

TABLE 5.—Multiple regression equations explaining profit rates—Major findings with high advertising barrier

|           | Intercept | High<br>adver-<br>tising<br>barrier | Capital<br>require-<br>ments<br>(logs) | Econo-<br>mies<br>of scale<br>(logs) | Growth<br>of<br>demand<br>(logs) | Concen-<br>tration<br>class <sup>a</sup> | Regional<br>industry<br>dummy<br>variable | R <sup>2</sup> | Corrected<br>R <sup>2</sup> |
|-----------|-----------|-------------------------------------|----------------------------------------|--------------------------------------|----------------------------------|------------------------------------------|-------------------------------------------|----------------|-----------------------------|
| (1) ----- | 0.053     | **0.0379<br>(2.8)                   | *0.0066<br>(2.0)                       | -----                                | *0.018<br>(1.9)                  | -----                                    | -----                                     | **0.48         | **0.42                      |
| (2) ----- | 0.069     | **0.0388<br>(2.8)                   | 0.0047<br>(1.1)                        | 0.0038<br>(0.7)                      | *0.019<br>(2.0)                  | -----                                    | -----                                     | **0.49         | **0.42                      |
| (3) ----- | 0.048     | **0.0395<br>(2.9)                   | *0.0089<br>(2.4)                       | -----                                | 0.015<br>(1.5)                   | -0.0063<br>(0.5)                         | *0.0318<br>(1.8)                          | **0.53         | **0.45                      |
| (4) ----- | 0.048     | **0.0379<br>(2.9)                   | **0.0082<br>(2.5)                      | -----                                | *0.016<br>(1.7)                  | -----                                    | *0.0316<br>(1.8)                          | **0.52         | **0.46                      |

<sup>a</sup> An industry is concentrated if the 8-firm concentration ratio equals or exceeds 70 percent; otherwise it is unconcentrated.

NOTE.—Figures in parentheses are *t* values. The statistical significance of the regression coefficients is tested by means of 1-tailed *t* test and of the multiple correlation coefficients by means of the *F*-ratio test.

\*Indicates coefficient is statistically significant at the 95 percent level.

\*\*Indicates coefficient is statistically significant at the 99 percent level.

In both tables 4 and 5, a dummy variable identifying industries with eight-firm concentration ratios which exceed 70 per cent was introduced in order to examine the effect of this aspect of market structure in yet another specification. The coefficients, however, remain smaller than their standard errors.

The regional industry dummy variable was also introduced into the equations in both tables. In all cases, its estimated parameters are significant at the 90 per cent level, and reach the 95 per cent level in table 5. While this variable was used originally to correct for the use of concentration ratios calculated on a national basis, it appears to have an independent effect which does not depend on the presence of the other variable. It is useful, therefore, to compare the structural features of the three local market industries included in our sample with the others. Relevant data are presented in table 6. The scale economy variable is the most sensitive to this industry characteristic. As would be expected, these industries, on the average, have much higher estimates of the ratio of minimum efficient scale to market than do the national industries. We should expect, therefore, that the local market dummy variable represents the increased importance of economies of scale as well as the higher concentration levels in local markets.

The multiple correlation coefficients for these equations are always statistically significant. The included variables typically account for about half of the total variation in industry profit rates.

TABLE 6.—Local and regional industry characteristics

| Industry                          | Concentra-<br>tion class <sup>1</sup> | Advertis-<br>ing-sales<br>ratio<br>(percent) | Advertis-<br>ing per<br>firm (mil-<br>lions) | Capital<br>require-<br>ments<br>(millions) | Economies<br>of scale<br>(percent) | Growth of<br>demand<br>(ratio) | Profit rate<br>(percent) |
|-----------------------------------|---------------------------------------|----------------------------------------------|----------------------------------------------|--------------------------------------------|------------------------------------|--------------------------------|--------------------------|
| Soft drinks.....                  | Type I....                            | 6.2                                          | \$0.26                                       | \$0.75                                     | 8.2                                | 1.98                           | 10.0                     |
| Dairy.....                        | Type II....                           | 2.2                                          | 15.12                                        | 2.09                                       | 14.2                               | 1.16                           | 7.9                      |
| Bakery.....                       | Type II....                           | 2.9                                          | 1.97                                         | 2.57                                       | 8.3                                | 1.69                           | 9.3                      |
| Average of 3 indus-<br>tries..... |                                       | 3.8                                          | 5.78                                         | 1.80                                       | 10.2                               | 1.61                           | 9.1                      |
| All industries.....               |                                       | 3.3                                          | 6.03                                         | 24.32                                      | 4.7                                | 1.83                           | 7.9                      |

<sup>1</sup> Kaysen and Turner groupings.