Changes From Nov. 1, 1992, as a Result of the Proposed Deficit-reduction Plan

Scenario	20-Year		10-Year		3-Year	
	Rate	Basis Points Change	Rate	Basis Points Change	Rate	Basis Points Change
1	7.09	-53	6.28	-50	4.43	-37
2	6.56	-106	5.78	-100	4.04	-74
3	7.62	0	6.78	0	4.80	0

^aA basis point change is one/one-hundredth of a percentage point.

Interest rates may remain at their relatively low level and continue to adjust downward slightly as the details of the deficit-reduction plan evolve. At least two rounds of refinancing have occurred, with the real possibility of a third round occurring if rates continue to slide downward. This has reduced the debt-servicing requirement of debt holders.

If long-term rates stay low for an extended time, the debt-servicing requirements of consumers and businesses will continue to decrease. Over a three to four year period, a large percentage of old, "high-priced," fixed obligations will mature. As these are replaced by new, "lower-priced," fixed rate obligations, the negative impact high rates have on the economy's health will be reduced further.

A word of caution is warranted, however. If the Administration and/or the Congress water down the deficit reduction proposal if the U.S. economic performance is sufficiently weak so that deficit reduction targets are not met, financial markets, investors, and savers will all become more cynical about actually achieving deficit reduction. As a consequence, higher interest rates could result.

Representative Farm Impact

North Dakota farms vary greatly in the crops and livestock produced and in size and profitability. The effects of tax and farm program changes will differ among the state's diverse farms. Nevertheless, there is interest in the impact of the proposed changes on a representative North Dakota farm. A representative farm is defined as one that earns most of a family's income and raises the major crops and livestock produced in the state. Such a farm is larger than the average North Dakota farm because of the many part time or part

retirement operations in the state. The average North Dakota farm in 1991 had 1,224 acres (North Dakota Agricultural Statistics Service 1992).

Model Farm

The North Dakota Farm Business Management Education program operates a supervised farm record keeping program through instructors located at 22 schools throughout North Dakota (North Dakota Farm and Ranch Business Management 1991). For a study of farm size economies, the 1991 record summaries were divided into 8 size groups, based on gross cash income. One of the middle groups with gross cash sales between \$110,000 and \$140,000 will be used as the basis for development of a representative North Dakota farm. The 79 farms in this group produced more diverse crops and livestock than did individual farms. A farm was modeled by combining similar enterprises with the most popular ones on these farms. The model farm has the following characteristics:

Land: 1,800 acres: 790 owned, 1,010 rented

Livestock: 65 cow beef herd, calves backgrounded

Cropping:

	<u>Acres</u>
Wheat base	582
Barley base	205
Sunflowers	112
Hay	130
Summer fallow	<u>235</u> (excluding ACR)
Total tillable	1,264
Pasture	536
Net farm income in 1991	\$32,871
Machinery purchases	\$11,424
Debt: Long-term	\$112,840
Intermediate	50,544
Short-term	<u>23,861</u>
Total	\$187,245
Family living expenses	\$23,708
Income and social security tax	\$3,791
Off-farm income	\$8,735

The provisions of the budget deficit reduction proposal, when fully implemented in 1996, are imposed on the model farm situation. The changes in income and expenses as a result of the deficit reduction package are estimated to determine impacts on net farm income, family living costs, and income taxes paid. No other changes in either input costs or product prices are assumed.

Energy Tax

The energy tax will increase expenses for fuel, fertilizer, herbicides, and crop drying. Based on acres by crop and livestock numbers, the increases in production costs from the fully implemented energy tax would be

Farm expenses	
Fuel	\$690
Fertilizer	163
Herbicides	51
Crop drying	5
Utilities	<u>62</u>
Total Farm	\$971

Costs for household utilities and personal use of the automobile also would be increased. Estimates of the increases in personal expenses are

Home utilities	\$30
Personal auto gasoline	<u>54</u>
Total	\$84

The energy tax will also increase transportation costs for marketing crops and livestock. Part or all of these costs will be passed on to farmers as lower prices. If fully passed on to farmers, these costs would come to \$143 for crops and \$11 for livestock, for a total reduced income of \$154 from lower commodity prices for the model farm.

Income Tax Changes

The income tax change that would affect the model farm is the investment credit on new machinery purchases. Based on 1991 machinery purchases of \$11,424 and assuming 50 percent purchased new, the income tax savings would be

<u>Years</u>	<u>Rate of Credit</u>	<u>New Purchases</u>	<u>Income Tax Reduction</u>
1993-1994	.07	5,712	\$400
After 1994	.05	5,712	\$286

Farm Program Changes

The impact of the proposal to increase flex acres depends upon the size of a farm's wheat and feed grain bases and the profitability of crops produced on flex acres. Wheat and barley production are assumed for the model farm's additional flex acres. The impact of an increase in flex acres from 15 percent to 25 percent would be

Crop	Payment Acres Reduction	ASCS Yield	Deficiency Rate	Reduced Government Payments
Wheat	58.2	28.5 bu/a	\$.70	\$1,161
Barley	20.5	43.7 bu/a	\$.21	\$ 188
Total				\$1,349

An increase to 20 percent flex acres would simply reduce the figures by one-half. Although eliminating the 0-92 option will adversely affect some farms, the model farm assumably will not be affected.

Interest Rate Reduction

Based on the outstanding debts and annual operating capital needs of the model farm, the impact of alternative interest rate reduction scenarios would be

Debt	Amount	Percent at a Variable Rate	Scenario 1		Scenario 2	
			Rate Reduction	Amount	Rate Reduction	Amount
Long-Term	\$112,840	67	.53	\$401	1.06	\$ 802
Intermediate	50,544	67	.37	\$125	.74	\$ 250
Total				\$526		\$1,052

Total Impact

The proposed budget deficit reduction plan will require financial sacrifices of most citizens. When this plan is fully implemented in 1996, its effects on the representative North Dakota farmer will be as follows:

Energy tax	
Farm expenses	(\$971)
Home expenses	(84)
Transportation	(154)
Income tax	
Investment credit	286
Farm program	
Flex acres at 20%	(675)
Flex acres at 25%	(1,349)
Interest rate adjustment	
Scenario 1	526
Scenario 2	1,052

The total impact under the two flex acre assumptions and two interest rate adjustments are

Flex Acres Increase	Interest Rate Scenario	
	Two	One
To 20 percent	(546)	(1,074)
To 25 percent	(1,220)	(1,748)

Other Farms

The deficit reduction proposal impacts on the representative farm cannot be directly generalized for all farms. The energy tax and farm program proposals would tend to vary directly with farm size if one assumes the mix of crops and livestock produced remained constant.

Proposed income tax changes, on the other hand, will have effects that differ greatly among farms of differing size and profitability. The proposed 36 percent tax on incomes above \$140,000 (married couple) will negatively impact the more profitable farms. Low income farm families will benefit from the increase in the earned income credit. Investment credit would be most beneficial to operators of larger and more profitable farms, because these farmers tend to purchase new equipment and have tax liabilities which an investment credit can offset. Smaller and less profitable farm operators rely more on used equipment and often have tax liabilities insufficient to use the investment credit generated.

Interest rate adjustments depend on the intensity of capital use and on the debt position of the farmer. Farmers with large variable rate debts obviously benefit the most from lower interest rates. Lower interest rates could negatively impact farmers with little debt and money invested in financial instruments.

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