# Competition, Oligopoly and Antitrust: The Theoretical Agenda in the early 1950s

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> The antitrust law is based on a simple logical fallacy, which may be put into syllogistic form as follows: monopoly is bad; competition is the opposite of monopoly; therefore competition is good. What must be stressed ... is that some kinds of competition are good and some kinds are bad. It should be possible for economics, even without soiling its scientific objectivity, to throw some light on which is which. Unfortunately even the theory of imperfect competition has contributed more to the befuddlement than to the clarification of the problem.[1]

## Introduction

The object of this paper is to establish some elementary chronological and substantive points about the development of, on the one hand, economic theories of price and market behaviour, and on the other, American antitrust decisionmaking. In the context of a workshop on European cartels this might seem a curious approach, especially given the fact that even the theoretical economic literature discussed below is predominantly American. But there is a clear rationale for this approach.

The aspect of price theory that is of greatest relevance here is that related to the behaviour of oligopolies: price leadership and tacit collusion. These phenomena were first systematically addressed in Chamberlin's *Theory of Monopolistic Competition* (1933), and despite the almost simultaneous appearance of Joan Robinson's *Economics of Imperfect Competition*, it was the former which prompted the more extensive discussion of oligopolistic behaviour among Anglo-American economists. Further, in 1944 there appeared von Neumann and Morgenstern's *Theory of Games and Economic Behavior*, which was to

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[1] K. E. Boulding, "Discussion" to "The Economic Consequences of Some Recent Antitrust Decisions", *American Economic Review* (Papers and Proceedings) Vol.39 (1949) p.320.

provide a basis for systematic treatment of collusion and bargaining; and by the early 1950s economists such as George Stigler were proclaiming the irrelevance of the monopolistic competition framework for the study of industrial organisation. This strand of thinking had its greatest impact in the 1970s and early 1980s, with the deregulation movement in the USA and explicit association of Antitrust decision-making with Chicago economics symbolised by the work of Richard Posner.

The grounds for a focus on American antitrust activity and decision-making when considering European cartel activity before and after World War II are likewise straightforward. Firstly, until the later 1960s there was little in the way of any competition case law either at the level of the EC or at that of individual European states. US case law in this area, by contrast, reaches back to the 1880s, and has experienced a number of major changes of direction. This fact implies that, aside from jurisprudential considerations, the drafting and administration of European competition law has taken place in the shadow of American legal decision-making. This fact is lent greater force by the second point, that the dominance of the USA in the reshaping of the international economic order after World War II translated into pressure upon European economies to adopt statutes outlawing cartels and related restrictive practices. No European country had such a body of law before 1939; by the 1960s most European governments had adopted statutes of this kind.

This dual approach to the problems of competition and market formation through the differential prisms of economic and legal analysis opens up a broad horizon; more exactly, it amounts to the proposal for a research programme of daunting extent. A review of the legal agenda is facilitated by an extensive and high-quality American literature of commentary upon the evolution of state and federal antitrust activity, on the work of government regulatory bodies, and on industrial structure. Although there is no substitute for reading and interpreting Supreme Court judgements, such research activity is supported by a great deal of historical analysis which provides a sound contextual base for understanding issues and controversy. Legal history has been, and still is, a thriving industry, not least of course because the law has recourse to its own past in coming to terms with its present.

Attempts have been made by legal historians to overcome the duality of law and economics in relation to competition, business and markets. Sklar's *Corporate Reconstruction of American Capitalism, 1890-1916: The Market, Law and Politics*;[2] Hovenkamp's work, especially his *Enterprise and American Law, 1836-1937*;[3] and Freyer's

[2] Cambridge University Press, Cambridge 1988.

[3] Harvard University Press, Cambridge (Mass.) 1991.

*Regulating Big Business. Antitrust in Great Britain and America 1880-1990*[4] - all these writers seek to link the development of legal theory to contemporary economic discussion and the emergent neoclassical paradigm. They are however hampered at one point or another by the lack of reliable commentary upon this phenomenon; overestimation of the rate of emergence and diffusion is one serious problem, while the imputation of anachronistic theoretical constructs is another. Furthermore, since none of these writers is a trained or practising economist they are liable to overlook the theoretical significance of certain key developments, or fail to notice paradoxical argumentation on the part of the courts. Modern economics is not all bad; in fact, in the field of industrial economics things have been looking up in the past few years, and the prospects of a balanced assessment of developments in the field since the 1930s have never been better.

This condition of uneven historical development indicates that the immediate problem is to rectify the historical deficit on the front of economic theory, before turning to detailed consideration of the legal and political issues which are involved. First of all, some form of elementary chronology needs to be established, in which we identify the formulation of an idea and its first appearance, and distinguish this in turn from its diffusion and general acceptance. This process is one measured in decades during the period with which we are concerned, and hence is the root of a great deal of misapprehension on the part of many commentators, economists included.

## Competition, Monopoly and Oligopoly

In the late nineteenth century popular opinion was in general for competition and against monopoly. What was meant by “competition” was not unambiguous, but greater clarity reigned upon the nature of monopoly: this was represented by the new giant firms and, in particular, the Trusts. The Sherman Act of 1890 was primarily an act intended to outlaw restrictive and anticompetitive practices, especially those related to cartels; it principal medium-term impact was to generate a merger wave, and reduce the profitability of large enterprises since the financial aspect of large-scale business was at that time undeveloped. Academic economists were in two minds about these developments: J. B. Clark, for example, viewed large-scale enterprise as the desirable corollary of technical progress, while at the same time denouncing its tendency to crush competition:

> The industrial system which developed under a régime of freedom and competition has become perverted by the presence of monopoly; and the thing to be accomplished is not to revolutionize the system by the method of

[4] Cambridge University Press, Cambridge 1992.

> state socialism, nor yet cause it to reverse its natural development by resolving the great corporations which now dominate it into their constituent elements, as crude anti-trust legislation would try to do, but rather to retain the corporations for their efficiency while taking from them their power of oppression. Nature has shown us how to accomplish this, by revealing forces which now partly accomplish it, though without some action by the state they do their work imperfectly. We have to clear away the obstacles that interfere with these natural forces. The policy is not destructive but preservative, since it demands that we do not kill the industrial monsters which threaten and injure us, but tame them and convert them into useful servants.[5]

This passage is quoted at length because it encapsulates the general attitude of economists confronted with oligopolistic behaviour for the next fifty years: preserve the inherent efficiency of large-scale enterprise while curbing its anticompetitive proclivities.

Clark and his contemporaries worked with the accepted polarity of competition and monopoly. Neither of these were explicitly formalised beyond the counterposition of the many to the few, and the capacity for the few to manipulate the many. Importantly, the routine characteristics of what is today known as perfect competition, and which forms the ideal-type of competitive conditions, were not completely specified until 1921, with the publication of Knights' *Risk, Uncertainty and Profit*.[6] This specification was rapidly accepted: it coincides with the usage of Chamberlin in 1933, and it is presupposed by Joan Robinson in 1934 when she is seeking to establish a more restrictive definition which could link up with Sraffa's critique of competitive conditions.[7] We can assume that, from the 1930s, economists generally have a shared understanding of the range of meanings in, and the implications of, the word "competition".[8]

Note however that this relates to pure or perfect competition, which tacitly rules out collusive or co-operative behaviour. The simple reason for this is that competitive conditions exist where the decisions of individual firms cannot have any effect on price or on the industry. Our attention is therefore directed to markets and their price mechanisms and

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[5] J. B. Clark, *The Problem of Monopoly*, Columbia University Press, New York 1904 pp.v-vi.

[6] G. J. Stigler, "Perfect Competition, Historically Contemplated", *Journal of Political Economy* Vol.65 (1957) p.11.

[7] J. Robinson, "What is Perfect Competition?", *Quarterly Journal of Economics* Vol.49 (1934) pp.104-20.

[8] We can list the main properties of perfect competition as follows: 1) large number of firms whose products sell for a price not determined by them; 2) free entry to and exit from industry; 3) that freedom of entry works in the long run to eliminate monopolies; 4) that at this price market clears to the maximised welfare of all; 5) that there is a long-run equilibrium of demand and supply and that the average cost across the industry is the price.

away from firms as decision-making entities. Since the market imposes the disciplines of cost and price, the behaviour of the firm is dictated by market form and process. The perfectly competitive model presents a system in which the price mechanism determines all transactions, and in which, therefore, the organisational structure of the firm, or of the industry, is not relevant: the “theory of the firm” becomes a variant of the pure theory of a price mechanism. In this we can see the seeds of the problem identified by Boulding in the epigraph to this paper, for if the behaviour of the firm is not a legitimate object of concern for the economist, there are no grounds for surprise at the lack of influence exercised by the insights of economic theory upon antitrust decision-making up to the 1950s. For as I will demonstrate briefly in conclusion, key judgements during the 1940s and early 1950s made no use of the modified conception of competition which theories of oligopolistic behaviour and monopolistic competition implied.

This does not however mean that economists had nothing to contribute to policy debate; for the less elaborated conception of competition within which they worked left more room for a consideration of the actual behaviour of firms. This is evident in J. M. Clark’s *Studies in the Economics of Overhead Costs*, which systematically addressed many of the complex issues raised by investment, depreciation, overheads, business fluctuations and cost accounting in industry. At the heart of the book was a key feature of vertical integration, where external, variable costs are turned into fixed, internal costs through the backward and forward integration of a production process. This posed major problems at times of economic downturn, when sales would fall as unit costs rose. A competitive firm in these circumstances would plausibly seek to maintain output and cut prices, losses being lower in this instance than the alternative of reducing prices and cutting margins and costs. It was this kind of dilemma which led firms into price-fixing agreements of the kind outlawed by the Supreme Court in 1897, and which subsequently prompted the wave of mergers. Clark was no believer in the virtues of unchecked competition, for he laid bare its ruinous impact upon firms and the public interest:

> In theory, the same argument which is used to show how competition brings prices down to cost (so far as it does not rest on the intervention of new competitors) can be used to prove conclusively that competition tends to force prices down to the level of differential cost, if existing productive capacity will supply the demand at that price. And as industry is in a chronic state of partly idle capacity, to insist that producers shall compete unchecked appears to amount to inviting competition, and private enterprise with it, to

commit suicide.[9]

Clark then posed the question of whether the American economy had entered a new age, dominated by combination and monopoly, the sole means by which private industry was able to survive.[10] Responding to his own question, he pointed to the continued existence of business rivalry, constrained by tacit rules arising from a common sense of self-preservation. How could one investigate business behaviour in these circumstances, however, in which the theoretical models of competition and monopoly seemed to have limited explanatory power?

This problem was the one addressed by Chamberlin in his book *The Theory of Monopolistic Competition*, which for the first time broke with the polarity of monopoly and competition and presented an analysis of oligopolistic behaviour. Oligopoly is a situation in which a market is dominated by a few large firms; or in which one large firm acts as a price leader. The critical divergence from the theory of perfect competition is that firms influence the market price - they are not price takers. Instead, they form judgements about the likely response of their competitors to alterations in own price or quantity. This introduces a degree of indeterminacy into market behaviour, and the possibility that a unique equilibrium accepted by all might not exist. The important point here is that stable prices can be formed in such conditions without explicit collusion. The paradoxes of the legislator faced with such conditions are great; in the later 1950s Chamberlin speculated that if businessmen were to be harassed legally for “spontaneous collusion”, then it would be worth their while to collude to move their prices around in order to avoid prosecution for collusion.[11]

Today it would seem obvious that the appropriate framework for the analysis of such situations was that of game theory, in which players plan their own actions, anticipate the response of other players, and form coalitions for the maximisation of their welfare. This model was first applied to economic behaviour in the 1940s by von Neumann and Morgenstern, but as we shall see it was not immediately accepted as anything other than a curiosity. The original model of oligopolistic behaviour was rather older, formulated in 1838 by Cournot with two agents (duopoly).[12] A critical property of his model was that each varied his own output, while assuming that the other would maintain his existing output; eventually they both adjust their output to the simultaneous output of the other, and a determinate solution is established. This model remained a theoretical curiosity for almost the next

[9] J. M. Clark, *Studies in the Economics of Overhead Costs*, University of Chicago Press, Chicago 1923 pp.434-5.

[10] This line of argument was subjected to empirical investigation in A. R. Burns, *The Decline of Competition. A Study of the Evolution of American Industry*, McGraw Hill Book Company, New York 1936.

[11] E. H. Chamberlin, “On the Origin of ‘Oligopoly’”, *Economic Journal* Vol.67 (1957) p.217.

[12] Cournot worked exclusively with two agents, and the term “oligopoly” was not applied to the kind of issues he raised until the 1930s.

ninety years; in 1883 a review appeared in the *Journal des Savants* by Bertrand, who pointed out that price reaction functions would be more appropriate than Cournot's output reaction functions, and on the strength of this demonstrated how the profit would be reduced to zero. Edgeworth amended the analysis, introducing price oscillations and hence instability; Marshall and Pigou discussed Cournot in passing.[13] None of these writers linked their reading of Cournot to a wider theory of competitive behaviour; many assumed that there was a unique solution to the problem; and this potential exemplar of strategic behaviour had no impact beyond a handful of economic theorists.

Chamberlin first came across the work of Cournot in the mid 1920s while working for his thesis, which was the original draft of *Theory of Monopolistic Competition* submitted in April 1927. In 1929 he published what was to become the third chapter of *Monopolistic Competition* in the *Quarterly Journal of Economics*; the original title, and the one used in the book, was "Duopoly and Oligopoly"; Taussig, the editor of the *QJE*, declared that this title was a monstrosity, and insisted that the title be altered to "Duopoly: Value where Sellers are Few".[14] In the version published in 1933[15] Chamberlin began by pointing out that discussion of duopoly had hitherto argued that it would lead to a monopoly price, a competitive price, a permanently oscillating price, or no price at all. This he attributed in part to faulty reasoning, but also to the complexity of what seemed, at first sight, a relatively simple problem. Importantly, he here introduced as an assumption that each was forced to take account of the behaviour of the other, this being affected by one's own actions.

The introduction of product differentiation into this analysis demonstrated the manner in which firm strategy extended beyond price and quantity to the nature of the product. He proposed that a seller of a particular product enjoys a monopoly of its supply, but faces competition from a varying range of imperfect substitutes.

> In all the fields where individual products have even the slightest element of uniqueness, competition bears but faint resemblance to the pure competition of a highly organized market for a homogeneous product.[16]

A good example of this would be the car industry, where there is competition among

[13] W. Fellner, *Competition among the Few. Oligopoly and Similar Market Structures*, Alfred A.Knopf, New York 1949 Ch.2.

[14] Chamberlin, "On the Origin of 'Oligopoly'", p.212.

[15] E. H. Chamberlin, *The Theory of Monopolistic Competition. A Re-orientation of the Theory of Value*, 8th.edition, Harvard University Press, Cambridge (Mass.) 1962. The account of Chamberlin is based on this later edition, and has therefore to be strictly provisional, for important changes were introduced into the second edition of 1937, shifting the emphasis to product differentiation.

[16] p.9.

carmakers to supply cars, and generally between carmakers as a whole and other forms of transport. Even if there were one carmaker, this producer would face some form of competition from buses, trains and aircraft. Although an almost banal observation today, this was truly novel in the 1930s when linked to an analysis of competition between producers with differentiated products, and resolved many of the more intractable conceptual problems thrown up by market phenomena - such as the demand for branded goods and their pricing.

The elaboration of earlier duopoly models in this light opened the way for an understanding of oligopolistic behaviour, in which the behaviour of an individual firm took account of the reaction of competitors to it. Irving Fisher had alluded to this problem of mutual dependence in 1898 when he drew an analogy between competitive behaviour under conditions of duopoly and the game of chess;[17] but this insight, familiar enough today, was not linked to the problem of collusive behaviour. Chamberlin showed how this process of mutual estimation and calculation resulted in the formation of prices determined by an oligopolistic market structure, but which did not necessarily involve any intentional collusion between the parties involved. As in chess, a competitive game is dominated by a process of anticipation and calculation; but the only implicit agreement between the players is to abide by the rules of the game.

Chamberlin's approach opened the way for the development of a more elaborated conception of competitive markets, providing an analytical apparatus that could be used to generate a number of market situations.[18] When in 1938 Hall and Hitch published the results of their first survey of business behaviour, they also based their classification of markets on Chamberlin, as follows:

1) Pure competition
2) Pure monopoly
3) Monopolistic competition
4) Oligopoly
5) Monopolistic competition with oligopoly.[19]

Importantly, they argued that conventional price theory broke down when faced with 4) and 5):

> ...these, as special cases, are relegated to footnotes or left to

[17] Chamberlin, "On the Origin of 'Oligopoly'", p.215.

[18] See F. Machlup, "Monopoly and Competition: A Classification of Market Positions", *American Economic Review* Vol.27 (1937) pp.445-51.

[19] R. J. Hall, C. J. Hitch, "Price Theory and Business Behaviour", (1938) reprinted in T. Wilson, P. W. S.Andrews (eds.) *Oxford Studies in the Price Mechanism*, Oxford University Press, London 1951 p.110.

> mathematicians, because the demand curve for the product of the individual firm, and therefore marginal revenue, is indeterminate where the price and output policies of the firms are interdependent.[20]

They went on to conclude from their study of pricing behaviour by businessmen that the typical market situation was that represented by monopolistic competition and monopolistic competition with oligopoly, a conclusion that seems to have been overlooked by most of their critics, who concentrated on the validity of seeking explanations of pricing behaviour through surveys of cost and pricing procedures followed in business.[21]

The influence of the Chamberlinian reassessment of market structures is also evident in J. M. Clark's influential paper of 1940, which besides providing a typology of competitive markets, introduced the conception of "workable competition" in place of the ideal-typical construct of pure competition. The typology which he presented was generated from a number of characteristics of industrial structure, from the character of the product, through the geographical distribution of production and consumption, to the variation of cost with short-run fluctuations in output.[22] This idea of workable competition had first been outlined in the context of discussion at the Annual Meeting of the American Economic Association in 1939, at which a session was devoted to the topic "Preserving Competition versus Regulating Monopoly". At that meeting, Corwen Edwards, one of the more prominent proponents of antitrust, recognised that the competition that he sought to preserve through the application of the law

> must necessarily be in some respects imperfect or monopolistic....
>
> By competition I mean merely the conditions that buyers and sellers call competitive. For simplicity, I shall speak of conditions only on the supply side of the market. A competitive market is one in which there are alternative sources of supply.[23]

It is reasonable to suggest, therefore, that by the early 1940s one effect of the introduction of oligopolistic competition into economic discussion had been to modify understanding of competitive conditions to take account of market imperfections. None of this however

[20] Hall, Hitch, "Price Theory and Business Behaviour", p.111.

[21] The most comprehensive critique was by Fritz Machlup, whose general line of argument was that the equation of Marginal Cost with Marginal Revenue was implicitly what businessmen did, even if not consciously - F.Machlup, "Marginal Analysis and Empirical Research", *American Economic Review* Vol.36 (1946) pp.519-54.

[22] J. M. Clark, "Toward a Concept of Workable Competition", *American Economic Review* (Papers and Proceedings) Vol.30 (1940) p.243.

[23] C. D. Edwards, "Can the Antitrust Laws Preserve Competition?", *American Economic Review* (Papers and Proceedings) Vol.30 (1940) p.170.

implied that oligopolistic behaviour had been accepted as the prime medium for the understanding of market functioning; although this had been put on the agenda, at one level it simply generated ever-more complex diagrams and conditions.

There was no real way forward at this level, as Oskar Morgenstern noted at the 1947 AEA meeting:

> ...the currently used tools such as the marginal revenue, marginal cost concepts together with product differentiation and the attempt to determine a maximum of profits do not seem strong enough to unlock the exceedingly complex problems. In the background, moreover, is the undeniable and disturbing fact, already well known to Cournot, that when there are but few participants in a market, they reflect about each others' behavior and try to set their course accordingly. Here, indeed, is the crux of the matter and the difficulty should be squarely faced rather than relegated to an inferior role. It is in this domain where the need for a new approach becomes most convincing.[24]

Morgenstern did not attempt to summarise the approach that he and von Neumann had adopted in the 1944 book; instead he confined himself to criticism of orthodox price theory, with indications of how a game-theoretic approach might resolve some of the more intractable problems. He dispensed with the idea of a unique equilibrium in the form of an ordinary maximum problem; for once one introduces oligopoly and monopolistic competition assumptions about the reactions of others are unavoidable. He went on:

> But if one looks more closely the maximisation even under free competition has only been achieved by quietly assuming that the participants in the market do not form coalitions, combinations, etc., which would greatly reduce the number of actors. When the number of sellers or buyers or of both is small anyway, the maximum character of the problem becomes exceedingly doubtful even on a purely intuitive basis. Now it is one of the decisive steps in the theory of games to show that one is not confronted with maximum problems (unless dealing with an absolutely isolated Robinson Crusoe, and its formal equivalent) but with a fundamentally different situation.
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> Where is the difference? It lies in the fact that the theory of competition assumes that the individuals or firms are in full control of all the variables

[24] O. Morgenstern, "Oligopoly, Monopolistic Competition, and the Theory of Games", *American Economic Review* (Papers and Proceedings) Vol.38 (1948) p.10.

> that determine the outcome of any transaction undertaken. This is only achieved by the wholly inadmissible trick of holding everything else constant and of forbidding, tacitly no doubt, the previously mentioned agreements among participants.[25]

Morgenstern's presentation offered a theoretical strategy which would, eventually, alter the treatment of competitive behaviour; but his discussants at the time can be assumed to be representative of the profession in doubting the solidity of his propositions. William Jaffé, who dedicated his last years to Walras' correspondence and perhaps not therefore an impartial witness, remarked that Morgenstern offered no more than "...vague suggestions as to the direction a more satisfactory theory of oligopoly might take"; "How we can get to determinate solutions by Mr.Morgenstern's device I cannot yet see".[26] Martin Bronfenbrenner, while generally more constructive, suggested that Morgenstern and his associates should "...formulate some substantial body of their results in a form susceptible to testing against the received doctrine..."[27]

Even more telling are some papers presented at the AEA Conference the following year dealing with some aspects of recent Antitrust activity. Nicholls presented in great detail the history of a case brought by the Antitrust Division of the Department of Justice against leading cigarette manufacturers, alleging conspiracy and restraint of trade. No evidence of any common plan was presented; instead, this was inferred from the coincidence of price movements among the three leading producers, who were also the producers of the leading brands of cigarette.

> The fact of identity of behaviour was offered as the basis for inferring both the existence and the elements of the alleged common plan and the defendant's knowledge of that plan. Each was alleged to have acted similarly with the knowledge that the others would so act, to their mutual self-interest. Thus, the *Tobacco* case brought the basic assumption of modern oligopoly theory squarely before the courts.[28]

This was enough for the Court of Appeals and the Supreme Court: the power and intent to exclude competitors was sufficient basis for judgement to go against the tobacco companies;

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[25] Morgenstern, "Oligopoly, Monopolistic Competition, and the Theory of Games", p.12.

[26] W. Jaffé, "Discussion" to "Imperfect Competition, Oligopoly, and Monopoly", *American Economic Review* (Papers and Proceedings) Vol.38 (1948) pp.20,21.

[27] M. Bronfenbrenner, "Discussion" to "Imperfect Competition, Oligopoly, and Monopoly", *American Economic Review* (Papers and Proceedings) Vol.38 (1948) pp.25-6.

[28] W. H. Nicholls, "The Tobacco Case of 1946", *American Economic Review* (Papers and Proceedings) Vol.39 (1949) p.285.

and the intent to exclude was inferred from the concerted action taken by the companies. This, opined Nicholls, was a decision "...which - in the main - economic analysis would support";[29] a conclusion which today seems incredible, but which appears to represent economic opinion of the time. Counsel for Reynolds pointed out that if the conviction was held to be lawful, then the implication was that it had to apply to every other executive and corporation in a mass production industry: that the task facing the Department of Justice was the deliberate divestment and fragmentation of all large firms in the US economy. It did not come to this, of course; in part, because decisions of this kind did not count for a great deal. No specific action was taken against the tobacco industry; during the period 1937-47, predominantly one of price control, the three defending companies expanded their share of the market from 68% to 85% at the expense of cheaper brands.[30]

The same pattern of resolute condemnation of normal business behaviour combined with inaction is evident in one of the most prominent case of the 1940s, against ALCOA. Proceedings were initiated on 23.April 1937 with a complaint against ALCOA, 25 subsidiary and affiliated companies, and 37 of directors, officers and stockholders. They were charged with monopolising the manufacture of virgin aluminium and the sale of sheet, alloys, cables and bars in the USA. It was further alleged that the monopoly was preserved and protected by the purchase of overseas plants and by cartel agreements with foreign producers. The claim was made that the monopoly was acquired by restrictive contracts and oppressive tactics, including discriminatory prices and the squeezing of price spreads between virgin ingot and sheet in order to eliminate new competitors. The Government requested Alcoa's dissolution.[31]

The District Court found the defendants not guilty on 23.June 1942; the decision was reversed on 12.March 1945 with a ruling that treated size as the essence of the violation: the fact that ALCOA made over 90% of virgin aluminium was sufficient for the Court to find the defendant guilty of monopoly. No action was however taken to break ALCOA up; instead it was proposed to await the outcome of the government's programme of disposal of surplus aluminium plants. This was to take place under the Surplus Property Act (1944) which was consistent with the antitrust laws in that it sought to promote free enterprise and competition by its disposals, preference to be given to smaller purchasers over larger. Faced with ALCOA, however, this policy was overridden; instead, two new firms were created in the image of ALCOA. In 1948 the Government filed a further petition alleging that competitive

29 Nicholls, "The Tobacco Case of 1946", p.288.

30 Nicholls, "The Tobacco Case of 1946", p.291.

31 W. Adams, "The Aluminum Case: Legal Victory - Economic Defeat", *American Economic Review* Vol.41 (1951) pp.915-6.

conditions had not been restored; and although the Court did not find definitely for the government, they did in June 1950 direct a partial divestiture of linked stock in ALCOA and its Canadian counterpart.

In its deliberations, the Court did not consider the position of ALCOA in the new industrial structure; the issue of price leadership was dismissed. The result was the the aluminium industry was transformed from a single-firm monopoly into an oligopoly in which ALCOA exercised residual monopoly power through price leadership.

## Conclusion

The ideology of the Antitrust Division was well-expressed by a Division economist in 1945:

> It will pay a large corporation to agree with its competitors on price fixing. It pays to operate a basing-point or a zone-price system. If patent pools can be organized, especially with hundreds or thousands of patents covering a whole industry, the profits will be enormous. If an international cartel can be formed which really works, the very peak of stabilization and rationalism is reached. If the management of all the large units in an industry can get together with the labor unions in the industry, a number of birds can be killed with one stone. And finally, if the government can be persuaded to legalize the restrictive practices, the theory of "enlightened competition" is complete.[32]

It would seem that the only force standing up for competition in the American economy was the FTC and the Antitrust Division, beset on every side with businessmen who preferred to strike a restrictive deal than compete. After reviewing the relationship between competition and efficiency, Comer concluded:

> You may ask what this all has to do with enforcement of the antitrust laws. Just this: in a great American industry with standardized, supposedly competitive products, no producer under the theory of competition has the right to be in a position where he can decide whether his policy shall be one of high prices and restricted production or low prices and high production. The very conditions of choice assume a considerable degree of monopoly or tacit agreement among competitors. If the industry is truly competitive, he

[32] G. P. Comer, "The Outlook for Effective Competition", *American Economic Review* (Papers and Proceedings) Vol.36 (1946) pp.154-5.

has *no* choice in the matter.[33]

Economic opinion was generally more sophisticated than this, but it does seem to catch the mood of those Government officials charged with the execution of competition policy. The Courts, too, sought to strike down what they saw as collusive activities, dismissing as irrelevant phenomena which, today, would be viewed as normal economic phenomena. This apprehension by Courts and Government officials of the problems of competition appears anachronistic today; but it was unchecked in the 1940s by any coherent and widely accepted theoretical explanation of market structure and pricing behaviour.

[33] Comer, "The Outlook for Effective Competition", p.158.