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Department of the Treasury -- Internal Revenue Service
 Form **1040** **U.S. Individual Income Tax Return** **1996** IRS Use Only -- Do not write or staple in this space.
 For the year Jan. 1-Dec. 31, 1996, or other tax year beginning , 1996, ending , 19 OMB No. 1545-0074

Use the IRS label. Otherwise, please print or type. LABEL HERE

Your social security number _____
 Spouse's social security no. _____

Note: Checking "Yes" will not change your tax or increase your refund.

Presidential Election Campaign _____

Filing Status _____

Check only one box.

Exemptions

6a. _____

b. _____

c. Dependents:

(1) First name	Last name	(2) Relationship to you	(4) No. of mos. lived in home in 1996

If more than six _____

No. of boxes checked on lines 6a and 6b _____

No. of your children on line 6c who:

- lived with you _____
- did not live with _____

Overhauling the Federal Tax System

Do Farmers Gain?

by Marvin Duncan, Won W. Koo, and Richard D. Taylor

What began as quiet opposition to local property tax increases in many parts of the United States has, in the past decade, become a wave of protest against taxation of all kinds. More recently that opposition has focused on the federal tax system. The rallying cry is that tax burdens borne by ordinary citizens and by business persons are strangling economic initiative and growth in this country. Apart from the reality, which is that U.S. citizens enjoy one of the lowest overall tax burdens among the world's industrialized countries, the rhetoric favoring lower taxes and federal tax reform appears to be both strong and bipartisan.

A flat tax to replace the current income tax code has been proposed in 1996 by a number of presidential hopefuls, members of the Congress, and others, who believe the current system has become excessively complex, unfairly tilted in favor of those who can afford expensive tax preparers, and a serious drag on the performance of the U.S. economy. Public opinion has divided along a tax policy fault line separating those who support a flat tax approach and those who oppose it.

Committees of the U.S. Congress—the U.S. House of Representatives Subcommittee on Taxation and Finance of the Committee on Small Business, and the U.S. Senate Committee on Finance—have held hearings to better understand the nature of a flat tax and its incidence in 1995. Not unexpectedly, witnesses did not all agree on the need for a wholesale overhaul of the federal tax system, although nearly all favored simplification as compared to the current tax code. Some witnesses strongly supported the concept of a flat tax, while

others were cautionary about its actual impact if implemented.

A number of analyses have evaluated the flat tax impact on the general economy. On the one hand, lower marginal tax rates should encourage a taxpayer to substitute more work hours for leisure time, because leisure time is now more expensive. On the other hand, lower marginal tax rates enable a taxpayer to achieve a targeted level of income by working fewer hours. James A. Fellows supports the concept of a flat tax but has doubts about whether such a tax would really spur much greater business investment, and, hence, economic growth, since the work/leisure substitution effect and the income effect of lower taxes are likely to be largely offsetting. Christopher Farrell argues that the transition to a flat tax would be very disruptive to the economy, so much so that there might be no long-term positive payoff.

Flat tax ideas are still largely in the conceptual stage, with many variations being discussed. All share the goal of reducing the number of tax brackets (the progressiveness of the tax system), limiting deductible expense items, easing the tax reporting burden, and lowering the tax payments of most Americans. The effect of the Arme/Shelby proposal is analyzed in this article since that proposal has been introduced into each house of the U.S. Congress and, thus, represents a detailed proposal. Irrespective of whether other flat tax proposals are later introduced, it is likely most will share the general direction of this proposal.

The impact of a flat tax on the U.S. farm economy is unknown. Here we evaluate the impact

of the Arme y/Shelby flat tax proposal on representative farms in North Dakota. Specifically, we estimate differences in federal tax liability and social security tax liability for the representative farms over a 1996–2003 planning horizon under both the Arme y/Shelby bill and the current federal tax code.

The flat tax proposal

In 1995, Congressman Richard Arme y and Senator Richard Shelby introduced their flat tax proposal into the U.S. Congress. They called it the Freedom and Fairness Restoration Act. Its key features include a 17 percent tax rate on all taxable income, an end to depreciation of capital purchases with an extended life, an end to deductibility of business interest expenses, and an end to homeowner's mortgage interest deductibility. Property taxes, and most other taxes, are not deductible under the flat-tax proposals. In turn, current individual and corporate taxes and estate and gift taxes would be replaced with a flat 17 percent tax that would apply to wage and pension distribution and net taxable income of businesses. A substantial increase in standard deductions would be provided for all filers: \$10,700 for single filers, \$21,400 for joint filers, \$14,000 for head-of-household filers, and an additional \$5,000 standard deduction for each dependent. Finally, their proposal would provide unlimited carryover of capital purchase expenses, including land, that could not be fully deducted from income in the year of purchase.

Representative farms and other assumptions

Our analysis uses representative farms developed from business records of 536 farm and ranch members of the North Dakota Farm and Ranch Business Management Association farm records program (Duncan, Koo, and Taylor). These farms and ranches represent a cross section of largely commercial-scale farms and ranches from across the state. We developed and categorized farms by size—large, medium, and small. Our representative large farm used the average characteristics of the top 25 percent of the farms sorted by crop acreage. Our medium farm used averages from the middle 50 percent of the farms by crop acreage, and our small farm used averages from the 25 percent smallest farms by crop acreages. Our large representative farm cropped 2,358 acres, our medium farm, 1,182 acres, and our small farm, 475 acres. Because of the relatively large number of farms and ranches used in developing the three representative farms, it seems likely that the analysis we present will have applicability across the Northern Plains states.

Depreciation under the current tax code was calculated by first expensing in the year of purchase

up to \$17,500 of net current capital purchases. The net balance of capital purchases was then added to the next year's beginning inventory balance. The total inventory was depreciated over a seven-year period for machinery and equipment and over twenty years for buildings and improvements.

For the flat tax proposals, all capital purchases (equipment, machinery, buildings, and improvements) were expended in the year of purchase up to the amount of taxable income. Capital purchase balances in excess of taxable income in the year of purchase were carried forward into subsequent years. We assumed that no land purchases were made during the forecast period, although land under the Arme y/Shelby flat tax proposal, if purchased, would be expensed like other capital purchases.

Tax liabilities were calculated for each representative farm under both the current tax code and the 17 percent flat tax. The 17 percent flat tax, when applied nationally, is expected to result in a \$138.3 billion loss of federal government revenue according to the Office of Tax Analysis in the U.S. Treasury Department. They indicate that the flat tax would need to be 20.8 percent under the Arme y/Shelby proposal in order to raise as much revenue as the current tax code raises. Therefore, in our analysis we have determined the tax liability for our representative farms under both 17 percent and 20.8 percent flat taxes using the assumptions of the Arme y/Shelby proposal, and also the tax liability under the current tax code.

We used the North Dakota Farm Price Model and the Food and Agricultural Policy Research Institute (FAPRI) commodity price forecasts to estimate crop commodity prices in North Dakota over the 1996–2003 period. The crop commodity prices are adjusted for projected inflation over the forecast period with the same rate of inflation used in the FAPRI forecasts. Operating expenses are assumed to adjust by the same projected rate of inflation; hence, net income is also inflation adjusted. Those prices were then used in the North Dakota Representative Farm Model to estimate net farm income for our representative farms, changes in tax levels as farm product prices change, and tax liabilities under the Arme y/Shelby proposal and the current tax code.

In our analysis we made these additional assumptions for the forecast period: (a) constant net farm income from livestock and other noncrop enterprises, (b) constant enterprise size, (c) constant business practices such as inventory changes, accounts payable, and prepaid expenses and supplies, (d) identical crop mix and commodity prices for all farms, and (e) unchanging yield differentials across the representative farms.

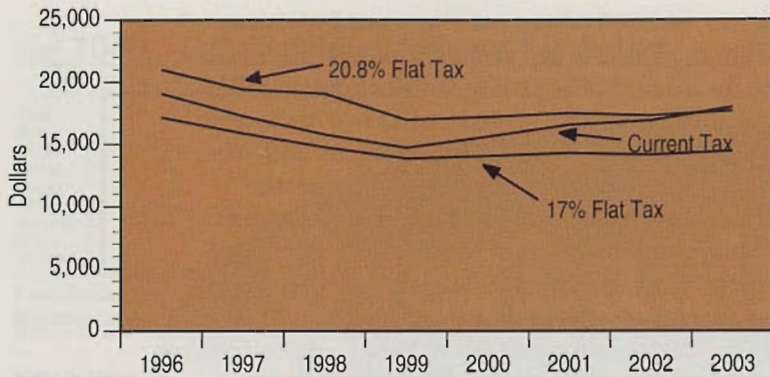


Figure 1. Federal income tax for North Dakota large-size representative farm

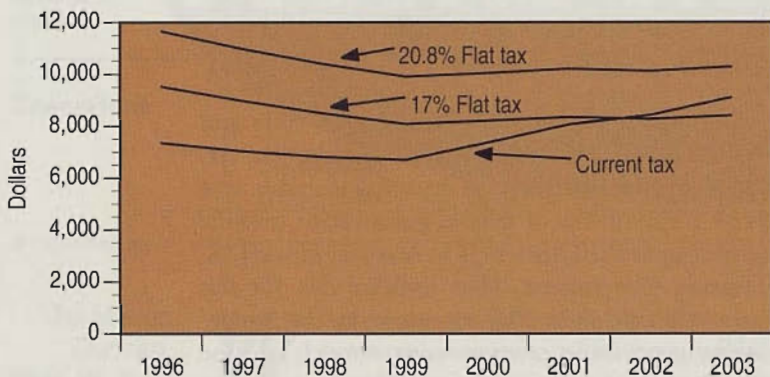


Figure 2. Federal income tax for North Dakota medium-size representative farm

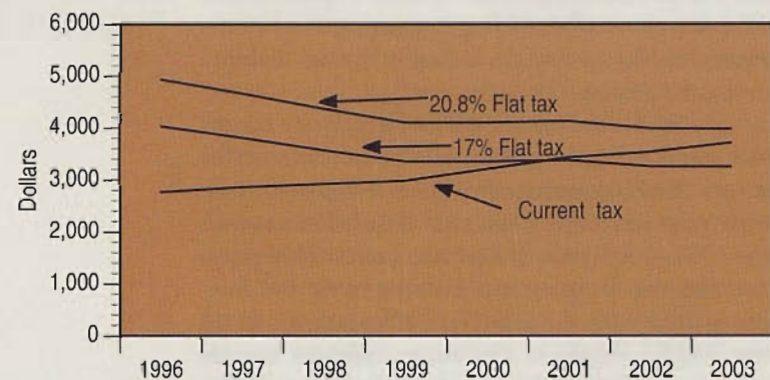


Figure 3. Federal income tax for North Dakota small-size representative farm

Flat tax effects

Figures 1, 2, and 3 show the pattern of federal tax liabilities for different-size North Dakota representative farms over the forecast period. After 1999, taxes under current law increase and taxes under flat tax scenarios stop their general decline for all farms except the small-size farm, because higher farm product prices raise net taxable farm income. In the large-size farm scenario, the 17 percent flat tax results in federal tax savings across the forecast period. In both the medium- and small-size farm scenarios, the 17 percent flat tax results in higher federal tax burdens over most of the forecast period. If the 20.8 percent flat tax is used, all three sizes of representative farms experience higher federal tax burdens than would occur under the current tax code. Differences between depreciation allowed under the current tax code and expensing of capital purchases under the flat tax proposal cause most of the differences in tax liabilities. Depreciation allowed under the current tax code is larger than the expensing of capital purchase under the flat tax proposal in the earlier years of the forecast period. However, depreciation decreases throughout the forecast period under the current federal tax code, while expensed capital purchases were assumed to increase at the same rate of inflation used to project crop commodity prices under the flat tax proposal. Annual capital purchases are assumed to equal historical capital purchases plus a 2.6 percent adjustment per year to reflect expected price increases as a result of price inflation. The FAPRI price forecasts are based in part on that same annual inflation rate over the forecast period. Under the Armev/Shelby flat-tax proposal, all undepreciated balances of capital investment at the time the flat tax becomes effective are lost to further depreciation. There is no provision for a transition over time to the new flat tax system.

When social security tax liability is also taken into account, the increase in total federal tax burden becomes even more pronounced. The flat tax proposals result in higher taxable income and higher social security tax liability for all but the large-size representative farm, which already pays maximum social security taxes. Figure 4 illustrates the total tax increases (federal income plus social security taxes) experienced by the large-, medium-, and small-size representative farms under both the 17 percent and the 20.8 percent flat tax scenarios.

Shifting from the present federal tax code to the flat tax proposed under the Armev/Shelby proposal will have differential impacts on the profitability and survivability of farms. Small farms appear to fare less well than large farms, especially when accounting for social security taxes in addition to income taxes.

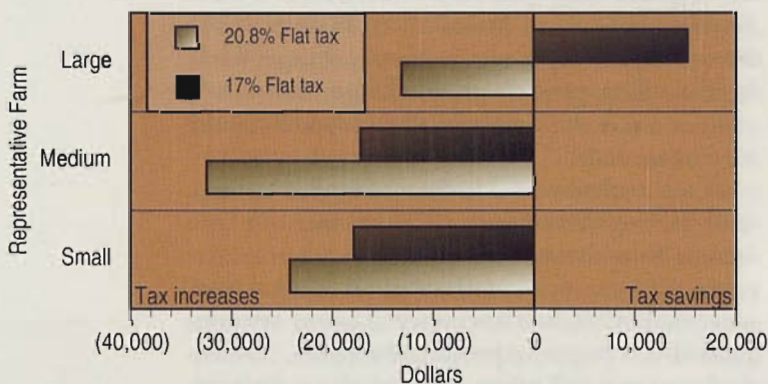


Figure 4. Differences in combined federal income and social security tax liability between the current tax code and the flat tax proposals for representative farms by size. Sums over the forecast period, 1996-2003.

A flat tax approach that eliminates deductibility of interest expenses, even though it provides unlimited carryover of capital purchase expenditures, seems certain to change the way in which farmers exercise control over their farm businesses. Purchasing land and large equipment on credit will decline in popularity. Instead, farmers will rent and lease more to control farm land, specialized production facilities, and expensive farm equipment. Since debt carrying costs are implicitly included in equipment and facility leasing costs, lease financing may increase in popularity among farmers. This assumes, of course, that lease financing costs remain fully deductible from income for federal tax purposes, as they are now. Many agricultural lenders offer both debt financing and lease financing services to their customers and are likely to support full deductibility of lease finance costs.

Under a federal flat tax system, state income tax laws may require substantial revision. Many state tax laws currently are integrated with federal tax laws. Thus, dramatic changes in the federal approach may trigger unexpected and perhaps undesirable changes in the amount of revenue raised and the incidence of tax burden under current state laws.

Despite hopes for simplification of the tax code under a flat tax (remember the promise of a federal tax return the size of a postcard?), the initial result of a flat tax could be greater, rather than less, uncertainty over what qualifies as a deductible expense for tax purposes (McNair). Until a number of key tax rulings by the Internal Revenue Service and new case law from the federal court system are established, one cannot expect the clarity of interpretation and simplicity of filing tax returns that flat tax proponents have promised.

In summary, differences between depreciation allowed under the current tax code and expensing of capital purchases under the flat tax proposal account for most of the differences in tax liabilities under the current federal tax code and the Armeiy/Shelby flat tax proposal. The federal income tax savings for North Dakota representative farms from a 17 percent flat tax are much more limited than is typically thought to be the case. In fact, savings, compared to the current tax code, occur only for the large-size representative farm. The medium- and small-size representative farms would pay higher federal taxes. Moreover, revenue neutrality would be an important consideration in adopting a flat

tax. That apparently would require a 20.8 percent flat tax, under which all three sizes of farms pay higher federal taxes than under the current federal tax code. ■

■ For more information

Armeiy, R. *Freedom and Fairness Act of 1995*, 104th Congress, 1st Session, H.R. 2060, 19 July 1996.

Duncan, M., W.W. Koo, and R.D. Taylor. *Impacts of the Armeiy and Shelby Flat Tax Proposal on North Dakota Representative Farms*. Dept. Agr. Econ. AE 96004, North Dakota State University, 26 March 1996.

Farrell, C. "A Flat Tax Is Flat-Out Risky." *Business Week*, 19 February 1996, pp. 80-81.

Fellows, J.A. "A Conceptual Analysis of the Flat Tax." *CPA Journal*, July 1995, pp. 18-22.

McNair, W.N. "The Flat Tax May Not Be the Answer." *Journal of Accountancy*, March 1996, letters section, p. 10.

National Commission on Economic Growth and Tax Reform. *Unleashing America's Potential*. Washington DC, January 1996.

Office of Tax Analysis. "New Armeiy Shelby Flat Tax Would Still Lose Money, *Tax Notes*, Treasury Finds." U.S. Treasury Department, Washington DC, 22 January 1996, pp. 451-61.

Shelby, R., L.E. Craig, and J. Helms. *Freedom and Fairness Restoration Act of 1995*, 104th Congress, 1st Session, S.R. 1050, 19 July 1995.

U.S. House of Representatives, Subcommittee on Taxation and Finance. *The Flat Tax and Small Business. Hearing before the House Subcommittee on Taxation and Finance of the Committee on Small Business*, 104th Congress, 1st Session, 18 May 1995.

U.S. Senate, Committee on Finance, *Flat Tax Proposals: Hearings before the Senate Committee on Finance*, 104th Congress, 1st Session, 5 April and 18 May 1995.

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