

Dr. STEELE. There is a very good analogy. But I think that in the case of drugs, the argument is even stronger, because a person who buys a car does so voluntarily. He engages in the use of roads in order to further his own gains. But a person who buys a drug is not doing something voluntarily in the sense that he has told society to use its resources specifically to cure his disease. Instead, he is reacting to a situation which has been forced upon him against his will.

What Senator Nelson said, using the insurance in case of a risk, rather than using a voluntary activity.

The next point is a rather technical one. Professor Whitney is in error when he multiplies profits per dollar of sales in drugs by the ratio of profits per dollar of equity capital in drugs to profits per dollar of equity capital in all manufacturing and claims that this brings profits per dollar of equity capital in drugs down to a level equal to that earned in all manufacturing.

The fallacy is that he is assuming a capital turnover ratio of unity for the drug industry. Profits on equity capital are equal to the product of two terms: Profits per dollar of sales and sales per dollar of capital during some time period such as a year. In manufacturing, the product of these two ratios is said by Whitney to be only 61 percent as high as for drugs. But if this ratio is applied to one of the two terms, rather than the product of both of them, in the drug industry, the implicit assumption is that the value of the other term is unity. But Whitney cites the FTC-SEC survey as showing that the drug industry earned 19.7 percent on sales but 22.2 percent on investment, hence the implicit capital turnover ratio is about $1\frac{1}{8}$. Hence prices could be reduced by 8.8 cents in the dollar, instead of 7.7.

(8) "Someone will have to make up the corporate income tax payments lost as a result of declining profits of drug manufacturers" (p. 9). In the first place, the Government would save 8.8 percent on all its drug purchases at the manufacturer's level; this would go a good way toward offsetting the lower income tax receipts from drug firms. And to the extent that the Government indirectly finances other drug purchases, the cost savings would be still greater. But the argument is a peculiar one. There is the suggestion that one should not lower excessive profits because the profit maker is liable for Federal income taxes on the full amount of the profits. But the same is true for incomes from fraud, embezzlement, extortion, and other illegal activities, and yet the possible adverse effect on income tax liabilities does not deter policymakers from trying to eliminate such activities.

The next point I think is certainly important. Whitney states:

Certain trends are alarming. New chemical entities marketed per \$100 million of R. & D. expenditures, for 1959 through 1966, were 32, 22, 21, 11, 6, 6, 7 and 3, respectively, * * *. There may be no real recovery if the profits from research are threatened (pp. 9-10).

This is not alarming if it simply means that tighter FDA regulations have reduced the total flow of new drugs by eliminating the inefficacious ones, which FDA did not have authority to do until 1962.

But the fact that the decline was steady even before 1962 probably indicates, in addition, that diminishing returns to the molecular engineering techniques of applied research are being increasingly felt as that method is more and more intensively and extensively applied to