REPLY: A THEORETICAL FRAMEWORK FOR ANALYZING SOCIAL COSTS OF THE TOBACCO PROGRAM

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The authors commend Stennis and Fuller for their in-depth examination and comment. Such close scrutiny and refinement are essential in bridging the gap between the theoretical model and its empirical application to policy issues. In much of welfare economics the necessary simplification and abstraction from reality of the theoretical model prohibit its use in the direct measurement and quantification of social costs and benefits. Nevertheless, the theoretical model serves a purpose in analyzing the problem at hand and in comparing relative costs and benefits of alternative policy strategies. The purpose in presenting the theoretical model was to show how one might go about comparing the present tobacco program with a policy option that would abolish price supports and output restrictions and presenting the calculations for illustrative purposes only.

Stennis and Fuller show that the model is extremely sensitive to changes in the demand elasticity used in the calculations. The authors concur on this point and acknowledge that changes either in the demand or supply elasticities will affect the results of the model. As mentioned in the paper, we recognize that the farm-level demand elasticity (derived demand) is necessarily more inelastic than the corresponding demand elasticity at the retail level. However, the overall conclusion reached by both the authors and Stennis and Fuller is that, under the assumptions of the model, the effect of the tobacco program is a net reduction in social costs. A determination of the amount of the reduction requires additional empirical investigation both as to the accurate determination of the elasticities of demand and supply to be used and the methodology for measuring social costs associated with tobacco.

The authors thank Stennis and Fuller for calling attention to the omission in noting that pounds of tobacco produced are reported in thousands.

Their mention of the taxation on tobacco is well taken. The reported theoretical model could be further developed to incorporate and recognize the tobacco taxation issue. In addition, further development in this policy area might consider the income distribution effects of the tobacco program. Such a model, as further developed and refined, could also be applied to products or commodities other than tobacco for which it can be shown that social costs are not fully incorporated in the supply curve. The net effect upon social costs of output restriction, taxation, or price supports could then be determined.

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