

**ARMSTRONG ON DAVIDSON ON COMPETITION VS MONOPOLY**  
**By Donald Armstrong**

It is virtually impossible to think of an innovation of any significance that does not hurt someone. My book, Competition versus Monopoly is only mildly innovative, but it has obviously hurt Mr. Davidson.\* And this hurt, no doubt, explains the tone of his article. If my treatment of such topics as the product, the firm, power and price, provides a more accurate description of business and a better setting for the analyses of competition, then I have certainly questioned at least some of the orthodoxy of the Department that he served so long and so faithfully.

In his attack, Mr. Davidson did not attempt to summarize my position or the arguments behind my conclusions, with the result that a reader of his review can have very little idea of what Competition versus Monopoly is all about. What he has done instead is to identify a limited number of "themes" or, rather statements and to suggest that in each one I am wrong. In what follows I shall attempt to identify the issues and to persuade the reader that my arguments are worth pursuing and that they have not been seriously challenged by Mr. Davidson.

The first point that Mr. Davidson makes is that I urged "economists to downgrade the importance of price competition (at a time when) authoritative voices in the country are calling for more price flexibility". What I in fact argued was something quite different and quite fundamental to the study of competition.

What young economists learn in a standard microeconomic course is that sales are a function of price. In algebraic terms,  $Y_1 = f(X_1)$  where  $Y_1$  is sales and  $X_1$  is price. In geometric terms, the model is captured by the familiar downward-sloping demand curve. In the standard text, reference may well be made to product quality and to marketing, but the message remains that competition for sales is largely a function of price competition.

What I have pointed out in my book is that sales (and competition for sales) are a function of at least a score of offer dimensions - any one of which can be used to transfer value from the seller to the buyer. In algebraic terms,  $Y_1$  (sales) =  $f(X_1...X_n)$  where "n" is at least 20 and could be 200 or more. It could, I suppose, be said that the substitution of  $(X_1...X_n)$  for  $X_1$  downgrades the importance of  $X_1$ . But surely the issue is not the downgrading of  $X_1$ ; it is whether or not I am right in urging my fellow economists to recognize the importance of  $X_2$  to  $X_n$ .

---

\*Review Article: Donald Armstrong, Competition vs Monopoly: Combines Policy in Perspective, the Fraser Institute, Vancouver, 1982, by Roy M. Davidson, Canadian Competition Policy Record, December, 1983.

This issue is by no means trivial, and it cannot be dismissed by suggestions that product improvement might be represented by  $X_2$  while  $X_3...X_n$  are made up of singing commercials and other socially wasteful competitive dimensions. The number and the importance of the competitive dimensions (the X's) will of course vary enormously with different products and different markets. In only a small subset of these markets will singing commercials even appear; in only a few of these markets will price be a single number; and in even the simplest market, a salesman would have no trouble finding at least 20 ways of improving an offer without touching the pro forma price and without bursting into song. What one believes about the nature of competition and about the ease and frequency of conspiracies serious enough to slow down the offer-improvement process, of necessity, must be strongly influenced by whether one accepts the model  $Y_1 = f(X_1)$  or the competing model  $Y_1 = f(X_1...X_n)$ .

In any event, emphasis or de-emphasis is hardly the point. A serious reader will not dismiss my analysis with the observation that I am asking my economic brethren to de-emphasize price just at a time when the Bank of Canada, the Economic Council and the C.D. Howe institute have decided that it might be a bit easier to fight inflation if prices went down.

The next issue concerns X-inefficiency. On this matter, it is difficult to respond to Mr. Davidson for I do not understand the point he is trying to make or how his evidence supports him. His quotation from Green refers to "monopolistic firms" and to "protected monopolists". Even a casual reader of my book will know that I deal with X-inefficiencies in the context of oligopolies. I would have no difficulty at all in believing that protected monopolies might get fat and lazy. My position on X-inefficiency is quite involved, but Mr. Davidson has thought to capture it with the statement that "He (Armstrong) contends that psychologists have established need hierarchies which are incompatible with the idea that either conspirators or monopolists seek a quiet life". This is a misrepresentation of both my views and those of the behavioural scientists I quote. The reader will find that the need hierarchy is quite consistent with a conspiracy to set prices. Indeed, it even offers a logical description of the circumstances under which conspiracies are likely. What any of this has to do with the "evidence" offered by Mr. Davidson must be left to the imagination. Perhaps "the history of the decline of once dominant firms" does suggest that "there are more organizations like Gutta Pecha, Johns-Manville and Canadian Breweries, etc. than there are organizations like Northern Telecom". (p. 2) They certainly enjoy a three-to-one advantage in Mr. Davidson's sentence; but so what? Perhaps the numerical superiority of those once-proud names simply demonstrates that any firm that is foolish enough to believe it can survive on the basis of X-inefficient behaviour is doomed! With the proposition that deregulation induces competition I cannot, and do not, disagree. That concentrated industries pay higher differentials to union members, if they in fact do, could prove nothing more than that the forces that produce fewer companies produce fewer, stronger unions, perhaps by concentrating more workers in fewer locations.

The third issue arises from my de-emphases of the role of consumers. I am quoted correctly as saying that it is in the nature of the distribution of power and in the nature of managerial work that managers - or at least continually successful managers - must be concerned with mutually consistent offer-improvement paths for all participants - workers, customers, etc., who individually and collectively hold power in an organization.

This proposition is I think self evident. But Mr. Davidson seems to believe that the theory will founder unless I can explain how it can be consistent with a decision to automate (which will hurt some workers) or a decision to make rather than buy (which will hurt some suppliers). He could have gone on to ask about cutting dividends, and a host of other tough decisions that managers must make in order to compete and to survive.

It certainly is a main theme of my book that the role of successful management is the creation of surplus. (I could have said increased productivity). To this end, the innovation-imitation process, the adding or subtracting of choices, etc, must be used to meet the demands for better products, higher wages, and higher taxes. Does all of this become false because the innovation process will inevitably hurt as well as help? Or does it mean only that being a successful, offer-improving manager is exceedingly difficult?

But these are obiter dicta. My rear error is that I have forgotten "that the only purpose of production is consumption". (p. 2)

This is an astonishing statement, and even if it were true, is it the least bit relevant? Just suppose that the end of all work, all saving, all innovating, is consumption; does this mean that households as producers do not care how much they are paid or under what conditions they work? Is Mr. Davidson really suggesting that managers can forget about making (mutually consistent) offer improvements to workers, fellow managers, suppliers, etc. because all that these people really want is consumption?

The next issue is that I created a spurious dichotomy between structuralists and behaviouralists. Everyone knows that both structure and behaviour matter: I know it; Mr., Davidson knows it; and every economist knows it. But what follows from this admission? Is it that there is only one school of thought in economics: a structural-behavioural school? Because right-handed persons think their left hand is important, and left-handed persons sometimes use their right, is the distinction that is sometimes made between right-handed and left-handed persons spurious?

A careful reader will also be aware of the fact that the distinction I make between schools of thought goes much beyond the usual structural-behavioural difference. My view of the world is quite different from Mr. Davidson's not only because I think that "competition among the few" is likely to be highly competitive, but also because I see offers as more complex, markets as less well defined, power as being widely dispersed, and competition as having more dimensions.

Let me try to highlight the difference in our approach with the example that Mr. Davidson uses. Mr. Davidson and I and everyone else would concede that, all else being equal, it is easier for three firms to agree than for 30. But to agree on what? The economist who thinks consciously or unconsciously in terms of the price-theory model of the firm, and who thinks of price as being a single number, will believe on a priori grounds that a conspiracy must be easy, that, of course, it must involve price, and that in so doing it must destroy the only element of competition that matters. Moreover, if this economist uses his or her perception of reality to study what is happening in the real world, then that person is likely to look at, and to collect information about, only the visible, pro forma prices. This being so, in many relatively homogeneous markets, the "empirical research" is as likely as not to support the suspicion of conspiracy. The investigator will find the similarity of pro forma prices that the a priori, price-theory-based, structuralist reasoning would predict.

If, on the other hand, economists accept my view of reality as being closer to the mark, they will see agreements - even among these firms - as being very difficult. Even the idea of an agreement takes on a broader meaning. In the context of a study of combines legislation we are presumably concerned about agreements that slow down the rate of offer improvements in all offers and/of in the transfer of benefits from one group to another in an unfair way.

Our "other handed" economists are likely to believe that to effect such an agreement our three firms would have to agree on a whole range of price, near-price and (non pejorative) non-price, offer-changing dimensions. There could be no presumption that this would be an easy task, and they certainly would not jump to the conclusion that in relatively homogeneous markets "an arrangement" that produces a uniformity of pro forma prices is evidence of such an offer-altering agreement.

The real world investigations of economists of this school would pay very little attention to the uniformity of pro forma prices in relatively homogeneous markets, though they might be interested in the relative trend of those prices over time. They would be interested in discounts, in credit terms, and whether invoices charge for Grade B when in fact Grade A is delivered. They would, of course, be concerned with product and service changes and with how to measure these changes when they almost always have different costs and different values to different competitors and to different customers.

Economists who go beyond the veil of pro forma prices to study, or better, to experience, real competition in the real world, are not going to attach much importance to the idea even if it is technically true that three firms will, ceteris paribus, find it easier to conspire than will 30.

Of equal importance is the fact that economists who have started to think this way are going to attach relatively little importance to much of the

research of the past and to much of what has hapened in court rooms. As I argue at some length in Competition versus Monopoly, in certain types of markets, prices are the atomic bombs in the competitive arsenal, and the fact that firms are not having a price war no more means that they are not competing than that two countries that are not using atomic bombs must therefore be at peace. Vigorous competition and continuing offer improvement for all participants could be quite consistent with even an explicit agreement to maintain the same pro forma price. Our views of the competitive process are such, however, that neither courts nor academics are interested in competition in a broad sense or even in offer improvement.

The fourth issue, or series of issues, concerns my treatment of barriers and of freedom of entry. According to Mr. Davidson my case rests "on the assumption that new entry is almost costless" (p. 3). This is a surprising position for the reviewer to take, because far from assuming that entry is costless, I argue at some length that entry is not, and should not be, costless. Entry uses scarce resources, and economists should be no more in favour of a free entry than they are of a free lunch.

The obviously great distance between Mr. Davidson and me on this issue could no doubt be traced back to his structural and my behavioural views of the world, and our differing opinions about what competition is all about. Mr. Davidson obviously sees a patent as a barrier to entry. Even on structuralist grounds, this has always seemed to me to be a strange position. The patent is a front-door lock granted to the builder of an innovative house. Why should the passerby object to the lock that prevents him from entering a house that would not be there but for the efforts of the innovator? Surely society is made better off by the building of the innovative house, and even a "counter of houses" should, one would think, see the innovation and patent as increasing the number of choices available from zero to one. Even on structural grounds this should be an increase in competition.

In any event, being of a different school of thought, I see the patent as a device to stimulate innovations and offer improvements and therefore as a tool that increases competition itself. It bothers me not at all that would-be competitors would have to wait (in exchange for being handed the know-how when the patent expires) or would have to innovate their way around the patent.

There is much more that should be said on this point in response to Mr. Davidson but to expand further would be to repeat much of what is in Competition versus Monopoly -- with some added explanations for Mr. Davidson. There is, however, one small matter I must comment on.

I really did discover by myself and for myself that "dissatisfied customers make entry easy if not free". It happened during one of my very first consulting jobs early in my career when I participated in the successful entry of a rather small, capital-intensive firm into the domain of a firm that had almost 100 percent of the market. I did not rush into print with the Dr. Panglos-

Armstrong discovery because of course I had done nothing more than stumble across what is only self evident, and, in the business world, a well-known truth. Apparently Mr. Davidson has neither theory nor experience to show the contrary. He must, therefore, rely on sarcasm to establish his point.

With regard to size, I am quite prepared to let the market pick the winners and in that way decide whether an industry will be made up of big firms, little firms or some combination of sizes. I do not want the government to lean in either direction. Given the fact that structuralists seem to want to lean in the direction of more and smaller firms, I suppose I am duty bound to lean in the other direction, if only to keep things upright!

As for size and innovation, the two supposedly conflicting quotations given on page 5 do not conflict at all, and indeed in both cases I drew on the work of F.M. Scherer. There is room for firms of all sizes to undertake research and development. At the same time, there is a positive correlation up to a certain size between R&D expenditures and firm size. This latter point is particularly relevant because as the Royal Commission on Corporate Concentration points out, only "40 companies in Canada would have exceeded the upper threshold of Scherer's estimate of the point at which R&D expenditures might be expected to level off" (see Armstrong p. 160). Mr. Davidson has no ally in Prof. Scherer or anyone else that I can think of on this point.

The rest of Mr. Davidson's review concerns the twenty-odd pages at the end of my book dealing with policy. To put this section in perspective, the reader should know that for at least the last 13 years, Mr. Davidson and a number of like-thinking economists and functionaries have been trying to pass a new and "really effective" combines act. For the same length of time a few "right-thinking" economists have been trying to stop them. This long battle, of course, explains much of the feeling in Mr. Davidson's review.

What has been at stake over these years is not a combines act versus no combines act; it is basically the present act versus a "really effective" one. I take a "really effective" act to mean one under which the Crown would not have to lose any more cases.

If this seems exaggerated let me say that in one of my early speeches on the subject, I pointed out that the legislation then being proposed was so "effective" that it could have kept my father (the C.E.O. of a dominant firm in an oligopoly, i.e., the owner of a small dry goods store in a small town in the West) before the courts or in jail all of his adult life. I was assured by a top civil servant and by a minister of the Crown that the new act would not be used in this way - not that it could not be, but rather that it would not be. Neither saw anything at all wrong with having on the books a law that was so "effective", so devoid of tests of "undue-ness" or "unreasonableness", that it would be left to the good judgement of the officials of the government who was put in jail and who was not.

Getting down to details: I do not suggest, as Mr. Davidson would have us believe, that "we can largely forget about anti-competitive agreements". What I do believe is that the existing law that we have in Canada is adequate to deal with the problem, and in arriving at that conclusion, I do not ignore any relevant evidence.

In order to consider the practicality of agreements serious enough to reduce the rate of offer improvement, one must start on page one of Competition versus Monopoly and work towards the end. I deal with the circumstances in which the conditions are right for a conspiracy, how a market-dividing agreement (that I would oppose) creates a monopoly, etc.

As for my grip on the law, Mr. Davidson and I have been sparring partners for long enough that he knows very well that I know the role of the Attorney General and the standard of proof required.

I believe that I am not at all off the track when I comment on inferential conspiracy. "No one has ever been convicted of conscious parallelism", should read, "Convictions have never stated that the accused were guilty of conscious parallelism". But it has been a very close thing, and if the sugar companies' conviction on appeal had stood up before the Supreme Court, we would in my opinion have had just such a conviction.

From what has gone before, the reader will already see why I would insist on a test of undue ness in any action as difficult to understand as competition. As for tests of undue ness, we shall just have to depend, as we do now, on the good sense of the judge and hope that judge spends long enough on each case to develop a sense of what competition is all about. The defendants might also offer a little prayer that the judge assigned to the case has not studied economics under a professor with the same views on competition as those of Mr. Davidson.

**NEW CANADIAN AND U.S. LEGISLATION  
TO GOVERN SHIPPING CONFERENCES  
By S.D. Khosla and R.D. Anderson\***

On March 27, 1984, Bill S-12, An Act to Amend the Shipping Conferences Exemption Act, 1979, was introduced in the Senate of Canada, following a two-year interdepartmental review. The bill has been given second reading, and is now referred for study by the Senate Committee on Banking, Trade and Commerce. In the United States, on March 20, 1984, the Shipping

---

\*Bureau of Competition Policy, Ottawa. The views expressed are the authors' and not necessarily those of the Bureau.