Dr. Comanor. When economists define the limits of a market, their aim is to determine the area, whether in terms of geographic limits or product class limits, in which prices are set, and this generally depends on the area in which different products may be considered as highly substitutable. And if we examine the question of substitutability in the pharmaceutical industry, it is clear that a diuretic, which is used for one type of ailment, cannot be substituted for an antibiotic, which has a very different use. Given the very low degree of substitutability among therapeutic classes, I think most economists would agree that the relevant markets here, which define the limits within which prices are determined, is the therapeutic class rather than the industry as a whole.

Mr. Gordon. What do you have to say about the concentration of

output in each of these therapeutic categories?

Dr. Comanor. If one examines therapeutic markets, the concentration ratios are very high. This is precisely because effective entry barriers have been created. If advertising and research had not been able to create effective product differentiation, we would expect high prices to attract new firms into the market. That this has not occurred is due to the factors which I have discussed.

Mr. Gordon. You have stated that price competition is virtually

absent from this industry.

What do you have to say about the drive to reduce costs and pro-

duce drugs more efficiently?

Dr. Comanor. Since production costs account for such a small proportion of total costs in this industry, on the order of a quarter to a third, there is clearly relatively little to be gained by the firm from putting a considerable effort in producing drugs more efficiently. Moreover, lower production costs would have little competitive effect. With little to be gained, it is not surprising to find a relatively small effort devoted to reduce production costs. While I am afraid that no hard statistical evidence is available on this question, it is likely that the drive to reduce costs is much less than would be the case if price competition were more effective and more vigorous.

Mr. Gordon. So actually, we have a situation, do we not, where you have not only product differentiation but also a highly concentrated market? What would be the effect of both of these on the possibility

of price competition?

Dr. Comanor. We observe that there is relatively little price competition among highly differentiated products, although there does seem to be some degree of price competition among those products which are not effectively differentiated. For example, we still see effectively

tive price competition for penicillin and streptomycin.

But, as we can tell from the high overall profit rates, these must account for a relatively small share of the total number of products produced. During the period of the Kefauver committee investigations, it was reported that—I think this was for 1957—the profit rate in the pharmaceutical industry was double or more than double the average of all manufacturing.

Mr. Gordon. Even if you did not have product differentiation, the high concentration itself would tend to bar the possibility of competi-

tion in this industry?