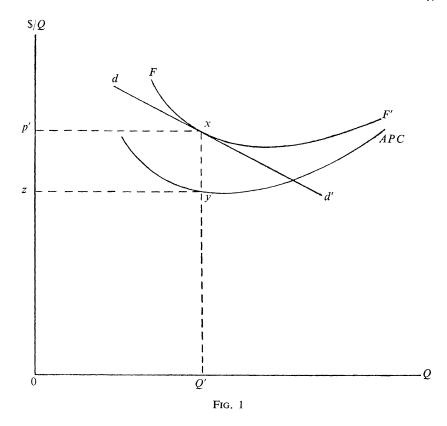# Do Competition and Monopolistic Competition Differ?

Harold Demsetz

University of Chicago

In two earlier papers on the subject of monopolistic competition (Demsetz, 1959, 1964), I demonstrated that if the relevant average revenue and average cost paths are constructed, in the sense that cost and revenue are allowed to take their most profitable levels at output rates that differ from the profit-maximizing output rate, then the excess-capacity theorem of monopolistic-competition theory is false; if the firm is allowed to vary all inputs when producing various output rates, equilibrium at the low point of the relevant average cost curve is consistent with monopolistic competition. In the second paper, I then went on to demonstrate the possibility of meaningful comparative statics using the monopolistic-competition model plus some additional assumptions; the comparative statics examined in that paper are consistent with the competitive model. The net effect is a demonstration that monopolistic competition can be viewed as the economic equivalent of competition for analytical purposes. But if monopolistic competition and competition are really the same, it also should be possible to view competition as monopolistic competition. The purpose of this note is to give an affirmative demonstration of this possibility.

I shall first consider the Chamberlin monopolistic-competition equilibrium in the large-numbers case and then demonstrate how easy it is to view a competitive firm, in a relevant way, in the same type of equilibrium construction. To this end, let us consider Figure 1, which portrays the Chamberlin monopolistic-competition equilibrium. The APC curve represents average "production" costs. The FF' curve is average production costs plus average selling cost; the selling cost included in FF' is constant, being fixed at its profit-maximizing level for producing and selling output rate Q'. Thus, FF' holds selling cost constant and considers the sale of output rates other than Q' by means of price adjustments along dd'. Selling cost is given in total by the area $p'xyz$. This is the picture of the Chamberlin monopolistic-competition equilibrium that has led to the excess-capacity assertion.

FIG. 1

Consider now a competitive firm that sells, let us say, radios. Let Q' be this firm's profit-maximizing output rate and let $p'xyz$ measure its total expenditures on copper when this output rate is produced; APC now measures this firm's expenditures on inputs other than copper. If we hold this firm's copper expenditures constant at $p'xyz$ and examine what happens when output rates different from Q' are produced, we find that, under reasonable assumptions about product quality, the price path traced out will be dd'. As the firm produces larger output rates, the quality of its product will be reduced by the use of less copper per radio; it will, therefore, be forced to accept the prevailing lower price for lesser-quality radios, so that larger output rates will fetch lower prices. As the firm produces smaller output rates, the quality of its product will be no lower (it can throw away unwanted copper) and probably will be higher; hence it can fetch a higher price for smaller output rates. If the firm is in competitive equilibrium at output rate Q', it must be true that the price path traced out with constant copper expenditures is tangent to FF', for otherwise the first-order conditions for profit maximization will be violated.

The only difference between the competitive and monopolistic-competition cases is the substitution of the words "selling cost" for "copper expenditures." The two cases are the same for all analytical purposes. If selling cost is held constant, the information content or the "desirability" of what is being sold will diminish as output is increased. This fall in quality is analytically the same as that produced by holding copper expenditures fixed. If all costs are allowed to adjust optimally as output changes, there is no need for excess capacity in either case; in both cases, the firms may find it desirable to expand their expenditures on selling cost or copper as output increases, so that prices need not fall.

If there is no analytical reason for distinguishing one input from another, there is no reason to suppose that dd' represents a locus of points on a given demand curve. Arbitrarily fixing the quantity of promotional (information-producing), quality-enhancing, etc., inputs is no different from fixing the quantity of copper input. Both types of constraint force a change in the nature of the product, so that the horizontal axis can no longer be counted upon to measure the same product as output is changed. The dd' curve cannot, therefore, be used to judge efficiency.

The issue is not monopolistic competition versus competition. It is the desirability of laws such as those that prevent imitation of brand names, product design, etc.; and, perhaps, there is also a question about the desirability of expenditures on certain types of inputs. One can argue for or against on these issues without invoking the monopolistic-competition model. But to judge efficiency in a world in which information is costly by using as a norm a model in which information is free is as silly as comparing equilibrium in a world in which copper is costly with equilibrium in a model in which copper is free.

References

Demsetz, H. "The Nature of Equilibrium in Monopolistic Competition," *J.P.E.*, LXVII, No. 1 (February, 1959), 21–30.
———. "The Welfare and Empirical Implications of Monopolistic Competition," *Econ. J.* (September, 1964).