leading companies and all other companies were substantially higher than those in either of the other two categories. In fact, the smaller companies in the top category earned higher average profits than the leading companies in the second category containing industries characterized by moderate levels of advertising. As the level of industry advertising declined, the average industry profit rates also declined, dropping from 16.9 percent for the leading companies in the top category to 11.9 percent for the industry leaders in the second category and to 8.5 percent for the leading companies in industries in the lowest category.

TABLE 4.—RELATIONSHIP BETWEEN ADVERTISING, PROFIT RATES AND INTRAINDUSTRY PROFIT VARIABILITY FOR 19 CONSUMER GOODS INDUSTRIES

| Advertising expenditures of 4 leading advertisers, 1964 | Number of industries | Average of industry industry profit rates of profit rates of leading com- other companies panies, 1963–65 in 1963–65 | Absolute<br>difference<br>in profit<br>rates | Average of intraindustry variance in profit rates 1950-65 |
|---|----------------------|--|--|---|
| Over \$150,000,000                                      | 13                   | 16.9 12.9  | 4. 0   | 89. 8   |
| \$50,000,000 to \$150,000,000                           | 211                  | 11.9 10.0  | 1. 9   | 43. 1   |
| Under \$50,000,000                                      | 35                   | 8.5 6.8  | 1. 7   | 29. 8   |

<sup>1</sup> Include drugs, automobiles, and tobacco.

Source: Tables 1B and 3A. Advertising data were tabulated from Advertising Age, Jan. 3, 1966, p. 46.

Greater absolute expenditures on advertising not only lead to higher average industry profit rates but to greater variances in intra-industry profit rates. This occurs, as explained above, because the leading companies enjoy an advantaged position relative to those companies less capable of sustaining large advertising expenditures. Table 4 shows the difference in average profit rates between the class of leading companies and the class of other companies in each advertising category. In the top advertising category the profit rates of the leading companies averaged 4.0 percent higher than the profit rates of smaller companies. In the second category the leading companies' profit rates exceeded those of the smaller companies by an average of only 1.9 percent. In the third category this difference declined to 1.7 percent. The persistently higher profits of leading concerns resulted in greater variances in profits. As shown in Table 4, the average of intra-industry variance in profit rates was 89.9 for the top category. For the second category the variance dropped to 43.1, and it declined still further to 29.8 for the lowest category.

These results again verify our earlier findings that the advertising-achieved

product differentiation advantages held by leading firms in an industry affect both the higher dispersion of profit rates within the industry and industry average profit rates.

## CONRAD AND PLOTKIN'S UNDISCUSSED FINDING

Conrad and Plotkin did not discuss before the Subcommittee their statistically most significant finding. The regression models appearing in Appendix Table D-2, page 40, Risk and Return in American Industry, show that company profitability is negatively related to profit variability. That is to say, the more profitable a company, the more stable are its profits. This finding is in direct contradiction to their principal hypotheses that high profit firms earn such profits as a reward for the "risk" associated with varying profit levels. Conrad and Plotkin gave no explanation for their strange silence regarding this potentially significant finding.

## CONCLUSIONS

Our analysis of the underlying data for the Conrad-Plotkin study supplied by Arthur D. Little provides further support for the hypothesis that the dif-

Include cosmetics, beer, soft drinks, confectionery, canned foods, liquor, tires, radio and TV, dairy products, bread and pastries, and biscuits and crackers.
 Include watches, shoes, home furnishings, apparel, and meat products.

<sup>&</sup>lt;sup>18</sup> The explained variances (R<sup>2</sup>) and the simple regression coefficients for temporal variances in Conrad and Plotkin's models analyzing returns on total capitalization and net income to common equity (Model II, page 40, Risk and Return in American Industry) are statistically more significant than those discussed in their text.