TWELFTH WILFRED FULLAGAR MEMORIAL LECTURE: ANTITRUST AND MARKET ALTERNATIVES TO REGULATION

PHILLIP AREEDA*

INTRODUCTION

It is a pleasure to be here in Australia, and an honour to meet with you on this occasion to share our 93 years or so of experience in matters of antitrust and regulation. I would like to be able to tell you that 93 years has produced clarification so that all is now understood, but the truth of the matter is that our 93 years of experience have simply demonstrated how intractable the problem of maintaining efficient organization of the market is. Our experience does not so much provide answers as it illustrates the hard choices that are necessary in managing the economy.

I shall begin by stating the five distressingly obvious themes of my talk:

(i) First is that in the American economy, the basic organizing principle of our economic life is reliance on the marketplace with antitrust law designed to maximize the operation of competition within that marketplace.

(ii) Second, where antitrust law cannot keep the market free and competitive, or where the market does not work to accomplish the objectives that society wants it to, regulation will be substituted.

(iii) Third, the deregulation movement in the United States, a phenomenon that began in the universities and has in fact penetrated to political life, arises from the realization that regulation has often gone wrong, primarily by being imposed where it was not needed or by being imposed in a form that was not attuned to the problem that was meant to be addressed.

(iv) Fourth, where deregulation is conceived not as the dismantling of a regulatory regime but as its reform, it may be best explained in terms of the antitrust principle of the least restrictive alternative: the law does not allow private restraints that are more restrictive than necessary to accomplish a legitimate objective. Similarly, public regulation should not restrict the operation of the private economy more than is necessary to solve an identified social evil.

(v) Fifth, regulation and deregulation obviously occur in a political environment where there are, to say the least, many obstacles to reform. The wisest course is not to adopt regulation in the first place without

*Langdell Professor of Law, Harvard University.

careful consideration of its necessity and without careful design of its form.

Those are my basic themes. Let me proceed to develop them briefly.

THE MARKET REGIME AND THE ANTITRUST LAWS

1. The Premise

There is always a danger of being misunderstood in saying that a market economy and the competitive principle are the governing regime of the American economy. If one is not careful that is taken to invoke some kind of laissez faire principle. I do not mean that at all. Obviously competition can only take place within the general ground rules established by the general law of contract, law of torts, and law of business associations. Obviously the market place works given some kind of income distribution among consumers as influenced by the transfer payments and taxes effected by government, and it works, to the extent that it works at all, only within the general levels of output influenced by monetary and fiscal policy. I do not mean to say that government is irrelevant to the operation of the economy, but my general point is that by and large, in the American economy, most economic activity is relatively unregulated, in the sense that entry into the market is free, exit from the market is free, and prices and the price quality mix of products are determined by the play of market forces rather than by government decree.

2. The Core of the Antitrust Laws

The role of antitrust law is to keep this competitive regime working, and to do so in essentially two ways to prevent conduct of the sort that would interfere with the operation of the market. Preventing price-fixing rings is the most obvious way. The other is by trying to keep market structures as competitive as possible, that is, to have a number of competing firms rather than a monopoly or highly concentrated market. The problem for our antitrust law and, of course for yours, is how to do this.

In the United States the antitrust laws are exceedingly vague. The whole business of American antitrust law, everything that has happened in the last 93 years and all of the volumes on the subject, are derived from two legislative sentences. They say: it is a sin to restrain trade, and it is a sin to monopolize.[1] The statute does not quite use those theological terms but that is the thrust of it. Subsequent legislation mentions a few other matters — of price discrimination, tying, mergers — but it condemns these things only where the effect may be to substantially lessen competition.[2] This latter language has also been adopted in the Australian *Trade Practices Act* 1974 (Cth.).[3] Under the American statutes the essential tests

[1] *Sherman Act* 1890 (U.S.) ss. 1 and 2; 15 U.S.C.A. ss. 1 and 2.
[2] *Clayton Act* 1914 (U.S.) s. 2 (price discrimination), s. 3 (tying), and s. 7 (mergers); 15 U.S.C.A. ss. 13, 14, and 18.
[3] *Trade Practices Act* 1974 (Cth.) ss. 45 (1) (b), 45 (2) (a) (ii), 45 (2) (b) (ii), 45B (1), 47 (10), 49 (1).

include for example, restraint of trade, monopolization, attempted monopolization, and substantial lessening of competition. The legislature has nowhere defined what these terms mean, nor are they defined where they occur in the Australian statute. So the question that has arisen is: what are the courts to do with such a statute? The answer is simply that the courts in America have developed a body of law in the common law manner, as they are accustomed to do in the fields of tort or contract law. What we have observed is that where the legislature does not legislate, or at least does not tell the society — business people, actors in the market place, or the courts — what to do, the judges have two choices. One is to do nothing, which seems foreign to their mandate. The other is to invent a body of law that somehow or other fits within, or seems consistent with, the vague words of the statute. That is just what the American courts have done and to some degree I suspect it may prove inevitable with the Australian legislation as well.

How the judges go about doing this is an interesting matter. They do it in part through their own good sense, in part through history and in part through what I might call an infusion of economics. How economics is received into the law is a nice question and one to which I shall return.

3. Conduct

I have said that American antitrust law addresses itself to conduct and to market structure. There is not time here to analyse in any detail the particular business practices which the law aims to control, but I want to give you a sample of the way in which an American court would go about dealing with the question of appraising conduct to declare whether it unreasonably restrains trade or not. Most American antitrust laws are governed by what we call the "rule of reason". This is not to be contrasted with the "rule of unreason", but rather with certain automatic rules, or per se rules, which I will mention in a minute.

The rule of reason is simply a statement that the court will first examine a business practice with a view to determining the ways in which it might impair competition and second, will try to set against that the legitimate social objectives the conduct is alleged to achieve and third, will appraise it against less restrictive alternatives. For example, suppose all the drug companies in the country decided that progress in finding a cure for the common cold or cancer (or any other ailment you like) was not as rapid as might be possible and they decided to create a joint venture to centralize their research in order to find the cure. The redeeming virtues of such transactions are rather obvious. One achieves economies of scale in research, because instead of having one experiment done 20 times, you would have 20 different experiments done. Instead of using up test tubes, machines and animals to repeat the same experiment, one needs only to use one test tube, metaphorically speaking, for a particular experiment. Most importantly of all, the interchange of information among scientists would contribute to the advancement of the art. It is ordinarily supposed in the sciences, and perhaps even in economics and law, that one good idea breeds another and that if the learning or the results achieved by one experimenter were known to another, there would be a blossoming in the second mind.

In research done at the proprietary level by individual firms in rivalry with each other, one drug company does not tell another drug company what it is doing in its laboratory. So it is quite obvious that there is a plentitude of redeeming virtues in my hypothetical example. Of course, there is the potential for evil, and that emerges if we ask ourselves why firms engage in joint research at all? The answer is, perhaps in part from an instinct of contrivance. They cannot help themselves and are driven to research. We might like to believe that, but the profit motive might be a more powerful explanation. That is, one engages in research and development in order to build the better mouse trap so the world will beat a path to his door rather than to his rivals; or out of the fear that his rival will build the better mouse trap if he does not act, and the world will beat a path to his rival's door and he will expire.

The result of the joint research venture I have hypothesized is that, as all firms are in the same boat, no-one will have any hope of relative advantage from the research and no-one will have any fear of relative disadvantage from the research. Perhaps their purpose from the beginning was to slow the pace of research by reducing the volume of resources going into it. Even if their purpose was as pure as the proverbial driven snow, it may be that the effect of the arrangement will mean that such research as is done will be done more efficiently, but less will be done because of the reduction of the incentives to research. So it is an arrangement that is fraught with potential both for good and for evil. What is the poor judge to do?

There is no clear answer for that in American antitrust law nor I suspect in any other. One of the dodges we regularly use is the search for the less restrictive alternative. We ask ourselves if there is some way we can achieve at least some of the benefit of jointness without suffering the same potential for evil? The answer may be collaboration on a smaller scale. Instead of having all the members of the industry combined in one joint venture, maybe several of them might combine in Research Venture A, several more in Research Venture B and so on, where you could have rivalry amongst the joint research centres and still achieve some economies of scale.

The American judge is likely to say that in the absence of proof that concentration in a single venture of this sort is really necessary, they have to do it on a smaller scale. You will observe that that is a dodge, an evasion of a fundamental question, because proof of anything in the antitrust world is exceedingly difficult and clear proof even more difficult. Therefore the party on whom the burden of proof is cast is likely to lose simply because the evidence is not available. The whole problem with antitrust law, as indeed may be the problem with more of law than we care to admit, is that we often simply do not know enough to know the right thing to do.

The experience of American antitrust is that we might best understand it as a process of trying to deal rationally with our own ignorance, by the making of crude assessments and judgments. I offer this as an example of the way in which antitrust analysis works.

I should add a footnote about the "rule of unreason" or, that is to say, the per se rules. There is a series of sub-rules dealing with practices which have been adjudged to be totally without redeeming virtue, such as ordinary horizontal price-fixing among competitors. In such circumstances there is no need to engage in the elaborate analysis I have just described, and we say, on the basis of experience that this conduct is all evil and no good. You have done it, you go to jail. Price fixing, as I say, is the standard illustration of this phenomenon.

4. Market Structure

There is little time to say much about the problems of market structure but I would like to say a few things.

First, our statute[4] deals with monopolization as does the Australian statute, but monopoly, at least in the sense of the single firm controlling the market, is really a very rare phenomenon. The larger the market the rarer it is, but even in Australia I suspect it is a relatively rare phenomenon. In any event, where monopoly is found the practice under our statute is not to condemn it absolutely, but to condemn it only in those circumstances where the monopoly has been improperly obtained or sustained. The Australian statute is phrased a little differently, but it comes close to the same result.[5] It is phrased not in terms of the illegality of possessing monopoly power, but of taking advantage of it. So the inquiry in both cases is whether the possessor, this rare bird that possesses the monopoly power, has got it through some improper means.

One always has to be very careful in dealing with monopolies in order not to mistake a propriety for an impropriety. I will give you one recent American case, *Berkey Photo Inc.* v. *Eastman Kodak Co.*[6] The Eastman Kodak company was judged to be a monopolist of amateur cameras and films in a private lawsuit by a rival producer of cameras who was also engaged in the photo-finishing business. The alleged sin of Kodak was that it brought out a new camera with a different kind of film. Now it takes some sophistication in the law to see the sin in that, but the alleged sin was that by bringing out this new camera which only worked with the new format of film, Kodak made life difficult for the plaintiff, Berkey,

[4] *Sherman Act* 1914 (U.S.) s. 2; 15 U.S.C.A. s. 2.
[5] *Trade Practices Act* 1974 (Cth) s. 46.
[6] 603 F.2d 263 (2d Cir. 1979); cert. denied 444 U.S. 1093 (1980).

and other producers of old cameras and old style film. No-one suffers a loss of business in the United States without bringing an antitrust suit, it seems. Berkey dutifully brought its lawsuit and the judge, who was an intelligent fellow, instructed the jury that while it is not always a sin to bring out a new product, if you do so with monopolistic intent then you are sinning. Berkey, as I mentioned, was also in the photofinishing business, and even went so far as to claim that its efforts to buy Kodak paper for printing of photographs were unfairly disrupted by Kodak. Berkey wanted to buy the paper without Kodak's name on the back. Kodak said that they were proud of their name, and the judge said it was not always a sin to put one's name on its product.

I am pleased to say the Court of Appeals set it all right and did say that this was not a matter to be left to the jury on the basis of vague allegations of improper intent, but rather that the breaking out of new products was the kind of thing that competition was meant to achieve. Berkey claimed preposterous relief which would have meant that Kodak would have been required in the future to disclose its plans for new products to its rivals before it brought them out. The Court of Appeals said that would be to kill innovation, and after all the purpose of the antitrust law was not to protect competitors but to preserve the process of competition, and even monopolists should be encouraged to innovate, to bring out new products and the like. Thus the analysis of the monopolist's behaviour as to whether it is good or bad in this sense turns out to be very close to what I described as the rule of reason a moment ago: an effort to analyse what it is that we are trying to achieve and protect.

The major problem of market structure is not monopoly at all in our country, and I suspect not in yours, but the problem of concentrated markets, markets in which there are relatively few producers rather than the many that the technical model of perfect competition calls for. There is not enough time for the analysis of oligopolistic producers, as they are called, but the one point I will make is that the problem of dealing with concentrated markets has proved quite intractable. Our law has proceeded with what one might call a containment policy to try to prevent markets, concentrated though they may be, from getting worse and from functioning badly because the producers are doing some things on the side like getting together and holding trade association meetings of a certain sort which in a more competitive market would be perfectly innocent. A collaborative practice among members of an oligopolistic industry will be scrutinized very closely under the rule of reason, with a special sensitivity to the capacity of a practice, such as the exchange of price information, to facilitate undesirable oligopolistic behaviour. That is, the law's approach to oligopoly is not one of direct prohibition but one of containing collaborative bad practices.

Antitrust laws also tackle the problem of excessive market concentration through a prophylactic policy against mergers that are likely to alter market structures in ways that make non-competitive behaviour more likely.

5. The Social Costs of Antitrust

I must now make a terrible confession. The confession is that those of us who believe in competition, and therefore also believe in antitrust law, sometimes act as though antitrust law is an unalloyed good.

My own view is that on balance it is good, but I must place on the table the cost of running an antitrust system. The law is often bent or misapplied in a way that interferes with competition. One example would be what the plaintiff wanted to do in the Berkey-Kodak case, and I could give you many other examples. But even when we have our objectives clear as to what we are trying to do, there are of course inevitable costs in running any legal liability system. It necessarily uses up lawyers and courts and complicates efficient business planning. American antitrust law is usually burdensome in these respects. There is the lure of treble damages under our statute, where if the plaintiff was injured by reason of a violation, he is awarded not only his actual damages, but three times those damages, and not only that, but his lawyers' fees as well.[7] In fact, the lure of treble damages and lawyers' fees, particularly in the context of class actions leads to a tendency to take legal action in every possible situation. If I, as a consumer of bread, suspect price-fixing among suppliers, I could bring an antitrust suit, not only on behalf of myself, but on behalf of all consumers of bread. Picture the treble damages that could result from such a class action with all consumers theoretically involved. I am sorry to say that the consequence of this is that a good deal of antitrust litigation in the United States is really lawyer-dominated and lawyer-initiated and the true parties in interest are the lawyers.

There is a great deal of antitrust litigation in the United States and coupled with the vague content of the law this adds an element of enormous uncertainty to business planning. If you care about productivity in the society, and we do as I assume you do too, there is a crisis of confidence in American industry these days. The notion was once that American industry could do anything and everything and was always on top. Now it seems the Japanese are in that position. As businessmen sometimes say, "the reason we're not as efficient as the Japanese (if that be the case) is because members of the same industry there can get together in ways that antitrust law prevents us as American producers of the same product from getting together." There is an element of truth to that, although I myself tend to believe that most combinations among businessmen that restrain competition do not often have the effect of increasing productivity or competitiveness in home or world markets. One can imagine that there might be some beneficial joint ventures that are inhibited because of the

[7] *Clayton Act* 1914 (U.S.) s. 4; 15 U.S.C.A. s. 16.

vague content of the law. Vagueness in the law has a real social cost, and one must not blink at that fact.

This uncertainty arises not only because the true facts of any real life situation often escape us, but because the decision-making process is one that often uses unfamiliar materials. As I have already indicated, the legislation does not guide, it merely delegates to the courts. What are the courts to do? To some extent we use intent. Lawyers are familiar with the use of intent — "did he strike the other person with malicious intent" — *mens rea* and so on. Sometimes we can do it on intuitive grounds of fairness. It is not fair that the hundred members of the industry should get together and deny the plaintiff, the only other member of the industry, access to some vital facilities that they control. Uninstructed notions of fairness can sometimes get us there. A lot of what is "economic science" is also intuitive common sense, such as the idea that it is bad for the society that the sellers of steel should get together to fix the price of steel rather than compete with each other. Intuition, received wisdom, common sense, and notions of fairness are all things that often instruct and guide us and are familiar to lawyers. However, it also turns out that uninstructed intuition can sometimes be totally wrong. One is therefore faced with the problem of trying to learn what economics has to teach us about the competitive consequences of challenged conduct.

Economics is an essential part of the antitrust system, but lawyers by and large are not economists, and judges almost invariably are not. And so there is a nice question of the mechanism by which economics is received into law. One answer is by learned scholars. Another answer is by the actual litigators in the case. It turns out that lawyers can read economic texts, or at least those written in English rather than mathematical notation, and may attempt to educate the judges. I sometimes say frivolously but also seriously, that the judges get their economics from their law clerks. We have the custom in the United States that judges employ as legal secretaries, new graduates of law schools. The students, particularly the higher-ranking students, rush out of law school and often take employment for one year as a legal secretary to do research, to be a sounding board and what have you, to judges. These law students tend to be more up to date on economics (alas not always sound economics) than the lawyers or the judges, and as one reads some of the opinions it sometimes seems that they may have an undue impact.

The curiosity that then emerges is that legal precedent is only as good as the economic principle on which it rests. One has the spectacle of the Supreme Court of the United States decision in 1965 that certain kinds of restraints imposed by manufacturers on their dealers with respect to the territories or customers with whom they deal ought to be condemned absolutely,[8] being overruled ten years later after the judges or their law

[8] *U.S.* v. *Arnold, Schwinn & Co.* 388 U.S. 365 (1967).

clerks read some economic literature and decided that perhaps these restraints were good rather than bad.[9]

The curiosity in all of this is that if economics was truly a science and if there was true consensus in the relevant areas of economics, it would be easy. We would simply read the journals, and if the economists all agreed on proposition X we might just as well take that for granted in the same way that we take for granted that the sun rose yesterday at 6.53 a.m. But of course economics is in more disarray than that, and economic truth is not easy to learn. Economic truth varies depending upon which truthsayer you happen to be consulting, so the judges and the law have a very tough problem ascertaining when and at what stage of development a particular economic theory or approach to industrial organization is right to be received. I could go on at enormous length on that topic, particularly on the subject of predatory pricing, where I have been a protagonist in the debate,[10] but I simply leave you with that dilemma as I turn to a few situations in which the legislature has decided to displace the competitive regime.

TRADITIONAL REGULATION

1. Premises and Rationale

It is obvious that some markets cannot support efficient competition. Production at minimum cost may be possible at a scale allowing only one or a small number of firms. In that event, competition will not be sustainable and price would probably exceed the competitive level. The clearest example is the local telephone service or the local electricity distribution service. The private company is unable to monopolize its market, without the limitation on prices or profits that usually result from competing suppliers of the same product. Public regulation is then substituted for the competition that does not exist. In fact, traditional regulation goes beyond the obvious, and recognizes that there will be one or only a few firms, and actually forbids entry into the market by any unlicensed firm.

There are many other reasons for regulation. I will get to reasons based upon externalities and lack of information in a moment. Equalization of bargaining power in the management-labour area is thought to be a sufficient reason for at least some kinds of regulation as is rationalization of industry in some limited circumstances. Paternalism is a clear-cut case. You have legislation that compels you to put on your seat-belts in your automobiles.[11] That is regulation, and its justification is paternalism — the government knows better than you do what is good for you. Of course,

[9] *Continental T.V. Inc.* v. *GTE Sylvania Inc.* 433 U.S. 36 (1977).

[10] See P. Areeda and D. Turner, "Predatory Pricing and Related Practices Under Section 2 of the Sherman Act" (1975) 88 *Harv. L.R.* 697; P. Areeda and D. Turner, *Antitrust Law* (Boston, Little, Brown & Co, 1978) Vol. III, chap. 7C.

[11] *Motor Car Act* 1958 (Vic.) s. 31B.

there is another very obvious reason for regulation and that is profit for some special interest. I am aware that minimum prices are established for beer in Victoria.[12] I find it very difficult to think of any economic or social justification for that. One might make the argument that higher prices for beer will cause people to drink less and to stay sober, and thus behave better toward their spouses, children, employers, and employees. Of course, if that were the rationale one would accomplish it I assume, by an increment in the tax rather than increasing the profit for sellers of beer. So occasionally the search for a rationale or justification, might just be put to one side, as the real explanation for regulation is: somebody managed to feather his own nest.

2. Recurring Problems

I would like to assume for the remainder of this discussion that regulation is motivated by some public purpose other than feathering somebody's nest, and I am going to point out in my remaining time, a few of the obvious problems that arise.

One is that without a competitive market it has proved difficult to establish the correct price. Regulators usually attempt to do so by identifying the relevant costs of the firm and setting a price above that cost which is necessary to attract or maintain capital to provide service. If we had time, we could go over the history of rate-making bodies trying to set the right price, and the enormous complexities that occur and the difficulties of doing so. Even more serious is the difficulty of preserving incentives for efficient and progressive management. So long as prices are based on actual cost, there is little management concern about excess costs. So long as innovation in reducing costs merely leads to reduced prices, there is little management incentive to innovate.

Beyond the justifiable difficulties inherent in regulation of this sort, is the sad spectacle of regulation adopted time and time again for public purposes that proves to be totally unnecessary and therefore totally wrong-headed. Aviation[13] and trucking[14] in the United States are clear cut examples. With respect to the former, entry was limited — one could not operate an airline without a licence. The grant of the licence depended on more than being efficient, honest, safe and reliable. One would want to require those things from airlines or trucking companies, but beyond that, you might possess all of those qualities and still be denied entry into the market, even though the industry could easily support several or indeed many firms of efficient size. Between the time of the creation of

[12] *Liquor Control Act* 1968 (Vic.) s. 11A, suspended by proclamation dated 29th August 1983: see Victoria, *Government Gazette*, 26th August 1983, 2743.

[13] See generally P. S. Dempsey "The Rise and Fall of the Civil Aeronautics Board — Opening Wide the Floodgates of Entry" (1979) 11 *Transp. L.J.* 91, 95-108; Panzar, "Regulation, Deregulation and Economic Efficiency: The Case of the CAB" (1980) 70 *Am. Eco. Review* (Papers and Proceedings) 311.

[14] See generally W. E. Thoms, "Rollin' On . . . to a Free Market: Motor Carrier Regulation 1935-1980" (1983) 13 *Transp. L.J.* 43.

our Civil Aeronautics Board and the time of its dismantling, the Board[15] did not allow the entry of a single new trunk-line carrier, notwithstanding the enormous technological and market changes. Further, rather than determining costs on a firm by firm basis, the board looked at industry costs as a whole and began lumping together the efficient and inefficient — lumping together the long haul low-cost routes and the short haul high-cost routes, figuring out the amount of revenue necessary to cover the cost of some supposed reasonable profit and then setting a per mile figure to be charged uniformly everywhere without regard to the cost of the service. No-one would think that made economic sense. The Board also prevented the airlines from cutting prices selectively. Prohibited from cutting prices selectively, the carriers were unlikely to cut them at all.

The consequence in America was higher rates coupled with low profits. Now, that might strike you at first blush as a paradox, but it is not a paradox. Where competition is possible and is not totally suppressed, the elimination of competition in one dimension, in this case price, leaves competition to erupt in other dimensions. With respect to airlines this competitive impulse to compete was still present and this impulse was manifested in the scheduling and overscheduling of planes — large numbers of planes flying every hour of the day, with half of them more than half empty. We had excess service competition (that is, more than consumers desired) at high prices. I can say that when consumers were given the choice they opted for the lower prices and the lesser frequency. The trucking industry in the United States is in the same situation with even less initial justification for regulation given that the scale of efficient operation is quite small.

Airline deregulation has effectively been accomplished in the United States. Trucking deregulation has taken place only very slowly, and I will explain why. The major opponents to deregulation of these two markets were the drivers — the pilots of aeroplanes and the drivers of trucks. The reason for this was that under regulation the airlines were compliant and weak in bargaining. The pilots, who occupied a strategic position, were able to negotiate enormous wages for themselves out of all proportion to the skills involved in the job. The same is true of the Teamsters' Union, the truck drivers' union which sees deregulation as a threat to their share (through excessively high wages) of industry monopoly gains. But pilots are few and truckers are numerous, and the political power of the Teamsters has impeded trucking industry deregulation, while airline deregulation has proceeded.

These examples are illustrations of the substantial dismantling of regulatory structures which have been realized to be unjustified and unnecessary. Some liberalization is occurring in trucking, and more may occur. Railroads in the United States have been allowed much greater latitude

[15] By the *Airline Deregulation Act* 1978 (U.S.), s. 40 (a); 49 U.S.C.A. s. 1551.

in choosing their rates than they used to be, because there is adequate competition from other transportation modes for most, but not necessarily all, products.[16] Ceiling prices on domestic natural gas production are in the course of being dismantled.[17] There, regulation was adopted because it was erroneously thought that producers had monopoly power, while the multiplicity of natural gas producers suggested the opposite. In fact the major effect of regulation was to cause a shortage of natural gas, and it was agreed by economists of every stripe that the program made no sense. Consumer advocates nevertheless opposed the deregulation of natural gas because the price would go up. Politicians also opposed deregulation, as they tend to be short-sighted folks whose time horizon extends to the next election and not much further. Therefore, natural gas prices were controlled in the United States far beyond the time when anyone could or would justify it.

3. Information and Externalities

I want to turn briefly now to the information and the externalities problems, because these are issues at the forefront of regulation in the United States today. The problem here is not one of prospectively dismantling the regulatory regime, but one of attempting to rationalize it — to domesticate it. Allow me to be somewhat technical on information and externalities, but you will see immediately in intuitive terms what I am talking about.

The idea of a well functioning competitive market place rests on buyers and sellers who know what is happening, on the idea that consumers can distinguish a bad product from a good product and also distinguish a product that serves their needs from one that does not.

Obviously this precondition to effective competition may be absent. It may be absent because sellers lie or promulgate false and misleading information. In some circumstances, information may be too costly for the sellers to develop or for buyers to obtain. In other circumstances, the information may be there but sellers may think it in their interest to withhold it. The nicotine content in cigarettes, for example, was never disclosed until the government required it. The market may be insufficiently competitive to bring forth information that consumers desire. But beyond all that, the information may be there but may not be comprehensible to an ordinary consumer. If I could go to a library and look up a chemical formula and read what it says, and then go to the drug store to buy a cough medicine and be in a position to know whether it was good for me or not, the odds are I would not do so, because I would not be able to understand it or would not be able to comprehend the information in that context.

[16] *Staggers Rail Act* 1980 (U.S.) s. 201; 49 U.S.C.A. 10701a. See P. S. Dempsey, "Antitrust and Deregulation: A Railroad Perspective" (1981) 50 *Antitrust L.J.* 363.

[17] See generally Ringleb, "Natural Gas Producer Price Regulation under the NGPA; Regulatory Failure, Alternatives and Reform" (1983) 20 *Houston L.R.* 709.

The information problem is a real one, but the solutions are quite often troublesome. One solution is the information standard. We say to advertisers "don't mislead the consumer". I could give you some wonderful and very colourful examples in which this kind of negative control results in trivialization of the law. The Federal Trade Commission of the United States spent an enormous amount of effort trying to figure out whether a television commercial showing a man in a white coat peddling aspirin is misleading because the public associates men in white coats with doctors.[18] Is the advertisement impliedly making the claim that real doctors recommend this brand? A classic example was the Federal Trade Commission's efforts to deal with the case of Geritol, an iron supplement whose advertising slogan for so many years was, "it's good for tired blood".[19] The Commission dutifully launched proceedings to determine the meaning of 'tired blood', and its prevalence in society. Alternatively there are affirmative disclosure requirements such as in the securities industry. We try to force sellers of a product or service to affirmatively disclose information about the product of service. Unfortunately, it may be that we provide information that consumers do not want, do not need, or cannot assimilate.

There is a troublesome answer to information that cannot be assimilated or understood, and that is that the government tells the producers what they can produce. As a consumer, I do not have to be able to appraise the information on cough medicines in the drug store because in the United States the Food and Drug Administration will not allow any cough medicine to be sold unless it is satisfied that it is at least harmless, and maybe even beneficial.[20] A few years ago it was first decreed that automobiles in the United States could not be sold without seat belts and now we are litigating the question of whether automobiles should be permitted to be sold without $300 air-bags that will inflate in the event of a crash.[21]

These product standards present the same kind of problem that we are encountering in the pollution and environmental control business in the United States today. The issue here is what the economists call 'the externalities problem'. The idea is that the marketplace works to maximize your satisfaction, but under the assumption that it only works if all the relevant social costs are reflected in the costs borne by the actual producers and all the relevant social benefits are reflected in what consumers actually pay. In fact, some of these costs and benefits are "external" to the buyers and sellers and therefore, are not reflected in the immediate costs and prices. To give a simple example, a chemical company discharges pollutants into a river without paying anything to reflect the cost of cleaning

[18] For example, see *American Home Products Inc. Corp.* [1979-80 Transfer Binder] Trade Reg. Rep. para. 21, 874, p. 22, 175, fn. 28.

[19] *J. B. Williams Company* v. *F.T.C* 381 F.2d 884 (1967).

[20] *Federal Food, Drug and Cosmetic Act* 1938 (U.S.) s. 505; 21 U.S.C.A. s. 355.

[21] *Motor Vehicle Manufacturers Association of the United States Inc.* v. *State Farm Mutual Automobile Insurance Co.* 51 *U.S. Law Week* 4953 (1983).

the water by downstream users, so the cost borne by the downstream users of cleaning up the water before they can use it is a cost to society, but one that is not borne by the chemical company that is discharging it, and thus not one reflected in the cost and price of the goods produced by that company. The market system fails to reflect these important social costs and a regulatory scheme may be imposed to correct this market failure.

Unfortunately, we have discovered that such regulation often regulates too much, or badly, or ineffectively, or with excessive costs to the economy. The knowledge problem once again is very severe. We do not know what real harm is caused to the society by an extra discharge from an electric company's smoke stack. We often do not know in advance what the cost of correcting it is or what the benefits to be achieved are. Even when we have the knowledge, it turns out to be exceedingly difficult to relate the benefits to the social costs. We sometimes act as if no price is too high to pay for a human life, or no price is too high to pay for clean rivers, clean air and so on. Of course nobody really believes that. I have never heard anybody propose that we should abolish the automobile because it kills 55,000 people in the United States in a year. If it were true that no price is too high to pay for human life, we would surely abolish the automobile. But nobody proposes that.

Choice, therefore, is inevitable and the question is by what mechanism does one try to make it? It is very difficult to find the common denominator by which to compare costs and benefits when they are of different orders. How do you compare the benefit of an artificial sweetener to a fat person or a diabetic against the possible risk of cancer to that person or somebody else, when the magnitudes are so tiny? I know of no calculus by which that tiny magnitude can be brought into the rational decision-making process.

In America we have some absolute rules. No food or additive may be used if it causes cancer in any dosage to laboratory animals,[22] so one subjects the animals to the equivalent of 50 million bottles a day. The animal, not surprisingly, gets sick, and we condemn the product. Often we do this without comparing the alternatives. My colleague Professor Breyer gives the example of banning plastic drinking bottles because there is some very tiny risk of cancer, although by doing so we force increased use of glass bottles which injure people by the thousands every day.

Let me take an example that may be more emotion-charged. We talk of limiting the use of nuclear energy because of the danger it creates without taking into account the number of people that are, as a statistical fact, killed every year in the mining of coal. If the alternative to nuclear energy is coal, and an increment of x million tons a year of coal is to be

[22] *Federal Food, Drug and Cosmetic Act* 1938 (U.S.) s. 104 (f); 21 U.S.C.A. s. 348 (c) (3) (A).

mined, one can calculate on the basis of past performance, how many extra people will die in coal mines. We somehow close our eyes to half the calculation.

CONCLUSION

I conclude by emphasizing the error of displacing the market with regulation merely because the market fails in some respect. Regulation will also fail in some respect. The wise legislator must choose, not between imperfect markets and perfect regulation, but between imperfect markets and imperfect regulation. And, of course, there is the rub. The wise legislator in my country is a rare bird, and further, as I have emphasized throughout, the information for perfect decision making is not there. Further, mistakes are not easily rectified. Regulation creates a new set of special interests favouring its continuation. Corrective legislation is always difficult to obtain in my country where the public media seem addicted to the myth that deregulation is surrender, perhaps a corrupt surrender to the firms relieved of regulation. They appear to believe that regulation always protects the consumer.

So, what maxims emerge from all this?

(i) first, do not initiate regulation at all unless you are quite sure it will substantially improve the situation;

(ii) second, choose the least restrictive tool for the job; and

(iii) third, aim only to intervene against the worst cases, and strive for simplicity. Fine tuning in regulation is almost always a dreadful mistake.

This all seems dreadfully obvious, yet I am astonished with the frequency with which the obvious has been ignored.