Prepared Remarks at the American Cancer Society's Press Conference on the Proposed Tobacco Industry-Wide Resolution Washington DC, July 24, 1997[1]

Jeffrey E. Harris MD Ph.D.[2]

It has been widely reported that U.S. cigarette manufacturers will be required to pay a total of $368.5 billion during the first 25 years of the tobacco industry-wide Proposed Resolution.[3] This characterization of the settlement payments, however, substantially overstates the real value of the amounts that will actually be paid.

- The reported 25-year total of $368.5 billion does not take into account the "*adjustment for volume*" provision in the Proposed Resolution.[4] This provision essentially pegs all payments to the volume of cigarettes sold, and therefore renders the payment scheme equivalent to a unit tax on cigarettes. As the Proposed Resolution contemplates,[5] this virtual tax will be passed on to consumers in the form of higher prices. As a result, the volume of cigarettes sold will decline, and therefore total industry payments will decline, too.

- Based on a conservative economic model of the relation between cigarette consumption and cigarette prices,[6] I estimate that the real price of a pack of cigarettes (in 1996 dollars) will rise by $0.41 in the initial settlement year. Equivalently, the Proposed Resolution will impose a virtual tax of $0.41 per pack in 1996 dollars at the outset. This virtual tax will gradually increase to $0.62 per pack (in 1996 dollars) by the fifth settlement year, and remain at that level indefinitely.

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[1] Hogan and Hartson, 555 13th Street NW, Market Square, 9th Floor.

[2] The views expressed here are those of the author. They do not necessarily represent the position of the Massachusetts Institute of Technology or the Massachusetts General Hospital.

[3] "Proposed Resolution: For Settlement Discussion Purposes Only. 6/20/97, 3:00 p.m. DRAFT." 68pp.

[4] "Proposed Resolution… Title VI, B5," at p. 34.

[5] "Proposed Resolution…Title VI, B7," at p. 35.

[6] See Harris, J.E. "Comments on: *Proposed Resolution: For Settlement Discussion Purposes Only. 6/20/97, 3:00 p.m. DRAFT." 68pp.*" Commissioned by the American Cancer Society, June 26, 1997. My model assumes that current price elasticity of demand is -0.4, and that, even in the absence of price increases, cigarette consumption will decline at a background rate of 0.6% annually.

- If the virtual tax is fully passed on to American smokers, as I expect it will, then total U.S. cigarette consumption will fall from 24.2 billion packs annually to 22.3 billion pack in the base year of the settlement, and continue to decline gradually to 18.4 billion packs by the 25th year. Applying the volume adjustment provision, I estimate that the face value of industry payments would amount to $304.3 billion over 25 years.[7]

- The face value of industry payments, however, does not reflect their *present discounted value*, that is, the amount that investors would be willing to pay today for a portfolio of 25-year corporate bonds that promised to pay exactly what the Proposed Resolution mandates. Based on an interest rate comparable to the long-term rates on corporate bonds and U.S. Treasury obligations, I estimate that the present discounted value of volume-adjusted industry payments would be $194.5 billion over 25 years.[8]

The Proposed Resolution imposes financial penalties on cigarette manufacturers if the proportion of 13- to 17-year-olds who smoke cigarettes every day does not reach specified target levels within 5 to 10 years.[9] While economic research suggests that teenagers' smoking rates may be especially responsive to price, the increase in cigarette price anticipated from the Proposed Resolution would be insufficient by itself to reach the specified targets.

- Based upon my analyses of data from the University of Michigan's "Monitoring the Future" Study, I estimate that the "base percentage" of underage daily smokers (that is, the 1986–1996 historical average) is 15.2%.[10] Hence, the five-year goal of a 30% reduction in underage smoking prevalence would mean a target rate of 10.6% daily smokers. This

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[7] This computation does not include the drop in Federal excise tax revenues and state excise and sales tax revenues on cigarettes that would result from falling cigarette consumption. For example, even if states raised their excise and sales taxes to keep pace with inflation, the loss in state revenue would have a face value of $43.2 billion over 25 years.

[8] My calculations of present discounted value took into account the "inflation protection" provision (Title VI, B.4) of the Proposed Resolution.

[9] See Appendix V of the Proposed Resolution.

[10] See *"Monitoring the Future" Study. Cigarette Statistics Table 1: Long-Term Trends in Prevalence of Cigarettes for Eighth, Tenth, and Twelfth Graders.* Ann Arbor: Univ. Michigan, 1997. I estimate the base percentages to be: 8.5% for 8th graders; 14.7% for 10th graders; and 19.2% for 12th graders. The population-weighted average, as specified in Appendix V, A.1 of the Proposed Resolution, would then be 15.2%.

target actually amounts to a 58% reduction from the current 1996 prevalence of 18.2% among eighth- to twelfth-graders.[11]

- Based upon the most recent economic research on the responsiveness of youth smoking to increases in cigarette prices,[12] I estimate that the expected $0.62 increase in the real price of cigarettes would translate into an 18% reduction in teenage smoking from its 1996 level, that is, to about 14.9% daily smokers, which is well above the calculated target rate of 10.6% daily smokers.[13]

I compared the effect of the Proposed Resolution on cigarette consumption and governmental revenues with that of an inflation-adjustable increase in the Federal excise tax on cigarettes. A $1.00-per-pack tax, levied by Congress in the base year and adjusted to keep pace with inflation, would yield approximately 60% more revenues over 25 years than the Proposed Resolution. An inflation-adjusted $1.50-per-pack tax would yield more than twice the revenues expected from the Proposed Resolution. A $1.50-per-pack price increase, I estimate, would be sufficient by itself to reduce the 13- to 17-year-old daily smoking rate to the target level contemplated by the Proposed Resolution.

- If Congress raised the cigarette excise tax by $1.00 per pack and periodically revised the tax to keep pace with inflation, then the face value of industry payments would be $480.1 over 25 years, as compared to $304.3 billion under the Proposed Resolution. The present discounted value would be $314.4, as compared to $194.5 billion under the Proposed Resolution. By year 25, total U.S. cigarette consumption would be 17.1 billion packs, as compared to 18.4 billion under the Proposed Resolution. The daily smoking rate among

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[11] The 1996 rates of daily smoking in the "Monitoring the Future" Study were: 10.4% for 8th graders; 18.3% for 10th graders; and 22.2% for 12th graders. The population-weighted average, as specified in Appendix V, A.1, would then be 18.2% for 1996.

[12] See Chaloupka FJ, Grossman M. "Price, Tobacco Control Policies and Youth Smoking," Working Paper No. 5740. Cambridge MA: National Bureau of Economic Research, Sept. 1996. These authors estimated the "participation price elasticity," which captures the effect of price on the proportion of youth who smoke, to be -0.6. The "overall price elasticity," which also includes the effect of price on the number of cigarettes that youth smokers consume, was estimated to be -1.3.

[13] Under the surcharge provisions of Appendix V, the resulting smoking prevalence would amount to only a 2% reduction from the "base percentage" of 15.2%. Hence, the reduction in underage smoking rates would fall 28 percentage points below the 30-percent target. While provisions B.1(b)(1)-(3) of Appendix V (pp. 53-54) are complex, it appears that the resulting surcharge would reach the $2 billion cap imposed by provision B.1(b)(4) (p. 54). If this surcharge were passed onto all consumers in the form of higher retail prices, the effect would be about $0.08 per pack.

13- to 17-year-olds would decline to 12.9%, as compared to the 14.9% rate expected under the Proposed Resolution.[14]

- If Congress raised the cigarette excise tax by $1.50 per pack and periodically revised the tax to keep pace with inflation, then the face value of industry payments would be $653.2 over 25 years, as compared to $304.3 billion under the Proposed Resolution. The present discounted value would be $427.8, as compared to $194.5 billion under the Proposed Resolution. By year 25, total U.S. cigarette consumption would be 15.5 billion packs, as compared to 18.4 billion under the Proposed Resolution. The daily smoking rate among 13- to 17-year-olds would decline to 10.2%, as compared to the 14.9% rate expected under the Proposed Resolution.[15] Thus, an inflation-adjustable tax of $1.50 per pack would, by itself, result in a decline in youth smoking sufficient to achieve the target rate of 10.9% contemplated by the Proposed Resolution.

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[14] Since cigarette consumption would decline, there would be a reduction in state excise and sales tax receipts equal to $59.6 billion in face value and $37.0 billion in present discounted value over 25 years. See footnote 7.

[15] Since cigarette consumption would decline, there would be a reduction in state excise and sales tax receipts equal to $77.5 billion in face value and $48.7 billion in present discounted value over 25 years. See footnote 7.