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The Institutionalists' Reaction to Chamberlin's
Theory of Monopolistic Competition

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Abstract - Edwin Chamberlin's *The Theory of Monopolistic competition* is often described as containing important traces of institutionalist influence. This is also confirmed by Chamberlin himself who, repeatedly, referred to the work of Veblen, and John Maurice Clark among his inspirational sources. The aim of this paper is to analyse the institutionalist reaction to the publication of *The Theory of Monopolistic Competition*. What will be argued is that the institutionalist response to Chamberlin was a mixed one, and involved some substantial criticisms of his analysis of market structures both on methodological and theoretical grounds. The paper is organized as follows. The first section presents a sketch of the main theoretical implications contained in *The Theory of Monopolistic Competition*. The second section analyses the general aspects of the institutionalist reaction to Chamberlin. The third and fourth sections deal with the more theoretical aspects of the institutionalist criticism of Chamberlin. The final section presents a conclusion

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“It is probable that when future historians of economic thought look back over this century, the thirties will appear as an era of rapid development in economic theory.” (Boulding 1942, 791).

The issue

Some thirty years ago Rodney D. Peterson (1979) provided a stimulating discussion of the methodological and epistemological basis of the *Theory of Monopolistic Competition* in order to assess whether and to what extent Edward Chamberlin’s *Magnus Opus* – its manifest Marshallian ascendancy notwithstanding – contained pieces which were cast on an institutionalist forge. The final verdict, albeit phrased in somewhat cautious terms, was affirmative. Accordingly, Peterson describes Chamberlin’s analysis of market structures as an effort to “weave institutional methodology into the neoclassical fabric of the representative firm” and concludes: “It is one thing to argue that Chamberlin was an institutional economist; it is another to suggest that the theory of monopolistic competition contains institutional elements. It is the latter contention, rather than the former, which seems more appropriate to accept.” (Peterson 1979, 680). In order to sustain his claim, Peterson reports Chamberlin’s own recognition of Thorstein Veblen as one of the major inspirational sources for the notion of monopolistic competition. References to Veblen’s *Theory of Business Enterprise* (1904) can in fact be found in Chamberlin’s main treatise (1933, 5; 60). In particular, Chamberlin acknowledged Veblen’s observation that most contemporary business firms of that time possessed some degree of monopoly power. This point was central to Chamberlin’s attempt to blend the concepts of competition and monopoly. In addition Veblen is associated with Chamberlin’s discussion of selling costs and product differentiation.¹

Peterson’s scrutiny, it should be noted, was focused exclusively on Veblen. Nonetheless, other significant traces of institutionalist influence can be found in Chamberlin’s work. Albert B. Wolfe, another leading institutionalist of the time, for instance, is also indicated as one of the precursors of the notion of monopolistic competition (70, n2),² while in a later contribution sketching the intellectual genesis of his ideas (1961), Chamberlin openly admits his intellectual debt to John Maurice Clark’s path-breaking volume on *The Economics of Overhead Costs* (1923)³. As he put it:

“In this excursion into market processes, among the most stimulating and provocative was that of J. M. Clark and his paradoxical conclusion that ‘the retarded action of the market which permits different prices to prevail at the same time is not really an imperfection, as theoretical economics has been inclined to regard it. On the contrary, it is an essential requirement, without which it could not produce its characteristic effects. [Clark 1923, 417].” (Chamberlin 1961)⁴

¹ In a more recent contribution, Steven Sawyer (2004) has provided additional evidence in support of Peterson’s thesis, showing that Veblen’s influence on Chamberlin was indirect as well as direct. This “indirect” influence, Sawyer ably demonstrated, involved the role of Allyn Young – a personal friend and an admirer of Veblen, and Chamberlin’s Ph.D. dissertation advisor at Harvard.

² Chamberlin refers to Wolfe (1924).

³ Interestingly, Paul A. Samuelson also advanced the possibility of an “indirect” influence of Clark’s work on Joan Robinson’s *Economic of Imperfect Competition* (1933): “As an illustration of mutual dependence, consider Mrs. Robinson and J. M. Clark’s *Economics of Overhead Costs*. There is no reason to think she had ever heard of this stimulating 1923 book. But if Robertson, Pigou, Shove, Austin Rbinson, Kahn, or any other member of the Cambridge set had ever read this work, then some degree of influence cannot be ruled out by the historian of science even though he can never measure its degree.” (Samuelson 1967, 42-43).

⁴ More specifically, Clark had argued that in a situation of “pure” or “perfect” competition firms would have no incentive to increase output, on the ground that the result of such behavior would be lower profits for all of them. According to Clark: “If all the competitors followed suit the moment any [price] cut was made, each would gain his quota of the resulting increase in output, and no one would gain any larger proportion of his precious business than a monopoly would gain by a similar cut in prices. Thus the competitive cut of prices would naturally stop exactly where it would if there was no competition.” (Clark 1923, 417). Accordingly, Clark concludes, in a distinctly proto-Chamberlinian fashion, that a competitive market will function properly only if each firm possesses a certain degree of monopoly power: “In a sense each competitor has a monopoly of the difference in quality (real or supposed) between

The aim of this note is to somehow complement Peterson's efforts. Once a certain degree of institutionalist influence on Chamberlin's work has been ascertained, in fact, a further historiographic question emerges, namely, how did the institutionalists react to the publication of the *Theory of Monopolistic Competition*? To what extent did they perceive it to be consistent with their theoretical and methodological views? In this connection, it is worth pointing out that Peterson had already offered a cursory answer observing that "[j]ust as institutional economists favorably reviewed J. M. Keynes *General Theory*, so did many of them consider Chamberlin's theory of monopolistic competition compatible with their views." (Peterson, 1979, 671). Peterson's assertion, however, appears to be based on a rather incomplete review of the institutionalist literature of period and on a narrow, and quite debatable, definition of institutionalism.⁵ What will be argued below, instead, is that the institutionalist response to Chamberlin was a mixed one, and involved some substantial criticisms of his analysis of market structures both on methodological and theoretical grounds. As far as the definition of institutionalism adopted here, we follow the now standard interpretation provided by Rutherford (2000a; 2000b; see also Asso and Fiorito 2008). The note is organized as follows. The first section presents a sketch of the main theoretical implications contained in *The Theory of Monopolistic Competition*. The second section analyses the general aspects of the institutionalist reaction to Chamberlin. The third and fourth sections deal with the more theoretical aspects of the institutionalist criticism of Chamberlin. The final section presents a conclusion.

Chamberlin's Theory of Monopolistic Competition

The *Theory of Monopolistic Competition* deals with two types of market structure. The first, to which Chamberlin devoted relatively little attention, involves a small number of firms who face a choice between "myopic" competition of the kind first discussed by Cournot, and joint-profit maximization. Chamberlin's particular contribution was to show that the recognition of mutual interdependence on the part of firms in the small number case is a necessary, if not sufficient, condition for the attainment of a Pareto optimal outcome (Bellante 2004). Although he chose to relegate the discussion of the oligopoly case to a few pages, Chamberlin was in later to regard this market form as being of central importance in economic analysis (Skinner 1983; 1986).

The second type of market which Chamberlin considered – and which is crucial to the present discussion – is the so-called "large group." It was in this context that he sought to identify the key features of monopolistic competition. For the purposes of his model Chamberlin regarded industries as composed by "groups" of products, each in turn being made up of close, but less than perfect, substitutes. Groups could themselves be distinguished from one another by the degree of substitutability of their respective products, in this case considered to be smaller than that between varieties within a given group. The main features of Chamberlin's model can be described with the aid of figure 1. Let the industry initially comprise N firms, each producing a variety of the differentiated product. Suppose that at any price p the amount sold by any individual firm is $1/N$ th of the total market demand. Suppose further that average total costs (ATC) are the same for each firm and that the prevailing market price yields a surplus over costs. Entry into "industries" is unrestricted, new firms being able to commence production of very close substitutes for existing types of products. Under Chamberlin's assumptions, each firm will perceive an opportunity to increase its profits by lowering its price, provided that none of its competitors does the same. On the basis of this belief, each firm will expect to increase its sales by moving down its (relatively elastic) *ceteris paribus* demand curve dd ;⁶ but if all the firms were to behave in similar fashion, then each would find that his sales

his goods and his rivals,' and this qualified monopoly is a feature of the typical 'competitive' market." (Clark 1923, 418).

⁵ Peterson limits his analysis to the reactions of Clarence E. Ayres, John M. Clark, and Morris Copeland to the *Theory of Monopolistic Competition*. It should be also noted that Peterson's claim about institutionalists favorably reviewing Keynes' *General Theory* appears to be quite inaccurate. See, in this connection, Rutherford and DesRoches (2008).

⁶ The elasticity of the dd curve varies inversely with the strength of brand preferences. This point is crucial to Chamberlin's discussion of the incidence of advertising and selling costs.

are given by the (more inelastic) “share of the market” demand curve DD^7 . In other words, whenever the price cuts of a single producer are matched by the other firms the dd curve slides downward along the DD curve. In turn, the position of the DD curve is determined by the size of N : it shifts leftwards as new firms enter the industry, since the share of each is now reduced, and shifts rightward in the opposite case.

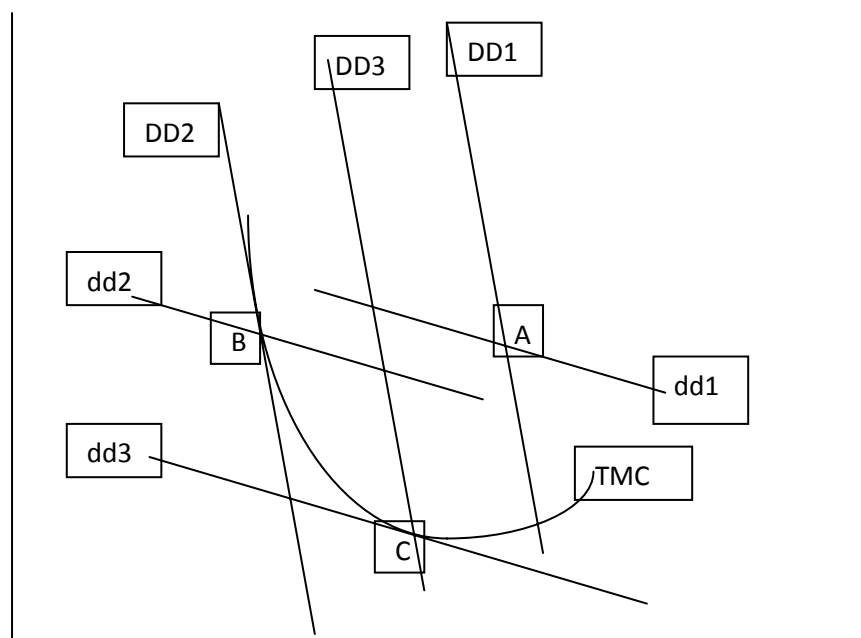


Figure 1. Adapted from Chamberlin

Let us start at an arbitrary point A with price above average total costs: as mentioned before the location of the DD curve is determined by the size of N . Excess profits attract new entrants (i.e., potential competition becomes actual), and the DD curve shifts leftward at the same time as individual firms undertake their price reductions. The shift is halted at B, where the prevailing market price equals average total costs, but if at this point firms continue to perceive opportunities for profitable price reductions, then these will take place. Eventually a point is reached at which all firms make losses, yet each conjectures that, provided that none of its rivals behaves as it does, profitability will be restored through one further price reduction. Since all firms entertain this naïve expectation the result is that they all find themselves moving along the “share of the market” demand curve $DD2$ and losses are incurred for all. The difficulties are resolved through the exit of some firms, an action which has the effect of shifting the DD curve to the right. Eventually, a Cournot equilibrium is attained at point C where the *ceteris paribus* curve $dd3$ is tangent to the average total cost curve. At this point no firm has an incentive to change its price, and neither entry nor exit will take place. Here, a uniform price, equal to average costs, obtains for all firms but each produces an output smaller than that which would be produced if the dd curve were horizontal, as it is under conditions of perfect competition. The main implications of this analytical result as sketched by Mark Blaug as follows:

“This long run tangency solution is the major empirical implication of monopolistic competition: we have short-run excess capacity, defined as the difference between equilibrium average costs and minimum average costs, and unexploited economies of scale in the long-run; there are too many firms in the industry

⁷ Chamberlin’s analysis rests here upon two interrelated assumptions – often considered together and referred to as “symmetry assumption.” The first is that any firm contemplating a price reduction expects to attract a very small proportion of customs from each of its competitors; the second is that this proportion is the same for each single competitor. Consequently, every perspective price-cutter believes that other firms will lose so small a proportion of their customers that none will, in turn, react by matching the price-cut.

compared with the situation under perfect competition, and each charges a higher price because it is too small for maximum efficiency.” (Blaug 1997, 377).

As Robert Triffin wrote in 1940, with the theory of monopolistic competition “not only the firm’s behavior is systematically integrated into the analysis, but, more important, the emphasis is shifted definitely from the industry towards the firm.” (Triffin 1940, 9). In more general terms, we may add, the revolution in economic theory triggered by the *Theory of Monopolistic Competition* was to show that the test of satisfactory market performance is not simply the automatic consequence of the form of competition; and that welfare pronouncements and policy prescription in a world of monopolistic competition (and oligopoly) cannot be based merely on the degree to which a particular market structure departs from the norms of perfect competition. In the years which followed the publication of Chamberlin’s volume, each of these specific aspects was widely discussed among the profession (Shackle 1967). Many leading institutionalists of the time – as the next two sections of this note will attempt to show – played an active role in animating this debate.

General reactions

The *Theory of Monopolistic Competition* aroused considerable interests among the institutionalist community in the years following its publication⁸. In general terms, we can say, institutionalists reacted to Chamberlin’s volume with “mixed feelings.” Many of them praised it for its attempt to broaden the relevance of theoretical economics in a changed environment, where firms with substantial market power could be observed outside isolated monopolistic markets and new techniques of market extension had become the order of the day. According to Morris Copeland, “Chamberlin’s *Theory of Monopolistic Competition* deserves to rank as one of the major contributions to the theory of value and distribution in recent years” (Copeland 1934, 531), John R. Commons referred with approval to Chamberlin arguing that, “in recent years the theory has incorporated certain institutional factors, like patents, trade names, trade marks, goodwill, under such names as [...] monopolistic competition” (Commons 1936, 238), while Mordecai Ezekiel (1939) endorsed monopolistic competition analysis as the only microeconomic theory fully compatible with Keynesian macroeconomics⁹. Even John K. Galbraith could applaud the fact that Chamberlin had made it difficult “to escape the conviction that the instances in modern industry are becoming few where the individual producer has anything approaching a horizontal demand curve for his product.” (Galbraith 1936, 460). Still sympathetically, the more neoclassically inclined Kenneth Boulding observed:

“The ‘Cambridge Theory’ – if so we may describe the essentially similar doctrines of Mrs. Robinson and Professor Chamberlin – made one important step forward in the techniques of analysis, i.e., the use of the marginal revenue curve, and one very important advance in generality in showing clearly that the theory of the firm under perfect competition was merely a special case of the theory of the firm under monopoly, worked out long before but without very fruitful techniques, by Cournot and Marshall.” (Boulding 1942, 791-92)¹⁰.

⁸ Morris A. Copeland (1934) wrote an extensive article review of Chamberlin’s volume for the *Journal of Political Economy*. A lesser institutionalist, Corwin D. Edwards (1933), published a brief joint review of Chamberlin and Robinson works in the *American Economic Review*.

⁹ A supporting reference to Chamberlin appears also in Wesley C. Mitchell’s lecture notes on Types of Economic Theory: “Lately however the increase of various restrictions on competition has been rapid and several enquirers, following Marshall’s method, made strenuous efforts to see what they could make of the problems which he treated inadequately. Results are unexpectedly imposing. The best known contributions in filling this gap in Marshall’s analysis are those of the British economist Joan Robinson, in *The Economics of Imperfect Competition* and of the American economist Edward Chamberlin, in *The Theory of Monopolistic Competition*. What the concepts mean: Show that every producer is, strictly speaking, a monopolist with respect to ownership of what he contributes to supply. Every monopolistic producer sells subject to some degree of competition.” (Mitchell 1967, 584).

¹⁰ The enrollment of Boulding among the ranks of institutionalism may be somewhat debatable. Boulding was in fact not “sociologically” affiliated to the movement and he showed a much higher appreciation for the accomplishments of received theory than many institutionalists did. However, as some interpreters have pointed out, several important

In general, the main appeal of Chamberlin's book was that it predicted consequences which were directly contrary to the implications of the perfectly competitive model. Arthur R. Burns from Columbia University considered Chamberlin's work a significant departure from inherited competition theory which "call[s] for more adequate analysis of the operation of the industrial system" (Burns 1937a; 663). The philosophically trained Clarence Ayres observed, in a rather obscure language, that the theory of monopolistic competition "is the reduction of the whole classical theory of price to an absurdity." (Ayres 1944, 68). In more explicit terms, Copeland connected Chamberlin's theory to the policy of social control – one of the central issues of institutionalism since its early days:

"Under the usual neo-classical assumptions including perfect competition, each enterpriser pursuing his own maximum profit (and each consumer-laborer-saver pursuing his own maximum utility) so acts as to maximize the physical volume of national income. Clearly Chamberlin's modification of neo-classical assumptions introduces one important – though not the only important – qualification on the validity that private profit is a good index of public policy. He offers us a theory the implications of which definitely depart from laissez faire and move toward what is variously called 'social control,' 'public regulation,' 'economic planning.'" (Copeland 1934, 532).

As a rule, however, these general pronouncements of praise were immediately followed by remarks of a more critical nature. Some institutionalists complained that Chamberlin's book was too conservative and that it did not make a clear enough break with the past ideas of partial equilibrium in a competitive industry. Copeland, for instance, observed that the "large group" case discussed by Chamberlin, turns out to be a hybrid of Marshall's competitive industry and monopolistic competition properly understood. The recognition of the interdependence of essentially competitive monopolies led Copeland to a plea for the abandonment of Marshallian partial-equilibrium model in favor of a general equilibrium approach:

"It is the virtue of Chamberlin's treatment that he offers us a theory not of a single enterprise but of a *market* consisting on one side of competing monopolies. He does not, however, carry the analysis to its final stage – the economic system as a whole. The reviewer suspects that, if it were carried to this final stage, there would be interesting and fundamentally important implications (1) for Say's law, (2) for the theory of the business cycle; (3) for the theory of the level of prices; (4) for the determinacy of the equilibrium point on the assumptions made." (Copeland 1934, 534)¹¹.

Boulding, instead pointed out the neglect of the time element in the determination of the tangency solution, and complained about Chamberlin's adherence to the neoclassical theory of the firm: "[t]he firm is conceived either as an organism receiving a constant flow of revenue, and disbursing a constant flow of costs, or as an instantaneous enterprise conceived and liquidated within so short a period of time as to make the cost and revenue items virtually simultaneous." (Boulding 1942, 792)¹².

parallels between Boulding and the institutionalists can be traced (Spengler 1974, Wray 1994). Boulding himself, clarified the whole issue quite explicitly in 1957: "In a letter to me a few months ago, Professor Ayres accused me of having become an institutionalist. If a somewhat despairing concern for dynamics in theory (without losing a sense of the very real accomplishments of statics); if a very strong concern for integration in the social sciences and for the bringing of contributions from psychology, sociology, and the biological sciences into the construction of better theories of individual behavior and social change; if a strong (if skeptical) interest and sympathy with empirical methods is enough to make me an institutionalist, then I gladly accept the title" (Boulding 1957, 12).

¹¹ The extension of the theory of monopolistic competition to general equilibrium theory (Triffin 1941).

¹² "The weakness of this [...] theory [is] that it completely neglected the time element in enterprise, and consequently worked with a concept of the firm so far from reality that it cannot be considered more than a rough-though useful-first approximation. It was therefore forced to abstract from an essential feature of enterprise—uncertainty; it made no contribution to capital theory, and it invariably broke down when any attempt was made to account for profits. Because of its lack of dynamic character, it also failed to give any satisfactory account of interfirm relationships, for instance, in duopoly, where anticipations form an essential part of the data and where the position of equilibrium is determined by the path in time which is taken in reaching it." (Boulding 1942, 792).

Another important line of criticism dealt with the perceived abstract nature of Chamberlin's analysis. Institutionalists were skeptical about the possibility of formulating a model of comparative statics based on Chamberlin's tangency solution that could be empirically tested. Ezekiel observed in a critical fashion that "Statistical verification of Chamberlin is [...] scanty" (1939, 55)¹³. According to Clark, due to its analytical shortcomings, "It [monopolistic competition theory] has defined these results in abstract terms which might be quantitative if the controlling functions could be measured, but which in the absence of such measurement remain qualitative, indicating to most minds chiefly the *direction* of departure from the standard of 'perfect competition.'" (Clark 1940, 241-242: emphasis in original). Clark was echoed by his Columbia colleague Burns, who insisted, referring to Chamberlin, that "theory cannot make great advances without far more adequate data than are now available." (Burns 1937a, 663). Burns made a plea for a more important, and descriptive, line of inquiry which went beyond the search for equilibrium under monopolistic competition to an investigation of firms' actual price policies. This would have implied the beginning a comprehensive integration of empirical observations and economic theory.

"A change of orientation is clearly necessary. The desirable direction of analysis can be stated briefly in terms of two interdependent requirements. The central objective of such studies should be the analysis of the behavior of prices. The methods of analysis should be aimed at facilitating the improvement of general price theory. Analysis of the behavior of prices means a generalized explanation of the reasons why prices behave as they do." (Burns 1937a, 664).

In summation, for Burns, "[t]here should be constant mutual interaction between industry studies and the general theories by reference to which they have been organized." (Burns 1937a, 680). It was the same Burns who offered an excellent example of such a combined line of research in his celebrated *The Decline of Competition* (1937b). There, the author provided a documented analysis of market and production policies in several industries. Trade associations, price leadership, the sharing of markets through agreement or fear of reprisal, the stabilization of individual prices, price discrimination, non-price competition, and the integration of industrial operations are all subject to careful examination. The style was mainly descriptive. Not surprisingly, a reviewer observed: "it does not appear [...] that Professor Burns, in his analysis of commercial practices has been able to make much use of the more refined parts of the theory of monopolistic competition." (Morrison 1936, 777).

Walton H. Hamilton was also working on similar lines. Heading a small research staff for the Cabinet Committee on Price Policy appointed by President Roosevelt in 1934 Hamilton guided an inquiry into the actual pricing policies of a number of basic American industries. At issue was consideration of industrial policies which he defined as "an aggregation of the measures contrived for the guidance of industry by all the agencies which operate upon it" (Hamilton ed. 1938, 528). Of the completed studies, those on the automobile, fire, gasoline, cottonseed, dress, whiskey, and milk industries were published in the volume *Price and Price Policies* (Hamilton ed. 1938; see also Hamilton 1940). No mention to the works of Chamberlin and Robinson appears in the volume. In the preface, Hamilton observed:

"the literature of industry was inadequate to the demands of price policy. Accounts of how in general industry is organized and how in the abstract prices are made were available in abundance. Yet, with notable exceptions, little was at hand upon the structures of particular industries, their distinctive habits, their unique patterns of control, and the multiplex of arrangements – stretching away from technology to market practice – which give magnitude to their prices." (Hamilton ed. 1938, vii).

¹³ It should be pointed out that, as empirical complements for Chamberlin, Ezekiel referred to works of a clear institutionalist character: "Burns has shown descriptively that conditions conducive to monopolistic competition prevail in many industries; Means has demonstrated the importance of administered prices; and unpublished studies by Bean and Ezekiel have demonstrated the absence of competitive readjustment in steel, automobiles, cement, and other industries." (Ezekiel 1939, 55).

The same approach by industrial sector can be found in the pages of the 1943 NBER monograph on *Cost Behavior and Price Policy* prepared by the committee on price determination¹⁴. Interestingly, as an example of empirical support in order to make monopolistic competition studies based on more realistic behavioral assumptions, the authors refer to the inquiry made by the institutionalist Robert A. Gordon on "Ownership and Compensation in Incentives to Corporation Executives" (Gordon 1940)¹⁵. This kind of research, they concluded, would also be fed by general concerns about the changing nature of American capitalism, rather than by theoretical considerations.

Overhead costs and potential competition

The previous section has presented a broad survey of the institutionalist response to the *Theory of Monopolistic Competition*. Some institutionalists, however, went well beyond a general appraisal of Chamberlin's work and formulated a more or less articulated analysis of some of its main theoretical and policy implications. The first aspect which attracted specific criticism was Chamberlin's handling of cost curves. In particular, the neglect of overhead cost was the main source of discontent. In suggesting the need for developing a "dynamic" theory of monopolistic competition, Copeland (1940, 35) wrote: "[s]uch a theory would proceed on the basis of two simultaneous heterodox assumptions – the assumption of monopolistic competition and the assumption of overhead costs (i.e. costs previously incurred and often arbitrarily assigned by contract or by accounting convention to a given current period)" (Copeland 1940, 35). Similarly, for Burns, monopolistic competition practices, "are questions that arise wherever overhead costs are important, and are incurred in anticipation of continued production over long periods of time, irrespective of the number of firms in the market" (Burns 1937a, 669).

The theoretical question at stake was whether increasing returns to scale were the cause or the effect of a downward-sloping demand curve. Consistently with what he argued in his 1923 monograph on *Overhead Costs*, Clark (1940; 1955) maintained that increasing returns were due to the presence of indivisible capital goods combined with labor of constant marginal cost, while Chamberlin had assumed traditional U-shaped cost curves, where competition through similar products pushed the production below the optimal quantity corresponding to full capacity exhaustion¹⁶. This led Clark to affirm that in presence of overhead costs the existence of excess capacity is no longer a symptom of market "imperfection," but rather the natural consequence of constant or decreasing marginal costs. Monopolistic competition theory ignores this typical feature of modern business.¹⁷ The long-run average cost curve adopted by Chamberlin, for instance, does not take into consideration the fact that excess capacity holds the loss of future profit opportunities due to the present use of equipment to a minimum, and thus might contribute to low marginal costs (Clark 1940)¹⁸.

¹⁴ The Conference on Price Research, organized by the National Bureau of Economic Research and other institutions, set up in 1938 a committee to investigate the possibilities of empirical research in the field of cost-price relationships and price determination. The committee was composed by Edward S. Mason, C. M. Armstrong, Robert W. Burgess, J. M. Clark, Joel Dean, C. Oliver Wellington, Roswell H. Whitman, Theodore O. Yntema, and JK. T. Dunlop.

¹⁵ Gordon's inquiry was deeply influenced by the classic study by Berle and Means (1933).

¹⁶ The analytical link between increasing returns of scale and overhead costs was emphasized by Samuelson: "[p]erfect competition theory had to be jettisoned in favor of some alternative theory, primarily in the decreasing cost case. J. M. Clark sensed this and gave as title to his too-little appreciated classic of the 1920's, *The Economics of Overhead Costs*. This is a good title, but it would have been a better one still if it had been named *The Economics of Increasing Returns*." (Samuelson 1967, 117).

¹⁷ Following Clark, also Burns (1937a, 669) insisted that the phenomenon of monopolistic competition is essentially linked to production under increasing returns to scale.

¹⁸ Clark made this point more explicitly in a later contribution: "No competitor likes to expose himself to losing customers to his rivals because he cannot fill their orders promptly enough. Thus on a more realistic curve of cost with scale or size of plant or enterprise, each point would represent, for a given size or expected average output, the average cost that might be expected during the period in which the plant or enterprise remains of this size, allowing for periods when it will be working at part capacity and relatively high average cost and other possible times when it may be working overtime or otherwise be pushed beyond its optimum rate." (Clark 1955, 457-458).

Moreover, it was pointed out, in order to determine the quantity produced and the optimum size of its plant, Chamberlin's firm uses a short-run marginal revenue curve and a long-run marginal cost curve, and ends by setting the price at a level which encourages new firms to enter the market. This, as shown in our diagrammatic exposition, reduces the market share of each firm and determines a leftward shift of the marginal-revenue curve (DD). According to Clark, this treatment of the effects of potential competition is unacceptable. Firms in fact, do not merely respond to the actual entrance of new competitors, but act in order to anticipate such a potential menace. This implies that entrepreneurs may not behave as short-term-profit maximizers as assumed by Chamberlin. An established firm, or group of firms, can prevent entry by maintaining or increasing the quantity produced, so that if a new firm should enter, its additional output would force price to fall below its average cost. Clark's relevant passage, which foreshadows the underlying assumption of the classic "limit pricing model,"¹⁹ deserve to be quoted in full length:

"As to potential competition, it is this, or the materializing of it, on which Chamberlin relies for the tendency to wipe out monopoly profits in the production of quality goods, and to bring individual demand curves and cost curves into tangency. But there seems to be a tendency to regard the business-man as having too little foresight to anticipate the materializing of potential competition, and as following an unduly grasping policy in regard to price, and an unduly restrictive policy as to output, until potential competition becomes actual, and the industry is burdened with too many producers whose individual output is restricted short of the optimum. This undoubtedly has some truth. It would expect a great deal of business-men that they should generally have perfect foresight of the emergence of potential competition, and on that account should avoid unduly restrictive policies. Nevertheless, there is apparently a tendency of somewhat similar effect on the part of some or many businesses, even if not guided by such impossibly perfect foresight. There is a tendency to strive to maintain and increase output, as if this were an end in itself, aside from the resulting net earnings and perhaps as a short-run sacrifice of net earnings which a more grasping policy might secure. In such cases, business, whether putting its reasoning in this form or not, acts as if it were governed by anticipations of potential competition, and by the desire to forestall its materializing." (Clark 1940, 247).

Aside to the fear of entry of new competitors, underlying rationales such as, experience, tacit agreements on the basis of "business ethics," an emphasis on stable markets, and "quasi-moral" objections to selling below normal cost, appears to be contradictory to the very essence of long-run profit maximization under monopolistic competition (Clark 1940). The general question of price adjustment *versus* price adjustment will be discussed in more detail in the next section.

Clark concluded affirming that once the effects of potential competition and the improved technological possibilities of creating new substitutes for any variety of "monopolized" product are fully taken into account, Chamberlin's results are somewhat mitigated: "Both potential competition and substitution have the effect of flattening the slope of individual demand curves." (Clark 1940, 247). Clark's analysis led to the conclusion that the margin of unused capacity – if exists – is markedly less than that indicated by Chamberlin. The same conclusion, although based on different theoretical considerations, was reached by Copeland in his 1940 "Competing Products and Monopolistic Competition," published on the *Quarterly Journal of Economics*. Copeland's criticism centered on the very definition of monopolistic competition. This term, he affirmed, must be assigned substantially the meaning given it by Chamberlin. If it is defined to include oligopolistic situations, and these predominate, output, investment, and the number of firms will be proportionately restricted, and there may be less land service required than under pure competition. If, on the contrary, monopolistic competition is defined to include, besides product and service differentiation as described in Chamberlin, price discrimination and product diversification calculated to facilitate price discrimination, the scale of production of the typical firm will tend to be greater, and over-all unit cost and selling price will tend to be lower, than in Chamberlin's tangency solution (Copeland 1940, 28)²⁰.

¹⁹ We use here the term "classic limit pricing model" to refer generally to the structural theory of market performance developed by Joe Bain (1956) and his contemporaries.

²⁰ Clark and Copeland's optimistic attitude was shared by Edwin Nourse from Brookings Institution – a leading institutionalist research center in the interwar years. Basing his analysis on somewhat more idealistic basis, he observed: "I see hope that the practices of monopolistic competition, as we know them today, are moving away from

Monopolistic competition and the “administered prices” hypothesis

A second line of criticism, in many respects anticipated in the previous section, focused on Chamberlin’s treatment of the firm’s pricing behavior. Chamberlin’s adherence to a Marshallian approach did not allow him to provide a theoretical explanation for the fact that prices of many goods change infrequently (i.e., are sticky) relative to the frequency of changes in market conditions. In Copeland’s words, Chamberlin’s graphical representations “do not portray the problem of fixing a single price for successive periods in which the demand schedule is expected to vary from one to another. *Nor do the curves portray the relative profitableness of such a policy of price maintenance as compared to alternative policies.*” (Copeland 1934, 535-36: emphasis added). The then twenty-eight years old John Kenneth Galbraith made essentially the same point. Chamberlin’s theoretical framework, he wrote, is not sufficient in itself to explain a condition of rigid prices. The existence of monopoly or monopolistic competition is relevant to the problem of rigid industrial prices only if two conditions are present:

“These are (a) some unique ‘rigidity-inducing’ features of the adjustment to a reduced demand, where there is monopoly power, and (b) reasons why entrepreneurs under conditions of monopoly, oligopoly, or monopolistic competition, choose to forego maximum profits for a considerable period of time, and even sacrifice profit entirely in the short run, in favor of maintaining constant prices.” (Galbraith 1936, 459).

It should be pointed out that such an emphasis on price stability took inspiration from a study on the *Behavior of Prices* published in 1927 by Frederick C. Mills – one of the leading figures working under Wesley C. Mitchell at the NBER. Mills’s main finding was that the frequency of price changes varies widely across goods: Excluding the years 1914–1921, roughly one-fifth of the goods changed price in less than 10 percent of months, while another one-fifth changed price in more than 90 percent of months. Mills pointed out that the distribution of price-change frequencies was bimodal (U-shaped), but did not speculate on the causes or analytical implications of his result²¹.

It was another institutionalist, Gardiner Means, who provided a theoretical backing for Mills’s empirical findings. In 1935 Means, then an adviser to the U.S. Secretary of Agriculture (Lee and Samuels 1992), published a study on “Industrial prices and their Relative Instability.” Means’s data was similar to that studied by Mills except that it was for the years 1926–1933— a period covering the early part of the Great Depression. Not surprisingly, that data showed the same bimodal distribution for the frequency of price change noted by Mills. Means provided an interpretation that relied heavily on this particular feature of the data: “There are two essentially different types of market in operation—the traditional market in which supply and demand are equated by a flexible price and the administered market in which production and demand are equated at an inflexible administered price” (Means 1935). He went on to argue that inflexible prices had grown in importance as the economy had become more industrialized and concentrated, and were largely responsible for the severity of the Great Depression. Means never referred to Chamberlin and advanced an embryonic version of mark-up pricing theory for the industrial sector or, as he phrased it, an “administered prices” approach²². The theoretical divergences between Means and

the deplorable state which obtained in the decade and a half before the World War and in the eighties of the preceding century, and toward a sounder, more enlightened and more constructive era. I base this hope – and a certain tempered confidence – upon three factors: (1) the sharpening of inter-commodity and even inter-industry competition through the technological possibilities created in a world of applied science; (2) the broadening and deepening of the economic wisdom of executives; and (3) the very growth of large-scale business which confers on such concerns an institutional character whose wide range of interests and permanence of life emphasize the underlying harmony between great corporate interest and public welfare.” (Nourse 1939, 17).

²¹ In this connection, John Maynard Keynes (1928) sarcastically observed in his review of Mill’s book: “[i]t is the peculiarity of Mr. Mills that he starts without any theories and ends without any, being content to set out his material for the benefit of those who have less taste than he has for laborious investigation, and more taste for theorising.”

²² As noted by Lee and Samuels (1992, xxxi), “[a]lthough aware of Chamberlin’s book, *The Theory of Monopolistic Competition*, when writing the paper [Industrial Prices and their Relative Inflexibility], Means used neither its

Chamberlin have been well summarized by Richard Goode: “Means remarked that most theoretical analyses of imperfect competition either assumed that prices were sensitive to changes in demand and costs in the short run or dealt only with long-term adjustment, whereas his analysis was “almost solely concerned with the short-term insensitivity of prices to variations in economic conditions [Means 1940, 126].” To this, we may add that Means, in contrast to Chamberlin, was interested primarily in the macroeconomic consequences of departures from purely competitive prices rather than in microeconomic efficiency neoclassically conceived²³.

Although Means’ paper appeared in 1935 only as a Senate document, it did not pass unnoticed by many institutionalists of the time. Interestingly, references to Means appear in connection to the discussion of monopolistic competition. Industries with differentiated products and high overheads, it was argued, respond to demand shocks by adjusting the volume of production, and not by varying the price as implied by Chamberlin’s analysis. To characterize the behavior of these “price maker” firms, many institutionalists explicitly adopted the phrase “administered prices” as introduced by Means. Galbraith, for instance, observed that “Professor Gardner C. Means has given considerable currency to an explanation of price rigidities in terms of what he refers to as ‘administered prices.’” “This phrase” – he continued referring to Chamberlin – “has a possible advantage in escaping the emotional response encountered by explanations which involve use of the term monopoly.” (Galbraith 1936, 462 n8). In a strikingly similar fashion, Edwin Nourse from Brookings Institution, lamented that the “phrase Monopolistic Competition [...] is not altogether acceptable to businessmen because it seems to tar many of them with the opprobrious brush of monopoly.” A sounder analysis of market power, based on the available empirical data, would reveal that “it [monopolistic competition] describes the situation of *administered prices* of modern industrial organization and practice” (Nourse 1944, 60: emphasis added; see also Clark 1939, Ezekiel 1939, Mills 1936)²⁴. Interestingly, Galbraith went beyond a simple mention of the notion of administered prices and, referring to private communication with Means, advanced a further explanation for price rigidity in the industrial sector:

“Professor Gardner C. Means has drawn my attention to the cost of making a price change under modern conditions as an incentive to the holding of prices constant. A concern with nation-wide sales outlets must make certain that dealers are informed of the change; it must distribute new price schedules and provide safeguards against ‘leaks’ as well as risk a temporary cessation of business in case there is such a ‘leak.’ It must also recast its advertising to acquaint the public with the change. All of these things cost money and all of this expenditure is avoided if prices are allowed to stay where they are.” (Galbraith 1936, 470 n5).

The passage reproduced above contains, to the writer’s knowledge, the first explicit definition of menu costs as a theoretical rationale for sticky prices.

Final considerations

American institutionalists acknowledged Chamberlin’s attempt to broaden the analytical limits of neoclassicism and to find a viable alternative to the classical dichotomy between perfect competition and monopoly theory. Nevertheless, the leaders among the interwar generation of institutionalists showed skepticism about key elements of Chamberlin’s work. Their main concern dealt with the inadequacy of the traditional Marshallian framework to describe the actual characteristics of modern market structures. Specific criticisms focused on Chamberlin’s treatment of fixed and long-term average costs, the effectiveness of potential competition, and the pricing behavior of the firm. Contributions coming from

terminology nor its theoretical approach largely because he did not find business enterprises behaving in the manner it suggested.”

²³ Chamberlin, who had been a member of the Harvard committee that rejected the theoretical portion of Means's draft dissertation, failed to include Means in the 1,497-item bibliography appended to the 1960 edition of *The Theory of Monopolistic Competition*.

²⁴ Clark’s praise of Means was more cautious: “As to stability of prices, the recent writings of Mr. Gardiner Means have suggested a standard of judgment which appears to require very material modification before it can be used as a criterion to guide public policy” (Clark 1939, 128).

leading institutionalists of the time, such as Clark's *Economics of Overhead Costs*, Burns' *The Decline of Competition*, and Means' studies on "administered prices," were often referred to as alternatives – or complements – to Chamberlin. In addition, institutionalists did not like the abstract nature of monopolistic competition theory and complained about the lack of empirical and descriptive studies in its support.

Ironically, American institutionalism and the so-called monopolistic competition revolution, shared a similar fate. In the late 1940s monopolistic competition theory had lost much of its initial vigor. This was due largely to the technical difficulties involved in its mathematical modeling. As noted by Jan Kepler (1994, 7): "[s]uddenly, the *Theory of Monopolistic Competition* [...] appeared fundamentally Marshallian, exhibiting concerns with partial equilibrium, descriptive realism, and vaguely formulated dynamics." This made it particularly unattractive in a discipline increasingly concerned with formalism and which was rapidly proceeding toward general equilibrium analysis. In the same years, institutionalism as a vital force in American economics, had already begun a decline which led to its definitive marginalization from the mainstream of the discipline (Rutherford 200a; 200b). The movement became progressively described as "anti-theoretical, purely empirical, and portrayed as nothing more than a mere inclination to dissent toward neoclassicism, devoid of any theoretical content. A deeper cross-fertilization between Chamberlin and the institutionalists, we may venture, would have been beneficial for both parts. Monopolistic competition theory, on the one hand, could have gained in terms of further realism and adherence to empirically observed features of market behavior from some of the insights coming from the institutionalist camp. American institutionalists, on the other hand, could have found in Chamberlin's work an eclectic theoretical framework, mostly consistent with their research agenda, and open to further refinements of an institutionalist character²⁵. In addition, a combined institutionalist-Chamberlinian departure from pure competition theory would have had important consequence on the development of Keynesism, at least in the United States. As Samuelson once observed, "Keynes *cum* Chamberlin-and-Means would have been better than Keynes alone" (1983, 217). We are perfectly aware that these are all controversial issues which cannot be adequately discussed here. Seen in retrospect, however, the missed encounter between Chamberlin and the institutionalists acquires the flavor of a lost opportunity.

²⁵ In this connection, Walton Hamilton had already observed in his famous 1918 institutionalist manifesto: "The English classicists, Marshall, Pigou, Chapman, have materials for us; for in England the older economics has never lost the general concern which the Austrian and the American utility theorists have taken from it" (Hamilton 1919, 317-18).

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