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Prospects of congress passing some form of the proposed tobacco settlement are diminishing rapidly. In lieu of the proposed settlement many close to the legislative process think that the federal excise tax on cigarettes may be increased substantially, perhaps by as much as $\$ 1.50$ per pack. Should such a large increase in cigarette taxes occur, what would be the effect at the farm level? Obviously if the cigarette tax increase results in a decline in US cigarette consumption, demand for US burley and flue-cured tobacco will be adversely impacted. Under the current tobacco program this decline in US cigarette consumption would be reflected in lower marketing quotas and a consequent decline in farm revenues from tobacco. Tobacco growers and quota owners are seeking compensation for damages from any comprehensive tobacco legislation such a settlement or tax increase. Senator Richard Lugar introduced a bill in the fall of 1997 that would provide compensation, but would also eliminate the tobacco program. A second question is then what might be the farm level effects of simultaneously increasing the federal excise tax on cigarettes and eliminating the tobacco program?

## Effects of a cigarette tax increase under the current tobacco program

Tables 1 and 3 give the potential long-term effects of a $\$ 1.50$ per pack increase in the federal excise tax on cigarettes on annual use of US flue-cured and burley tobacco if the current tobacco program remains intact. Price remains at its current level in this scenario since the tobacco program maintains a floor under market prices by increasing or decreasing the marketing quotas in response to changes in demand. Total annual sales quantities of flue-cured tobacco would be expected to decline between 9 and 19 percent. Total annual sales quantities of burley tobacco would be expected to decline between 11 and 23 percent. All of the decline would result from decline in purchases of US tobacco by US cigarette manufacturers of between 15 and 33 percent. Unmanufactured exports of US tobacco would be unaffected by the tax increase since the price of US tobacco would not change under the current tobacco program.

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Tables 2 and 4 give the potential effects of a $\$ 1.50$ per pack tax increase on farm revenues from tobacco and income from ownership of quota under the current tobacco program. As with annual sales quantities, gross farm revenues from tobacco sales would fall between 9 and 19 percent for flue-cured tobacco and between 11 and 23 percent for burley tobacco. Quota income on a pound of tobacco is the difference between the price received for the tobacco and the total economic cost of producing a pound of tobacco (less the cost of quota). Since the tobacco program elevates the price of US tobacco in the world market by restricting production and sales of US tobacco via the marketing quotas, quota is an income producing asset. Under the current tobacco program, a $\$ 1.50$ per pack increase in cigarette taxes would be expected to reduce income from quota by 2 to 6 percent in the case of fluecured tobacco, but no reduction is expected in the case burley. The reason quota declines less than gross revenues and sales quantities is that the annual return per pound of quota increases as quota declines and becomes scarcer.

## Effects of a cigarette tax increase and elimination of the tobacco program

Tables 5 and 6 show the potential long term effects of both increasing the federal cigarette tax by $\$ 1.50$ per pack and eliminating the current tobacco program. Since the primary mode of operation of the tobacco is to restrict the amount of tobacco that can be grown and sold, elimination of the marketing quota system will result in an overall expansion of tobacco production and a reduction in the farm price of tobacco. After an adjustment period, price per pound would likely fall over 25 percent in the case of flue-cured tobacco and over 20 percent in the case of burley tobacco. Total US production of flue-cured tobacco would expand between 20 and 75 percent, with the most likely scenario being expansion of 40 to 50 percent. Whether or not US burley tobacco would expand or contract is difficult to predict. Forecasts of percentage changes in the quantity of burley tobacco produced range from a decline in production of 14 percent to an increase in production of 7 percent.

Table 7 shows the potential changes in gross farm revenues from tobacco sales for burley and flue-cured tobacco. Forecasts of changes in gross revenues from the sale of flue-cured tobacco range from -4 percent to +29 percent. Gross revenues from the sale of burley tobacco would decline between 20 and 30 percent. With the elimination of the tobacco program, all quota income would be transferred to cigarette manufacturers or smokers via lower tobacco prices. As a result the value of quota as an asset would fall zero.

Some of the most dramatic changes with elimination of the tobacco program would be changes in location of tobacco production and changes in numbers of tobacco farmers. Burley production would exit the Appalachian region due to high production costs, but could expand in central Kentucky and central Tennessee. Burley expansion in central

Kentucky and Tennessee could be limited if the piedmont of North Carolina and Virginia began producing burley tobacco instead of flue-cured. Flue-cured production would decline in the piedmont of North Carolina and Virginia, but expand in the coastal plain of North and South Carolina, as well as in south Georgia and north Florida. While highly uncertain, tobacco production could expand to areas not currently producing tobacco. The current tobacco program limits consolidation of farms and tends to preserve small farms because quota (and thus tobacco production) can not be sold or rented across county lines (Tennessee is the exception). Elimination of the tobacco program would result in much greater consolidation of tobacco farms and a large net exit of tobacco farmers despite a possible expansion of overall production. The reduction in number of farms would be particularly notable in regions where farm size is smallest, such as the Appalachian region in burley production and the piedmont of North Carolina and Virginia in flue-cured production.

Table 1. Flue-Cured Tobacco Price and Annual Use in Response to a $\$ 1.50$ per

Pack Increase in Cigarette Price Under Current Tobacco Program

|  | Price <br> $\$ / l \mathrm{~b}$ | Annual Total <br> Disappearance | Domestic <br> Disappearance | Unmanufactured <br> Exports |
| :---: | :---: | :---: | :---: | :---: |
| Initial <br> Levels | $\$ 1.73$ | 890 | 510 | 380 |
| Best <br> Case | $\$ 1.73$ | 813 | 434 | 380 |
| Worst <br> Case | $\$ 1.73$ | 723 | 343 | 380 |

Table 2. Effects on Flue-Cured Tobacco Sales, Annual per Pound Return to Quota, and Income from Quota of a $\$ 1.50$ per Pack Increase in Cigarette Prices Under the Current Tobacco Program

|  | Tobacco Sales <br> (million \$) | Annual Return <br> to Quota | Income from Quota <br> (million \$) |
| :--- | :---: | :---: | :---: |
| Initial Levels | 1540 | $\$ 0.40 / \mathrm{lb}$ | 356 |
| Best Case | 1406 | $\$ 0.43 / \mathrm{lb}$ | 349 |
| Worst Case | 1250 | $\$ 0.46 / \mathrm{lb}$ | 334 |

Table 3. Burley Tobacco Price and Annual Use in Response to a $\$ 1.50$ per Pack

Increase in Cigarette Price Under Current Tobacco Program

|  | Price <br> $\$ / l \mathrm{~b}$ | Annual Total <br> Disappearance | Domestic <br> Disappearance | Unmanufactured <br> Exports |
| :--- | :---: | :---: | :---: | :---: |
| Initial <br> Levels | $\$ 1.85$ | 583 | 409 | 174 |
| Best <br> Case | $\$ 1.85$ | 522 | 348 | 174 |
| Worst <br> Case | $\$ 1.85$ | 449 | 275 | 174 |

Table 4. Effect on Burley Tobacco Sales, Annual per Pound Return to Quota, and Income from Quota of a $\$ 1.50$ per Pack Increase in Cigarette Price Under the Current Tobacco Program

|  | Tobacco Sales <br> (million \$) | Annual Return <br> to Quota | Income from Quota <br> (million \$) |
| :--- | :---: | :---: | :---: |
| Initial Levels | 1079 | $\$ 0.30 / \mathrm{lb}$ | 175 |
| Best Case | 965 | $\$ 0.34 \mathrm{lb}$ | 179 |
| Worst Case | 830 | $\$ 0.39 \mathrm{lb}$ | 175 |

Table 5. Flue-Cured Price and Annual Disappearance After a $\$ 1.50$ per Pack Increase in Cigarette Price and Elimination of the Tobacco Program

|  | Price | Annual Total <br> Sales Quantity | Domestic Use | Exports |
| :--- | :---: | :---: | :---: | :---: |
| (million lbs) |  |  |  |  |
| Initial | $\$ 1.73$ | 890 | 510 | 380 |
| After <br> Deregulation | $\$ 1.30$ <br> to <br> $\$ 1.25$ | 1,083 <br> to <br> 1,588 | 420 <br> to <br> 580 | 663 <br> to <br> 1,008 |

Table 6. Burley Price and Annual Disappearance After a $\$ 1.50$ per Pack Increase In Cigarette Price and Elimination of the Tobacco Program

|  | Price | Annual Total <br> Sales Quantity | Domestic Use | Exports |
| :--- | :---: | :---: | :---: | :---: |
| (million lbs) |  |  |  |  |
| Initial | $\$ 1.85$ | 583 | 409 | 174 |
| After <br> Deregulation | $\$ 1.50$ <br> to <br> $\$ 1.40$ | (to <br> to <br> 622 | 280 <br> to <br> 358 | 223 <br> to <br> 264 |

Table 7. Effect on Tobacco Sales, Annual Per Pound Return to Quota, and Income from Quota of a $\$ 1.50$ per Pack Increase in Cigarette Prices With Elimination of the Tobacco Program

|  | Flue-Cured Tobacco <br> Sales | Burley Tobacco <br> Sales |
| :--- | :---: | :---: |
| (million \$) |  |  |
| Initial Levels | 1,540 | 1,079 |
| After Tax and <br> Deregulation | 1,480 to 1,985 | 755 to 871 |

