

CONSUMER PROTECTION POLICIES AND RATIONAL BEHAVIOR

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Abstract

How consumers behave has important consequences when assessing the effectiveness of particular consumer protection policies. In this paper it is argued that policies that rely strongly on consumer rationality, such as information provision requirements, are considerably less effective in practice than what is foreseen under the usual assumptions of economic models. The relation between consumer behavior and a variety of consumer protection issues, such as unfair business practices, the benefits of standardization, information regulation, education campaigns, large scale scans and advertising, is analyzed.

I. Introduction

Consumer policies are designed to protect consumers from physical or financial damage that may result from personal or household use of goods and services (Lane, 1983). Their aim is to support households in their efforts to utilize their resources in an efficient manner. These policies influence the information available to consumers when they buy a good, the skills they possess to process this information, the likelihood that the product they buy results in physical damage, and the avenues open to obtain redress should they be dissatisfied with the purchase.

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Those who stand to gain the most, on a relative basis, from consumer policies, are the most vulnerable groups in society, such as the illiterate and the elderly. Not only do the members of such groups usually have less income to satisfy their material needs, they often lack the skills to determine how to spend their resources effectively.¹ In a country without consumer policies, the poor not only have the problems associated with low incomes, but also obtain less value for the moneys they spend.²

The main problems faced by consumers are excessive price and low quality. Excessive price may be due either to market power (a topic beyond the scope of this paper) or to deceptive business practices, such as products that do not meet their advertised claims. The quality problem arises when attributes of goods and services turn out to be below the standards (explicitly or implicitly) announced by the seller and expected by the buyer, such as safety, durability and other attributes. Thus low quality goods include a ladder whose faulty design puts the user at risk of physical harm, a toy that breaks when a child uses it as the instructions or common usage suggest, or a contractor that takes much longer than convened. Put differently, most problems faced by consumers fall under the heading of "hidden quality". Because of informational asymmetries, what consumers believe they are buying sometimes differs considerably from what they actually buy.

Many view consumer policies as a means to promote consumer rights. The following consumer rights have been widely accepted:³

1. *The right to safety:* The right to be protected against the marketing of goods that are hazardous to health and life.
2. *The right to be informed:* The right to be protected against fraudulent, deceitful, or grossly misleading information, advertising, labeling, or other practices, and to be given the facts needed to make an informed choice.
3. *The right to choose:* The right to be assured, whenever possible, of access to a variety of products and services at competitive prices; and in those industries in which competition is not workable and government regulation is substituted, an assurance of satisfactory quality and service at a fair price.
4. *The right to be heard:* The right to be assured that consumer interests will receive full and sympathetic consideration in the formulation of government policy, and fair and expeditious treatment in its administrative courts.
5. *The right to recourse and redress:* The right of access to proper redress for injury or damage resulting from the purchase or use of defective goods or unsatisfactory services, by means of swift, effective and inexpensive procedures.
6. *The right to consumer education:* The right to gain the knowledge and skills needed in managing consumer resources and in taking actions to influence the factors which affect consumer decisions (Bannister and Monsma, 1982).

Although formulating consumer rights is an effective way of focusing public attention on consumer issues, their politics are more powerful than the econom-

ics. Consider, for example, the right to safety (No. 1 above).⁴ There is no such thing as a totally safe product: Most products may cause physical, economic or psychological harm. When a product becomes "hazardous to health and life" is often difficult to judge. From the point of view of consumer protection, the relevant question is *not* whether products are safe or not, but whether market forces result in "efficient" levels of safety in consumer products.⁵ A further complication is that because safer products are usually more expensive, requiring safer products can make it impossible for certain consumers—usually middle- and low-income consumers—to afford the cost of the good.⁶

Car safety regulations are a good example. In industrializing countries, car bodies of the same model are thinner and minimum size requirements less stringent, than in industrial countries. When specifying car safety requirements, authorities face a trade-off between reducing the number of car accident fatalities and making cars available to a larger fraction of the population. Too stringent requirements will harm middle- and low-income families that would have been able to afford a car had the safety regulations been less demanding.

There are many strategies, policies, mechanisms and institutions that help protect consumers in a market economy. Among them are guarantees offered by sellers, producers with incentives to build a reputation, information provision requirements, laws against deceptive business practices, product standards, safety regulations, quality seals, product-testing magazines and consumer education campaigns.

The degree to which consumers are protected depends on the combined effect of the country's policies and institutions. A given level of protection can be achieved at similar costs by very different combinations of policy instruments. Policies on product safety offer an example of why a holistic approach to designing consumer policies is important.⁷ Product safety can be achieved through product liability law, regulation, actions by producers, or exercise of care by consumers. These approaches differ in their informational requirements, the incentives they create to provide new information about emerging risks, their ability to respond to change, and the costs involved and their distribution. For example, regulation may involve setting standards, requiring testing and disclosure, or banning products completely. Information requirements prevent using regulation to achieve adequate levels of safety for more than a small fraction of goods. Thus, although regulation may be effective in providing adequate safety levels for many products, it must necessarily be combined with other approaches.

How consumers behave has important consequences when assessing the effectiveness of particular consumer protection policies. In this paper it is argued that policies that rely strongly on consumer rationality, such as information provision requirements, are considerably less effective in practice than what is foreseen under the usual assumptions of economic models.⁸ The relative effectiveness of market remedies, compared with government regulations, grows with the fraction of consumers that act rationally.

A recurrent theme throughout this paper is to what an extent do consumers not know their own preferences or are unable to act accordingly. Laws that make

using seatbelts mandatory, cooling-off periods for door-to-door sales, and health warnings on cigarette packages are all policies that would be unnecessary if consumers were 'rational'. The following sections analyze the relation between consumer behavior and a variety of consumer protection issues, such as unfair business practices, the benefits of standardization, information regulation, education campaigns, large scale scams and advertising. A brief conclusion follows.

II. Unfair Business Practices

Transaction costs, often due to informational asymmetries, play a central role when analyzing consumer policies. The high transaction costs involved in writing contracts explain why many goods and services are sold with a preestablished contract that the buyer must either accept or reject. These are called adhesion contracts, since buyers may choose whether to adhere to them or not. Adhesion contracts frequently include clauses (sometimes in small print) that are unfair for buyers. If it were costless for consumers to understand the terms of an adhesion contract, regulating these contracts would not be necessary. However, consumers often either do not read or do not understand the terms of a contract. This problem is particularly relevant when sellers can put (psychological) pressure on buyers, as is the case, for example, with door-to-door sales or cocktail parties where prospective buyers are offered share arrangements at international resorts after being served generous amounts of alcoholic beverages.⁹ One might argue that, in the absence of regulation, consumers would eventually learn from their mistakes. However, this view ignores that this learning process entails high costs for consumers, and that sellers may find new and creative unfair business practices.

Regulating some basic aspects of adhesion contracts is justifiable, as is enforcing laws that prevent unfair sales practices. The United States was the first country to impose a cooling-off period for sales that do not take place at the sellers' usual place of business. Since the U.S. law was enacted in 1972, most European countries and some developing countries (for example, Mexico in 1975 and Brazil in 1990) have followed suit. These laws specify that sales that do not take place at the sellers' usual place of business must be formalized by a written contract that is binding only a specified number of working days after it is signed or the good is delivered. Depending on the country, the cooling-off period may be between five and seven working days. The consumer may rescind the contract without any liability within the cooling-off period. A law that provides for a cooling-off period for door-to-door sales helps protect consumers from abusive contract clauses at a low cost.

III. The Benefits of Standardization

Consumer protection often faces the trade-off between simplifying customers' information processing, and limiting their freedom of choice. Standardization helps

consumers who have a hard time evaluating complex products, yet it hurts those who have the skills to process complex information and would benefit from having more variety to choose from.

An example of a consumer policy based on standardization where its benefits outweigh its costs is specifying the conditions under which a producer can claim that a good has a 'full warranty'. Government regulation that forces producers to provide full (or partial) warranties for experience goods may do more harm than good by leading to moral hazard and adverse selection problems.¹⁰ Yet governments may foster consumers' interests by providing some measures that reduce consumers' information processing costs when evaluating warranties by specifying a minimum standard that manufacturers must meet to use the term "full warranty"; warranties that fell short of these requirements then would have to state that they are limited.¹¹ One could argue that such a law might reduce the total provision of warranties by producers, who might not want to meet the stringent requirements for providing full warranties yet might fear that providing limited warranties would signal that they were not prepared to stand fully behind their products. However, evidence for the United States suggests that exactly the opposite happened. The actual duration, scope and remedies in warranties improved after passage of the Magnuson-Moss Warranty Act of 1975 (Arthur Young & Co. 1979 and Schmitz, Kanter, and Miller 1979, quoted in Mayer 1989). One possible explanation is that manufacturers benefit from standardization, since it reduces the cost of signaling to consumers that the producer believes the good he manufactures is of high quality.

Another example of the potential benefit that may accrue to consumers from standardization is requiring that car sellers list in a standard format the duration and kind of warranty, if any, that various car parts are under—a simple measure that makes it easier for consumers to compare different cars. A third example is requiring that all health insurance providers cover a set of preestablished services. This is particularly useful in countries where private health providers have a significant role.

IV. Evidence of Irrational Behavior

Transaction costs are often not large enough to rationalize consumer behavior. Pratt, Wise and Zeckhauser (1979) showed that price dispersion for "almost" identical goods (in the city of Boston) was far larger than can be accounted for by transaction (search) costs or alternative economic explanations. All products considered were listed in the Yellow Pages, so consumers' lack of access to information was not an issue. Day and Brandt (1974) studied the effect of the U.S. Truth-in-Lending Act, which forces retail stores to inform customers of the interest rate implicit in sales that are payed in installments. They concluded that a large fraction of consumers do not change their behavior based on this information and consequently pay a much higher interest rate than necessary. The lessons from the recent deregulation of long distance telephone calls in Chile provide a fourth example. Customers can access any carrier by dialing a three-digit carrier-

specific code. This apparently minor difference with other countries, where access to alternative carriers may involve dialing 8 digits, has made the Chilean system considerably more competitive.¹²

Consumers often make decisions in the face of significant uncertainty. Is \$100 a good price for a one-year television set warranty? What will be the resale price five years from now of the new car I am planning to buy? Is it worthwhile wearing a helmet when driving a bicycle?

The expected utility hypothesis is the central assumption in economics on how individuals make "rational" choices under uncertainty. This hypothesis raises various issues. First, it is clear that few individuals actually assign cardinal utilities to the possible scenarios and then calculate their expected values. There are two, complementary, answers to this objection. On the one hand, the expected utility hypothesis can be viewed as a working assumption from which empirically testable implications can be deduced (Laffont, 1989). Alternatively, as Savage (1954) showed, if individual choice under uncertainty satisfies certain basic axioms, people act as if they maximized their expected utility.¹³

A second objection to the expected utility hypothesis is that individuals must be able to assess correctly the probabilities of uncertain events to calculate expectations. For policy questions, it is useful to distinguish between cases in which there is a reasonable degree of consensus on these probabilities and those in which lack of information on similar events implies that probability assessments are largely subjective (that is, may vary substantially from one individual to another).¹⁴ The probability of dying of lung cancer if you smoke a pack of cigarettes a day is rather close to being an objective probability. The probability that the Russian economy will be growing fast by the beginning of the twenty-first century is a subjective probability. When probabilities are objective, the possibility arises that individuals make systematic mistakes in their assessments. For example, most people have a difficult time assessing low probabilities: it is hard to differentiate a risk of 1 in 100,000 from a risk of 1 in 10 million, even though the former is 100 times more likely to occur. If the costs associated with both risks are large, this difficulty may lead to important misallocation of resources in risk reduction.

There is a rich literature showing that people make systematic mistakes when making decisions under uncertainty, that these mistakes are made in simple situations, and that they are made both by laypeople and by experts.¹⁵ These mistakes may arise because (a) people do not act as expected utility maximizers; (b) people assess (objective) probabilities incorrectly; and (c) people make systematic mistakes when applying the laws of probability.

Three of the departures from rational behavior (biases) that are documented by this literature and most relevant when analyzing consumer policies are briefly reviewed here.¹⁶

Prominence or salience. People may over- or underestimate the probability of an event occurring depending on the event's characteristics. People generally overestimate the probability of dramatic, dreadful, prominent events (such as airplane crashes) and underestimate the probability of regular, less dramatic events. Breyer (1993, table 4) illustrates this point. He compared how the U.S. public

and experts from the Environmental Protection Agency rated the importance of 22 health risks associated with environmental problems. The public's ratings were totally unrelated to the experts' assessments.¹⁷

Salience may lead consumers to weigh available information incorrectly when deciding whether to purchase a good. The following example (Nisbert and Ross 1980 cited in Akerlof 1991, page 2) illustrates this point:

Let us suppose that you wish to buy a new car and have decided that on grounds of economy and longevity you want to purchase one of those stalwart, middle-class Swedish cars - either a Volvo or a Saab. As a prudent and sensible buyer, you go to Consumer Reports, which informs you that the consensus of their experts is that the Volvo is mechanically superior, and the consensus of the readership is that the Volvo has the better repair record. Armed with this information, you decide to go and strike a bargain with the Volvo dealer before the week is out. In the interim, however, you go to a cocktail party where you announce your intention to an acquaintance. He reacts with disbelief and alarm: "A Volvo! You've got to be kidding. My brother-in-law had a Volvo. First, the fancy fuel injection computer thing went out. 250 bucks. Next he started having trouble with the rear end. Had to replace it. Then the transmission and the clutch. Finally sold it in three years for junk."

This anecdote adds only one case to those considered by *Consumer Reports*, leaving the mean repair records of the two cars virtually unchanged. Yet most prospective car buyers are likely to give considerably more weight to the case described in the above scenario than is warranted by the information it actually contributes.

Rules of thumb. Individuals often use rules of thumb (heuristics) when making decisions under uncertainty. This approach reduces the time and effort needed to make a decision and may be justified due to the cost and effort involved in processing information, as long as the biases introduced are small.¹⁸ Yet there is substantial evidence that rules of thumb used in practice are based on principles (such as anchoring, representativeness and availability of instances) which may lead to large and significant biases.

People are bad at changing the effort and time they dedicate before making a decision in response to changes in the importance of the consequences (Zeckhauser, 1994). Most people spend too little time on important decisions. They act based upon simple rules of thumb that work well for routine decisions, but do not recognize that major decisions may justify dedicating considerably more time and resources.

The belief in personal immunity. There is evidence suggesting that most people view themselves as exposed to less risk than the average person. When it comes to the risk of lung cancer from smoking, for example, many smokers rationalize that "it can't happen to me." Needless to say, this implies that most people systematically underestimate their risk levels. We somehow tend to believe that negative events happen to others, not to us. This misperception helps explain why interest rates charged by credit card companies in the United

States remained almost unchanged during the second half of the 1980s and early 1990s, even though interest rates changed by banks decreased dramatically.¹⁹ When choosing a credit card, consumers underestimate the probability that they will have to run high levels of debt on it; by the time debt has accumulated, no other credit card company will lend them money.

V. Information Regulation

An often advocated alternative to direct regulation of products (such as banning dangerous products and imposing design standards) is regulating the information sellers must provide through labeling and packaging. This is attractive because, in contrast with direct regulation, consumer choice is enhanced. The idea behind this approach is to help consumers make the same decision that a well informed consumer would make. Since what is dangerous for one consumer may be safe for another, this approach allows consumers more choice than does direct regulation.²⁰ Another advantage of information regulation, compared with direct regulation, is that it is inexpensive (since labels are not costly).²¹ A third advantage is that, at least in principle, labeling regulations can be all encompassing, in contrast to direct regulation, which is necessarily limited to a small fraction of goods.

Despite these attractive arguments, however, the evidence from industrial countries shows that regulating information provision through labeling is not an effective way of protecting consumers. For people to use labeling effectively, they must read the labels, understand their contents, and act on them. There is ample evidence that things go wrong at each of these three stages (Hadden, 1991).

First, people often do not read labels, among other reasons because they trust goods that are familiar to them.²² Changing the warning periodically has been found to have some success in cases where consumers stop paying attention to labels because of familiarity. This is why many countries require cigarette manufacturers to alternate among several warning labels.

Second, once consumers read a label, they must understand it. The information contained in many labels is often quite technical and consequently difficult for most consumers to grasp. This problem is particularly relevant in countries with high functional illiteracy rates and language barriers.²³ Using standardized pictograms to convey information on hazardous products offers a partial solution. Canada adopted a uniform system of pictograms that is taught in school; this system enables almost everyone in that bilingual nation to recognize certain hazards immediately. Label standardization reduces transaction costs for both buyers (information processing) and sellers (deciding what to put on labels). There also is an important positive externality associated with standardization, which grows with the number of sellers that adopt the standard. Yet ultimately, the scope for facilitating consumers' information processing via standardization is limited, since the complexity of many risks makes it impossible to simplify the label without omitting information some consumers would view as important. The philosophical justification for information regulation is thus called into question.

The limitation of approaches that make it easier for consumers to understand information are summarized in a stark manner by Breyer (1993) when, referring to the printed warnings on aspirin bottles, he asks: "Who reads them? What's the point of it? The reader does not want a warning, he wants to know what to do."

The third step, once consumers have read and understood the information provided on labels and packages, is to act on it. Acting rationally in risk situations requires consumers to assess correctly probabilities that are quite small. Biases such as prominence and the belief in personal immunity may prevent individuals from acting on information contained in labels. A rational (expected utility maximizing) consumer will act if and only if the cost of doing so is smaller than the expected benefit. The expected benefit grows as it becomes more likely that the consumer believes a certain risk may affect him. If the consumer underestimates this probability (due, for example, to the personal immunity bias), he may decide not to act when it would be best for him to act. In this case, banning the product or establishing product standards protects the consumer more effectively than does information regulation.

The problems that industrial countries have encountered suggest that labeling will be even less effective in developing countries. This negative conclusion does not imply that information regulation is totally useless. Since direct regulation is necessarily limited to only a small fraction of hazards, information regulation may be useful for many risks that are not regulated directly. Since information regulation is often inexpensive, it may be justified on a cost-benefit basis, even if the expected benefits are small. Consider, for example, the significant reduction in information processing time and effort that results from simple requirements such as unit pricing and effective interest rates.²⁴ The cost of providing this information is so low that, even if only a fraction of consumers benefit from it, the benefits definitely outweigh the costs.

VI. Education Campaigns

Because of the departures of consumer behavior from rationality, education campaigns have been found to be even less effective to protect consumers than information regulation.²⁵ The reason why consumer education campaigns fail are because people do not read, understand or act upon the information provided to them, further compounded by the fact that education programs often attempt to break deeply fixed consumer habits. Consumers must also agree with the message if they are to act upon it; when a message conflicts with a person's prevailing cognitive structure, the message will be rejected or distorted to make it palatable. Adler and Prittle (1984) conclude that "the popularity of persuasion campaigns, of course, says little about their effectiveness. While we do not challenge the value of all information and education programs, we suggest their popularity rests more on philosophical and ideological grounds than on solid empirical evidence supporting their ability to alter consumer behavior."

A striking example of the limitations of education campaigns is provided by programs aimed at promoting the use of safety belts in the early eighties in industrialized countries. According to the National Highway Traffic Safety Administration (NHTSA), in the United States, in the early eighties, every year 34,000 people were killed, and more than half a million received moderate to severe injuries, as a result of highway accidents. If all occupants wore seatbelts, motor vehicle fatalities would be cut in half and injuries could be reduced by 65%. A first question that must be answered here is why government intervention is called for. One possible answer is based on the personal immunity bias – most people believe they drive better than the average – which leads drivers to underestimate the probability of having a car accident, thereby explaining why they do not use safety belts even though it would be to their advantage to do so.²⁶

The fraction of U.S. highway drivers using safety belts only increased marginally (from 11.3% to 13.9%) after a three year education campaign run by the NHTSA. Even in countries where such campaigns were most successful (Sweden and Great Britain), the fraction of drivers using safety belts never increased beyond 35%. Even though such campaigns usually are cost-effective, much more can be achieved through alternative mechanisms, such as complete passive protection and mandatory seatbelt laws. In the former case, the seatbelt is put automatically in place when you get into the car, and the passengers must incur the "transaction cost" of unbuckling if he does not want to use the seatbelt. If mandatory seatbelt laws are also in place, then the car may not start if the driver and passengers have not buckled their seatbelts.²⁷

Departures from rationality of consumer behavior sometimes justifies paternalistic behavior by the government, as in the case of mandatory seatbelt laws. Yet what is at stake here is not that governments would like to change consumer preferences, but that consumers have a hard time making decisions under uncertainty, either because they do not know their own preferences or because they make systematic mistakes when calculating small probabilities.

The departures from rationality stressed above do not necessarily provide arguments in favor of regulation, as in the case of safety belts considered above. For example, Viscusi (1984a,b) studies the effect of the regulations requiring child-resistant bottle caps for certain drugs. He finds that the fraction of aspirin poisonings originating with child-proof caps increased from 40% in 1972 to 73% in 1978 and concludes that an important role was played by the "hulling effect", according to which consumers adopt a less safe mode of behavior when a safety aid is present, because consumers confuse a reduction in risk with a total elimination of risk, thereby leading to an increase in accidents. In this case misperceptions of low probabilities make a regulation counterproductive.

VII. Large Scale Scams

From time to time consumers fall victims of large scale scams. Economies in transition are particularly vulnerable to such schemes because most individuals in

these countries lack the basic skills needed in a market economy. For example, in the recent case of the MMM "investment fund" in Russia, millions of share holders bought there shares through 136 offices in 50 Russian cities (60 offices in Moscow alone) in a few months, beginning in February of 1994. Potential and actual investors saw the MMM price skyrocket from 1,600 rubles in February, then US \$1 equivalent) to 115,000 rubles in late July (US \$55).

But the MMM investment fund was a fund with no investments. It was a classical financial pyramid scheme instead.²⁸ Initially MMM was able to sell a rapidly increasing number of shares and use part of the proceeds to buy back shares at a much higher price than originally sold. The fortunate "investors" getting out of MMM shares during this period received handsome returns. Naturally, these received wide media and advertising attention. By contrast, no publicity or explanation was given to the fact that, as in any pyramid scheme, those left with shares at the bottom of the pyramid (the throng of latecomer shareholders) were ruined when the pyramid collapsed.

The financial ruin for the shareholders at the bottom of the pyramid dawned on July 26th, 1994, when serious accusations by the Russian government on tax arrears and violations by MMM's president, Sergei Mavrodi, were disclosed. By end-July, shares were quoted at 1,000 rubles (less than half a dollar), i.e., 99% of their value had disappeared in a few days. And by then they could be redeemed in only one central office in Moscow: all other offices had closed.

In less literate African or South Asian countries, a pyramid scheme is less likely to reach the proportions that it reached in Russia – even after controlling for income levels. Many Africans or Asians may not read or write, but have experienced the market risk, and entrepreneurship. By and large they would know that there must be a "catch" when an assured 3,000% return on an investment is advertised. In spite of the Russian's high level of overall education and scientific sophistication, the degree of market and economic illiteracy is vast, having operated under plan rather than the market for seventy years.²⁹

The potential regulatory backlash to the MMM case is illustrative of the limitations of regulations to prevent such scams. A law providing a government agency with wide-ranging powers to control all activities of the stock market, and putting obstacles to foreign investment firms, would stem the flow of domestic and foreign financial capital to the hundreds of thousands of newly privatized firms, which need capital for restructuring. The Russian stockmarket has been growing rapidly in recent months as the opportunities to invest in newly privatized firms have expanded enormously – in the face of the largest privatization program in history. In July of 1994 alone, about half a billion dollars of shares were traded. Such sums can either continue to multiply, or can rapidly dwindle if overzealous regulation is instituted.

It follows, therefore, that the overall "cost" of any regulatory measure generated by the state is larger in an FSU country than in most others. Such a measure may impair the transition to a system where consumers will benefit from the prime right to choose. However, it would be fallacious to infer that little effort ought to go into measures destined to protect consumers in economies in transi-

tion. The challenge instead is to elaborate a strategy where the instruments for protecting consumers are either complementary (reinforcing) or at least neutral with respect to the primary objective of a successful transition to a market economy. Furthermore, given the large welfare costs associated with a potential backlash from a large scale scandal such as MMM, putting into place such measures should be a priority during initial stages of reform.³⁰

A strong case can be made for emphasizing the role of (and right to) consumer education – far more than heretofore. The vast amount of consumer and economic illiteracy, coupled with the steepness of the learning curve for the average Russian, suggests very large returns to consumer education.³¹ An educated consumer would have been much less likely to buy MMM shares; the Prime Minister himself acknowledged this point as a failure of the government in the MMM case.

The chances of success of market reforms is enhanced when citizens perceive the new economic system as being fair. Consumer education and consumer policies (such as false advertising laws) increase the likelihood that a reform will be successful and the chances that citizens will support it with their votes.

VIII. Advertising

There are two opposite views on advertising, depending on the degree of consumer rationality assumed.³² One approach views advertising as a way to systematically fool consumers. The other view sees advertising as offering consumers a low-cost way to obtain information, promoting competition and helping consumers achieve higher levels of welfare.

The adverse view of advertising is not new (see Kaldor, 1950; Nichols, 1951 and Galbraith, 1958). This view claims that advertising persuades and fools consumers by allowing firms to create artificial product differentiation and increasing barriers to entry (Galbraith, 1967 and Solow, 1967). When firms compete through advertising rather than prices, advertising is wasteful from a social point of view. The example most often cited by proponents of this view is TV advertising, which provides little information beyond the existence of the advertised products. Solow (1977, p. 269) summarized this position:

Sometimes it comes over me that the TV advertiser does not really care what the ad says. In fact what the commercial says is almost always utterly irrelevant or completely inane. It cannot be that the advertiser expects anyone to believe a word of it, that Exxon is in business to make the grass grow, that my Sunoco dealer is all that friendly, that I can actually trust my car to the man who wears a star. It is probably much simpler: when I run out of tooth-paste I'm going to buy something. What word will come out of my mouth when I walk up to the counter? God knows: but if I have seen Crest more often than Colgate in prime time this past month, I have a sneaking feeling that the odds are I'm going to buy some Crest.

Many European countries have enacted policies consistent with the adverse view of advertising (Mayer, 1989). For example, Denmark has banned television

advertising, whereas Norway prohibits the advertising of alcohol and tobacco products as well as advertising that portrays women as sex objects. Almost all European countries restrict television advertising to certain times of the day and require that it be shown in time blocks, thereby making it easier for consumers to avoid commercial messages if they wish. This is in stark contrast to the practice in Latin America and the United States, where advertising often is an integral part of popular TV shows, making it harder for viewers to escape its message.³³

The negative view of advertising motivates laws against false and deceptive advertising.³⁴ Many developing countries that have introduced major changes to their consumer protection legislation, such as Argentina and Brazil, have included such provisions in the new law. For such a law to be effective, the transaction costs incurred by consumers who invoke it should be small. For example, such a law will be ineffective if the burden of proof is on the consumer's side, as is still the case in many developing countries, where consumers must show that sellers have deliberately misled them.

Some countries, such as Chile and Germany, cope with false advertising by relying on self-administered, private advertising councils.³⁵ These councils often have the right incentives, since false advertising may well affect the image of an entire industry. Yet they usually lack both the resources and a mandate to enforce their decisions adequately. For example, when the council concludes that one of its members has run a deceptive ad, the affected member may terminate its membership in the council, thereby limiting the punishment that it suffers to the loss of reputation that may result from publicity about its actions. If the issue at stake is rather technical, as was the case with a Chilean long distance telephone carrier recently, the indirect cost paid by the firm running the deceptive ad may be small.

The positive view, which sees advertising as bringing useful information to consumers, dates to Telser (1964). Based on the "natural experiment" provided by the 50 states of the United States, proponents of this view have shown that products such as eyeglasses and prescription drugs are more expensive in states that forbid advertising of those products (Benham, 1972 and Cady, 1976). The proponents of this view argue that advertising of search goods fosters competition by reducing the cost of learning about competing products, thereby increasing the price-elasticity of demand.³⁶

A policy of allowing comparative advertising is consistent with the positive view of advertising. Comparative ads make specific comparisons between the product being advertised and its competitors. Comparative advertising is rare outside the United States; a well functioning liability apparatus (for example, a false advertising law) is required for comparative advertising to work, since a deterrent against false claims by one manufacturer regarding the product of another is needed.

Allowing advertising by professionals, such as doctors and lawyers, is another policy consistent with a positive view of advertising. Such ads are banned in most countries on the ground that they are "unethical" and degrade the image of the profession involved. Studies for the United States have shown that the states that ban advertising for lawyers' and physicians' services pay more on average for these services and have a larger dispersion in the fees they pay.³⁷

Both views of advertising undoubtedly have some merit. The relevance of each depends on the product, the nature of the consumer target market (for example, highly educated versus uneducated), and the advertising medium. Yet many desirable policies related to advertising are based on the assumption that many people do not act as rationally as most economic models assume they do.

IX. The Emergence of Consumer Issues

One important aspect of consumer policies is how consumer issues reach the attention (and motivate the action of) public policymakers, that is, how consumer problems become consumer issues.³⁸

Consumer problems become consumer issues as a result of the interplay of three groups of actors (and their respective agendas). These actors are the media, the public and policymakers. Sometimes policymakers pursue certain consumer issues out of their own initiative, because they believe the issue is important, even if most consumers and the media are unaware of them. Other times policymakers react to public outcries, the latter often motivated by media coverage of some major disaster. The following statement from a film produced in 1984 by Consumers Union, *America at Risk*, is representative of the unidirectional line of causation just described:

[There is] a pattern that seems to recur throughout the history of the consumer movement. First, there is a disaster, as in the case of the diseased meat and patent medicine scandals. Then there is research, investigations undertaken by scientists or by groups like the National Consumers League or by journalists to help expose the problem. Next there is a groundswell of protest by an outraged public, leading to a demand for legislation. Then a regulatory bill emerges, often so flawed by compromise that it takes another disaster and another struggle to get the law amended.

Informal evidence presented in Mayer (1991), and previous works, suggest that the consumer issue emergence process is less unidirectional than depicted in the preceding quote. In particular, there are clear limits to the ability of the press to lead public opinion on consumer issues. Their dependence on private advertising possibly explains why certain consumer issues have been (informally) black-listed from the media (Rowse, 1967).

Much remains to be understood on how consumer issues reach (or, as is often the case in developing countries, fail to reach) policymakers' agendas.³⁹ Even in the case of the United States, our understanding of this process is far from satisfactory (Mayer, 1991).

Another question of interest is whether the consumer issues emergence process is socially efficient, that is, whether the problems that make it to the policy agenda are those that "should" make it. There is ample evidence that relying on the *media-investigative reporting-public opinion outcry* link to bring issues to the policymakers' agenda may have undesirable effects.⁴⁰ The approval of new drugs provides an illustration of this. In this case there is an unfortunate asymmetry

which may prevent policymakers from acting in the public interest. On the one hand is the risk of approving a drug that turns out to have dramatic side effects; just imagine the media coverage of children with major birth defects, such as the case of thalidomide. On the other hand, are the costs of erring on the side of excessive caution by not allowing drugs that could have benefited many people. In this case the threat of being exposed to the media is smaller, since those patients whose lives could have been saved by a certain drug but who died because the drug was not approved cannot be interviewed.⁴¹ This asymmetry, closely related to the prominence bias described earlier, is likely to lead public policymakers to be more cautious than is socially desirable when allowing new drugs to be marketed.

A second illustration of how the media denunciation-public outcry link may lead to a socially undesirable policy agenda is provided by the evolution of the environmental agenda in the United States in the 1980s.⁴² There is consensus that the environmental laws passed during the seventies in the United States were beneficial. Yet recent evidence shows that the overly reactive environmental agenda of the eighties led to excesses. Once the existence of an environmental hazard came to the public's attention, policymakers "had to do something," even though often the best available alternative was to do nothing. Consider the case of asbestos. In the early eighties scientists concluded that asbestos exposure led to thousands of yearly cancer deaths. Since asbestos was used to insulate schools and private buildings, the public outcry led the U.S. Congress to pass a law in 1985 requiring city and state governments to spend between 15 and 20 billion dollars to remove asbestos from public buildings.⁴³ But in 1990 the Environmental Protection Agency (EPA) concluded that removing asbestos from existing buildings was a major mistake, since when doing so small asbestos particles were liberated into the air, making asbestos exposure more likely than it was before removal was mandatory.⁴⁴

X. Conclusion

As with many other issues in economics, consumer policy divides policymakers into two camps. In one camp are those who advocate government regulation as a major component. In the other are those who are skeptical of the effectiveness of regulations, seeking to rely on market solutions as much as possible. Both groups even refer to the field by different names: those favoring government regulation speak of *consumer policies* while those skeptical of (direct) government regulation prefer *consumer protection*.⁴⁵ This paper has made no distinction between both names.

To illustrate the tension between both views of consumer policies, consider the ideal world, or "consumer paradise", as seen through the eyes of a consumer activist compared with the ideal world of someone skeptical of government intervention. In the consumer activist's paradise (adapted from Mayer, 1989, p.135), information to make informed purchasing decisions would be easily available from

both government funded product-testing organizations and consumer advisory boards. Convenient neighborhood centers would provide information about any particular purchase and advice about how to file a complaint.

In this consumer paradise, consumers continually receive valuable information and education through television. Consumer organizations have free access to prime-time television to discuss consumer issues and how to avoid rip-offs. No advertising whatsoever, including political advertising, is allowed on television. And cigarettes, although not banned, carry warnings such as "smoking kills".

In this consumer paradise the government takes measures to protect consumers not only from unscrupulous sellers, but also from themselves. A combination of public and private funds supports a team of trained safety experts who visit individual homes on request to search out potential safety hazards. The use of automobile safety belts is mandatory, and the government spends the resources required to enforce the belt law.

This paradise is not as fanciful as it may sound. Every one of the consumer policies mentioned already operates in at least one country. Of course, one person's paradise may be another person's hell. How would consumer paradise look to a policymaker skeptical of any government intervention?

In this version of paradise, sellers would have a variety of incentives to provide truthful information to consumers. In the case of repeat purchases, it is to sellers' advantage to invest in reputation, since this investment increases their profits. Private product-testing organizations provide useful information about one-time purchases, for example, in widely read consumer magazines. Sellers are also deterred from deceiving consumers because consumers have access to inexpensive, fast lawsuits. Law suits take place only rarely. And private providers of safety seals not only guarantee, as far as possible, the safety of goods, but also ensure that any reputation due because of product-related damage is made quickly and at a low cost.

In this consumer paradise, goods are labelled with all relevant information, presented in hierarchical manner to facilitate understanding. Consumers read this information and make their purchasing decisions accordingly. The result is better-informed decisions without restricting consumers' choices. This is desirable since what is dangerous for one consumer may be safe for another. As for advertising, consumers realize when an ad lacks information content and are also quick to perceive when they are being misled. Producers consequently have no incentive to use deceptive advertising techniques or unfair contract clauses.

Which version of consumer paradise should countries strive for? Elements from both idealized worlds should be combined to protect consumers. In doing so, reasonable assumptions about consumer behavior need to be made when evaluating the relative merits of alternative policies.

Notes

- 1 Consumer policies in New Zealand and Australia are explicitly aimed mainly at the disadvantaged, see McGregor (1991).
- 2 The relevance of this argument grows with the degree of correlation between income and people's abilities. Note, however, that some consumer protection policies may benefit high income consumers at the expense of poor consumers. An example is offered below.
- 3 See Maynes (1988). The first four rights were introduced by President Kennedy's influential 1962 address on consumer issues. See Lammiman (1988) for details and Nadel (1971) for a dissenting view on the importance of this address. The right to consumer education was formulated by President Gerald Ford in 1975, see Mohr (1988) for details.
- 4 See Oi (1977, 1977) for seminal works on the economics of safety.
- 5 The safety level provided is efficient if the cost to society of increasing safety provision slightly is equal to the social benefits this increase generates. Of course, this ignores distributional issues. In this case consumer policies may harm the poor. This may happen more generally, with consumer policies aimed at raising the quality of goods. To the extent that quality controls raise both quality and price, poor people may be hurt relative to those who are better off. The poor are unable to afford the higher-quality good and therefore lose when the low quality good is no longer produced. The better-off benefit from low-quality goods being withdrawn from the market both because of economies of scale and from avoiding mistaken purchases.
- 7 The Japanese consumer policy framework is famous for following such an approach, see McGregor (1991).
- 8 A similar caveat holds for government regulations whose effectiveness is predicted without incorporating possible sources of government failure.
- 9 The Chilean Consumer Service, SERNAC, is currently investigating such a case.
- 10 The quality of experience goods is learned only after their purchase, through use. In the United States the warranty disclosure provisions of the Magnuson-Moss Warranty Act of 1975 include the requirement that the good must be bought back if it cannot be repaired within a reasonable amount of time.
- 12 One year after the system began, the price of phone calls from Chile to the United States is approximately one half the price of a phone call from the United States to Chile. See Engel, Fischer and Galatovic (1995).
- 13 One of Savage's axioms is less appealing than it initially appeared to be — an issue we do not explore in this paper. See Machina (1982).
- 14 I intentionally avoid the discussion of the objective and subjective interpretations of probabilities. The eclectic approach adopted here seems a reasonable compromise for the policy issues considered in this paper.
- 15 For a representative collection of papers from this literature, see Kahneman, Slovic and Tversky (1982).
- 16 See Plous (1993) for an up-to-date text on the psychology of judgement under uncertainty, including a detailed exposition of the concepts mentioned below.
- 17 The publics' ratings are summarized by ranking the health risks from most to less dangerous; experts classify the health risks as high, medium and low. Nine of the health risks are rated as "high" by the experts. The sum of ratings by the public of these nine risks is 105; if the public's assessment were independent from the experts', this sum would (on average) be equal to 103.5. Thus a pure significance test (Cox and Hinkley, 1974) would give a *p*-value close to 0.50.
- 18 A closely related concept is that of bounded rationality, see Simon (1955, 1956).
- 19 See Ausubel (1991). For a dissenting view see Brito and Hartley (1995).
- 20 The relation between labeling and consumer protection is explored in Hadden (1986, 1991).
- 21 Deciding what the labels should say and enforcing the information requirements may be more expensive.
- 22 When was the last time you listened to the security instructions given on a plane before takeoff? Do you usually know where the nearest emergency exit is?
- 23 Another difficulty consumers in developing countries face is that the labels of imported goods are written either in a foreign language or in unintelligible translations.

- 24 Unit pricing is labeling a good not only with its price but also with its price per standard unit (for example, pound or kilogram).
- 25 The standard distinction between information and education programs is that the former may be viewed as notification schemes that provide factual information, while the latter are persuasion schemes that convey messages, which may or may not contain factual information, and which overtly seek to motivate members of the public to modify their behavior. See Adler and Pittle (1984); the discussion that follows is based on this article.
- 26 An externality argument can also be invoked: insurance is more expensive for all drivers as a result of some drivers not using safety belts. However, this assumes that insurers cannot discriminate between drivers that use and do not use safety belts.
- 27 Australia was the first country that passed a mandatory seatbelt law, in 1972. The idea passed to New Zealand, France, Puerto Rico, Sweden, Belgium, the Netherlands, Israel, Finland and Norway in less than four years. See Mayer (1989).
- 28 The case of the MMM financial pyramid is considered in detail in Kaufmann (1996). Another financial pyramid in an economy in transition that received worldwide attention was the demise of a similar scheme in Cluj, Rumania.
- 29 With some exceptions, that is, since during the Soviet era there was an informal, illicit economy where many ingenious transactions did take place. Those Soviet "entrepreneurs" have had a head start in the official transition to market, and have rapidly amassed wealth through their relative monopoly on "market education".
- 30 This should be useful advice for countries where the transition from plan to market is at an early stage.
- 31 In contrast with the case of safety belt education campaigns discussed earlier.
- 32 See Chapter 7 in Trole (1988) for an insightful discussion. This section draws from this source.
- 33 The most popular TV show in Latin America, *Sábado Gigante*, is an extreme example.
- 34 The regulatory methods used to implement such laws are advertising substantiation rules, mandatory disclosure (such as health warnings on cigarette ads), and provision for corrective advertising in the case of deceptive ads.
- 35 For a detailed study of the Chilean National Selfregulatory Advertising Council (CONAR) see Engel (1996). This paper concludes that such a council is an effective way of solving controversies among advertising companies but a rather poor substitute for a well-designed false advertising law.
- 36 Search goods are those goods whose quality can be ascertained before purchase.
- 37 Note, though, that Rizzo and Zechhauser (1990) show that advertising inhibits entry of new physicians.
- 38 What follows is based on Mayer (1991) who applies issue emergence analysis to consumer issues.
- 39 For a case study of the latter, see Engel (1996).
- 40 This does not imply that no investigative reporting of consumer issues is better.
- 41 Lately certain groups of patients, e.g., with AIDS, have organized themselves to exert pressure to reduce the requirements for the release of new drugs. The high costs of organizing such a lobby justify describing the situation as asymmetric, even in this case.
- 42 See Breyer (1993) and the series of articles published in *The New York Times* between March 21 and March 26 of 1993.
- 43 The United States convention is adopted here, according to which 1 billion is equal to 1,000 millions.
- 44 In 1991 asbestos related cases were more than half of all the cases in the federal courts in the United States (Viscusi, 1991, p. 7). This has had dramatic effects on the world insurance industry, greatly contributing to the near bankruptcy of Lloyds.
- 45 The keyword 'consumer protection' did not appear in the New York Times Index until 1969.

References

- ADLER, R. S., and R. D. PITTLE (1984). "Caplery, or Command: Are Education Campaigns an Adequate Substitute for Regulation?". *Yale Journal of Regulation*, 1: 159-193.

- AKERLOF, G. (1991). "Procrastination and Obedience". *American Economic Review*, 81 (2): 1-19.
- ARTHUR YOUNG & CO. (1979). *Warranties Rules and Warranty Content Analysis*. Washington, D.C.: Federal Trade Commission.
- ALSUBEL, L. M. (1991). "The Failure of Competition in the Credit Card Market". *American Economic Review*, 81, 50-81.
- BANNISTER, R., and C. MONSMA (1982). *Classification of Concepts in Consumer Education*. Cincinnati, OH: South Western Publishing Company Monograph 137.
- BENHAM, L. (1972). "The Effects of Advertising on the Price of Eyeglasses". *Journal of Law and Economics* 15: 337-352.
- BREYER, S. (1993). *Breaking the Vicious Circle: Toward Effective Risk Reduction*. Cambridge, Mass.: Harvard University Press.
- BRITO, D. L., and P. R. HARTLEY (1995). "Consumer Rationality and Credit Cards". *Journal of Political Economy*, 103 (2): 400-433.
- CADY, J. (1976). "An Estimate of the Price Effects of Restrictions on Drug Price Advertising". *Economic Inquiry*, 14: 493-510.
- COX, D. R., and D. V. HINKLEY (1974). *Theoretical Statistics*. London: Chapman and Hall.
- DAY, G., and W. BRANDT (1974). "Consumer Research and the Evaluation of Information Disclosure Requirements: The Case of Truth in Lending". *Journal of Consumer Research*, June.
- ENGEL, E. (1995a). "The Basics of Consumer Protection: Principles and Policies". Chapter VI in C. Frischnick (ed) *Regulatory Policies and Reform in Industrializing Countries*. Washington, D.C.: The World Bank, forthcoming.
- ENGEL, E. (1995b). "Beyond the Basics of Consumer Protection". Chapter 7 in C. Frischnick (ed), *Regulatory Policies and Reform in Developing Countries*. Washington, D.C.: The World Bank.
- ENGEL, E. (1996). "Protección de los consumidores en Chile". *Revista de Políticas Públicas Latinoamericanas*, forthcoming.
- ENGEL, E., R. FISCHER and A. GALETOVIC. "Lessons from the Deregulation of the Chilean Long Distance Telephone Market". Work in Progress. Santiago: Centro de Economía Aplicada, Departamento de Ingeniería Industrial, Universidad de Chile.
- GALBRAITH, K. (1958). *The Affluent Society*. Boston: Houghton-Mifflin Co.
- GALBRAITH, K. (1967). *The New Industrial State*. Boston: Houghton Mifflin.
- HADDEN, S. G. (1986). *Reid the Label: Reducing Risk by Providing Information*. Boulder: Westview.
- HADDEN, S. G. (1991). "Regulating Product Risks Through Consumer Information". *Journal of Social Issues*, 47 (1): 93-105.
- KAHNEMAN, D., P. SLOVIC and A. TVERSKY (1982). *Judgment Under Uncertainty: Heuristics and biases*. Cambridge: Cambridge University Press.
- KALDOR, N. (1950). "The Economic Aspects of Advertising". *Review of Economic Studies*, 18: 1-27.
- KAUFMANN, D. (1996). "The MMM Financial Pyramid". *Revista de Políticas Públicas Latinoamericanas*, forthcoming.
- LAFONT, J. J. (1989). *The Economics of Uncertainty and Information*. Cambridge, Mass.: MIT Press.
- LAMPMAN, R. J. (1988). "JFK's Four Consumer Rights: A Retrospective View". Chapter 2 in E. Scott Maynes (ed). *The Frontier of Research in the Consumer Interest*. Columbia, Missouri: American Council of Consumer Interests.
- LANE, S. (1983). "The Rationale for Government Intervention in Seller-Consumer Relationships". *Policy Studies Review*, 2: 419-428.
- MACHINA, M. (1982). "Expected Utility Analysis Without the Independence Axiom". *Econometrica*, 50, 277-323.
- MAYER, R. N. (1989). *The Consumer Movement: Guardians of the Marketplace*. Boston: Twayne Publishers.
- MAYER, R. N. (1991). "Gone Yesterday, Here Today: Consumer Issues in the Agenda-Setting Process". *Journal of Social Issues*, 47 (1): 21-39.
- MAYNES, E. S. (1988). "The First Word, The Last Word". Chapter 1 in E. Scott Maynes (ed), *Proceedings of the International Conference in the Consumer Interest*. American Council of Consumer Interests, Columbia, Missouri.
- MCGREGOR, S. L. T. (1991). "International Consumer Policy". mimeo. Mount Allison University.
- MOHR, L. A. (1988). "The Role of Federal Government", Chapter 34 B in E. Scott Maynes (ed),

- Proceedings of the International Conference on the Consumer Interest*. American Council of Consumer Interests, Columbia, Missouri.
- NADDEL, M. (1973). *The Politics of Consumer Protection*. Indianapolis: Bobbs-Merrill.
- NICHOLS, W. (1983). *Pure Politics in the Consumer Industry*. Nashville: Vanderbilt University Press.
- NISBETT, R. E., and L. ROSS (1980). *Human Inference: Strategies and Shortcomings of Social Judgment*. Englewood Cliffs: Prentice Hall.
- OL, W. Y. (1972). "The Economics of Product Safety". *The Brit. Journal of Economics and Monogrom. Statist.* 4 (1): 3-28.
- OL, W. Y. (1977). "Safety at any Price". *Regulation*, November/December.
- PELOUS, S. (1993). *The Psychology of Judgment and Decision Making*. New York: McGraw-Hill.
- PRATT, J. D. WISE and R. ZECKHAUSER (1979). "Price Differences in Almost Competitive Markets". *Quarterly Journal of Economics*, 93, 189-211.
- RIZZO, J. A. and R. J. ZECKHAUSER (1990). "Advertising and Entry: The Case of Physician Services". *Journal of Political Economy*, 98 (3): 476-50.
- ROWSE, A. E. (1967). "Consumer News: A Mixed Report". *Columbia Journalism Review*, 6, 27-33.
- SAVAGE, L. (1954). *The Foundations of Statistics*. New York: Wiley.
- SCHMITT, J. L., KANTER and R. MILLER (1979). *Impact of the Magnuson-Moss Warranty Act*. Staff Report. Washington, D.C.: Federal Trade Commission.
- SIMON, H. A. (1955). "A Behavioral Model of Rational Choice". *Quarterly Journal of Economics*, 69: 99-118.
- SIMON, H. A. (1956). "Rational Choice and the Structure of the Environment". *Psychological Review*, 63: 129-138.
- SOLOW, R. M. (1967). "The New Industrial State or Son of Affluence". *Public Interest*, 9: 100-108.
- SOLOW, R. M. (1977). *Review Swindling and Selling: The Spanish Prisoner and Other Bargains*, by A. A. Left. *Bell Journal of Economics*, 8 (2): 627-629.
- TELSER, L. G. (1964). "Advertising and Competition". *Journal of Political Economy*, 72: 537-563.
- TROLE, J. (1988). *The Theory of Industrial Organization*. Cambridge, Mass.: MIT Press.
- VISCUSI, W. K. (1984a). "The Lulling Effect: The Impact of Child-Resistant Packaging on Aspirin and Analgesic Ingestions". *American Economic Review*, 74 (2): 324-327.
- VISCUSI, W. K. (1984b). "Regulating Consumer Product Safety". Washington D.C.: American Enterprise Institute for Public Policy Research.
- VISCUSI, W. K. (1991). *Reforming Products Liability*. Cambridge, Mass.: Harvard University Press.
- ZECKHAUSER, R. J. (1994). Personal communication. June.