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As was noted above, a number of the explanatory variables included in the analysis are collinear to some extent. While the simple correlations between the advertising-sales ratio and the other independent variables are typically low,[35] it is useful to examine the sensitivity of the estimated coefficients for this variable to changes in the specifications of the regression equations. The results are presented in table 7. The estimated coefficients are reasonably stable, ranging from 0.30 to 0.52. In addition, seven of the 15 coefficients presented are significant at the 99 per cent level, seven at the 95 per cent level, and the remaining coefficient at the 90 per cent level.

TABLE 7.—*Sensitivity of regression coefficients for advertising variables to changes in specification of regression equations*

A. ADVERTISING-SALES RATIO

[N—variable in natural units; L—variable in logarithms; I and II denote Kaysen and Turner concentration classes; H and M denote high and moderate dummy variables]

Estimated coefficient	Value of *t*	Concentration	Regional industry dummy	Capital requirements	Scale economies	Growth of demand	Advertising per firm
0.42	2.27	I, II			N		
0.30	1.61	I, II					N
0.42	2.40	I, II		N	N		N
0.43	2.50	I, II		N			
0.48	2.75			N	N		N
0.52	3.24			N	N	N	
0.50	2.92	N	N		N		
0.34	2.21	I		L	N	L	
0.35	2.29	I		L	N	L	
0.49	3.28			N	N	L	
0.41	2.41			N	N	L	N
0.40	2.54	N	N			L	
0.46	3.02	N	N			L	
0.36	2.43					L	
0.33	2.19	N	N			L	

B. DUMMY VARIABLES FOR HIGH ADVERTISING BARRIERS

Estimated coefficient	Value of *t*	Other variables included						
		Concentration	Regional industry dummy	Capital requirements	Economies of scale	Growth of demand	Technical barriers	Moderate advertising barrier
0.040	2.28	N	N			L	H, M	M
0.049	3.67	I, II				L		
0.050	3.25	I, II	N			L	H, M	M
0.045	3.39	N	N			L		
0.038	2.80			L		L		
0.039	2.83			L	L	L		
0.038	2.89	N	N	L		L		

The stability of the estimated coefficient for the dummy variable denoting high advertising barriers is also tabulated. These coefficients appear to be insensitive to changes in the specifications of the equations. They lie between 0.038 and 0.050. Six of the seven coefficients presented are significant at the 99 per cent level and the remaining one at the 95 per cent level. The estimated effect of either the advertising-sales ratio or the high advertising dummy therefore does not appear to be affected by which of the other variables are included in the equations.

[35] The simple correlation coefficients between the advertising-sales ratio and other structural variables are as follows: the log of economies of scale, 0.27; the log of capital requirements, 0.21; the log of growth of demand, 0.40; and the four-firm concentration ratio, 0.10.