

articles dealing with the economics of the drug industry. The first is entitled "Research and Competitive Product Differentiation in the Pharmaceutical Industry in the United States."¹ It appeared in the 1964 issue of *Economica*. The second is entitled "Research and Technical Change in the Pharmaceutical Industry,"² and appeared in the May 1965, issue of the *Review of Economics and Statistics*. The third is entitled "The Drug Industry and Medical Research: The Economics of the Kefauver Committee Investigation,"³ and appeared in the January 1966, issue of the *Journal of Business*, published by the University of Chicago.

I have copies of all of these articles. You may wish to include them in the record.

Senator NELSON. The articles you have mentioned will be printed in the record at the conclusion of your testimony, along with the supplemental study you have furnished the committee, entitled "Advertising Market Structure and Performance,"⁴ which I understand is to be published.

Dr. COMANOR. That is right. I will mention that.

Senator NELSON. That study will also be printed at the conclusion of your testimony.

Dr. COMANOR. I would like to report this morning on some findings from a study which Prof. Thomas A. Wilson, of the University of Toronto, and I have been carrying out on the relationship between advertising and profit rates in the American economy, and then I want to comment on some of the implications of the study for competition and public policy toward the pharmaceutical industry.

The statistical results are contained in a paper entitled "Advertising Market Structure and Performance," which will be published in the November, 1967, issue of the *Review of Economics and Statistics*. I am afraid that although economists advocate efficiency for others, they are frequently as lax in their own operations as anyone else, and the November, 1967, issue of this review is not scheduled for publication until February and March of the current year.

THE STATISTICAL FINDINGS

The core of this paper is a statistical analysis of the relationship between advertising and profit rates across a wide range of consumer goods industries. Our analysis was limited to this sector of the economy for it is only here that advertising seems to have a major competitive impact.

Even among consumer goods industries, advertising seems far more important in some industries than others. In most industries, advertising expenditures account for a relatively low proportion of total revenues while in a handful of others, they reach very high proportions. Thus, in the 41 consumer goods industries examined in our study, 25 had advertising-sales ratios below 3 percent, eight had ratios between 3 percent and 6 percent, and only six industries had ratios which exceeded 6 percent.

¹ See article, p. 2069, *infra*.

² See article, p. 2078, *infra*.

³ See article, p. 2086, *infra*.

⁴ See article, p. 2092, *infra*.