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Risk Assessment: 'A Consumer's Perspective'

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Many everyday choices which consumers make involve some form of risk. Different types of transport carry a different likelihood of accidents; financial services can affect the future well-being of the family; food can be a vector of health or disease. Frequently, however, evaluation of risk is not the main arbiter of choice. Speed and convenience are more likely to determine whether one flies from Aberdeen to London rather than travels by train or road. In financial services some investments may be viewed as risky but facilities such as current and deposit accounts are assumed to be safe havens for customers' money. Consumers expect the food they buy to be safe to eat.

Nevertheless, where there is considerable intrinsic public risk over which they have no direct control, consumers will expect that risk to be reduced to a practical minimum. Public transport must be licensed and subject to inspection. Electricity and gas suppliers must meet high standards of safety. Work activities that affect the public must be subject to legislation or Codes of Practice. Any danger of a major accident in nuclear, chemical, or other installations must be identified, closely supervised and emergency plans worked out and communicated to those in the neighbourhood likely to be affected. New authorities dealing with high profile commercial ventures where there is little safety experience, such as the Channel Tunnel Safety Authority, will undergo particular scrutiny. Control of new processes such as genetic modification needs to be clearly explained and both procedure and the results of risk assessments should be accessible.

The regulators in each of these instances represent consumers and are established to defend consumers' interests. For this reason they must have access to appropriate data and powers to extract information. In turn, they can expect the quality of these procedures to come under close public examination. In particular the Authority concerned must communicate to consumers the standards and criteria it has adopted to identify the minimum acceptable level of risk.

In 1986 Sir Frank Layfield, in his report on the Sizewell B Public Inquiry, said "the opinion of the public should underlie the evaluation of risk; there is at present insufficient public information to allow understanding of the basis for the regulation of nuclear safety". This judgement should extend far more widely than the nuclear industry. Lack of information is widespread and too often both suppliers of goods and services and regulators have failed to give consumers any understandable indication of likely risks. The danger of major hazards was hammered home by the Seveso and Bhopal disasters; public anxiety has been increased. Sir Frank Layfield's message has been adopted by the UK Health and Safety Executive in its paper on **The Tolerability of Risk from Nuclear Power Stations:** "final judgements about whether a given risk is tolerable are not matters for experts alone, but for the people who have to bear the risks, and who are therefore entitled to be given the best possible advice about them". Consumers strongly support this view.

This concept of tolerability of risk needs to be adopted across all sections regulated by safety authorities and some coherent approach developed. Consumers should not be asked, or expected, to accept one method of risk assessment for one activity and a different level for

another. Some generally accepted tolerability of risk criteria, involving a risk/benefit analysis, would enable consumers and regulators alike to accept a more consistent and realistic attitude to safety policy, avoiding the knee-jerk reaction that each individual accident and tragedy currently produces. Such reactions all too easily underestimate some of the longer-term but less visible risks, including many of those associated with inadequate diet, poor public health standards and environmental hazards. Not only individual consumers, but legislators and the media have been reluctant to adopt a consistent yardstick by which to measure risk, to make comparisons of risk, to distinguish major from minor risks, or to determine the best use of public expenditure for the protection of people generally.

More directly, however, consumers exercise choice in buying goods and services in the market-place. With some products they expect a very low or minimal risk and in the UK over the years legislation has been introduced to protect consumers by banning the sale of certain unsafe goods and by requiring safeguards where appropriate. Consumers expect children's toys to be safe for children to play with; they expect the food they eat to do them no harm; they expect gas fitters to avoid all unnecessary risks in carrying out their work.

Many consumers rate choice very highly. They wish to have the choice to take risks. In many instances, however, the decisions of one person may put others at risk as well. This 'societal' risk occurs, for example, where a driver fails to change a worn tyre; where a motor-cyclist refuses to wear a crash helmet; or where motorists or their passengers prefer not to wear seat-belts. In each of these cases the cost in lives and injury has been demonstrated by statistical evidence to be so high that society has accepted legal enforcement of these safety measures. This in turn has necessitated the development of safety standards for the products themselves. Tyres, seat-belts and crash-helmets must give an adequate level of protection.

Despite this, both motor-cyclists and cars remain hazardous modes of transport. Consumers are still able to choose their own make and model of vehicle. Not all information is, however, accessible in the public domain to enable consumers to make risk comparisons when taking a decision. It has taken many years to get even basic accident statistics collected and available according to make of car. Sometimes knowledge of weaknesses in particular model designs have been revealed by the tests of consumer organisations before the manufacturer (or for that matter the public authorities) acknowledged their existence. Subject to adequate overall standards, freedom to buy faster or smaller, safer or larger cars is the right of customers, but in making their choice they should have access to all known risk factors.

The point at which freedom to choose should be limited is a matter of political debate, especially where the potential damage is likely to be confined to an individual or group of individuals. Unpasteurised milk and products made from it may carry microbiological hazards which are destroyed by pasteurisation. In Scotland the sale of unpasteurised milk is prohibited. Elsewhere consumers may choose. In order to make this choice the products must be clearly labelled and information about risk, particularly to vulnerable groups, must be disseminated. There is no satisfactory method of assessing and conveying the level of risk, however, either in unpasteurised milk products or in eggs. Currently in the UK, Government advice is that pregnant women should not eat pâté or liver, but no indication exists of the level of risk associated with eating either food. Measures to control microbiological hazards in food, therefore, have rested more upon scientific possibilities than upon risk/benefit analysis. Computer modelling programmes may help to remedy this situation.

Labelling of products either where hazards are not controlled or to support legislation that has been introduced is an important route for spreading information to consumers. Health warnings on cigarettes and on pharmaceutical products are normal. Care labelling and date labelling have evolved over the years. Nutrition labelling is now required.

To convey complex information by labels is not always easy. Textiles, including furniture, are generally considered to be the most hazardous flammable products in private dwellings. Since 1988 in the UK use of a dangerous sort of polyurethane foam in furniture has been outlawed. The foam burns fast and produces thick toxic smoke – a lethal cocktail of carbon monoxide and cyanide. Polyurethane foam can now be manufactured with an additive that causes it to burn much more slowly. Cover material or interlining must also be match or cigarette-resistant. Permanent labels have to be attached to all furniture offered for sale to inform consumers of its fire-resistant status. Greater reliance must be placed on the banning of the dangerous substance: it will take time for labels to become familiar to consumers. Moreover, although the products are safer, there is no risk assessment, and there is always a danger that 'safer' may be regarded as 'safe'.

Because furniture is the type of product that may be expected to move freely in the European Single Market, UK consumers particularly welcomed the draft Directive on foam furniture which was first discussed in 1989. Safety regulations, of course, have often been used as barriers to trade in the past and UK consumers were anxious for a Community ban on the use of unsafe polyurethane foam. The draft directive was withdrawn in mid-1991, the main reason given being the variations in culture and attitude towards these particular hazards, and the need for further research, which will not be concluded until at least the end of 1994. Although not opposed by the UK government, this action caused considerable concern and alarm among UK consumers.

Many specific hazards are already covered by EC Directives. Electrical heating and cooking appliances are covered by the Low Voltage Directive; gas appliances by the Gas Appliances Directive. Attempts, however, to harmonize legislation for every product or potential product has proved difficult and time-consuming. In June 1992 the Council of Ministers agreed the General Product Safety Directive which will cover all those products for which no specific safety requirements have been included in any other Directive. It is designed to establish at Community level a general obligation to market only safe products and to provide information on any acceptable risks. Member states must provide systems for ensuring compliance and for dealing with dangerous products.

A safe product is defined as one which 'under normal or foreseeable conditions of use, including duration, does not present any risk or only the minimum risks compatible with the product's use, considered as acceptable and consistent with a high level of protection for the safety and health of persons'.

The Directive also requires that 'within the limits of their respective activities' producers shall provide consumers with the relevant information to enable them to assess the risks inherent in a product throughout the normal or reasonably foreseeable period of its use, where such risks are not immediately obvious without adequate warnings, and to take precautions against those risks'.

How producers will arrive at their risk assessments and how the information will be conveyed to consumers has yet to be determined. There are, however, several aspects of the Directive which

are welcome. The extension of the assessment of risk to the whole of the product's life appears to be innovative and important.

There is clearly scope within the Directive for distinguishing between those products which consumers are entitled to expect to be almost entirely free of risk – children's toys, food-stuffs, clothing – and those products which will inevitably be associated with risky activities – fast cars, power tools, motor-bikes. 'Compatible with the product's use' would suggest a possible scale of risk.

Furthermore if the Directive is to be fully implemented it will require better labelling, improved storage and stock control, better batch traceability, possibly better manufacturing standards and concern for the environment.

There has been strong resistance in the past to giving consumers information about risk on the basis of their incapacity to handle statistical data. Yet, large numbers of people engage in gambling and betting on horses or in card games and there is a high level of understanding of the nature of probability and of the means of assessing it. The odds on race horses are quoted in surprisingly complex ways: 2 to 1, and 3 to 1 are straightforward, as are odds 5 to 2, or 11 to 4; ordinary punters seem to have no difficulty in appreciating odds of 100 to 8 or 100 to 6, and even 100 to 30, which represents a sophisticated difference between 11 to 4 and 7 to 2. Almost every High Street has a betting shop where these probabilities are assessed and money wagered in consequence every day.

Given the capacity of consumers to cope with information once their attention is engaged, the possibility of developing a scale of risk becomes extremely interesting. The concept is not strange in the health services, where a patient may be told that a particular operation has a 7 in 10 chance of success, but much research will be needed into whether an easily understandable system of units and notation could be devised, or whether a figure of probability 'p' would be more comprehensible. Within the EC a simple numerical form would have the advantage of international currency. If it became a mandatory European standard to support the General Product Safety Directive, consumers would soon become familiar with risk assessment and better able to use the information in making purchasing decisions. But it should go without saying that such information requirements must be properly tested on consumers first to ensure that they are both useful and comprehensible.