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Strict Liability for Product Defects: The Impact of the New Regime

by

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ABSTRACT

This thesis seeks to analyse the central features of the new scheme of strict liability for loss caused by product defects which was introduced by Part 1 of the Consumer Protection Act 1987. The features to be examined are: the meaning of 'defect'; the meaning of 'product' and the chain of liability; the role of warnings; recoverable and non-recoverable loss; the development risks defence; other defences and prescription and limitation. The aim of the thesis is to assess the impact of these new rules, against the background of the various proposals for reform which had been mooted and in the light of the considerable American experience of product liability law.

Following upon an introduction to the new regime, each of the above elements will be analysed. There will be a brief consideration of the pre-existing legal position, and a discussion of the leading proposals for change. This is then followed by an examination of the appropriate provisions in the new legislation and then by an analysis of the American experience. Where necessary, this structure is not adhered to with

excessive rigidity. Policy considerations affecting the working of the new rules are ventilated, and each chapter concludes with critical comments on the matter examined.

It will be argued that the new concepts which comprise the scheme of strict liability are attended by varying degrees of uncertainty, which can only fully be resolved by litigation at the appellate level. Other areas, both of the legislation and of the common law, are, it will be suggested, profoundly unimaginative. It will be contended that these problems may have been tolerable had the balanced approach initially suggested by the reformers been accepted. The disruption of that balance, by the inclusion of the development risks defence, raises serious doubts as to the value of the legislation. The game, it will be concluded, may well not have been worth the candle.

CHAPTER ONE

INTRODUCTION TO THE NEW REGIME

After a lengthy and at times difficult gestation period, the debate on liability for defective products has finally resulted in legislation on product liability in the form of Part 1 of the Consumer Protection Act 1987. Of the four major contributions to the debate made during the 1970's - Strasbourg Convention[1]; Report of the Scottish and English Law Commissions[2]; Report of the Pearson Commission[3]; and the EEC Product Liability Directive[4] - the last achieved primacy. Adopted in July 1985, it required Member States to implement its provisions within three years. The idea behind the Directive, and the resulting legislation, is straightforward enough: to provide a system of strict liability, rather than liability based on fault, for certain types of harm caused by defective products. The new measure came into force on Ist March 1988.

Short of a no-fault accident compensation scheme, every regime of liability for personal injuries must exclude some injured persons from the ambit of reparation. Part of the function of this chapter is to explain where the line has been drawn, but its chief aim is to provide a

general introduction to the new rules, prefaced by an examination of the history of this area of the law. Before embarking on this brief and introductory exploration of the Act it will also be convenient to set the new regime against the background of the pre-existing legal position, the major proposals for reform of product liability law, and, in general terms, the experience of product liability in the United States.

At the outset it must be stated that the description here offered of the pre-existing legal position and of the proposals for change is brief and in places rather rudimentary, since the detail on each of these matters will be discussed more fully later, where appropriate to do so.

Historical introduction.

The Pre-Donoghue Position

It may be thought that product liability is purely a modern phenomenon, born in the heat of an industrial revolution which resulted in mass manufacture becoming common. While the subject has experienced rapid growth in comparatively modern times, its roots can be traced to Justinian's Digest, as providing a basis for

'the liability of, e.g. sellers, architects or

handicraftsmen who furnished unsound materials due to lack of professional skill or knowledge'.[5]

These roots possessed the key characteristics of the modern law: an imposition of liability upon those who supply products in the course of a business; and, a public policy basis, including the encouragement of higher standards of work.[6] As far back as 1266 there was legislation in England imposing criminal liability for the supply of 'corrupt' food.[7] However, failure to match the prevailing standards seems also to have grounded a civil remedy. [8] Although this remedy initially was exigible independently of contract against those who followed a common calling,[9] the barrier of privity of contract soon intervened to result in the supplier of goods having no liability to non-purchasers. From the nineteenth century, serious attacks on 'the citadel of privity'[10] began to be mounted. In the early stages, as a precursor to recognition of a broad fault-based liability for loss caused by defects in products, English law created a distinction between goods which were inherently dangerous and those not so dangerous. In the immediate pre-Donoghue phase, Scots law also moved towards acceptance of this doctrine.[11]

The beginnings of attempts by counsel to create this dichotomy, as a means of finding an exception from the general rule of non-liability, can be traced at least

as far as Dixon v Bell[12] where the owner of a loaded gun, who had sent a young servant to fetch the weapon, was liable for the injuries caused to the son of the plaintiff when she discharged the gun. However, no separate class of dangerous goods was introduced by the decision. Rather, Lord Ellenborough identified the weapon as having by lack of care been left in a state capable of doing mischief.[13] Thus, the case was taken to authorise the more limited proposition that liability would be imposed upon someone who carelessly permitted a dangerous article to fall into the hands of one who could not be entrusted with safe use of the article.

The distinction again was rejected in a later case, Langridge v Levy [14] where a defective gun had blown up in the hand of the plaintiff. Recovery in this case was permitted, but not on the basis that the gun fitted into a class of products dangerous in themselves. It seems that the court found there to have been conduct tantamount to fraud on the part of the defendant in stating the gun to have been safe in the knowledge that it was not. In addition, the requisite privity may have been established in that the immediate purchaser - the father of the plaintiff - could, it was thought by the court, effectively be treated as the plaintiff's agent.[15] However, the court refused to recognise the category of inherently dangerous articles, for fear of creating potentially widespread liability.[16] This

case again authorises a limited exception - knowingly selling a dangerous item without warning the user.

These cases were swiftly followed by what has become famous as the classic exposition of the non-liability rule: Winterbottom v Wright.[17] There, the plaintiff was injured and rendered lame when a coach broke down due to latent defects in its construction. The defendant, who was not the manufacturer of the coach, had contracted with the postmaster-general to provide the coach for the purposes of carrying mail. A third party undertook to provide horses for the route to be travelled. The plaintiff was hired by this other party as driver of the coach. Rejecting the claim of the plaintiff, the court reasoned that the duty of the defendant, to keep the coach in good condition, was a contractual duty owed to the other contracting party - the postmaster-general - and not to the driver of the vehicle. In the words of Lord Abinger, if liability was to extend this far:

> "the most absurd and outrageous consequences, to which I can see no limit, would ensue."[18]

At this stage, subject to the exceptions adverted to above, the general rule was one of no liability to persons outwith privity of contract.[19] Langridge was distinguishable as having involved fraud, and as not departing from the privity requirement since

effectively there was privity between the parties.

The decision in Winterbottom has been criticised as failing properly to examine the question of the existence of a duty of care [20]. However, in Longmeid v Holliday [21] where the plaintiff was injured by a defective lamp, it was said of the circumstances in which persons not in privity might recover that:

> " And it may be the same when one delivers to another without notice an instrument by its nature dangerous, or under particular circumstances, as a loaded gun which he himself loaded, and that other person to whom it is delivered is injured thereby, or if he places it in a situation easily accessible to a third person , who sustains damage from it. A very strong case to that effect is Dixon v Bell. But it would be going much too far to say that so much care is required in the ordinary intercourse of life between one individual and another, that, if a machine not in its nature dangerous, - a carriage for instance, - but which might become so by a latent defect entirely unknown, although discoverable by the exercise of ordinary care, should be lent or given by one person, even by the person who manufactured it, to another, the former should be answerable to the latter for a subsequent damage accruing by the use of it." [22]

Longmeid was taken along with dicta in other cases [23] to vouch the rule that liability will exist where things dangerous in themselves are supplied without warning of their true character, although on the facts, the lamp was not of this nature. However, in George v Skivington [24], a chemist who made up a hair shampoo was liable for injuries caused by the preparation to the wife of the buyer. No attempt was made to fit the hair wash into a category of inherently dangerous goods. The decision was much criticised, and was described in 1929 in a leading article on manufacturer's liability[25] as

> "if not overruled, at least discredited by constant adverse criticism."

By the time of Heaven v Pender, in 1883 [26]further recognition of a limited duty in respect of dangerous goods was apparent. The defendant dock owner, who had supplied staging and ropes, was held liable for injury caused to an employee (a ship painter) of a master painter who had contracted with the shipowner. The employee was injured when defective ropes, bearing the staging, snapped. The majority based thier finding on the rather narrow ground that the defendant effectively had invited the painter to use the premises and appliances, whose dangerousness was a matter within the control of the dock owner. Of more enduring interest, however, is the much wider basis for liability posited

by Brett M.R. (later Lord Esher). Identifying two different sets of circumstances in which earlier cases had found a duty of care to exist, Brett M.R., in an interesting piece of inductive reasoning,[27] sought to state the wider principle which embraced both propositions:

> "Whenever one person supplies goods or machinery, or the like for the purpose of their being used by another person under such circumstances that everyone of ordinary sense would, if he thought, recognize at once that unless he used ordinary care and skill with regard to the condition of the thing supplied or the mode of supplying it, there will be a danger of injury to the person or property of him for whose use the thing is supplied, and who is to use it, a duty arises to use ordinary care and skill as to the condition or manner of supplying such thing."[28]

Brett M.R.'s view was, however, overly modern in its recognition of a duty of care to users or consumers. Accordingly, the pre-Donoghue state of the law could be summed up as involving a general principle, put thus by Lord Sumner in Blacker v Lake & Elliot [29]

> "The breach of the defendant's contract with A to use care and skill in and about the manufacture or repair of an article does not of itself give any

> cause of action to B when he is injured by reason of the article proving to be defective."

To this general rule of no liability, there were admitted two exceptions: (a) liability arising from articles dangerous in themselves; and, (b) liability where the article not in itself dangerous is in fact dangerous, by reason of some defect or for any other reason, and this is known to the manufacturer. This traditional approach was adopted by Lord Buckmaster, who delivered the leading dissent in Donoghue v Stevenson.[30] His Lordship was scathing both as to the decision in George v Skivington, and as to the dissent of Brett M.R. in Heaven v Pender:

> "So far, therefore, as the case of George v Skivington (supra) and the dicta in Heaven v Pender (supra) are concerned, it is, in my opinion, better that they should be buried so securely that their perturbed spirits shall no longer vex the law." [31]

However, in the leading speech of the majority, Lord Atkin was much influenced by the dicta in Heaven v Pender, although he accepted that without the qualification that there must be sufficient proximity between the parties the dictum was too wide in its ambit.[32] The decision in George v Skivington was expressly approved, and the category of goods variously

described as 'inherently', 'imminently' or 'eminently' [33] dangerous was, as will be noticed below, characterised as unhelpful.

In Scots law, there was no clear recognition of a category of things dangerous in themselves, at least until a decision of the Second Division just three years prior to Donoghue: Mullen v Barr & Co.,[34]. In this case, "indistinguishable from [Donoghue v Stevenson] except that a mouse is not a snail"[35] an action of damages was brought on behalf of two children who had been injured as a result of consuming a bottle of ginger beer which contained the decaying remains of a mouse. The defenders were assoilzied, and on the basis of a plethora of English authorities, including the cases discussed above, it was held that no duty was owed to the consumers of the ginger beer since the defenders neither knew that the the contents of the bottle were dangerous, nor were they dealers in articles dangerous per se.

Lord Anderson, under reference to the words of Lord Abinger in Winterbottom, quoted above, said that,

> "...in a case like the present, where the goods of the defenders are widely distributed throughout Scotland, it would seem little short of outrageous to make them responsible to members of the public for the condition of the contents of every bottle

> which issues from their works. It is obvious that, if such responsibility attached to the defenders, they might be called on to meet claims of damages which they could not possibly investigate or answer."[36]

This 'floodgates' fear much impressed Lord Buckmaster, who, in his dissent in Donoghue, stated:

> "In agreeing, as I do, with the judgement of Lord Anderson, I desire to add that I find it hard to dissent from the emphatic nature of the language with which his judgement is clothed." [37]

Nevertheless, it would seem that Scots law was more amenable to the notion that an element of dangerousness is present in all goods. As Lord Dunedin put it,

> "There is, so to speak, an element of danger in every chattel - it may break, it may be defective in such a way as to allow of misuse, and the result may be injury; but I think there must always be found somewhere the element of negligence on his part to make the owner of a chattel liable for that injury."[38]

At all events, any distinction as to existence of a duty of care as between inherently dangerous goods and

other goods, ought not to have survived Donoghue v Stevenson. There, Lord Atkin said:

> "I regard the distinction as an unnatural one so far as it is used to serve as a logical differentiation by which to distinguish the existence or non existence of a legal right."[39]

His Lordship agreed with the earlier dicta of Scrutton L.J. in Hodge & Sons v Anglo-American Oil Co.[40]

> "Personally, I do not understand the difference between a thing dangerous in itself, as poison, and a thing not dangerous as a class, but by negligent construction dangerous as a particular thing. The latter, if anything, seems the more dangerous of the two; it is a wolf in sheep's clothing instead of an obvious wolf."[41]

Having enunciated his famous neighbourhood principle, Lord Atkin went on to find comfort in the knowledge that American law had reached a similar conclusion:

> "It is always a satisfaction to an English lawyer to be able to test his application of fundamantal principles of the common law by the development of the same doctrines by the lawyers of the courts of the United States. In that country I find that the law appears to be well established in the sense in

> which I have indicated. The snail had emerged from the ginger beer bottle in the United States before it appeared in Scotland, but there it brought a liability upon the manufacturer. I must not in this long judgement do more than refer to the illuminating judgement of Cardozo, J in MacPherson v Buick Motor Co. in the New York Court of Appeals, in which he states the principles of the law as I should desire to state them..."[42]

Dicta in more recent cases support this view:

> "There is really no category of dangerous things; there are only some things which require more and some which require less care."[43]

In this way, the law reached its broad proposition of a duty of care being incumbent upon the manufacturer of products, and the ideas of Lord Buckmaster and Lord Anderson gave way to the new order ushered in by Lord Atkin and presaged, albeit in rather wide terms, by Brett M.R. fifty or so years earlier.

<u>The Post-Donoghue position</u>

The immediate choice open to a pursuer claiming in respect of loss caused by a defective product thus becomes whether to found the claim in contract or in delict. Clearly, the former is more attractive than the

latter, in that questions of culpa are, in the former, irrelevant. But, for contractual liability to arise, the victim will have to be a party to the contract.

If the claim is founded in contract then the seller will be liable if the buyer can establish breach of one or other of the implied terms of s12-15 of the Sale of Goods Act 1979. It is of course possible that a contract claim will fall outside the act (for example where the seller does not sell in the course of a business) and here the common law criterion will be applied, but the vast majority of product liability cases, in contract, fall within the 1979 Act. In the context of product liability, claims for damages will commonly be based on s14, and will often cover loss or damage other than to the product itself, for example to the person of the pursuer. The measure of damage in such cases is that prescribed by s53(2) and s54 of the 1979 Act - the estimated loss directly and naturally resulting in the ordinary course of events, from the breach, including any special damages. Thus, in Grant v Australian Knitting Mills Ltd[44], the buyer of woollen undergarments who contracted dermatitis as a result of the presence of an excess of free sulphites in the underwear, was able to recover damages from the retailer, for breach of s14 of the Act.

It has long been recognised that this liability in contract is strict and consequently that proof of

having taken reasonable care will not afford protection to the seller. So, for example, in Frost v Aylesbury Dairy Co [45], damages were awarded to the husband of a woman who died as a result of contracting typhoid fever from germs present in milk which she had purchased. It was no defence that the presence of the germs could not have been detected by the exercise of all due care.

Dicta in more recent English cases reinforce this point: in Henry Kendall and Sons v William Lillico and Sons Ltd[46], Lord Reid stated that s14 covers defects

> "which are latent in the sense that even the utmost skill and judgement on the part of the seller would not have detected them";

In Ashington Piggeries Ltd v Christopher Hill Ltd[47] liability was imposed, under s14, for loss caused by the poisonous effect of herring meal on mink, despite the fact that

> "in the then state of knowledge, scientific and commercial, no deliberate exercise of human skill or judgement could have prevented the meal from having its toxic effect on mink".

As is shown by cases such as Vacwell Engineering Ltd. v BDH Chemicals Ltd.[48],the presence or absence of an adequate warning may be relevant to the question of

merchantability or fitness for purpose. In that case, glass ampoules containing a chemical which combined explosively with water were unfit for their purpose when bearing a warning only of 'harmful vapour'.

There is, however, one major limitation on the availability of a contractual remedy - the principle that only the parties to the contract can acquire rights and duties under it. Thus, the buyer can sue the retailer but not the manufacturer. Further, a party other than the buyer (eg a donee) who suffers loss has no action under the Sale of Goods Act, unless (and this will be difficult) he can establish the existence of a ius quaesitum tertio in his favour.[49]

If a product liability claim is founded in delict then the injured party, to succeed, must prove negligence on the part of the manufacturer, retailer or other person responsible. In rudimentary terms, the pursuer must establish that the defender owed him a duty of care, was in breach of that duty, and that the breach caused the harm complained of.

Since Donoghue v Stevenson[50] there has, of course, been no doubt about the existence of a duty of care in the situation where goods are supplied to a consumer. However, establishing breach of duty and causation can be rather difficult, since access to production processes and scientific expertise is often required.

But it is not necessary for the pursuer to pinpoint a specific act of negligence -

> "the duty is of reasonable care only but fault is readily inferred where the whole process of manufacture has been under the defender's control and a pursuer is not required to prove exactly how the defect arose".[51]

Thus, in Lockhart v Barr[52] the presence of phenol in a bottle of areated water was sufficient to justify an inference of negligence on the part of the manufacturer. The presence of a manufacturing defect, as in the above cases, commonly gives rise to a presumption of negligence on the part of the producer, and in some cases the aplication of the maxim res ipsa loquitur can assist the pursuer.[53]

Defences available in delict actions generally apply to product liability claims based on negligence. In all such cases proof of having taken due care will exculpate the defender, marking a major distinction between claims arising ex contractu and those arising ex delicto. Satisfaction of the requirement to take due care depends upon a number of factors including the presence or absence of adequate warnings. Thus in Vacwell Co Ltd v BDH Chemicals Ltd[54], mentioned above, the words "harmful vapour" on glass ampoules containg boron tribromide did not give adequate warning

of the explosive properties of the chemical on contact with water, and the manufacturers were held liable, in tort as well as in contract, for the extensive property damage and death of a visiting scientist, caused by an explosion.

Therefore, if loss has been caused by a defective product bought by the injured party, liability is strict if visited on the retailer, in contract. If someone other than the purchaser has suffered loss then negligence has to be proved, and the claim is normally against the manufactuer.

This aspect of the contract/delict dichotomy has been described as 'quite arbitary and indefensible'[55] and 'capricious in operation and does not reflect any conscious choice of policy'[56].

Proposals for Reform

This capricious nature of our present law on liability for defective products was clearly illustrated by the Thalidomide tragedy, the victims of which had to rely on extra-legal payments of compensation. It was this disaster which proved to be the catalyst for the whole debate on product liability throughout Europe, causing a number of major inquiries into the subject to be mounted in the 1970's.

In November 1971 the Scottish and English Law Commissions were asked to investigate the law on liability for defective products.Then in 1972 the Prime Minister announced the setting up of the Royal Commission on Civil Liability and Compensation for Personal Injury, part of its brief being product liability. European institutions entered the debate in the same year, when the Hague Conference on Private International Law drafted a 'Convention on the Law Applicable to Products Liability'. Then, in 1976, the first EEC Draft Directive[57] on product liability was presented by the European Commission to the Council of Ministers. After some ten years of shuffling around the corridors of Brussels the Directive[58] was adopted by the Council on 25 July 1985 and now forms the basis of the new product liability regime introduced by the Consumer Protection Act 1987. In January 1977, some months after the first draft of he Directive was promulgated, the Council of Europe adopted the Strasbourg Convention on Products Liability in Regard to Personal Injury and Death.

There now follows a brief summary of each set of proposals, starting with the Directive since it is the most significant.

(A) EEC Directive - A brief summary

The basis for liability under the Directive is given

in Article 1:

> "The producer shall be liable for damage caused by a defect in his product".

This strict liability is however subject to a number of defences including the centrally controversial 'development risks' defence: Article 7(e) of the directive states that a producer will not be liable if he proves that

> 'the state of scientific and technical knowledge at the time when he put the product into circulation was not such as to enable the existence of the defect to be discovered'.

However, by Article 15, Member States are permitted to derogate from the Directive by excluding the development risks defence.

Under the Directive, 'product' means all moveables with the exception of primary agricultural products and game, although Member States have the option of not allowing this exception.. Moveable property incorporated into another moveable or into heritage is included.

"Producer" is defined as the producer of the finished product, the producer of any raw material or component,

and any person who, by putting his name, trade mark or other distinguishing feature on the article represents himself as its producer. "Damage" includes damage to personal property, with a lower threshold of 500 ECU, as well as personal injury. In this respect the Directive differs from the recommendations of the Law Commissions who felt that strict liability should not extend to property damage, and from those of the Pearson Commission, whose terms of reference were limited to personal injury and death.

Under the Directive, an article is defective when, being used for the purpose for which it is apparently intended, it does not provide for persons or property the safety which a person is entitled to expect, taking into account all the circumstances including its presentation, the use to which it could reasonably be expected that the product would be put, and the time at which it was put into circulation. The intention of the latter part of the definition of "defective" is to take account of the age of the product rather than allow a defence based on the state-of-the-art at the time of manufacture.

A number of defences are provided, including: that the defender did not put the product into circulation; that the product was not defective when put into circulation; that the product was not manufactured for an 'economic purpose' nor manufactured or distributed

in the course of business; that the defect is due to compliance with mandatory regulations issued by the public authorities; in the case of component parts, that the defect is attributable to the design of the product in which the component has been fitted or to instructions given by the manufacturer of the product. It would also be a partial or complete defence to show that the pursuer's negligence contributed to his own loss.

The Directive contemplates a global limit on liability of at least 70 million European Units of Account (approximately 45m) but individual Member States may choose whether to include this provision. Actions have to be commenced within three years of the injured person becoming aware of the damage, the defect and the identity of the producer.

The Directive provides for a ten year time limit on the producer's liability, commencing from the date when the product was put into circulation, and a three year limitation period for the commencement of actions. Finally, the strict liability of the producer cannot be excluded or limited.

(B) Report of the Scottish and English Law Commissions [59]

Like the Directive, the Law Commissions' Report

recommended the imposition of a system of strict delictual liability, using a similar definition of "defective". Liability was to be imposed primarily on manufacturers but would have been extended when justified to retailers selling "own-brand" products, suppliers of anonymous goods (i.e. goods bearing no indication of the identity of the producer), and importers of goods.

Component manufacturers would also have incurred liability, although the Scottish Law Commission felt that such liability should cease when the component was incorporated into another product.

Manufacturers of pharmaceuticals were amongst those meriting individual consideration. However, the prevailing view was that no manufacturer should be treated as a special case, although the Scottish Law Commission felt that in some instances the cost of insurance cover would be prohibitive and suggested that, in these circumstances, the state should accept some degree of responsibility.

The Commission felt that the global ceiling on liability proposed in the relevant draft of the directive should not be recommended. The English Commission agreed with the 3 year limitation period for the bringing of actions and the 10 year cut off period for the producer's liability, envisaged by the draft

directive, but the Scottish Commission felt that limitation should be left to individual national laws and that no cut off period was desirable.

Similar defences to those contemplated by the draft directive were proposed by the Law Commissions. Again, it would not be a defence for a manufacturer or other person responsible to show that the product was as safe as the state-of-the-art would allow. Lastly, the controls of the Unfair Contract Terms Act 1977 on exemption clauses would apply to the system of strict liability.

(C) Report of the Royal Commission on Civil Liability[60]

Chapter 22 of the Pearson Report is concerned with liability for defective products, and this section largely mirrors the proposals expressed in the Law Commissions' Report. Thus, liability of manufacturers of defective products would be strict and the definition of defect based on the safety which a person is entitled to expect; liability would be extended, where necessary, to component manufacturers, suppliers of 'own-brand' products, and importers.

Proposed defences are similar to those already given and, again, the state-of-the-art defence would not be available to a producer. Finally, it was recommended

that it should be impossible to exclude liability, that there ought to be no ceiling on the amount of compensation payable, and the same limits in respect of duration of liability and limitation of actions as those given in the Directive, should apply.

(D) Strasbourg Convention

The Council of Europe Convention on Products Liability in Regard to Personal Injury and Death (hereafter the Strasbourg Convention) is the other major European input to the product liability debate. Given that the EEC Directive has now been implemented in Part 1 of the Consumer Protection Act 1987, the UK will not be joining Austria, Belgium, France and Luxembourg as a signatory to the Convention.

Broadly similar provisions to those in the other sets of recommendations appear in the Convention, although its ambit is limited to personal injury and death. Thus, the term producer embraces manufacturers of components and producers of natural products as well as manufacturers of finished products. Persons who import products for the purposes of supply in the course of business are deemed to be producers. 'Product' is given a very similar definition to that in the Directive, and 'defect' is couched in the familiar language of consumer expectations.

No development risks defence is allowed and there is no overall limit on total damages. Contributory negligence is a defence, in partial or full mitigation of an award of damages. Other defences similar to those in the Directive are available. The three year limitation period and the ten year cut off also figure in the Convention.

Apart from its limitation to death or personal injuries, the main difference between the Convention and the Directive is of course the availability, under the latter, of a development risks defence.

United States Product Liability Law

Application of common law principles of strict liability for defective products has been an important feature of American law for the past 30 or so years. However, the development of this branch of the law can be traced back to the decision in Thomas v Winchester [62] in 1852. A poison, belladona, was falsely labelled by the seller as extract of dandelion. It was sold to a pharmacist, who in turn sold to a customer. On the basis that the defendant's negligence had put human life in imminent danger, liability was imposed; a mis-labelled poison created such danger, but a defective carriage, as in Winterbottom, above, did not. In Loop v Litchfield [63] there was a defect in a small balance wheel used on a circular saw. This defect was pointed

out to the buyer by the manufacturer. Five years later, the machine having been leased by its purchaser to another, the wheel broke. Holding that the manufacturer was not liable to the lessee, the court excluded the wheel from the imminently dangerous category. Three years later the New York court followed Loop to find that a steam boiler which exploded was not in the Thomas v Winchester imminently dangerous category.[64] Then, in 1882, in a decision which prefigured that in the English case of Heaven v Pender[65], it was held in Devlin v Smith[66], that the constructor of a scaffold was liable for the death of a painter who was killed when the scaffold gave way while he was painting the dome of a court building. Having built the scaffold for the use of the workmen, the contractor owed them a duty to build it with care, irrespective of his contract with their master.[67] Then, in Statler v Ray Manufacturing Co., [68] an exploding coffee urn was held to be imminently dangerous if not carefully and properly constructed.

The major landmark of the development of US product liability law is, however, the case of MacPherson v Buick Motor Co., [69] where an

> "improvident Scot squandered his gold upon a Buick and so left his name forever imprinted on the law of products liability". [70]

One of the car's wheels was made of defective wood and the plaintiff was injured when the spokes collapsed and he was thrown out and injured. Approving the dicta of Brett M.R. in Heaven v Pender, referred to above, although accepting that it may need some qualification, Cardozo J. stated:

> "We hold, then, that the principle of Thomas v Winchester is not limited to poisons, explosives, and things of like nature, to things which in their normal operation are implements of destruction. If the nature of a thing is such that it is reasonably certain to place life and limb in peril when negligently made, it is then a thing of danger."[71]

Despite the refusal of some courts to accept the extension of the law represented by MacPherson, including one case in which a defective car door handle resulted in the plaintiff being thrown out and then under the vehicle,[72] the decision "swept the country" [73] and paved the way for the freedom so eagerly exploited by later courts in product cases.

The establishment in MacPherson of a broad negligence basis for liability for defective products soon gave way to the imposition of strict liability. At first this was restricted to food, but was quickly extended to other products [74]. Writing in 1960, Dean Prosser

noted seven recent cases as authority for the view

> "that the seller of any product who sells it in a condition dangerous for use is strictly liable to its ultimate user for injuries resulting from such use, although the seller has exercised all possible care, and the user has entered into no contractual relationship with him." [75]

Observing that the effect of these decisions was no longer to confine strict liability to articles for internal consumption, or to inherently dangerous products, the Dean went on:

> "Seven such cases, in so short a time, may very well be said to amount to a Trend. It would be rather easy to find fault with several of these decisions, which have displayed much more in the way of enthusiasm for the result to be reached than of accuracy in the citation of precedent. But taken in the aggregate, they give the definite impression that the dam has busted, and those in the path of the avalanche would do well to make for the hills."[76]

One of the key decisions, earlier than the cases referred to by the Dean, in the translation from negligence to strict liability was Escola v Coca Cola Bottling Co. of Fresno,[77] although it is memorable

less for its particular finding that res ipsa loquitur ought to be applied in a fairly liberal fashion in products cases, than for the modernity of the following dictum of Traynor J.in his concurring judgment:

> "I concur in the judgement, but I believe the manufacturer's negligence should no longer be singled out as the basis of a plaintiff's right to recover in cases like the present one. In my opinion it should now be recognized that a manufacturer incurs an absolute liability when an article that he has placed on the market, knowing that it is to be used without inspection, proves to have a defect that causes injury to human beings" [78]

Noting some decisions which based the manufacturer's liability upon negligence, he continued:

> "Even if there is no negligence, however, public policy demands that responsibility be fixed wherever it will most effectively reduce the hazards of life and health inherent in defective products that reach the market. it is evident that the manufacturer can anticipate some hazards and guard against the recurrence of others, as the public cannot. Those who suffer injury from defective products are unprepared to meet its consequences.

> The cost of injury and the loss of time or health may be an overwhelming misfortune to the person injured, and a needless one, for the risk of injury can be insured by the manufacturer and be distributed among the public as the cost of doing business. It is to the public interest to discourage the marketing of products having defects that are a menace to the public. If such products nevertheless find their way into the market it is to the public interest to place the responsibility for whatever injury they may cause upon the manufacturer, who, even if he is not negligent in the manufacture of the product, is responsible for its reaching the market. However intermittently such injuries may occur and however haphazardly they may strike, the risk of their occurrence is a constant risk and a general one. Against such a risk there should be a general and constant protection and the manufacturer is best situated to afford such protection."[79]

Policy considerations were equally influential to the Supreme Court of New Jersey in a further landmark decision, Henningsen v Bloomfield Motors, Inc..[80] Here, a man bought a car as a gift for his wife. Ten days after delivery a defect in the steering mechanism caused the car to veer into a wall. The husband recovered on the basis of implied warranty for his consequential losses, but of greater significance is

that the court allowed the wife to recover, also in implied warranty, against the manufacturer and against the retailer:

"Thus, where commodities sold are such that if defectively manufactured they will be dangerous to life or limb, then society's interests can only be protected by eliminating the requirement of privity between the maker and his dealers and the reasonably expected ultimate consumer. In that way the burden of losses consequent upon use of defective articles is borne by those who are in a position to either control the danger or make an equitable distribution of the losses when they occur.......We see no rational doctrinal basis for differentiating between a fly in a bottle of beverage and a defective automobile. The unwholesome beverage may bring illness to one person, the defective car, with its great potentiality for harm to the driver, occupants and others, demands even less adherence to the narrow barrier of privity."[81]

Just three years later, Greenman v Yuba Power Products Inc.,[82] the final piece of the jigsaw of development from liability for inherently dangerous products to generalised strict tortious liability was put into place. Mrs. Greenman bought her husband a 'Shopsmith', which was a combination power tool capable of being

used as a saw, drill and wood lathe. Two years later, in 1957, a piece of wood flew out from the machine, while the plaintiff was working on it, striking him on the forehead. He sued both retailer and manufacturer, in each case asserting breach of warranty and negligence. At first instance, the court found the retailer not liable, but held that the manufacturer was liable. The manufacturer and the plaintiff appealed, the latter seeking reversal of the judgement in favour of the retailer, but only if the manufacturer's appeal was successful. Holding the manufacturer liable, Judge Traynor reinforced his dictum in Escola, above:

> "...[T]o impose strict liability on the manufacturer under the circumstances of this case, it was not necessary for plaintiff to establish an express warranty.....A manufacturer is strictly liable in tort when an article he places on the market, knowing that it is to be used without inspection for defects, proves to have a defect that causes injury to a human being. Recognized first in the case of unwholesome food products, such liability has now been extended to a variety of other products that create as great or greater hazards if defective........ Although in these cases strict liability has usually been based on the theory of an express or implied warranty running from the manufacturer to the plaintiff, the abandonment of the requirement of a contract

between them, the recognition that the liability is not assumed by agreement but imposed by law...,and the refusal to permit the manufacturer to define the scope of its own responsibility for defective products....make clear that the liability is not one governed by the law of contract warranties but by the law of strict liability in tort....."[83]

Thus, the law has developed from a traditional negligence theory, on through a system based on express and implied warranties in contract, and finally to a regime of strict liability in tort. At present the three theories of liability co-exist, but most of the successful product liability actions are founded on strict tort, for obvious reasons. More recent cases which are of significance will be discussed at appropriate places in later chapters.

As it currently stands, the negligence base of liability is broadly similar that in the U.K. and needs no further treatment here. The use of express and implied warranties in contract is of course not new either, but in the United States it is marked by a radical departure from the basic contractual rule that only the parties to the contract can sue, and be sued, in the event of a breach. This departure is clearly illustrated in Henningsen v Bloomfield Motors Inc., above, where both the manufacturer and the retailer were held liable on the basis of an implied warranty of

merchantability. There were, however, a number of complications associated with the express and implied warranty ground of liability, and the last thirty or so years have seen the development of strict liability in tort, founded on cases like Greenman v Yuba Power Products Inc., referred to above, and now codified in the Second Restatement of Torts of 1965.

The Second Restatement, not binding unless adopted by state courts or legislatures, but commonly adhered to, provides for liability where damage is caused by an 'unreasonably dangerous' defective product:

> "s402A. Special Liability of Seller of Product for Physical Harm to User or Consumer
>
> (1) One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if
>
> (a) the seller is engaged in the business of selling such a product, and
>
> (b) it is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.
>
> (2) The rule stated in Subsection (1) applies although

(a) the seller has exercised all possible care in the preparation and sale of his product, and

(b) the user or consumer has not bought the product from or entered into any contractual relation with the seller."

Prior to comments (a) to (q) on the section, which contain quite full discussion of its intended import, there appears the following caveat:

> "The Institute expresses no opinion as to whether the rules stated in this Section may not apply
>
> (1) to harm to persons other than users or consumers;
>
> (2) to the seller of a product expected to be processed or otherwise substantially changed before it reaches the user or consumer; or
>
> (3) to the seller of a component part of a product to be assembled."

The interpretation of s402A by US courts is considered more fully at appropriate points in the forthcoming discussion.

Some of the cases in which damages have been awarded have caused great alarm to manufacturers and their insurers. One oft-quoted example is that of a considerable sum being awarded to a man who lost a

finger after having picked up his lawnmower and used it to trim a hedge, but this is probably apocryphal.[84] Other cases are however scarcely less bizarre - in Luque v McLean[85] for example, damages were awarded to a man who had injured his hand after having inserted it in a gap in the casing of a lawnmower. In Jeanatta Zygmaniak v Kawasaki Motors[86] a motor cyclist had suffered serious injury in an accident and was later shot dead at his own request. His widow received substantial damages from the manufacturers, after showing that the motor cycle was defective, the jury having decided that the defects were the proximate cause of her husband's death.

Perhaps an even more alarming feature of American product liability law has been the magnitude of damages awarded. In the famous 'Pinto' case[87], a passenger in a Ford Pinto car who suffered burns to over 90% of his body when the car burst into flames when rammed from the rear, was originally awarded compensatory damages of $2,842,000 and punitive damages of $125,000,000. This latter sum was later reduced, on appeal, to $3,500,000. In product liability cases, American courts do not baulk at awarding damages of 1 million dollars or more. It has been said that most of the increase in damages awards from about 1960 on occurred in the years 1980-1984.[88] In San Francisco, for example, awards increased by 1016 per cent during this period, and the proportion of $1 million-plus

awards was 58% of the total.[89]

Recent years have seen a crisis in American product liability. Manufacturers have been faced with inflated insurance costs, causing increased prices, and in some cases have been unable to obtain liability insurance, thereby jeopardising the availability of compensation to injured consumers. One US Senator, Commerce Secretary Malcolm Baldridge, went as far as to say that

> "product liability problems are affecting both the nation's productivity and its ability to compete with exports".[90]

Late in 1975 the US government set up the Interagency Task Force on Product Liability, to investigate the causes of the crisis. Its findings, published in 1977, vindicate some, but not all, of the claims made about the effect of strict product liability.[91] More recently, the US Tort Policy Working Group has urged legislative reform, recommending in particular, a return to a fault based system of compensation for product liability. For some years Federal legislation has been proposed in an attempt to remedy the perceived excesses of the strict liability regime. Current drafts of the Model Uniform Product Liability Act[92] would use negligence as the standard in design defect and failure to warn cases. However, there remain

major doubts as to whether this draft legislation will reach the statute book.[93]

The problems encountered in the United States in its experience of strict product liability will be of some relevance to the operation of the new regime in this country. However, it must be pointed out that a number of features of the American legal system exacerbate these difficulties, and indeed, may collectively have been a more significant causal factor of the crisis than the substantive law. A broad indication of these features is all that need be given:

(1) American product liability cases are heard in front of juries, who decide on questions of fact and on the extent of any award of damages. Experience shows that juries tend to sympathise with the victim rather than producer, are unwilling to find the injured person contributorily negligent, and are prepared to make high awards of damages;

(2) American law allows for awards of punitive damages. In 1987, a Washington court awarded $95m damages to an eight year old boy who had suffered birth defects caused by an anti-nausea drug taken by his mother during pregnancy. $20m of the award was compensatory, the rest punitive.[94]

(3) Attorneys in product liability claims often enter into contingency fee arrangements with clients, under which normally between 20% and 50% of any award of damages goes to the attorney. It has been argued that some attorneys may be prepared to file claims for inflated amounts, in the hope of increasing the seriousness of the case in the eyes of the jury, or potentially increasing their own rewards;[95]

(4) Principles of product liability law have been developed in different ways in the various states. Some attempt to remedy this latter difficulty is presently being undertaken with the proposal for Federal Product Liability legislation, but the US system has yet to address itself to the other factors.

Product Liability - The New Rules

The general effect of Part I of the Consumer Protection Act 1987 is to establish a system of strict, rather than fault-based, liability in respect of loss caused by defective products. Existing delict/tort and contract remedies remain available, but are now supplemented by a new conceptual structure which is intended to focus primarily on the condition of a product rather than upon the conduct of its producer. However, the spirit of the reasonable man has not been fully exorcised and, as we shall see, some of the language and concepts of negligence re-appear in the

new rules.

Section 2, containing the central provisions on product liability, imposes liability for damage caused wholly or partly by a defect in a product upon the producer, importer or an "own-brander" (someone who has held himself out to be the producer) of the product. Much of the rest of Part 1 defines the key terms used in this section.

What is a 'product'?

This term is widely defined in the legislation to include any goods (and gas, water or electricity) including a product which is comprised in another product, whether by virtue of being a component part or raw material or otherwise: section 1(2). Clearly, this embraces ordinary consumer goods such as domestic appliances but more importantly, in terms of disaster litigation, major items such as helicopters, aeroplanes, ships, (including car ferries) motor vehicles, pharmaceuticals and other chemicals are also covered.

Moveable products (for example, building materials) which have been incorporated into heritage are also included in the definition of products. In this respect, the legislation departs from the recommendations of the Scottish Law Commission, but is

consistent with the majority opinion in other proposals. The Scottish Law Commission's view that there may be a case for considering special provisions for certain pharmaceutical products has also been rejected. The inclusion of drugs caused some concern in the debate on the Bill and many distinguished commentators have echoed the Scottish Law Commission's view that the development of new drugs (in such a pressing age as the present) could be unduly inhibited. But in consonance with the recommendations of the Scottish Law Commission agricultural produce and game which have not undergone an industrial process are outwith the Act's scheme of liability. Article 15 of the Directive permits a Member State to include primary agricultural products and game within the scope of the implementing legislation. The United Kingdom government was persuaded against inclusion since such products are particularly prone to hidden defects caused by environmental factors beyond the control of the producer. It was also felt that there would be particular difficulties in tracing the source of defective produce given that bulk supplies are often mixed.

One inadequacy in the legislation is the failure to define the term 'industrial process' for the purposes of the agricultural produce exemption. According to the Minister[96], it includes such things as canning and preservation, and does not include things done while an

animal is alive, for example injection with a pharmaceutical product.

Pharmaceutical products are covered, despite strong criticism at the Committee stage in the Lords (for example, Lord Denning's view that the development of new drugs such as an AIDS virus would be inhibited[97]). It was felt that the inclusion of a 'development risks' defence afforded adequate protection to manufacturers of such products[98]. Given that the Thalidomide disaster initially provoked debate on reform of this area of the law, and that drugs are relatively common causes of injury, it would have been surprising for pharmaceuticals to have been exempted.

Interesting questions remain: what, for example, is the position of human blood and organs? If hepatitis or AIDS is contracted from blood, is there liability under the Act? The Pearson Commission took the view that human blood and organs be regarded as products and that persons responsible for distributing them be regarded as producers for the purposes of strict liability[99]. It seems that the terms 'product' and 'producer' are sufficiently wide to embrace this view.

(b) Persons who may incur liability

Primarily, liability is to be visited upon the

producer. This will of course generally be the manufacturer but the definition of producer also deals with raw materials in which case the person who 'won or abstracted' the substance is the producer. Similarly, those who process products which have not been manufactured, won or abstracted (for example, agricultural produce) are producers. As noted earlier, certain 'own branders' and importers (into the EEC) also incur liability. Those who simply package goods, without processing, are not producers, but such persons are not wholly outwith the scope of the Act since a supplier can be liable if he fails to identify the person who supplied the product to him: s.2(3).

This last provision has, understandably, caused much concern in the distributive trades and in the medical world. Doctors, pharmacists and other health care personnel could be liable as suppliers of a defective medicinal product if the producer (or own brander or importer) is not identifiable. Particular problems will arise in the case of generic drugs (the prescription of which is encouraged by the DHSS) where identification of source can be difficult. While National Health Service employees need not worry - the supplier will be the health authority - self employed pharmacists, dentists and G.P.'s must ensure that adequate records are maintained in order to pinpoint their source of supply.

As under the law of negligence, the producer of a component can incur liability since the term 'product' includes component parts. It may be difficult, as in Evans v Triplex Safety Glass Co[100], (where a car windscreen shattered) to establish that the component was defective rather than improperly installed by the producer of the finished product. Where a component is defective this will render the final product defective and thus trigger liability against the component producer and the main producer. In such circumstances, where two or more persons are liable for the same damage, their liability will be joint and several (s.2(5)). However, rights of contribution and recourse remain available and the government took the view that existing arrangements are adequate. Where a component part is wrongly used by the final manufacturer the component producer will escape liability so long as the part itself was not defective. Similarly, he will avoid liability where a component producer proves that the defect was 'wholly attributable' to the design of the main product or to the instructions given by its manufacturer (s.4(1)(f)).

The main criticism which could be levelled at this area of the Act is that the imposition of liability on a range of persons, some of whom play only a secondary part in the production process, greatly increases the cost of a product liability regime. Although impossible to estimate, the costs of insurance and

litigation are multiplied. Further, as the Law Commission said in its working paper

> "The more basic the component (such as the nut and bolt) the greater the range of dangers and the higher the insurance premium"[101].

This so-called 'channelling' argument - that liability should be directed towards the main producer - certainly has its attractions. However, none of the four major sets of proposals adverted to earlier suggested 'channelling' in its pure form. All were convinced that others in the production chain must bear their share of liability, and this view is reflected in the Act's provisions.

(c) 'Defect'

Proof of the existence of a 'defect' is the touchstone of liability under the Act. Under section 3, there is a defect in a product if the safety of the product is not such as persons generally are entitled to expect. 'Safety' includes risk of damage to property. The section goes on to provide that all of the circumstances shall be taken into account including: the manner in which and purposes for which the product has been marketed, and the use of warnings or instructions (the Act also refers to 'its get-up' - a term which, like 'bingo' and 'hi-jacking', is an

unlikely but established inhabitant of the statutory vocabulary); what might reasonably be expected to be done with or in relation to the product; and the time when the product was supplied by its producer to another. Defectiveness is not to be inferred solely from the fact that a product supplied after the product in question is more safe.

This criterion for defectiveness - the consumer expectation test - follows the recommendations of the four major contributors to the Product Liability debate. In the United States, however, strict liability in tort for product defects is usually based upon the test in s.402A of the Restatement (Second) of Torts: the product must be in a "defective condition unreasonably dangerous". The interpretation of these four words has caused considerable difficulty for US courts. Many courts have adopted a cost-benefit approach to defectiveness. Detailed and often lengthy 'decisional models' have been constructed, extrapolating from the criteria in s402A a set of factors to be weighed in a cost-benefit or risk-utility analysis[102]. Such an approach is not without difficulty and other courts have eschewed the highly structured cost-benefit approach in favour of the more intuitive consumer expectation test[103]. It remains to be seen whether in deciding upon the safety which 'persons generally are entitled to expect' the courts in the United Kingdom will prefer an intuitive,

linguistic approach or the more structured and mathematical cost-benefit calculus. Given the judicial approach in negligence cases, one must expect the former.

As the American case law demonstrates, one of the most challenging questions in product liability is the treatment of warnings. A product which is dangerous may cease to be so if accompanied by a warning. On the other hand, the policy of the law must be to promote safe products rather than unsafe ones with warnings attached. One key problem is that in discussing the warnings issue negligence concepts recur. It is illogical to speak of warning against dangers which were unknown to the producer or unforeseeable by him. But,

> 'to require foreseeability is to require the manufacturer to use due care in preparing his product.'[104]

Thus, some courts have imposed strict liability in failure to warn cases on the principle that

> '...the test of the necessity of warnings or instructions is not to be governed by the reasonable man standard.'[105]

It will be interesting to see how UK courts approach

this matter. Difficulties will also arise in relation to the detachment of warnings from products and the warning of responsible intermediaries. Further questions arise as to the relationship between warnings and contributory negligence or product misuse.

Where users disobey instructions as to use or otherwise misuse the product no liability will attach if the product is not defective for 'reasonably expected' uses. This concept, it is suggested, may cover not only normal or intended uses but also abnormal but foreseeable misuse. If this is so, producers here may legitimately be concerned that courts in the UK could go as far as their counterparts in the US in imposing liability for foreseeable, albeit abnormal, misuse. These decisions have arisen in the context of negligence as well as strict liability. They include: where a six year old girl sprayed her hair and dress with inflammable hair spray and the dress later caught fire[106]; where a four year old stood upon an oven door to look into a pot and the stove tipped forward[107]; where a vacuum cleaner was ridden upon as if it were a toy[108]; and where industrial alcohol, sold and labelled as fuel, was consumed by dental assistants who were inmates in a penal farm[109]. Admittedly, some of these examples stretch the principle of foreseeability rather far, but there will remain some nice questions for the judiciary as to the kinds of misuse which preclude liability.

Time is also, of course, a major element in the context of determining product safety and this is now recognised in the statutory definition of defect. Safety standards improve, and it may be that goods put into circulation five years ago are less safe than goods of a similar type made now. Similarly, products age and suffer wear, hence becoming deficient. In these cases the time of supply will be relevant to the question of defectiveness. Lord Denning's comment in Roe v Ministry of Health,[110]:

> 'We must not look at the 1947 accident with 1954 spectacles',

is echoed, in more colourful style by an American judge:

> 'Tort law does not expect Saturday manufacturers to have the insight available to Monday morning quarterbacks'.[111]

However, to suggest that products made some years ago cannot be defective simply because relative safety standard have improved involves an intellectual short-circuit. The new strict liability regime depends upon a court being able to stigmatise a design as defective even though it was generally accepted as industry practice. To say that persons generally can expect only the safety offered by industry at a particular

time emasculates strict liability and frustrates its policy objectives.

(d) 'Damage'

'Damage' is defined in section 5(1) to mean death or personal injory or (and this is against the recommendations of the Law Commissions) any loss of or damage to any property (including land). But this definition is subject to the important qualifications in sections 5(2)-5(4): damage to the defective product itself, including damage caused by a component part, is not recoverable; furthermore, damage to property which is not of a type ordinarily intended for private use, occupation or consumption is outwith the ambit of the Act. Article 9 of the Directive excludes liability to compensate for damage to individual items of property worth less than 500 ECU and this is implemented by the Act, where the relevant figure is #275. This provision, apparently designed to preclude trivial claims, seems to be of doubtful value since many items of personal property will now be excluded. With the introduction of a small claims procedure in Scotland, such claims could perhaps have been accomodated.

When damage is suffered which is not within the scope of the Act (for example, damage to commercial property and pure economic loss) reparation will continue to be governed by the existing rules. Some dicta in the

ostensibly seminal case of Junior Books v The Veitchi Co.[112] suggest that an action in delict may be competent by a consumer against a manufacturer in delict for purely financial loss. However, the comparative isolation in which that decision now stands signals a justified retreat from such a position.[113]

Unlike Germany, Denmark and possibly the Republic of Ireland, our government has decided against setting a financial limit upon the producer's total liability. Since such a limit would have had, at most, a marginal impact on the cost of insurance cover and could result in some victims either not obtaining compensation, or all victims receiving a sum lesser than their loss, the government's decision is to be welcomed. The Law Commissions reached a similar conclusion.

(e) Defences

If the producer successfully argues that an adequate warning was given, or that the pursuer misused the product, or that at the time when the product was supplied it satisfied safety expectations, then, as indicated earlier, the product will not be defective. The producer may also adduce the pursuer's contributory negligence in mitigation of damages. Moreover, section 4 of the Act lists a number of specific defences including the defence of 'development risks', the inclusion of which was a condition of the United

Kingdom's acceptance of the directive. It will thus be a defence for the producer to show:

(a) that the defect is attributable to compliance with any requirement imposed by or under any enactment or with any community obligation; (for this defence to apply the defect must be the inevitable consequence of compliance - that is, that the product had to be defective to comply with the regulations); or

(b) that the defender did not at any time supply the product to another; or

(c) that the supply of the goods was not in the ordinary course of business and that he is either not the producer, importer or own brander or, if he was, that he was acting otherwise than with a view to profit; or

(d) that the defect did not exist at the relevant time (generally when the product was put into circulation); or

(e) that the state of scientific and technical knowledge at the relevant time was not such that a producer of products of the same description as the product in question might be expected to have discovered the defect if it had existed in his products while they were under his control (the so-called

'development-risks' defence); or

(f) that, where the product is comprised in another product, the defect was wholly attributable to the design of the other product or to compliance with its producer's instructions.

As stated above, under section 4(1)(e) it will be a defence to show that the state of scientific and technical knowledge at the relevant time (when the product was put into circulation) was not such that a producer 'might be expected' to have discovered the defect. (It should be noticed in passing that this differs from the Directive's version of the defence, which speaks of scientific and technical knowledge 'enabling' the defect to be discovered. This is a material difference and is victory for the producer's lobby.) The United Kingdom government would have continued to block the directive had this defence been excluded, and some other Member States will include it in their implementing legislation.

In taking this line, the government has rejected the recommendations of the Law Commissions and the Pearson Commission as well as the proposals in the Strasbourg Convention. Like the Law Commissions, the Pearson Report specifically referred to the disaster which had helped spark debate on liability for defective products:

> ".... to exclude development risks from a regime of strict liability would be to leave a gap in the compensation cover through which, for example, the victims of another Thalidomide disaster might easily slip"[114].

Similar doubts have been expressed in some US cases: in Cunningham v MacNeal Memorial Hospital[115], for example, a case involving a patient who contracted serum hepatitis from a blood transfusion, it was argued that at the relevant time there was no known means of detecting the presence of the virus. However, the court found for the plaintiff:

> "To allow a defense to strict liability on the ground that there is no way, either practical or theoretical, for a defendant to ascertain the existence of impurities in his product would be to emasculate the doctrine and in a very real sense would signal a retreat to the negligence theory"[116].

Although a troublesome case, the effect of which was reversed by statute, the dictum indicates a real fear about the impact of the development risks defence upon strict liability.

This has been one of the most controversial areas of product liability in the US, where the jurisdictions

have been divided on the issue of whether discoverability of the defect affects liability. Some courts have held that even although it is impossible to detect a defect, this is irrelevant in strict liability since the important point is the objective question of whether or not a product is defective. Other courts have perhaps been persuaded by of arguments of the kind voiced by a spokesman for a leading motor company:

> "What after all are courts telling us when they announce.... that the state of the art is not relevant - that manufacturers must do something which is not possible yet - or useful - or worth the cost?"[117].

Thus, in some cases evidence that the defect was undiscoverable has been allowed to exculpate the manufacturer. It should be noted, however, that these courts do not perceive their stance as a complete return to negligence. Rather, these courts identify factors, such as the imputation of knowledge to the manufacturer, or a reversal in the burden of proof, which distinguish between a negligence and a strict liability approach.

Section 7 prohibits the limitation or exclusion of liability under the Act by any contract term, notice, or other provision.

(g) Prescription and limitation

By virtue of section 6(5) and Schedule 1, important amendments are made to the Prescription and Limitation (Scotland) Act 1973. The chief amendment is to insert a whole new part (Part IIA) which consists of sections 22A-22D, introducing the 1987 Act's new scheme of prescription and limitation. In broad terms, there is for the purpose of liability under the Act a three year limitation period for the commencement of actions running from the date on which the pursuer became aware, or should reasonably have been aware, of:

(i) the damage; and

(ii) that it was caused by the defect; and

(iii) the identity of the producer.

Further, the obligation to make reparation for damage caused wholly or partly by a defect in a product is extinguished after ten years from the time when the product was supplied (as defined in s4(2) of the 1987 Act). This does not however mean that all products must be expected to last for ten years - for many products a significantly shorter life expectancy obtains and in such cases this fact will be of importance in determining whether the product is defective. Liability for defects occurring more than

ten years after supply must be addressed under the law of contract or delict and fall outwith the Act.

Conclusion

A statute which creates a new conceptual structure in the law on liability for defective products, introducing strict rather than fault-based liability, is important and deserves notice. Exactly what difference it effects in our law of reparation is a moot point, and many would argue that the trend in negligence law, with appropriate invocation of the doctrine of res ipsa loquitur, would have led to a similar end. However, it is suggested that much uncertainty shrouds the question of the impact of the new strict liability regime. One reason for this is that product liability has become a major area of US law and many producers have had great difficulty in obtaining insurance cover as a result of massive awards of damages. Clearly, one would not expect the blunderbuss that is American liability law to be turned on our producers. After all, in the US juries award damages (a large element in which often takes the form of punitive damages) and there is a contingency fee system. All of these factors inflate awards of damages and hence exacerbate the insurance problem. But it may be that, as a result of problems with the legal aid system, contingency fees come back on to the

agenda here. Even if they do not, the insurance industry favours the introduction of a form of personal cover for legal costs which may result in greater claims-consciousness and therefore increased litigation. The result could be that the current figures which show that a large percentage of those suffering injury do not seek legal redress may change dramatically. A further uncertainty is that many product-related accidents involving injury occur at the workplace. Most of these will trigger liability under statutes such as the Factories Acts or the Employers' Liability (Defective Equipment) Act 1969, and it is not expected that injured employees will pursue the producer under the new Act.

However, the creation of a separate scheme of compensation for one type of loss, that caused by defective products, can only be justified if it results in a real improvement upon the protection afforded by the general law. The extent to which the new regime realises this aim will now be assessed.

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6. Ibid.

7. Prosser, The Assault upon the Citadel (Strict Liability to the Consumer), 69 Yale L.Jo. 1099 (1960), at 1103.

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9. Winfield, The History of Negligence in the Law of Torts, (1926) 42 L.Q.R. 184.

10. Prosser, op. cit.

11. See Mullen v Barr 1929 S.C. 461.

12. (1816) 5 M & S 198.

13. Ibid, at 199.

14. (1837) 2 M & W 519, affd. (1838) 4 M & W 337.

15. Ibid, (1837) 2 M & W 519, at 525.

16. Ibid, at 530.

17. (1842) 10 M & W 109.

18. Ibid, at 114.

19. Prosser, op. cit., at 1110 et. seq.

20. See dicta of Brett M. R. (as he then was; later Lord Esher) in Heaven v Pender (1883) 11 Q.B.D. 503 at 510.

21. (1851) 6 Ex. 761.

22. Ibid, per Parke B. at 767.

23. See Bohlen, Liability of Manufacturers to Persons Other Than Their Immediate Vendees, (1929), 45 L.Q.R. 343.

24. (1869) L.R. 5 Exch. 1

25. Bohlen, op. cit., at 344.

26. (1883) 11. Q.B.D. 503.

27. See Levi, An Introduction To Legal Reasoning, (1948) quoted in Berman and Greiner, The Nature and Functions of Law, 4th. edit., The Foundation Press Inc., New York 1980, at 536.

28. (1883) 11 Q.B.D. 503, at 510.

29. (1912) 106 L.T. 533.

30. 1932 S.C. (H.L.) 31.

31. Ibid, at 42.

32. Ibid, at 45.

33. Bohlen, op. cit., at 354, n22.

34. 1929 S.C. 461.

35. Per Lord Buckmaster in Donoghue v Stevenson, 1932 S.C. (H.L.) 31, at 43.

36. 1929 S.C. 461, at 479.

37. 1932 S.C. (H.L.) 31, at 43.

38. Oliver v Saddler & Co. 1929 S.C. (H.L.) 94, at 103.

39. 1932 S.C.(H.L.) 31, at 54.

40. (1922) 12 Ll. L. Rep. 183.

41. Ibid, at 187.

42. 1932 S.C. (H.L.) 31, at 54.

43. Per Singleton L.J. in Beckett v Newalls Insulation Company Ltd., [1953] 1 All E.R. 250, at 254.

44. [1936] A.C. 85 P.C.

45. [1905] 1 K.B. 608.

46. [1969] 2 A.C. 31, at 84, H.L.

47. [1972] A.C. 441, at 498, H.L.

48. [1971] 1 Q.B. 88.

49. There is some confusion as to the precise applicability of the doctrine, especially where there has been defective performance: see Scottish Law Commission, Memo. No. 20, para. 8, n7, and para. 12(a).

50. 1932 S.C. (H.L.) 31

51. Walker, Principles of Scottish Private Law, Vol. II 3rd. edit., at 603.

52. 1943 S.C. (H.L.) 1.

53. See e.g. Grant v Australian Knitting Mills Ltd. [1936] A.C. 85 (P.C.). This case was also of importance in showing that Donoghue v Stevenson principles could extend beyond products intended for internal consumption. It should be noted that the usefulness of the doctrine of res ipsa loquitur ought not to be overstressed: "..it would be a very bold English lawyer who advised his client to commence a negligence action against a manufacturer relying upon the maxim res ipsa loquitur unsupported by other evidence of negligence"- Griffiths, De Val, Dormer, Developments in English Product Liability Law: A Comparison With the American System, 68 Tulane L.Rev. 353, at 374-5 (1988).

54. Supra, n48.

55. Whincup, The Urgent Question of Product liability, 127 N.L.J. 719.

56 Fleming, Law of Torts, 4th. ed. 439.

57. Com. (79) 415.

58. (85/374/EEC)

59. Cmnd. 6831 (1977).

60. Cmnd. 7054 (1978).

61. European Convention on Products Liability in Regard to Personal Injury and Death, DIR/Jur. (76)5.

62. 6 N.Y. 397 (1852).

63. 42 N.Y. 351 (1870).

64. Losee v Clute 51 N.Y. 494 (1873).

65. (1883) 11 Q.B.D. 503.

66. 89 N.Y. 470 (1882).

67. See judgment of Cardozo J. in McPherson v Buick Motor Co. 217 N.Y. 382.

68. 88 N.E. 1063 (1909).

69. Supra, n67.

70. Prosser, op. cit., at 1100.

71. 217 N.Y. 382, at 389.

72. Cohen v Brockway Motor Corp. 240 App. Div. 18 (1934).

73. Prosser, op. cit., at 1100.

74. Ibid, at 1110, et. seq.

75. Ibid, at 1112

76. Ibid, at 1113.

77. 24 Cal. 2d. 453, 150 P.2d. 436 (1944).

78. Ibid, at 462, 441.

79. Ibid.

80. 32 N.J. 358, 161 A. 2d. 69 (1960).

81. Ibid, at 383, and 83.

82. 59 Cal. 2d. 57, 27 Cal. Rptr. 697 (1963).

83. Ibid, at 63 and 701.

84. No trace of the case in the U.S. reports can be discovered.

85. 8 Cal. 3d. 136 (1972).

86. 131 N.J. Super 403 (1974).

87. Grimshaw v Ford Motor Co., 119 Cal. App. 3d. 757 (1981).

88. Financial Times, April 23 1987.

89. Ibid.

90. Quoted in Foresight, International Journal of Insurance and Risk Management, Sept. 1981.

91. Interagency Task Force on Product Liability, U.S. Dept. of Commerce, Final Report of the Legal Study, 1977.

92. In response to the Task Force Report, the Commerce Dept. issued, in 1979, a Model Uniform Product Liability Act (MUPLA). A number of attempts to pass Federal legislation based upon MUPLA have been made. For a brief history of these attempts at Federal legislation, see Twerski, A Moderate and Restrained Federal Product Liability Bill: Targeting the Crisis Areas for Resolution, 18 Univ. of Mich. J. of Law Ref., 575, (1985).

93. Ibid. See also, Perlman, Products Liability Reform in Congress - An Issue of Federalism, 48 Ohio State L.J. 503, (1987).

94. See report in Financial Times 16/7/87. This is believed to be the second largest award of damages in the history of U.S. product liability.

95. Serious discussion of contingency fees has commenced in the UK. See for example, the discussion in the Marre Report of July 1988: "Time for change - the Report of the Committee on the Future of the Legal Profession", The General Council of the Bar.

96. House of Commons, Standing Committee D, 5 May 1987, col. 12.

97. Official Report, Fifth Series, Lords, Vol. 483, col. 826.

98. See chapter 7 infra.

99. Cmnd. 7054 (1978) para. 1276.

100. [1936] 1 All E.R. 283.

101. See discussion in Pearson Report, para. 1241-2.

102. See generally, Clark, The Conceptual Basis of Product Liability, 1985 48 M.L.R. 325.

103. Ibid, at 335-6.

104. Berkebile v Brantly Helicopter Corp. 337 A.2d. 893 (1975). at 899.

105. Ibid, at 902.

106. Hardman v Helene Curtis Indus. Inc. 48 Ill. App. 2d. 42, 198 N.E. 2d. 681 (1964).

107. Ritter v Narragansett Electric Co. 283 A.2d. 25 (R.I. 1971).

108. Larue v National Union Elec. Corp. 571 F.2d. 51 (1st Cir. 1978).

109. Barnes v Litton Industrial Products 409 F.Supp. 1353 (1976).

110. 1954 2 Q.B. 66 at 84.

111. Dean v General Motors Corp. 301 F.Supp. 187, at 192 (E.D.La. 1969).

112. 1982 S.C. (H.L.) 244.

113. See discussion in Chapter 5, infra.

114. Cmnd. 7054 (1978) para. 1259.

115. 266 N.E. 2d. 897 (Ill. 1970).

116. Ibid, at 902.

117. See O'Donnell, Design Litigation and the State of the Art: terminology, Practice and Reform, 1978 11 Akron L.R. 644.

CHAPTER TWO

THE CONCEPTUAL BASIS OF PRODUCT LIABILITY

At the core of a product liability regime is the definition ascribed to the term 'defective', since proof of defectiveness is the touchstone of any claim. In keeping with its central importance, the problem of defining defectiveness has exercised the minds of legal scholars perhaps more than any other aspect of product liability law.[1]

The aim of this chapter is to analyse the various theories which have been proposed regarding the proper conceptual basis for defectiveness,[2] and to suggest a workable approach for the strict liability system in the UK. There will be some brief discussion of the present legal position and of the theoretical nature of the contract/delict dichotomy. Recommendations for a strict product liability scheme in this country will then be examined including the relevant provisions of the 1987 Act in the light of the considerable experience of American product liability law. Also, the fact that many theories on the meaning of defectiveness are expressed in terms of cost-benefit

anaylsis will lead to a consideration of the ability of courts properly to make such an analysis, and hence reach rational decisions. The main alternative to a cost-benefit approach will then be considered.

Defectiveness - the contract/delict dichotomy

It has become an axiom of jurisprudence that contract law regulates obligations which have been voluntarily assumed, in contrast with the law of delict which is concerned with obligations imposed by law. A consequence is that contract law is about

> 'giving effect to the private autonomy of contracting parties to make their own legal arrangements'.[3]

Of fundamental importance are the terms of the agreement between the parties since in the event of any dispute these can be used as evidence of what the parties intended, and expected, from the bargain. If the agreement is breached the remedy of monetary damages will often be sought, and the level of the award will reflect the value of the frustrated expectations of the innocent party. This protection of the economic interests of contracting parties by allowing financial compensation for disappointed expectations or losss of bargain is he primary policy aim of the law of contracts. It has also been said to

have a 'deterrent or hortatory' function by providing incentives for parties to pay their debts and honour their promises.[4]

In delictual disputes there is usually no agreement between the parties and hence no easy way of ascertaining the expectations of the injured party. Instead, delictual liability is imposed in accordance with societal standards of fairness and reasonableness. Traditionally, these standards have been determined by balancing the magnitude of the risk inherent in the conduct at issue against the societal benefits or utility of that conduct.[5]

This balancing process is seldom explicitly recognised by courts, but it is implicit in the conceptual infrastructure of negligence. Some analyses of the theoretical basis of negligence have sought to identify the various factors which require to be balanced in the risk-benefit computation.[6]

A cost-benefit approach to negligence has not always merely been implicit, however, and in a number of cases a more structured approach is discernable. Thus, in Morris v West Hartlepool Steam Navigation Co.[7] Lord Reid stated that it was the duty of an employer

> "in considering whether some precaution should be taken against a forseeable risk, to weigh, on the

one hand, the magnitude of the risk, the likelihood of an accident happening and the possible seriousness of the consequences if an accident does happen, and, on the other hand, the difficulty and expense and any other disadvantage of taking the precaution".[8]

Individual factors from Lord Reid's formula, such as the probability or likelihood of harm arising, have been decisive in certain cases, including Bolton v Stone[9] where the chance of injury was so remote as to justify a lack of precautions. Conversely, in Paris v Stepney Borough Council [10] the magnitude of the harm which could occur proved decisive in establishing liability. On the other side of the balancing equation, there have been cases where the benefits of the product justified the risk,[11] and cases where the focus has been upon the practicability of taking precautions. Thus, for example, it is not negligent to fail to take precautions which were not feasible at the relevant time.[12] A key question will often be the expense of taking precautions. There have been cases in which courts have held that certain precautions should have been taken despite their relative expensiveness.[13] On the other hand, a relatively expensive precaution will not be required where the risk of injury is small.[14]

It is tempting to deduce from this utilitarian

balancing process that, in deciding delictual disputes, courts set standards for future conduct and thus that such decisions can have a deterrent effect. So, it has been argued, that when attempting to decide on the defectiveness or otherwise of a product judges utilise a 'relatively particularised normative standard' against which the product can be measured.[15] But do judges really do this? It is arguable that judicial decisions set only a negative standard. A decision that a product is defective does not give the court's view as to how the product should have been designed; instead, it simply states that the particular design in question is not societally acceptable.[16] Perhaps, then, in product liability cases the judges are confined to settlement of the dispute before them rather than the setting of standards for future conduct. But there is a hortatory dimension, since the present decisions will have an impact on design choices by future manufacturers.

The historical distinctiveness between contract and tort is evidenced by the separate tests for defectiveness which they employ. In the product liability context, contractual remedies usually arise from breach of section 14 of the Sale of Goods Act 1979. The test here is whether or not the product was 'of merchantable quality' or 'fit for its purpose', both of which are interpreted in terms of consumer expectations, which can be ascertained from the terms

of the bargain. In negligence, liability is predicated on breach of duty of care. The case is centered upon the conduct of the producer, rather than the condition of his product;
societal interests, rather than consumers' expectations, are paramount.

The paradigm of contract law is therefore that the disappointed party can obtain damages for the difference between the actual value of the product and its value had it complied with reasonable expectations. Any compensation for injury caused by the product is in the form of consequential damages. In delict, on the other hand, foreseeable costs and benefits are weighed, and when benefits are outweighed liability will ensue. It is thus axiomatic that contract is about product merchantability or fitness whereas delict is about product safety.

Before leaving this section some consideration should be given to Junior Books v The Veitchi Co.[17], which may yet come to be regarded as a seminal judgement on the erosion of the contract/delict dichotomy. In this case, damages were awarded, in delict, for purely financial losses caused by a defective product which did not constitute a danger to persons or property.

This decision could be viewed as seeking to import into the law of delict a manufacturers' warranty that goods

are as merchantable and as fit for their purpose as the exercise of reasonable care could make them. It would seem that the imposition of delictual liability for frustration of expectations is no longer the apostasy which it appeared to be in previous decisions and in the dissenting speech of Lord Brandon.[18]. However, any conclusion as to the effect of the decision should be qualified by the following caveats: (i) there was a considerable diversity of opinions amongst the judges as to its precise scope; (ii) the degree of proximity between the parties was about as close to contractual privity as possible; (iii) later decisions[19] have effectively restricted Junior Books to its own facts.

Proposed definitions of 'defective' in a strict liability regime.

We have seen that in the area of financial loss, traditional boundaries between contract and delict product liability law have been challenged. The dichotomy has now been eroded further given our acceptance of the definition of defectiveness put forward in the EEC Directive which forms the basis of the strict liability regime in this country. The reason for this is that the nub of the definition (as in all of the proposals for change) is the 'consumer expectation test' - a product will be defective if it does not provide the safety which persons are entitled to expect. Thus, the cornerstone of delictual strict

liability would appear to smack strongly of contractual principles.

The proposals, in chronological order of promulgation, were:

Strasbourg Convention[20] Article 2(c) -

> "A product has a 'defect' when it does not provide the safety which a person is entitled to expect, having regard to all the circumstances including the presentation of the product."

Law Commissions[21] Para 48 -

> "(a) a product should be regarded as defective if it does not comply with the standard of reasonable safety that a person is entitled to expect of it, and (b) the standard of safety should be determined objectively having regard to all the circumstances in which the product has been put into circulation, including, in particular, any instructions or warnings that accompany the product when it is put into circulation, and the use or uses to which it would be reasonable for the product to be put in these circumstances."

Pearson Commission[22] Para 1237 -

"A product has a defect when it does not provide the safety which a person is entitled to expect, having regard to all the circumstances including the presentation of the product." The word 'presentation' should be taken to include warnings and instructions.

<u>EEC Directive</u>[23] Article 6 .

(1) "A product is defective when it does not provide the safety which a person is entitled to expect, taking all circumstances into account, including:

(a) the presentation of the product;

(b) the use to which it could reasonably be expected that the product would be put;

(c) the time when the product was put into circulation.

(2). A product shall not be considered defective for the sole reason that a better product is subsequently put into circulation."

The Consumer Protection Act 1987 implements the Directive's definition of defect in Section 3:

"3 - (1) Subject to the following provisions of this section, there is a defect in a product for the purposes of this Part if the safety of the

product is not such as persons generally are entitled to expect; and for those purposes "safety", in relation to a product, shall include safety with respect to products comprised in that product and safety in the context of risks of damage to property, as well as in the context of risks of death or personal injury.

(2) In determining for the purposes of subsection (1) above what persons generally are entitled to expect in relation to a product all the circumstances shall be taken into account, including:

(a) the manner in which, and purposes for which, the product has been marketed, its get-up, the use of any mark in relation to the product and any instructions for, or warnings with respect to, doing or refraining from doing anything with or in relation to the product;

(b) what might reasonably be expected to be done with or in relation to the product; and

(c) the time when the product was supplied by its producer to another; and nothing in this section shall require a defect to be inferred from the fact alone that the safety of a product which is supplied after that time is greater than the safety of the product in question."

At first sight, it could be concluded that since the crux of the definition is the 'consumer expectation

test', the strict delictual liability notion of defectiveness has become imbued with a concept derived from the law of contract. However, the explanatory passages of the proposals make it clear that this was not the intention. The EEC explanatory memorandum which accompanied the first version of the Directive categorically states that the definition of defectiveness is based on the safety of the product, and that it is

> "irrelevant whether a product is defective in the sense that it cannot be used for its intended purpose. Such a concept of defectiveness belongs to the law of sale." [24]

The Law Commissions develop this further:

> "In our consultative document we suggested that there were two possible approaches to the definition of defect. One was to make the definition turn on safety; the other was to make it turn on merchantability. Having regard to our general conclusion in this report that strict liability should be confined to personal injuries, the latter approach is less suitable. Moreover as we pointed out in our consultative document, such an approach has conceptual and practical difficulties. The main problem is that the standard of merchantability required depends

on the terms and circumstances of the contract under which the product is supplied including the price." [25]

A similar view was expressed by the Government in its Consultative Note on the implementation of the Directive:

"The defectiveness of the product will be determined not by its fitness for use ... but by the level of safety that is reasonably expected of it. An inferior quality product is not considered "defective" for the purpose of this Directive unless it actually introduces a risk of injury".[26]

The major difficulty with the definition of defect in the 1987 Act is that it fails to provide a readily ascertainable objective standard against which a manaufacturer, or indeed a court, can measure the safety of a product. What then are our judges to make of this seemingly hybrid 'frustration of expectations as to safety' test? An analysis of American product liability law, which employs a similar test, will shed some light on this problem.

The American Position

Product liability law in the United States has

developed from the familiar negligence theory, through implied contractual warranty and on to strict liability in tort. The basic concepts of negligence and implied warranty correspond with those underlying delict/contract dichotomy in Scots law, and thus require no further treatment here. However, the theoretical basis of strict liablity in tort, founded as it is upon a consumer expectation test, merits further discussion.

Strict liability in tort did not emerge as a discrete theory but is historically rooted in implied contractual warranty. Tracing the development of 'defectiveness' in strict tort, Wade states[27]:

> "The initial approach to the problem was in the language of warranty cases. It was said that there was an implied warranty that the goods were of merchantable quality, or were suitable for the purpose for which they were sold ... The reasonable expectations of the buyer were utilized as guidelines in making the determination."

This contract law approach was married to a traditional tort concept - unreasonable danger - to provide the bifurcated test for defectiveness which appears in S402A of the Restatement (Second) of Torts: liability will arise where a product is in a 'defective condition

unreasonably dangerous' to persons or property and thus causes harm. Conceptual difficulties generated by these crucial four words are summarised by Montgomery and Owen[28]:

> "The primary problem is that the black letter text and the comments of S402A suggest rather schizophrenically that strict tort theory is founded both upon the contract law notion of the frustration of the consumer's expectancy interest and upon the tort law touchstone of reasonableness. This dual approach is reinforced by the comments which define 'defective condition' as 'a condition not contemplated by the ultimate consumer', and 'unreasonably dangerous' as 'dangerous to an extent beyond that contemplated by the ordinary consumer'. Thus the comments quite clearly predicate liability upon the notion of product disappointment or frustration of the reasonable expectations of the ordinary consumer - a concept derived substantially from the law of contracts. However, although the phrase 'unreasonably dangerous' is defined in terms of the failure of a consumer's expectancy interest, the inquiry must proceed further because of the clear tort flavour with which the phrase is imbued. Nor can a contract law test of liability be accepted unquestioningly in view of thefact that the basis

of liability (under S402A) is purely one of tort."

Interpretation of the criterion in S402A for liability has been the cause of considerable problems for American courts[29]. Some have taken the view that the whole of the phrase 'defective condition unreasonably dangerous' provides the test for liability while others have relied upon 'defective condition' alone or 'unreasonably dangerous' alone. In one of the leading cases, the 'unreasonable danger' test was rejected on the grounds that it

> "burdened the injured plaintiff with proof of an element which rings of negligence"[30].

This absence of judicial consensus on the proper conceptual basis of defectiveness is reflected by the diversity of views espoused by American commentators and has fostered a healthy literature on the subject.[31]

<u>Defectiveness - a cost-benefit analysis?</u>

If, in keeping with the theory of strict liability, the resonable man and his attendant spirits such as foreseeability and existence of duty are to be exorcised from this area of the law then an alternative conceptual structure to that of negligence is

required. The preponderance of opinion amongst American authors on the subject is in favour of a cost-benefit approach. These writers consider strict liability in tort as a development from negligence and have thus sought to extrapolate from S402A's criterion for liability a list of the various factors which have to be weighed in a cost-benefit analysis. These 'decisional models' bear many similarities to those suggested by Judge Learned Hand, and others, for the resolution of negligence disputes.

Judge Learned Hand's test was formulated in a decision[32] on whether it was negligent for the owners of a barge to leave it unattended for some house in a busy harbour. The barge had broken away from its moorings and then collided with another ship. In the course of his judgement, Judge Learned Hand stated:

> "Since there are occasions when every vessel will break from her moorings, and since, if she does, she becomes a menace to those about her, the owner's duty, as in other similar situations, to provide against resulting injuries is a function of three variables: (1) The probability that she will break away; (2) the gravity of the resulting injury, if she does; (3) the burden of adequate precautions. Possibly it serves to bring this notion into relief to state it in algebraic terms: if the probability be called P; the injury

L; and the burden B; liability depends upon whether B is less than L multiplied by P: ie, whether B<PL".[33]

Judge Learned Hand's formula is simply another way of expressing a cost-benefit approach to decision making in negligence cases, where the benefits are those consequent upon accident avoidance and the costs are the costs of avoiding the accident.

The decisional models used by judges in deciding upon defectiveness in product liability cases[34] can be treated simply as more refined revisions of Judge Learned Hand's model. In general, it is fair to conclude that cost benefit analysis was always a - largely implicit - decisional tool in negligence but that it has become more explicitly recognised in strict liability in tort.

The supposed distinction between a strict liability decisional model and a negligence model is that in the latter, the costs and benefits to be balanced are subject to the foreseeability rule whereas in the former, the manufacturer is deemed to have had absolute prevision or prescience of all the harm caused by the product causes.[35] Therefore, in negligence, cost-benefit analysis is applied to the conduct of the producer whereas in strict liability it is applied to the performance of the product. Montgomery and Owen

assert that the

> "risk/benefit approach inheres in the phrase unreasonably dangerous and is the traditional basis for determining negligence liability".[36]

and go on to propose the balancing of a number of factors as a strict tort decisional model.[37]:

A number of other commentators suggest alternative decisional models, in varying degrees of sophistication. In Wade's view:

> "Now that strict liability has become the dominant theory, with a definite indication that liability may apply for any user whether he is a purchaser or not, and even for bystanders who would be endangered and would be injured by the product, it is time to abandon the warranty way of thinking and its terminology just as we have abandoned other 'impedimenta' of the warranty approach... The time has come to be forthright in using a tort way of thinking and tort terminology."[38]

Concluding that this requires a risk-benefit approach, he gives seven factors to be balanced.[39] Fischer cites fifteen.[40] Shapo lists thirteen.[41] Vetri takes nine pages to state his relevant

considerations.[42] Of these so-called decisional models, that suggested by Wade has proved to be the most influential, many courts having explicitly adopted it. The following factors require to be weighed in the risk-benefit analysis:

1) The usefulness and desirability of the product - its utility to the user and to the public as a whole.

2) The safety aspects of the product - the likelihood that it will cause injury, and the probable seriousness of the injury.

3) The availability of a substitute product which would meet the same need and not be as unsafe.

4) The manufacturer's ability to eliminate the unsafe character of the product without impairing its usefulness or making it too expensive to maintain its utility.

5) The user's ability to avoid danger by the exercise of care in the use of the product.

6) The user's anticipated awareness of the dangers inherent in the product and their avoidability, because of general public knowledge of the obvious condition of the product, or of the existence of suitable warnings or instructions.

7) The feasibility, on the part of the manufacturer, of spreading the loss by setting the price of the product or carrying liability insurance.

Some writers suggest a single-factor test. Thus, for example, Keeton would ask whether a reasonable manufacturer would market the product in a particular condition with full knowledge of the harm which in fact is subsequently caused by the condition.[43] Calabresi takes an economics-oriented approach, asking in his test:

> "Who is best suited to make the cost-benefit analysis between accident costs and accident avoidance costs?"[44] .

Both writers acknowledge, however, that some judicial consideration of the underlying factors would inevitably be necessary.[45]

With the exception of Calabresi's radical 'cheapest cost avoider' test, which seems unlikely to win judicial approbation, all of the decisional models involve the court in the balancing of risks against utility with more or less complex formulae.

Calabresi and a co-author have recently offered[46] a more sophisticated version of his criterion for

liability, in which four tests for liability in tort - generally rather than only as regards strict liability - are suggested. These are as follows:

(1) the traditional fault test, which roughly equates with the classic Learned Hand risk-utility calculus of negligence (described by Calabresi as the ex ante Learned Hand test)
(2) the 'cheapest cost avoider' test mentioned earlier where the cost benefit analysis is made using information known when the product was put into circulation (ex ante strict liability)
(3) the 'cheapest cost avoider' test where the cost-benefit analysis is made using information known at the time of trial (ex post strict liability)
(4) the Learned Hand risk utility calculus where the calculus is made, using information available at the time of trial (the ex post Learned Hand test).

Without recommending any particular test, the authors suggest that different fact problems in different types of accident settings may merit the application of different rules. They argue that each of the tests posited is a rational approach and each could on the right facts be desirable.[47]

This work represents a further level of sophistication in the debate about liability criteria for product liability and more generally in tort. Its inclusion of

the temporal factor - when, and therefore using what information, the cost benefit balance is struck - is of great importance to questions of product liability where after-acquired information could have a material impact on the question of defectiveness.

However, developments in the case law from around the time when the article was written are indicative of a retrenchment in the attitude of the courts.[48] The classic illustration of such retrenchment is the shift of direction of the New Jersey Supreme Court from the extreme position taken in Beshada v Johns-Manville Product Corp.[49] to their much-modified approach in Feldman v Lederle Laboratories[50] In broad terms, the court in Beshada had held that an asbestos manufacturer was in breach of its duty to warn of product dangers despite the court's acceptance of the fact that these dangers were scientifically undiscoverable at the time of the accident. This decision can be regarded as the high water mark of the tide of truly strict liability. That tide has now ebbed, and in Feldman the decision in Beshada was, although not overruled, restricted to the circumstances giving rise to its holding.[51] The dual principles to be derived from Feldman are: that a manufacturer of a product which contains a defect which was, at the time of the injury, scientifically undiscoverable, has no obligation to warn users of such unknown characteristics; a manufacturer has an obligation to warn of product dangers which he knew or

of which he should have known given the scientific, technological and other information available when the product was distributed. In determining whether a manufacturer knew or should have known of the danger he will be held to the standard of an expert in the field. Moreover, the defendant should bear the burden of proving that the information was not reasonably available or obtainable and that he therefore lacked actual or constructive knowledge of the defect.

From this it can be seen that the Feldman court adopted an ex ante Learned Hand approach with the burden of proving lack of knowledge falling upon the defendant. This retrenchment, taken along with developments in other states, suggests a reduced scope for the ex post Learned Hand risk benefit calculus.[52]

This leads on to the more general question of whether courts should set product safety standards by using complex cost-benefit calculations.

Multivarious problems arise if such a role is assigned to courts, not least that judges may lack the technical expertise to set product safety standards. Assuming, however, that they are competent to make the necessary cost benefit analysis, it is questionable whether they should be faced with choices in the method to be used for a particular 'fact pattern'. Perhaps the American judge is more ambitious in this matter

than his British counterpart but it is difficult to visualise a Scottish judge pondering whether he should employ the ex ante Learned Hand risk utility calculus or the ex post one. However, the matter is academic. British judges will not have to face this difficulty since it is clear that the defectiveness of a product under the new UK regime is to be judged with reference to the date when the product was put into circulation. This 'ex ante' test may well, it will be noted, involve a cost benefit calculation. If our courts wish to advance the liability test from that of negligence then, as in Feldman, a reversal of the burden of proving that the relevant information was available would be welcome.

The next stage in this discussion is to ask the key question adverted to earlier: are courts able to make the necessary computation for a cost benefit analysis approach to product defects?

(a) Complexity of the cost-benefit approach

There is a major mathematical difficulty inherent in the cost-benefit approach to decision making, judicial or otherwise - the balancing process can properly be carried out only if like is balanced against like. Thus, the factors to be balanced should be quantified in the same or equivalent units of measurement. In many areas of decision making, for example, public policy,

quantities must be expressed in financial terms. The factors are 'monetarised' and money costs are weighed against money benefits to give a rational economic model for the decision. It is clear from product liability cases that courts do not attempt to take cost-benefit analysis to these lengths. Indeed, they are patently ill-equipped to do so. Take, for example, two of the factors listed by Montgomery and Owen in their product liability decisional model - the cost of injuries and the utility of the product. Welfare economists would argue that monetary values could be ascribed to these factors - despite the absence of a recognised market for them - although there would probably be considerable disagreement as to the proper method of calculation. However it is clearly ludicrous to expect courts to make such a computation.

The alternative to this monetarisation of factors is simply to trade off costs and benefits in accordance with the decision maker's own conception of their relative values. This is even more haphazard than the monetary model, but seems to be the type of cost-benefit analysis carried out by courts.

If we accept that both negligence and, more overtly, strict product liability employ a cost-benefit approach to judicial decision making, we should realise that the method is at least imperfect, if not crude and irrational.

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(b) Are some product liability cases polycentric?

Fuller has advanced the view that in some cases judgemental problems are such as to render rational adjudication impossible and that such disputes should not be the subject of traditional judicial determination.[53] His theory is that in such cases the various issues are inextricably enmeshed - the problem is 'polycentric'. Henderson, who has applied a similar thesis to product liability design-defect cases, explains:

> "polycentric problems are many centred problems, in which each point for decision is related to all the others as are the strands of a spider's web. If one strand is pulled, a complex pattern of readjustments will occur throughout the entire web. If another strand is pulled, the relationships among all the strands will again be

readjusted. A lawyer seeking to base his argument upon established principles and required to address himself in discourse to each of a dozen strands, or issues, would find his task frustratingly impossible. As he moved from the first point of his argument to the second and then to the third, he would find his arguments regarding the earlier points shifting beneath him. Unlike most of the traditional types of cases in which litigants are able, in effect, to freeze the rest of the web as they concentrate upon each separate strand, the web here retains its natural flexibility, adjusting itself seemingly infinite variations, as each new point, or strand, in the argument is reached."[54]

The author goes on cogently to argue that, in the light of the complex risk-benefit balancing process suggested as a test for defectiveness, product liability design-defect [55] cases are polycentric and incapable of meaningful adjudication. He maintains that many product liability cases which have been decided on a negligence theory were also polycentric but cites the relatively non-technical nature of these cases as the reasons why polycentricty problems did not render them non-justiciable.

Henderson's thesis is attractively and forcefully argued, but is not entirely persuasive.[56] A number

of recent design-defect cases in the United States have been decided by the application of a multi-factor decisional model. It is true, however, that there will be some design-defect cases which are, at worst, polycentric and at best very complex. Quantification and balancing of risk-benefit factors, such as the usefulness and desirability of the product, could be almost impossible. If such cases are to admit of rational adjudication then a test other than the cost-benefit calculus may be required. The 'consumer expectation test' is sometimes posited as a workable alternative.

The Consumer Expectation Test

It was noticed earlier that the crucial wording of S402A of the Restatement (Second) of Torts bases liability on a finding that a product is 'in a defective condition unreasonably dangerous to the user or consumer', and that both 'defective condition' and 'unreasonably dangerous' are defined interms of the expectations of the consumer. Comment i to s402A explains the test in the following terms:

> "The article must be dangerous to an extent beyond that which would be contemplated by the ordinary consumer who purchases it, with the ordinary knowledge common to the community as to its characteristics."

Moreover, all proposals for a strict liability regime in this country predicate liability on the absence of the 'safety which a person is entitled to expect'.

On a superficial analysis this test seems worthwhile, upholding a firm tenet of strict liability - attention is focused on the condition of the product rather than the conduct of the manufacturer. Further, the test explicitly recognises the contract history of S402A's strict liability. However, it has been criticised by US commentators,[57] despite having been applied in a number of cases.[58]

One difficulty is that a consumer may know of a defect or danger inherent in a product, because it is obvious or has been drawn to the user's attention by a warning. In such circumstances the user cannot expect a greater degree of safety than his knowledge of the defect or danger allows. Accordingly, such products may not be found to be defective. Vincer v Esther Williams All Aluminium Swimming Pool Company [59] clearly illustrates this point. The case concerned a swimming pool, situated above ground, access to which was by a retractable ladder. A two year old child climbed the ladder, which had been left in the down position, and fell into the pool sustaining severe brain damage. It was claimed that the pool had a design defect in that fencing around it could have been extended to include a safety gate at the top of the ladder. The court

rejected this contention:

> "the test in Wisconsin of whether a product contains an unreasonably dangerous defect depends upon the reasonable expectations of the ordinary consumer concerning the characteristics of this type of product. If the average consumer would reasonably anticipate the dangerous condition of the product and fully appreciate the attendant risk of injury, it would not be unreasonably dangerous and defective".[60]

Berry v Eckhardt Porche Audi Inc., [61] provides a further illustration. It was argued that a car was defective because a warning buzzer, which was supposed to indicate that seat belts were unfastened, failed to operate. It was held that the ordinary consumer is aware of the dangers of not wearing a seat belt. Thus it could be said that a product does not have to be particularly safe, as long as it matches consumer expectations.[62]

Another problem with the consumer expectation test is the logical difficulty of applying it to cases where bystanders, rather than users, suffer injury. Bystanders may have no knowledge of the existence of the product and therefore no expectations regarding its safety.[63] Further, many products created in this technological era are too complex for a consumer to

form any rational impression of the safety to be expected.[64] This is, of course, particularly true of design or warning defects, but will also be true of new products. The consumer will have no real idea about the level of safety or danger of the product.[65] There will also be circumstances in which expectations exist, but the user can do nothing to avoid the danger for example where a workman is obliged to use a particular piece of equipment.[66]

These criticisms raise the wider question of whether the consumer expectation test is subjective or objective. [67] For example, in Lester v Magic Chef Inc.,[68] Justice Praeger, in his dissenting judgement, stated:

> "The consumer expectation test is not an objective test. In my judgement the ends of justice require an objective test, not a subjective one, in the area of product liability. A subjective test in this area of the law is not really a test at all. It is an unbridled license to the jury to 'do good' in the particular case. It has been described as 'haphazard subjectivity'. Since it depends on the particular jury's concept of what may be in the consumer's mind, the test is bound to produce inconsistent jury verdicts in comparable cases. This is unfair both to injured plaintiffs and to defendant

manufacturers."[69]

It is clearly preferable that the particular consumer's personal knowledge, experience or lack of the same, ought not to intrude into the question of defect, and that subjectivity of this type should be precluded, as it is in the definition adopted in the 1987 Act. However, subjectivity of another variety has also been persuasive to those seeking to reject the consumer expectation test. Those drafting the Model Uniform Product Liability Act stated:

> "The consumer expectation test takes subjectivity to its most extreme end. Each trier of fact is likely to have a different understanding of abstract consumer expectations. Moreover, most consumers are not familiar with the details of the manufacturing process and cannot abstactly evaluate conscious design alternatives. " [70]

In view of these difficulties the draftsmen favoured a risk benefit approach to defectiveness [71] although it ought to be observed that the weighing of risks against benefits has its own degree of subjectivity of this type, since each judge will give particular weight to each aspect of the 'decisional model' in a subjective fashion. A number of courts also have eschewed the consumer expectation criterion.[72] It could be argued, however, that at least some of the criticisms

of the test result from a misunderstanding of its application. The expectations concerned are not those which the particular consumer actually had but are those which the average consumer was entitled to have. Thus, a bystander may have no knowledge of the existence of a product but he has a general expectation of, or entitlement to, being safe in its presence. Complex or technological products give rise to the same generalised expectancy or entitlement. If courts are required to go further, and assess the expectations of a particular consumer, the question of how these expectations are to be measured will arise. Clearly, an agreement between the parties will provide the best basis for ascertaining expectations.This question was addressed, in the context of pure economic loss, by Lord Brandon in his dissenting speech in Junior Books Ltd v Veitchi Company Ltd.:[73]

> "In any case where complaint was made by an ultimate consumer that a product made by some persons with whom he himself had no contract was defective, by what standard or standards of quality would the question of defectiveness fall to be described? In the case of goods bought from a retailer, it could hardly be the standard prescribed by the contract between the retailer and the wholesaler, or between the wholesaler and the distributor, or between the distributor and the manufacturer...... It follows that the

question by what standard or standards alleged defects in a product complained of by its ultimate user or consumer are to be judged remains entirely at large and cannot be given any just or satisfactory answer."

It is suggested, however, that there is a criterion by which expectations can be assessed: advertisements and representations by the manufacturer, upon which the consumer probably places more reliance than the retail contract. In most consumer contracts the price is fixed or recommended by the manufacturer and thus not open to negotiation.

The view that expectations may be created only be reference to terms of a bargain, such as price, is therefore inapposite to modern consumer contracts. It is suggested that expectations as to safety and even as to quality can arise other than from the terms of a contract. Accordingly, there can be a place for the consumer expectation test in the conceptual structure of strict product liability.

There is, however, a fundamental difficulty with a liability criterion which is based upon the expectations of the consumer, especially where it is the expectations of persons generally which are relevant. The difficulty is that the test is fundamentally inexplicit. It could be argued that the

actual language of the consumer expectation test is simply a semantic veneer covering that is in reality a cost-benefit test. On this analysis, the test in the 1987 Act is simply a statutory statement of the objective standard already in use in the law of negligence. [74] Indeed one writer has taken the view that:

> "What reformers really mean when they say that a product meets 'expectations of safety' is that on balance its benefits outweigh its costs... It would have made much greater sense simply to couch the liability criterion in terms of costs and benefits as such and drop the concept of expectations altogether."[75]

Indeed, any liability test short of absolute liability could be perceived as ultimately cost-benefit based. However, the distinction between a cost-benefit approach and a consumer expectations approach may really be one of style rather than substance. The consumer expectation test more readily enables courts to proceed upon intuition or common experience. This is less so with the much more structured, although still not scientific, cost-benefit criterion. It remains to be seen whether, as is arguable, the application of the consumer expectation test will result in the exclusion of considerations such as the costs and benefits of particular designs. If so, there

is more room for inconsistent findings in comparable product liability cases.

The time at which 'defectiveness' is adjudged.

One of the key issues in deciding whether a product has a defect is the question of the relevant time for the making of the cost-benefit analysis, or for the assessment of consumer expectations (assuming that this latter does involve a difference in approach). Should the safety of the product be measured as at the time when it was put into circulation, or some later stage, for example the date of trial? The proposals for reform [76] and the DTI Explanatory and Consultative Note [77] are clear that the relevant time should be the date when the product was put into circulation.

However, The 1987 Act is rather less clear. Section 3 states that, in determining the safety which persons generally are entitled to expect, the circumstances to be taken into account include

> "the time when the product was supplied by its producer to another"

and goes on to state

> "and nothing in this section shall require a defect to be inferred from the fact alone that

> the safety of a product which is supplied after that time is greater than the safety of the product in question."

How is this provision to be applied in practice? To aid this analysis let us examine some hypothetical situations (setting aside for the purposes of this discussion the point that the Act applies only to products which are put into circulation after the commencement date of the legislation):

(i) suppose that in 1975 a manufacturer of refrigerators designed a fridge with a door which opens from the inside. A child suffocates in a fridge made in 1974 and which lacks the safety device. Will liability be precluded since at the time of production no fridges had the safety precaution and hence 'persons generally' could not expect an inside-opening door? Or will a court be prepared to stigmatise the design as defective and hold that the safety device, although not incorporated in other models of the same vintage, was within reasonable expectations? This raises a central issue in product liability: will product safety standards be set by prevailing industry practice or by the courts? For the new Act to have any real bite judges must be prepared to depart from industry standards.

(ii) suppose that prior to February 1987 it was not

known that roll-on roll-off passenger/car ferries would sink, quickly, if a relatively small amount of water entered the deck area. Then, in 1988 a ferry is built which has internal bulkheads the effect of which is greatly to reduce the risk of capsize. However, in the same year, for reasons of economic efficiency, a shipbuilder manufactures a ferry which does not have internal bulkheads. A number of questions arise:

(1) Is a ferry, manufactured and supplied before February 1987, a defective product? This is clearly a very difficult question, the answer to which can be determined after much consideration of the relevant costs, benefits and expectations. Assuming, however, that the risk of capsize was not known and was not discoverable by reasonable means then the product would not be defective. This finding is predicated on the cost and benefits, or expectations, each being measured at the time when the product was put into circulation. If our courts take this line they will be departing from the approach taken by many American courts who are prepared to assess the risks of the product as those known at the date of trial which the benefits are evaluated as at the date when the product was put into circulation.[78]

(2) Is the 1988 ferry, without internal bulkheads, a defective product? Clearly, the shipbuilder could not argue that since the first ferry was not defective then

neither is the present one. There has been an advance in the knowledge of risks which must now be taken into account. If other shipbuilders use internal bulkheads then consumer expectations as to safety may have been raised, and the change in design would arguably be feasible since other producers can afford to incorporate the safety features.

(3) Finally, would a ferry, built and supplied before 1987 be considered a defective product in 1988? Can it be argued that since the first ferry was not defective then neither can this one? The answer would be in the affirmative if defectiveness (costs and benefits, or expectations) was measured at the time when the ferry was put into circulation. However, if post-circulation knowledge of lack of safety is included as a 'cost' or if it affects consumer expectations, then a finding of defectiveness is possible. If such knowledge is not to be taken into account, then there is no legal incentive for the producer to recall his product and make it more safe.[79]

It seems clear, therefore, that in many product liability cases, consideration will have to be given, in many product liability cases, to the existing state of the art in relation to the production of the product, at the time when the product was put into circulation. This causes the new strict liability regime to suffer from one of the same major drawbacks

of a tort regime -

> "the need to reconstruct the state of the art at a point often considerably in the past out of information which is usually complex and costly to gather, and often more within the knowledge of the defendant than the plaintiff."[80]

This question of the time at which defectiveness is to be judged will be revisited in Chapter Six in the context of development risks and state of the act evidence. At this stage it can be concluded that by using the relevant time as the time when the product was supplied (that is, put into circulation) the Act's regime has not really departed from the existing fault criterion.

It has been noticed that in the United States there are two main theories on the conceptual basis of strict liability for defective products. One approach involves the extrapolation of a set of factors which have to be balanced in a cost-benefit computation and the other involves comparison between the performance of the product and the expectations of the consumer. The balancing of risks against benefits has become a standard tool in the analysis of negligence cases. In strict liability the computation is rather different from that used in negligence. In the former the producer is imputed with 'absolute prevision of all

harm the product actually causes',[81] whereas in the latter the 'risks' element in the balancing process is evaluated in terms of reasonable foreseeability. However, for both the thrust is towards product safety.

In many cases this balancing process will be applied without difficulty but in others polycentricity, or at least complexity, will cause serious judgmental problems. The consumer expectation test is sometimes presented as a workable alternative to the risk-benefit calculus, but it too has an inherent limitation in that it may be difficult to ascertain consumer expectations where there is no agreement between the parties.

A 'Two-Prong' test for defectiveness.

Acknowledging that there are difficulties with each of the two approaches to defectiveness outlined above, the search for an alternative can proceed along two paths: firstly, towards a wholly new test, like that suggested by Calabresi;[82] or secondly, to a compromise between the existing theories. It seems clear that a wholly new test such as Calabresi's economic model would not be recognised by courts, who would prefer to work within the parameters of existing, accepted, doctrine. The other possibility, a composite of the two tests has, however, received some judicial recognition in the U.S..

In Barker v Lull Engineering Company Inc,[83] the California Supreme Court addressed the problem of design defectiveness and concluded that a product would be defective (a) if the product failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner or (b) if the benefits of the challenged design are outweighed by the risk of danger inherent in such a design. Clearly, the court contemplated that proof of either would result in a finding of defectiveness.Consumer expectations ought not, reasoned the court, to provide a 'ceiling' on manufacturers' responsibility, but should be treated as a 'floor'.[84]

Judge Wisdom framed the issue in a slightly different form, but made essentially the same point, in Welch v Outboard Marine Corp. [85] Commenting upon the basis of liability, he said,

> "a product is defective and unreasonably dangerous when a reasonable seller would not sell the product if he knew of the risks involved or if the risks are greater than a reasonable buyer would expect".

Again, the standard is articulated in the form of alternatives, and proof of either would suffice. It should be noted that the Welch test also takes account of the distinction between strict liability and

negligence by imputing to the producer absolute prevision or prescience of the resultant harm.

Judges in the U.K. can, it is suggested, opt for a consumer expectations, or cost-benefit, or two-pronged approach to defectiveness - the 1987 Act allows all the circumstances to be taken into account in determining defectiveness. It is suggested that the hybrid or two-pronged approach to defectiveness seems to be a worthwhile replacement for an exclusive cost-benefit or consumer expectations test and could provide a workable interpretation of the definition of defect under the 1987 Act. It is not suggested that this compromise would preclude problems of polycentricity or complexity in product liability cases, but it would at least allow courts to take advantage of an alternative to ground where such problems arise.

Strict Liability or Negligence - Does it make any difference?

(a) Imputed knowledge of defect and harm.

It was noted earlier that a costs versus benefits approach is implicit int he negligence criteria for defectiveness, and that such an approach has on occasion been made explicit. Given that many courts use a cost/benefit test for defectiveness in strict liability and that such a test is likely to feature in

the new regime in the U.K. (either as an alternative to the consumer expectation test or indeed as its very substance) the question arises as to what differences, if any, will result from the new test for defectiveness.

It could ne argued that our new regime will involve no real change in deciding upon defectiveness. Thus, it has been stated that

> "it is by no means clear... how the test is to be distinguished from its present use in the law of negligence"[86]

and that

> "... the underlying rationale for a comparison between the risks and benefits in a product appears to demand adherence to principles most familiar to the law of negligence."[87]

Before evaluating the worth of these assertions it is helpful to identify what purported difference there is between the two schemes of liability. The point was made earlier and is well put by Montgomery and Owen: [88]

> "A manufacturer would be negligent... because the benefits to be derived from the dangerous design

are outweighed by certain clearly foreseeable risks. From the perspective of strict tort theory, however, the better view is that the balancing process includes not only risks or costs which are foreseeable but all such costs which in fact result. The manufacturer in a strict tort case is thus held to have much more than reasonable foresight to the types and amount of harm that the product is likely to cause; he is held to have absolute prevision of all harm the product actually causes in his evaluation of the relative weights of the costs and benefits of his proposed course of action."

Dicta in the important case of Feldman v Lederle Laboratories [89] support this analysis:

"Generally speaking, the doctrine of strict liability assumes that enterprises should be responsible for damages to consumers resulting from defective products regardless of fault. The doctrine differs from a negligence theory, which centers on the defendant's conduct and seeks to determine whether the defendant acted as a reasonable prudent person. This difference between strict liability and negligence is commonly expressed by stating that in a strict liability analysis, the defendant is assumed to know of the dangerous propensity of the product,

> whereas in a negligence case, the plaintiff must prove that the defendant knew or should have known of the danger."[90]

For manufacturing defects, as opposed to design defects or defects arising from a failure to warn, the difference is of some importance since it cancels the need on the part of the plaintiff to establish that the defendant knew or should have known of the danger. But in such cases there is already a strong tendency for courts (even under a negligence theory of liability) to impose liability almost as a matter of course.[91]

Does the distinction between strict liability and negligence make any difference in design defect or failure to warn cases? Again, the Feldman decision offers some guidance:

> "When the strict liability defect consists of an improper design or warning, reasonableness of the defendant's conduct is a factor in determining liability... The question in strict-liability design-defect and warning cases is whether, assuming that the manufacturer knew of the defect in the product, he acted in a reasonably prudent manner in marketing the product or in providing the warnings given. Thus, once the defendant's knowledge of the defect is imputed, strict liability analysis becomes almost identical to

negligence analysis in its focus on the reasonableness of the defendant's conduct." [92]

When then is the significance of imputing to the defendant knowledge of the defect and also, it would seem, of the harm caused by it? Put simply, the need to establish foreseeability of the defect and of the harm is elided under strict liability, although traditional principles of causation will continue to be applied to the link between the defect and the damage. The imputed knowledge characteristic of strict liability has much less significance, however, where a conscious, deliberate design choice has been made. Thus, if a product was deliberately designed in the full knowledge of the risk and consequences of the design, there is no need to impute any knowledge and the distinction between negligence and strict liability ceases to be of real importance. Here the manufacturer effectively submits his own cost benefit appraisal of the product as being correct, and it is that appraisal upon which the court must adjudicate.

(b) Reasonableness of the manufacturer's conduct

It was important to the court in Feldman to emphasise that the idea of imputing, to the manufacturer, knowledge of the danger and the resultant harm still leaves room for an assessment of the reasonableness of the manufacturer's çonduct. This is of interest

because it runs counter to the suppose distinction between strict liability's focus on the product the focus, under the law of negligence, upon the conduct of the manufacturer. Speaking of their test for liability, outlined above [93] the Feldman court stated:

> "This test does not conflict with the assumption made in strict liability design-defect and warning cases that the defendant knew of the dangerous propensity of the product, if the knowledge that is assumed is reasonably knowable in the sense of actual or constructive knowledge."[94]

This is a matter of some difficulty and requires some analysis. The court's view can be summarised as follows: a manufacturer is assumed to know of the dangerous propensity of his product but only if that danger is reasonably knowable. There is very little difference between assuming that a manufacturer knew of reasonably knowable dangers and charging him with having had within his contemplation reasonably foreseeable dangers. If this view is accepted, reasonableness of the manufacturer's conduct is a vital ingredient in strict liability and accordingly it is only the reversal of in the burden of proof as to what was knowable which distinguishes the Feldman test from that of the law of negligence.

Will this reversal in the burden of proof be a significant aid to the injured party? On the face of it, the answer is in the affirmative, but it seems to be rather a two-edged sword: the manufacturer will be better equipped to identify what was reasonably knowable at the date of circulation and if the pursuer wishes to contest this he must of course advance evidence that the danger <u>was</u> knowable. This necessitates the plaintiff's advisers engaging in research as to available knowledge at the date of circulation. Reversal in the burden of proof is therefore of some significance in such circumstances but will not wholly preclude proof problem's for the pursuer.

Thus, in major categories of product liability cases - design-defects and failure to warn (the latter being really just a subset of the former) - the move to strict liability will, if <u>Feldman</u> is representative, have little impact where the design results from a conscious choice on the part of the producer or where the dangers involved are unknown to science. It would be misleading to assert, however, that the <u>Feldman</u> retrenchment does represent the state of strict liability for product defects in all jurisdictions in the US. By no means all courts have adopted an ex ante Learned Hand approach to product liability. For example, many courts[95] have applied a consumer expectation test - which is very similar to the test in

the new U.K. regime - <u>without</u> seeking to extrapolate a cost-benefit analysis. Although more intuitive and less scientific than cost-benefit, it could be argued that the consumer expectation test is a more appropriate vehicle for delivering strict liability since it leaves less scope for assessment of the reasonableness of the manufacturer's conduct.

Other courts, as has been noticed,[96] allow the plaintiff to recover using either a risk-utility balance or a consumer expectation test. Further, there is a substantial body of case law which supports an ex post risk utility analysis, where time-of-trial knowledge of product risks is imputed to the defendant.[97] Some jurisdictions, such as New Jersey, have as was noted in <u>Feldman</u>, withdrawn somewhat from this position [98]. Thus, the overall picture remains unclear. Certainly it would be unsafe to assert that <u>Feldman</u> fully represents the approach in the US generally.

In the UK, however, there will be significantly less scope for disparity. Since the time at which the product was put into circulation is to be relevant to the question of defectiveness the ex post Learned Hand risk utility analysis will not be used here. If however we simply adopt the ex ante approach, even with a reversal in the burden of proof, it would seem that the new regime leaves us close to the position which

obtains under the current law of negligence. To have any real chance of moving away from this reasonableness criterion, British courts would have to give the pursuer the opportunity of recovery on the alternative grounds of risk utility analysis or consumer expectations. The 'strictness' of our new regime will depend partly upon how the courts address the problem. Hitherto, there have been few cases in negligence law in which manufacturer's conscious design choices have been reviewed by UK courts. The move to strict liability may well help to generate the view that such design choices are open to argument before our courts.

Misuse

Before offering some concluding comments on the theoretical aspects of the meaning of defective, it is worth considering the question of misuse in the context of defectiveness. Misuse can also of course arise as a defence and in that connection is discussed in Chapter 8. Under the law of negligence, it is clear that if a particular use is reasonably foreseeable and has not been warned against, liability can arise. For example, in Hill v James Crowe (Cases) Ltd.[99], it was foreseeable that a lorry driver engaged in loading wooden cases on to a lorry would stand upon the cases. Acordingly, the manufacturers of the cases were held liable for injury caused when a case gave way. Despite its apparent breadth of meaning, in this context the

concept of foreseeability is, at least in the U.K., used with caution and a clearly abnormal misuse will not ground liability.

The conceptual structure of the law of negligence in the United States is almost identical to our own, and familiar concepts such as causation and foreseeability are of course fundamental. Comment j to s395 of the Restatement (Second) of Torts 1965 deals with misuse in the law of negligence:

> "In the absence of a special reason to expect otherwise, the maker is entitled to assume that his product will be put to a normal use, for which the product is intended or appropriate; and he is not subject to liability when it is safe for all such uses, and harm results only because it is mishandled in a way which he has no reason to expect, or is used in some unusual or unforeseeable manner."

> "A product is not in a defective condition when it is safe for normal and consumption. If the injury results from abnormal handling, as where a bottled beverage is knocked against a radiator to remove the cap, or from abnormal preparation, as where too much salt is added to food, or from abnormal consumption, as where a child eats too

injury results from abnormal handling, as where a bottled beverage is knocked against a radiator to remove the cap, or from abnormal preparation, as where too much salt is added to food, or from abnormal consumption, as where a child eats too much candy and is made ill, the seller is not liable. Where, however, he has reason to anticipate that danger may result from a particular use, as where a drug is sold which is safe only in limited doses, he may be required to give adequate warning of the danger... and a product sold without such a warning is in a defective condition."

Given the similarity in these criteria, the trend in product liability cases has been to predicate liability for abnormal use on the foreseeability or otherwise of such use. Where a particular use is foreseeable, the manfacturer should have warned against dangers inherent in such a use or so designed his product as to preclude the danger. This principle is well documented in decisions dating back some fifty years, although its application has been at the mercy of particular interpretations of foreseeability, resulting in some quite surprising decisions [100].

The approach taken in Sawyer v Pine Oil Sales Co.[101], where a housewife who splashed cleaning fluid in her eye was unable to recover damages for a permanent

injury because

> "the cleaning preparation was not intended for use in the eye "[102]

was rapidly abandoned. Thus, in Haberly v Reardon Co.[103], an assistant painter who was injured by strong chemicals contained in paint when a dripping brush came into contact with his eye, was able to recover on the basis of failure to warn:

> "..while all would agree that neither paint nor cleaning fluid is intended for use in the eye, it may well be foreseeable that such materials may be splashed into someone's eye in one way or another." [104]

Full recognition of the potential breadth of the concept of foreseeability brought about a similar reversal in a pair of cases involving ingestion of domestic cleaning products by children. In Boyd v Frenchee Chem Corp.[105] a young child died as a result of consuming a shoe cleaner which contained poisonous ingredients. Despite the absence of a warning the manufacturers were exculpated. In a similar case some twenty years later [106], a child died from chemical pneumonia following consumption of furniture polish. This time the producer was found liable. The court stated that the manufacturer must:

> "be expected to anticipate the environment which is normal for the use of his product and where, as here, that environment is the home, he must anticipate the reasonably foreseeable risks of the use of his product in such an environment....and to warn of them, though such risks may be incidental to the actual use for which the product was intended."[107]

In LeBouef v Goodyear Tire and Rubber Co.[108], two people who had been drinking since 9 p.m. left at 5 a.m. the next morning for a dance in a local town. The car was driven at 100 - 105 miles per hour, and the tyre tread on one tyre separated from the tyre carcass resulting in a crash in which the driver died and the other person suffered serious injury. Holding that the manufacturer ought to warn against reasonably foreseeable uses of his product, the court found for the plaintiffs. Contributory negligence by the driver, either in the form of intoxication or of exceeding the speed limit, was no defence. The car was designed and marketed as a high speed vehicle and so unsafe operating speeds for its tyres ought to have been warned against.

hile the above examples may create the impression that foreseeability is too wide a concept it should be noted that other courts have taken a more restrictive view of its meaning. Thus, for example, in Mazzola v Chrysler

France S.A.[109] the owner of a Simca car replaced an inlet hot water hose, which passed from the front of the car through the passenger compartment to the rear engine, with a different type from the original. The new hose was not suitable, water escaped, and the user was scalded. He brought an action for damages against the car manufacturer, alleging that the water heating system in the car was defective. The court found for the manufacturer, stating:

> "The manufacturer was not required to foresee that there would be .... substituted an entirely different type of hose for the Simca hose."[110]

In a similarly restrictive treatment of foreseeability, it was decided in Landrine v Mego Corp.[111] that, where a child ingested a balloon taken from a toy consisting of a doll which simulated the blowing up of the balloon, that there had been unforeseeable misuse:

> "No duty to warn exists where the intended or foreseeable use of the product is not hazardous.... Digestion of a balloon is not an intended use, and to the extent it is a foreseeable one, it is a misuse of the product for which the guardian of children must be wary".[112]

These examples show the interaction of the concept of

defect with the duty to warn and with action which may be construed as contributory negligence. However, it is difficult to draw any firm conclusion from the case law, given the variey of interpretations of foreseeability. The Consumer Protection Act speaks of 'what might reasonably be expected to be done with or in relation to the product' as a factor in determining defectiveness. Presumably, it is the manufacturer's expectations which are relevant, although this is not clear. It is also unclear whether the test in the legislation is intended to be less extensive or as extensive as the concept of foreseeability. If anything, the wording suggests a criterion at least as extensive as foreseeability, although it is to be expected that courts in the U.K. will avoid the more exotic interpretations of that term illustrated by some of the U.S. examples quoted above.

Conclusion

The traditional dichotomy between contract and tort is founded on the view that contract concerns consumer expectations whereas tort is about societal standards of acceptable safety. However, the law of contract has for many years allowed compensation for physical harm resulting from defective products. In this way it has been recognised that as well as expectations as to quality consumers have expectations as to safety,

violation of which leads to contractual damages. Conversely, the decision in Junior Books Ltd v Veitchi Co Ltd.[113] could be interpreted as a development, although severely limited in scope, away from the 'safety' emphasis of tort towards compensation for frustrated expectations as to quality. Thus, the distinction blurs.

The definitions of defectiveness contained in the proposals for a strict liability regime in this country give a hybrid test for liability: failure of the product to meet the standard of safety which a person is entitled to expect. Use of the word 'entitled', taken together with the explanatory comments in the proposals [114] which seek to predicate liability on lack of safety, may imply a cost-benefit conceptual basis of defectiveness. Although this test will often be workable, some cases will involve problems of polycentricity or complexity rendering them less susceptible to resolution. The proponent of the theory that some product liability cases will be polycentric takes the view that, in such cases, the court may be tempted to decide on other, artificial, grounds (eg failure to warn) rather than the real issue.[115] This would, of course, be totally unsatisfactory.

An approach which, though not obviating all of these problems, may mitigate some of their effects is the alternative consumer expectation or risk-benefit test

suggested earlier. The least that can be said about this composite test is that a larger number of cases will be rationally adjudicable than if the risk-benefit test or the consumer expectation test was used exclusively. Whatever approach is taken, and there is unlikely to be any great uniformity, our courts will require to make some attempt to provide a more readily ascertainable standard than is given by the 1987 Act.

REFERENCES - Chapter 2

1. See e.g. Birnbaum, Unmasking the Test for Design Defect,: From Negligence [to Warranty] to Strict Liability to Negligence, 33 Vand. L.Rev. 593, (1980); Clark, Products Liability: Oklahoma's Defective Test for Defect - The Consumer Expectation Test and its Limitations, 39 Okla. L.Rev. 318, (1986); Dickerson, The Basis of Strict Products Liability, 1962 Ins. L.J. 7; Dickerson, Products Liability - How Good Does A Product Have To Be?, 42 Ind. L.J. 301 (1967); Fischer, Products Liability - The Meaning of Defect, 39 Mo. L.Rev. 339 (1974); Freedman, "Defect" in the Products: The Necessary Basis for Products Liability in Tort and in Warranty, 33 Tenn. L.Rev. 323 (1966); Keeton, Manufacturers' Liability: The Meaning of Defect in the Manufacture and Design of Products, 20 Syracuse L.Rev.559 (1969); Keeton, Products Liability and the Meaning of Defect, 5 St. Mary's L.J. 30 (1973); Montgomery and Owen, Reflections on the Theory and Administration of Strict Tort Liability for Defective Products, 27 S.C.L. Rev. 803 (1976); O'Connor, Adding a Risk/Utility Analysis to the Consumer Expectation Test in Design Defect Cases, 28 Ariz. L.R. 459 (1986); O'Donnell and Thomas, Design Litigation and Strict Liability: The Problem of Jury Instructions Which Do Not Instruct, 5 Journal of Products Liability 3 185, (1982); Phillips, The Standard for Determining Defectiveness in Products Liability, 46 Univ. of Cinc. L.Rev. 101 (1977); Rheingold, What Are the Consumer's "Reasonable Expectations"?, 22 Bus. Law. 589 (1967); Rheingold, Proof of Defect in Products Liability Cases, 38 Tenn. L.Rev. 325 (1970); Shapo, A Representational Theory of Consumer Protection: Doctrine, Function and Legal Liability for Product Disappointment, 60 Va. L.Rev. 1109 (1974); Twerski, From Risk-Utility to Consumer Expectations: Enhancing the Role Of Judicial Screening in Product Liability Litigation, 11 Hofstra L.Rev. 861, (1983); Vetri, Products Liability: The Developing Framework for Analysis, 54 Ore. L.Rev. 293 (1975); Wade, Strict Tort Liability of Manufacturers, 19 S.W.L.J. 5 (1965); Wade, On the Nature of Strict Tort Liability for Products, 44 Miss. L.J. 825 (1973); Wade, On Product "Design Defects" and Their Actionability, 33 Vand. L.Rev. 551, (1980).

2. The term is used here to mean shortcomings in product <u>safety</u> rather than quality.

3. See Atiyah, Contracts, Promises and the Law of Obligations, 94 L.Q.R. 193, (1978).

4. <u>Ibid</u>, at 198.

5. Perhaps the most famous expression of this approach is the so-called 'Learned hand' test suggested in United States v Carroll Towing Co. 159 F.2d. 169 (2d. Cir. 1947), discussed infra.

6. See e.g., Atiyah, Accidents, Compensation and the Law, 4th edit. Ch 2; and text accompanying notes 33-57 infra.

7. [1956] A.C. 552.

8. At 574.

9. [1951] A.C. 850. See also, Fardon v Harcourt-Rivington (1932) 146 L.T. 391.

10. [1951] A.C. 367. See also, Wright v Dunlop Rubber Co. (1972) 14 K.I.R. 255; Porteus v National Coal Board 1967 S.L.T. 117 (O.H.).

11. [1954] 2 Q.B. 66.

12. Quinn v Cameron and Robertson 1956 S.C. 224.

13. Examples include: Latimer v A.E.C. [1953] A.C. 643; Henderson v Carron Co. (1889) 16 R. 633.

14. Wyngrove's Exrx. v Scottish Omnibuses 1966 S.C. (H.L.) 47.

15. Henderson, Judicial Review of Manufacturers' Conscious Design Choices: The Limits of Adjudication, 73 Colum. L.Rev.1531, at 1533 (1973).

16. Twerski et al., The Use and Abuse of Warnings in Products Liability - Design Defect Litigation Comes of Age, 61 Cornell L.Rev. 495, at 527 (1976).

17. 1982 S.C. (H.L.) 244.

18. Ibid, at 218.

19. For a full discussion see Chapter 6 infra.

20. European convention on Products Liability in Regard to Personal Injury and Death, DIR/Jur. (76)5.

21. Cmnd. 6831 (1977).

22. Cmnd. 7054 (1978).

23. 85/374/EEC.

24. Explanatory Memorandum Art. 4. References are to the Explanatory Memorandum issued along with the first

version of the Directive.

25. Cmnd. 6831 (1977), para. 46.

26. Implementation of the EC Directive on Product Liability, An Explanatory and Consultative Note, Dept. of Trade and Industry, Nov. 1985, para. 55.

27. Wade, On the Nature of Strict Tort Liability for Products, 44 Miss. L.J. 825, at 829 (1973).

28. Op. cit., 821-3.

29. Ibid.

30. Cronin v J.B.E. Olsen, Inc. 8 Cal. 3d. 121, 501 P.2d. 1153.

31 See n1, supra.

32. United States v Carroll Towing Co. 159 F.2d. 169 (2d. Cir. 1947)

33. At 173.

34. Montgomery and Owen, op. cit., at 815 n42.Some would argue that a range of tests is available to courts: see Clark, op. cit., n1 supra, listing as alternatives cost-benefit; consumer expectations; intended use; the hybrid test; and the two-prong test.

35. Ibid, at 829.

36. Ibid, at 814.

37. (i) The cost of injuries attributable to the condition of the product about which the plaintiff complains - the pertinent accident costs.
(ii) The incremental cost of marketing the product without the offending condition - the manufacturer's safety cost.
(iii) The loss of functional and psychological utility occasioned by the elimination of the offending condition - the public's safety cost.
(iv) The respective abilities of the manufacturer and the consumer to (a) recognise the risks of the condition, (b) reduce such risks, and (c) absorb or insure against such risks - the allocation of risk awareness and control between the manufacturer and the consumer.

38. Wade, op. cit. n27 supra, at 834. See generally Montgomery and Owen, op. cit. at 814-8.

39. Ibid, 837-8.

40. Fischer, op. cit. at 359. His considerations are:

1. Risk Spreading

A. From the point of view of consumer.
1. Ability of consumer to bear loss.
2. Feasibility and effectiveness of self protective measures.
a. Knowledge of risk
b. Ability to control danger.
c. Feasibility of deciding against use of product.

B. From the point of view of manufacturer.
1. Knowledge of risk
2. Accuracy of prediction of losses
3. Size of losses
4. Availability of insurance
5. Ability of manufacturer to self-insure
6. Effect of increased prices on industry
7. Public necessity for the product
8. Deterrent effect on the development of new products.

II Safety incentive
A. Likelihood of future product improvement
B. Existence of additional precautions that can presently be taken.
C. Availability of safer substitutes.

41. Shapo, op. cit., at 1370-1. His list is:

1. The nature of the product as a vehicle for the creation of persuasive advertising images, and the relationship of this factor to the ability of sellers to generate product representations in the mass media;

2. The specificity of representations and other communications related to the product;

3. The intelligence and knowledge of consumers generally and of the disappointed consumer in particular;

4. The use of sales appeals based on specific consumer characteristics;

5. The consumer's actions during his encounter with the product, evaluated in the context of his general knowledge and intelligence and of his actual knowledge about the product or that which reasonably be ascribed to him;

6. The implications of the proposed decision for public health and safety generally, and especially for social programs that provide coverage for accidental injury

and personal disability;

7. The incentives that the proposed decision would provide to make the product safer;

8. The cost to the producer and other sellers of acquiring the relevant information about the crucial product characteristic and the cost of supplying it to persons in the position of the disappointed party;

9. The availability of the relevant information about the crucial product characteristic to persons in the position of the disappointed party and the cost to them of acquiring it;

10. The effects of the proposed decision on the availability of data that bear on consumer choice of goods and services;

11. Generally, the likely effects on prices and quantities of goods sold;

12. The costs and benefits attendant to determination of the legal issues involved, either by private litigation or by collective social judgment;

13. The effects of the proposed decision on wealth distribution, both between sellers and consumers and among sellers.

42 Vetri, op. cit., at 304-14.

43. Keeton, Products Liability and the Meaning of Defect, 5 St. Mary's L.J. 30 (1973); Keeton, Products Liability - Inadequacy of Information, 48 Tex. L.Rev. 398 (1970).

44. Calabresi, Optimal Deterrence and Accidents, 84 Yale L.J. 656 (1975).

45. See discussion in Montgomery and Owen, op. cit., at 817.

46. In an article co-authored with Klevorick: Calabresi and Klevorick, Four Tests for Liability in Torts, XIV Jnl. of Leg. Studs. 585 (1985). For the meaning and application of the "cheapest cost avoider" test, see Calabresi and Hirschoff, Toward a Test for Strict Liability in Torts, 81 Yale L. J. 1055 (1972).

47. Ibid, at 626-7.

48. See Rabin, Indeterminate Risk and Tort Reform: Comment on Calabresi and Klevorick, XIV Jnl. of Leg. Studs. 633 (1985).

49. 90 N.J. 191, 447 A.2d. 539 (1982).

50. 97 N.J. 429 (1984).

51. Ibid, at 454-5.

52. See Rabin, op. cit. But see n97 infra for examples of courts applying an ex post calculus.

53. Fuller, Adjudication and the Rule of Law, 1960 Proc. Am. Soc'y. Int'l. L. 1.

54. Henderson, op. cit., at 1536.

55. As opposed to manufacturing defect and failure to warn cases.

56. See criticism in Twerski et al., op. cit., and reply by Henderson, Design Defect Litigation Revisited, 61 Cornell L.Rev. 541 (1976). For applications of a multi-factor decisional model, see, for example, Finnegan v Havir Manuf. Corp. 60 N.J. 413, 290 A.2d. 286 (1972); Phillips v Kimwood Machine Co., 269 Ore. 485, 525 P.2d. 1033 (1974); Driesonstok v Volswagenwerk A.G. 489 F.2d. (4th Cir. 1974); Caterpillar v Beck 593 F.2d 871 (Alas. 1979); Suter v San Angelo Foundry Machine Co. 81 N.J. 150, 406 F.2d. 140 (1979); Bowman v General Motors Corp. 427 F.Supp.234 (E.D. Pa. 1977); Cepeda v Cumberland Engineering Co. 76 N.J. 152, 386 A.2d. 816 (1978). The Supreme Court of New Jersey has frequently referred to Wade's seven factors listed in the text: see e.g. Feldman v Lederle Laboratories, 97 N.J. 429, 479 A.2d. 374. For a recent example of a court reviewing the question of whether a consumer expectation test or a risk benefit test ought to be used, see Nesselrode v Executive Beechcraft, Inc. 707 S.W. 2d. 371 (Mo. 1986).

57. See e.g. Montgomery and Owen, op.cit., at 823-4; Fischer op.cit., at 349-52.

58. Fischer, op. cit., at 348, cases cited at n76. See also Kaufman v Meditech, Inc. 353 N.W. 2d. 297, 300 (N.D.1984); Accord Aller v Rodgers Machinery Manufacturing Co., 268 N.W. 2d. 830 (Iowa 1978); Barnes v Vega Indus., Inc., 234 Kan. 1012, 676 P.2d 761 (1984); Hancock v Paccar, Inc., 204 Neb. 468, 283 N.W. 2d. 25 (1979); Stackiewicz v Nissan Motor Corp., 686 P.2d. 925, 928 (Nev. 1984); Seattle First Nat'l. Bank v Tarbert, 86 Wash. 2d. 145, 542 P.2d. 774 (1975).For a discussion of the application of the consumer expectation test in Oklahoma, see Lamke v Futorian Corp., 709 P.2d. 684, at 687 (Okla. 1985). See also, Clark, op. cit., n1 supra.

59. 69 Wisconsin 2d. 326, 230 N.W.2d. 794 (1975).

60. Ibid, per Hansen J. 332.

61. 578 P.2d. 1195 (Okla. 1978).

62. Clark, op. cit., n1 supra, at 322.

63. See further Fischer, op. cit, at 349.

64. Montgomery and Owen, op. cit., at 823.

65. See Keeton, The Meaning of Defect in Products Liability law - A Review of Basic Principles, 45 Mo. L.Rev. 579, at 591 (1980).

66. See O'Connor, op. cit., n1 supra, at 462.

67. See discussion in Birnbaum, op. cit., n1 supra.

68. 641 P.2d. 353 (1982).

69. At 363.

70. S. Rep. No. 476, 98th Cong. 2d. Sess. (1984).

71. Clark, op. cit., n1 supra at 326.

72. Fischer, op. cit., cases cited at n103.

73. 1982 S.C. (H.L.) 244, at 282. His Lordship's remarks concerned expectations as to quality.

74. See Miller and Lovell, Product Liability and Safety Encyclopaedia, III para. 14.

75. Stapleton, Products Liability Reform - Real or Illusory?, 1986 C.L.J. 392, at 405.

76. See e.g. para. 42 of the Explanatory Report on the Draft Directive of 1976; and Cmnd. 6831 (1977)., para. 49.

77. Para. 52

78. See infra n86.

79. Or, at least, the only incentive is one drawn from the law of negligence.

80. Stapleton, op.cit., at 413.

81. See notes 34 and 35 supra.

82. Supra, n44.

83. 20 Cal. 3d. 413, 143 Cal. Rptr. 225 (1978). For an interesting critique of this case, see O'Donnell and Thomas, op.cit. at 197-202. See also, Zimmerman, The California Supreme Court's Attempted Balancing Act, 2 Journal of Products Liability 4 215, (1978); Cartwright, Analysis of Recent California Supreme Court Case of Barker v Lull, 2 Journal of Products Liability 2 79 (1978).

84. At 421 (Cal.3d.), 451 (P.2d.).

85. 481 F.2d. 252 (5th Cir. 1973). see discussion in Montgomery and Owen, op. cit., at 843-5.

86. Newdick, The Future of Negligence in Product Liability, 103 L.Q.R. 288, at 304 (1987).

87. Ibid, at 305. See also Stapleton, op. cit.

88. Op. cit., at 829.

89. Feldman v Lederle Laboratories 479 A.2d. 374 (N.J.1984).

90. Ibid, at 386. This analysis is supported by Suter v San Angelo Foundry and Machine Co. 81 N.J. 150 (1979); Freund v Cellofilm Properties, Inc. 87 N.J. 229 (1981); Cepeda v Cumberland Eng. Co. 76 N.J. 152 (1978).

91. See Newdick, op. cit., at 290-2.

92. Feldman, supra n89, at 386.

93. Text accompanying n90 and n92, supra.

94. At 386.

95. See n58 supra.

96. Barker v Lull Engineering Company, Inc. 20 Cal. 3d. 413, 143 Cal. Rptr. 225 (1978); Welch v Outboard Marine Corp., 481 F.2d. 252 (5th Cir. 1973); See also, Caterpillar Tractor Co. v Beck, 593 P. 2d. 871 (Alaska 1979); Ontai v Straub Clinic and Hospital, Inc., 66 Hawaii 237, 659 P.2d. 734 (1983); Cremeans v International Harvester Co., 6 Ohio St. 3d. 232, 452 N.E. 2d. 1281 (1983).

97. See Wheeler, Comment on Landes and Posner, XIV Jnl. of Leg. Studs., 575 (1985). Examples include: Anderson v Heron Engineering Co. 198 Colo. 391, 604 P.2d. 674 (1979); Ulrich v Kasco Abrasives Co., 532 S.W.2d.197 (Ky. 1976); Elmore v Owens-Illinois, Inc., 673 S.W.2d. 434 (Mo. 1984); Jackson v Coast Paint and Lacquer Co., 499 F.2d. 809 (9th Cir. 1974); Berkebile v Brantly

Helicopter Corp., 462 Pa. 83, 337 A.2d 893 (1975); Carter v Johns-Manville Sales Corp., 557 F.Supp. 1317 (E.D. Tex. 1983); Boatland of Houston, Inc. v Bailey, 609 S.W. 2d. 743 (Tex. 1980). Most of these examples are referred to at appropriate junctures elsewhere in this work.

98. See also, O'Brien v Muskin Corp. 94 N.J. 169, 463 A.2d. 298 (1983).

99. [1978] 1 All E.R. 812.

100. See generally, Madden, The Duty to Warn in Products Liability: contours and Criticism, 89 West Va. L.Rev. 221, (1987). Moran v Faberge, Inc.,273 Md. 538, 332 A.2d 11 (1975) remains the leading example of a wide usage of the foreseeability concept. See discussion in Chapter 4, infra.

101. 155 F.2d. 855, (5th Cir. 1946).

102. Ibid, at 856.

103. 319 S.W. 2d. 859 (Mo. 1958).

104. See, Noel, Recent Trends in Manufacturers' Negligence as to Design, Instructions and Warnings, 19 S.W. L. Jnl. 43, at 54 et. seq.

105. 37 F.Supp. 306 (E.D.N.Y. 1941).

106. Spruill v Boyd-Midway, Inc. 308 F.2d. 79 (4th Cir. 1962).

107. Ibid, at 83-4.

108. 623 F.2d 985 (5th Cir. 1980).

109. 407 F.Supp. 24 (1978), aff'd. 607 F.2d 997 (1979).

110. Ibid, at 28.

111. 95 A.D. 2d 759, 464 N.Y.S. 2d. 516 (1983).

112. Ibid, at 759-60.

113.. 1982 S.C. (H.L.) 244.

114. See notes 20-25 supra and accompanying text.

115. Henderson, op. cit.

CHAPTER THREE

THE PRODUCT AND THE CHAIN OF LIABILITY

In common parlance, the term 'product' indicates an item which has been manufactured and is then sold, perhaps through an intermediary, to the consumer. Since no separate scheme of product liability exists under the general law of negligence, there has been no need for British courts, in negligence cases, to offer a definition of 'product'. Under the new rules, however, 'product' is a central concept - if no 'product' is involved then the new regime's strict liability will not be attracted. What should be the boundary between products and other things? Should the term 'product' include all goods? Ought there to be any exemptions? What about component parts and raw materials? It is hoped that such questions will be answered in the present chapter.

Another of its aims is to identify the persons who should be liable for defective products. The chain of distribution will often be more complex than 'manufacturer-retailer-customer'. For example, wholesalers, distributors, importers, employers,

persons who brand their own products and retailers may all be involved in the marketing chain. In a product liability regime, the question arises as to who in this chain of manufacture and distribution ought to incur liability in respect of a defective product.

Finally, an attempt will be made to assess the impact which the move to strict liability will have on this area of the law. In identifying the most suitable approach to a regime of strict product liability, and in seeking to assess the impact of such a move (in each case in the context first of 'product' and then of persons liable) the technique employed earlier will be used again. Thus, a brief excursus on the present legal position, followed by some discussion of the proposals for change, will serve as a background for analysis of the provisions of Part 1 of the Consumer Protection Act 1987. There will follow a discussion of the US position on the meaning of 'products' and persons liable. It will be noticed that in discussing the proposals for change the issues of meaning of product, and persons liable, are, for brevity, dealt with together. Similarly, in examining the American experience the opportunity has been taken to compare the existing U.K. rules on certain matters and to speculate upon how some of the problems of US product liability law would be treated here. As in other chapters some of the early material on the present legal position and the proposals for change is

relatively descriptive in tone. However, having set the discussion in context, the later material affords greater opportunity for analysis and criticism.

Present Legal Position

The law currently recognises no separate area of product liability. This was not always so. Mr Winterbottom's bad leg[1] was an impediment from which English law did not recover until 1932, having spent more than a century limping along with an apparent dichotomy between 'dangerous chattels' and other goods. As indicated in Chapter One, loss caused by the latter class was not recoverable until Donoghue v Stevenson because there was no general duty of care in regard to chattels. Judges in early cases were much impressed by 'floodgates' fears:

> "the only safe rule is to confine the right to recover to those who enter into the contract; if we go one step beyond that, there is no reason why we should not go fifty."[2]

General negligence principles have been applied to what will now come to be called product liability cases. The current law is briefly adumbrated in Chapter 1, and is fully explained in other works; hence there is no need to rehearse it here. It will suffice to observe that negligence principles have been sufficiently

flexible to allow U.K. courts to cope with modern, mass produced, products. Although it is uncommon for product design to be challenged, and it is unlikely that a court would stigmatise as defective the design of, for example, a passenger ferry or a motor car, courts in the U.K. have been prepared to respond, using the law of negligence, to difficulties caused by mass production of other expensive goods. For example, in Walker v British Leyland (UK) Ltd,[3] an unreported English Queen's Bench Division case, the manufacturers of a motor vehicle were found liable in respect of loss caused when the rear nearside wheel came off an Austin Allegro car as it was being driven along a motorway at about sixty miles an hour. Evidence disclosed that a number of such so-called "wheel-adrift" problems had been reported to the manufacturers. Internal memoranda indicated that the company was not prepared to recall cars for repair and that a programme of education for servicing personnel was preferable. The court focused on the failure to recall the vehicles rather than the design deficiency in the product. Willis J stated that

> "The duty of care owed by Leyland to the public was to make a clean breast of the problem and recall all cars which they could, in order that the safety washers could be fitted... it was decided not to follow this course for commercial reasons. I think this involved a failure to

observe their duty of care..."

In other circumstances, such as mis-statements cases and pure economic loss, a floodgates argument has been used to prevent the extension of liability. The ways in which the new regime copes with such circumstances will be addressed in later chapters.

Liability of Component Manufacturers

It is clear that the delictual obligation to take reasonable care imposed upon the manufacturer of a finished product applies also to the manufacturer of any component part.[4] However, there are a number of difficulties inherent in the application of this general principle. Firstly, the division or apportionment of responsibility between the manufacturer of the finished product and the component manufacturer will in many cases be difficult to compute since it will be difficult to ascertain which of them has been negligent. Thus, in Evans v Triplex Safety Glass Co [5], for example, a plaintiff who was injured when a windscreen shattered failed in her claim against the manufacturer of the component because she could not show that the windscreen had itself been defective rather than improperly installed by the producer of the finished product. Secondly, the manufacturer of the finished product will not be liable where the defect in a component was not discoverable by him on the exercise

of reasonable care. What constitutes reasonable care will depend upon the circumstances of each case. However, it is clear that simple reliance on a reputable supplier will not suffice. Some inspection or testing, by the producer of the finished product, will in many cases be necessary in order to satisfy his obligation of reasonable care.[6] Thirdly, a non-defective component may become the defective part of a finished product if it is used by the final manufacturer in a way not contemplated by the component producer. A criterion of "foreseeability of use" should protect the component producer in such circumstances.

Where a component product becomes incorporated into another product after manufacture of the finished product then obviously liability rests solely with the component manufacturer. This was clearly illustrated in Lambert v Lewis[7] where a defective towing coupling caused a trailer to become unhitched from the towing vehicle, leading to a collision between the trailer and an oncoming car. A father and son were killed and the mother and daughter injured. The manufacturer of the coupling was found liable in negligence on the ground of a design deficiency in the product. The owner of the trailer was also liable in negligence since he

> "continued to use the coupling over a period of months in a state in which it was plainly damaged

without taking steps to have it repaired or even to ascertain whether or not it was safe to continue to use it in such a condition".[8]

As far as economic loss is concerned, there appears to be no reason in principle why the decision in Junior Books v The Veitchi Co[9] should not apply to component manufacturers whose products cause such loss. This point would require clarification, of course, as the court in that case was strongly influenced by the relative proximity between the parties, and as there has been some retrenchment evident from later decisions on economic loss.[10]

Liability of Distributors

Intermediaries in the chain between manufacturer and retailer, such as
wholesaler, distributor, importer, are seldom found liable in damages for negligence. This is so because their duty of care is usually satisfied by a reasonable examination of the product. If the product is in a sealed container or packet then examination may be impracticable. Similarly, there will rarely be an obligation to test a product, although in one English case,[11] failure by distributors of a hairdressing dye to test the product, or find out under what supervision it had been produced, resulted in a finding of negligence following a claim by a user who had suffered

dermatitis. The court's finding in this case may, however, have been affected by positive representations of safety of the product made by the distributors.

Liability of the Retailer

In the case of Lambert v Lewis, mentioned earlier, one of the co-defendants was the seller of the defective coupling. The judgment of the court, that the sellers of the product had not been negligent since they had purchased the coupling from a reputable manufacturer and could not have discovered the existence of the defect by the exercise of due care, provides the parameters of the liability of a retailer in negligence.

An earlier Scottish case also illustrates this point. In Gordon v McHardy,[12] a father raised an action for damages in respect of the death of his son who had died from ptomaine poisoning, allegedly caused by eating tinned salmon sold by the defender. The respondent's argument, that a retail dealer was not responsible for any defect in the goods he sold if such a defect - as in this case - were not apparent and could not be detected without an examination more searching than he could reasonably or in the ordinary cause of business be expected to make, was upheld [13].

The fact that the retailer had purchased the goods from

a dealer of repute was important.

It must be said in passing that had the pursuer sued in contract (for breach of s14 Sale of Goods Act 1893) he would probably have succeeded, assuming that the deceased had been a party to the contract.[14]

The retailer will, of course, be liable in respect of his own negligence. Thus, in Marshall v Russian Oil Product Ltd.[15] where a barrel containing petrol burst in the course of delivery, causing a fire which destroyed the pursuer's bakery premises, the retailer was held liable in damages. The breach of duty was his failure to provide a reasonably fit container and the doctrine of res ipsa loquitur was successfully invoked to overcome difficulties of proof. It was established that a number of other barrels owned by the defenders had been scrapped or repaired because of defects, and that inadequate tests had been carried out.

Liability of Employers

A person injured in an accident at work caused by a defective product will have a right to industrial injury benefit under the National Insurance and Social Security legislation. This right does not exclude a further claim for damages against either the employer or the manufacturer of the defective product. However, since the Law Reform (Personal Injury) Act 1948 one

half of any benefit obtained under the state scheme will be taken into account in assessing the damages available at common law.

Many statutes impose liability upon employers in excess of the standard of negligence. The Factories Act 1961 is the classic example. However, the liability of an employer for injuries caused by defective products used at work was, until 1969, based principally on negligence. If the employer had exercised due care, for example by purchasing the product from a reputable manufacturer and carrying out some inspection, then he could not be held liable for injuries caused by that product.

This was accepted in the familiar case of Davie v New Merton Board Mills Ltd,[16] where a worker was injured when a particle of metal from a defective tool flew into his eye after he had struck the tool with a hammer. The tool was apparently in good condition and only an X-ray could have discovered the defect. It was established that the tool had been negligently hardened by the manufacturer and had become brittle. Holding that the employer was not liable, Lord Reid stated

> "... he is not liable for the negligence of the manufacturer of an article which he has bought, provided he has been careful to deal with a seller of repute and has made any inspection

which a reasonable employer would make".[17]

Such a case would now be decided differently as a result of the Employer's Liability (Defective Equipment) Act of 1969, which imposes a form of strict liability on employers in respect of defective tools or other equipment. The Act provides:[18]

> "Where (a) an employee suffers personal injury in the course of his employment in consequence of a defect in equipment provided by his employer for the purposes of the employer's business; and (b) the defect is attributable wholly or partly to the fault of a third party (whether identified or not) the injury shall be deemed to be also attributable to negligence on the part of the employer..."

The right of the employer to seek a contribution from his supplier is expressly preserved. "Equipment" is defined as including "any plant and machinery, vehicle, aircraft and clothing", thus leaving a number of other products or materials used at work to be covered by the common law. There is recent case law to the effect that a ship is not equipment.[19] Nor is equipment which is the product of the employer.

Before progressing to the proposed changes in the law,

one final point, affecting all those in the chain of supply who sell goods, should be made. A person who is injured by goods which are in breach of the safety regulations made under the Consumer Protection Act 1961 or the Consumer Safety Act 1978 may bring an action for breach of statutory duty against any seller in the chain of supply. The regime of regulations under these Acts has been consolidated and improved by the Consumer Protection Act 1987, but the right to raise a civil action is unaffected by this change. In the words of the Pearson Commission

> "In effect, the seller is strictly liable if he sells goods in breach of the regulations."[20]

Further the right of action is not confined to the buyer. Since over thirty sets of regulations have been made under these Acts[21], it can be appreciated that, in relation to certain products, a measure of strict liability already exists.

The Consumer Protection Act 1987 repeals the Consumer Safety Act 1978 and the Consumer Safety (Amendment) Act 1986, and the regulation-making powers have been extended. The 1987 Act also provides for a general safety requirement[22] whereby a person shall be guilty of an offence if he supplies consumer goods which are not reasonably safe having regard to all the circumstances. However, breach of the general safety

requirement will not (unlike breach of regulations) ground a civil action for breach of statutory duty.

Proposals for Change

(A) Liability of Manufacturers

The major proposals for change of the law on product liability [23] all agreed on the imposition of strict liability on the manufacturer, or to use the preferred term, the producer, of a defective product. The term 'producer' is not without ambiguity since the maker of the finished product may simply be an assembler of component parts. Indeed, component parts may themselves have been assembled from sub-components. As well as this, there may be no actual manufacture involved, as is the case with animal and vegetable produce.

What follows is a summary of how the proposals sought to accommodate these difficulties in defining 'producer' for the purposes of strict product liability.

Article 3.1 of the Strasbourg Convention states that 'the producer shall be liable to pay compensation for death or personal injury caused by a defect in his product'. Paragraph 4 of the same article goes on to state that

'in the case of damage caused by a defect in a product incorporated into another product, the producer of the incorporated product and the producer incorporating the product shall be liable'.

In their explanatory report the drafters of the convention indicated that primary liability would be imposed upon

'the party who has put the product into the state in which is is offered to the public'.[24]

Further, paragraph thirty of the report states,

'The committee agreed that the term producer includes the person who merely assembles parts manufactured by other producers and the person who puts into circulation the product of hunting, fishing and the gathering of fruit and vegetables.'

The committee also implicitly supported the 'channelling' argument - that, for economic reasons, liability should, where possible, be channelled to the final producer:

'... the 'real' producer should be the person to be liable under the convention. It felt that it

> was in fact undesirable and economically wasteful as a matter of legislative policy to impose strict liability on a large number of persons, some of whom play a secondary part in the production process. The application of the convention to these persons would, moreover, have the disadvantage of inappropriately interfering in contractual relations between these persons and the buyer'.[25]

The EEC directive virtually echoed the Strasbourg definitions. Thus, the producer would be

> 'the person who manufactured the end product and put it into circulation in the form in which it was intended to be used'.[26]

This would apply to assemblers of component parts, but primary agricultural products (unprocessed animal and vegetable produce) and craft or artistic products not industrially produced were to be exempted.[27] However, the exclusion of craft and artistic products was dropped from the final version of the directive.

In its Explanatory Memorandum the EEC Commission said of the term 'producer':

> 'it covers all persons who were involved on their own responsibility in the process of producing

the article'.[28]

The Law Commissions felt that, subject to some limited exceptions

'strict liability should rest on all kinds of producers of all kinds of moveable product',[29]

This statement belies major areas of disagreement between the two Commissions in relation to the liability of component producers and the liability of producers of natural products, with the Scottish Law Commission being in favour of restricting liability in both cases.[30]

The Pearson Commission reasoned thus:

'There would be much to be said for confining strict liability to the producer of the finished product. This would provide a fairly straightforward line of redress for the consumer to a single, identifiable person or company. It would also be the cheapest option. If all the producers and distributors in a chain needed to insure against strict liability, the costs of insurance, administration and litigation would undoubtedly be greater - by how much it would be impossible to estimate. It would also be easier to identify the defectiveness of a finished

product as against a component (including the equivalent of the 'component' in the case of food, such as the meat in a pork pie), because it is this which needs to be safe when it reaches the consumer, and because a given component may be used in a wide range of finished products. This last consideration also has a bearing on cost. As the Law Commission said in their working paper, 'The more basic the component (such as the nut and bolt) the greater the range of dangers and the higher the insurance premium,both in absolute terms and in relation to the value of the product'. The guiding principle would be to place strict liability on whoever first puts a product into circulation in the form in which it is intended to be used or consumed.

'A solution along these lines is nevertheless open to a number of objections. The main one is that there would be a greater risk that the injured person would be deprived of a remedy, for example if the producer of the finished product proved to be either bankrupt or uninsured. There might even be a deliberate evasion of liability by setting up an expendable company as a front for the real producer; and, even where that was not done, component producers would often be more substantial companies than the producer of the finished product, and to that extent better able

to bear the burden of insurace. Such considerations do not apply exclusively to the producers of finished products, but the more widely liability is spread, the more certain the remedy is likely to be. If strict liability were to be confined to the producer of the finished product, there might sometimes be difficulty in distinguishing the finished product from thee component, perhaps especially with respect to natural products'.[31]

The Pearson Commission concluded that sureness of remedy had to be balanced against the resultant increase in cost, and recommended that both producers of finished products and component producers should be strictly liable, although distributors should not.

Some of the proposals gave special consideration to producers of particular products. An instance already mentioned [32] is the treatment of producers of primary agricultural products in the EEC directive, who have been exempted from the new regime of strict liability. As was indicated earlier[33], this conflicts with the treatment of such producers under the Strasbourg Convention.

The Law Commissions were divided on this point. The English Law Commission saw

'no convincing ground of policy nor any practical justification for the exclusion of producers of such products from the strict obligations in regard to safety that are recommended for other producers in respect of other products'.[34]

On the other hand, the Scottish Law Commission felt that the arguments advanced for strict liability did not all apply to primary agricultural products, and argued that producers of such products should be exempted from the scheme. Disagreeing, the Pearson Commission recommended that such producers should be included:

'shell fish, for example, are known carriers of disease'.[35]

Producers of moveable products which have been incorporated into immoveables also merited special treatment. All of the proposals, except those of the Scottish Law Commission, include such producers in the proposed strict liability regime. The Scottish Law Commission justified its view as a consequence of its proposals that the liability of all producers of components or constituent materials should cease when these products were incorporated into another. Thus,

'liability would rest on the principles applicable to immoveables and on safety

provisions such as those relating to building and engineering operations'.[36]

The strong pharmaceutical producer's lobby won special consideration from the Law Commissions and the Pearson Commission. The two Law Commissions agreed on the broad principle that pharmaceutical producers should incur strict liability. However, the Scottish Law Commission felt that there may be a case for considering special legislative provisions for certain pharmaceuticals, for example, prescription medicines. The reason for this view was the Commission's concern regarding the difficulty of obtaining insurance in respect of the catastrophic risks created by such products, perhaps leading to the situation in which insurance cover would not be available, leaving the consumer without a remedy. It was argued that the development of new drugs would therefore be unduly inhibited. If strict liability was to be imposed on such producers, the Commission concluded, then perhaps the State should accept some responsibility for compensating injured users.[37] On the other hand, the Pearson Commission felt that drugs represented the class of product in respect of which the greatest public pressure for compensation had been felt - viz the Thalidomide tragedy, and that no special treatment could be justified. [38]

Lastly, the Pearson Commission took the view that human

blood and organs be regarded as products and that persons responsible for distributing them be regarded as producers for the purposes of strict liability.[39]

(B) Liability of Component Producers

Despite their express or implied adherence to a policy of channelling liability towards the producer of the finished product all proposals, as already indicated, would also have imposed strict liability on component producers, although the Scottish Law Commission would have had that liability cease when the component or constituent material was incorporated into the finished product.

The arguments advanced by the Scottish Law Commission in support of this view include: that to provide otherwise would run contrary to the channelling argument; to provide otherwise would lead to

> 'a duplication or multiplication and cumulation'

of insurance in respect of the same risk; for many components there are a large number of potential uses and therefore the extent of the risk is unknown or a matter of speculation at the time of manufacture.[40]

However, in recognition of the fact that this view was, in terms of all the proposals, in the minority, the

Commission went on to say that if strict liability was to continue after incorporation of a component part then the definition of 'defect' should be reconsidered so as to be restricted to 'normal' uses of the component part.

Only the Directive thought it necessary expressly to exculpate the component producer from liability where the component had been produced in accordance with a design or specification instructed by the final producer. In such circumstances, others thought that the component part would not be 'defective' within the meaning ascribed to that term.

(C) Liability of Distributors

The term 'distributors' is used in this context to include those in the marketing and distributing chain other than producers, component producers or retailers.

As is generally true of the various proposals regarding other potential defenders, the views of the Strasbourg Convention have proved influential. Article 3.2 of the Convention states:

> 'Any person who has imported a product for putting it into circulation in the course of a business and any person who has presented a product by causing his name, trademark or other

distinguishing feature to appear on the product shall be deemed to be producers for the purpose of this convention and shall be liable as such'.

As well as this, each supplier of a product would be deemed to be its producer if the product does not indicate that name of the producer and the supplier does not disclose his identity within a reasonable time. The same rule would apply regarding the identity of importers of imported products.

The Explanatory Report gives the committee's reasons for these proposals. They sought to ensure that 'loopholes' of the following nature were not available:

> '(a)that the producer was a foreigner and did not have a place of business in the country of the victim;
> (b) that the name that appears on the product is not that of the real manufacturer, who often has insufficient financial standing to offer an adequate guarantee to the victim, but is the name of a large store;
> (c) that the product is "anonymous", i.e. it does not indicate the name of either the manufacturer or the distributor'.[41]

Article 2 of the EEC directive is almost identical to

the Strasbourg provision. One difference, however, is that the term 'importer' is used in the directive to mean persons who import into the Community and thus inter-EEC importers would not incur strict liability.

The proposals of the two Law Commissions and the Pearson Commission closely reflect those in the Strasbourg Convention.[42]

(D) Liability of Retailers

Each of the proposals would exclude retailers from the scheme of strict liability except in respect of own brand products and anonymous products where the retailer did not disclose the identity of his supplier within a reasonable time. This latter extension of liability will cause some anxiety to all suppliers, who will now require to maintain full records of their sources in order to escape liability under the Act. However, it will be realled that sellers are already strictly liable to buyers under the Sale of Goods Act 1979.

The reasoning given in explanation of the EEC Directive's provision for excluding retailers from the regime is typical of the view taken by all of the bodies:

'Liability on the part of dealers in defective

products, of the type provided for in this directive, would indeed make it easier for the injured consumer to claim his rights. This would however be achieved at a high cost, since every dealer would have to insure himself against claims even in respect of products which are almost completely free of risk. This would lead to a sharp increase in the price of the products ... there is no reason to make the dealer liable since in the overwhelming majority of cases he passes on the purchased product in unchanged form, and therefore has no opportunity to affect the quality of the goods'.[43]

(E) Liability of Employers

None of the proposals sought to alter the present liability of an employer in respect of defective products used at work, except that an employer would be a supplier and so if he could not name the producer, importer or own brander , or name his own supplier, then the employer would incur liability. Given the existence of the Employer's Liability (Defective Equipment) Act 1969 this slight change will have little impact.

'Product' and persons liable under the 1987 Act

(A) 'Product'

Section 1(2) of the Act defines the term product to mean

> 'any goods or electricity and (subject to subsection (3) below) includes a product which is comprised in another product, whether by virtue of being a component part or raw material or otherwise'.

The interpretation section (s45(1)) defines 'goods' as including

> 'substances, growing crops and things comprised in land by virtue of being attached to it and any ship, aircraft or vehicle'.

Some of the terms used in the definition of goods are themselves subject to further definition. Thus, 'aircraft' includes gliders, balloons and hovercraft; 'ship' includes any boat and any other description of vessel used in navigation; and 'substance' means any natural or artificial substance, whether in solid, liquid or gaseous form or in the form of a vapour, and includes substances that are comprised in or mixed with other goods. Vehicle is not defined. 'Things comprised in land by virtue of being attached to it' is, in Scotland, a reference to moveables which have become heritable by accession to heritable property.**[44]**

An initial observation about the term product is its apparent breadth of meaning. A comparison with some of the other statutes which define goods serves to illustrate this. Section 61(1) of the Sale of Goods Act 1979 provides that

> 'goods includes all chattels personal other than things in action and money, and in Scotland all corporeal moveables except money; and in particular "goods" includes emblements, industrial growing crops, and things attached to or forming part of the land which are agreed to be severed before sale or under the contract of sale'.

Section 17 of the Statute of Frauds 1677 defines goods as

> 'goods, wares and merchandizes'.

According to the Bills of Sale Act 1878 section 4, goods are

> 'personal chattels'.

Under the Merchant Shipping Act 1894, section 492

> ''goods' includes every description of wares and merchandise.'

The Fair Trading Act 1973, in section 137(2) speaks of goods as including

> 'buildings and other structures, and also includes ships, aircraft and hovercraft, but does not include electricity.'[45]

The major consequence of the breadth of meaning ascribed to the term product is that, despite the statute's short title of the Consumer Protection Act 1987, Part I's scheme of strict liability will have a wider application than to consumer goods. As noticed earlier, major disasters stemming from for example chemicals or aircraft could well be litigated under the Act. This is of course the American experience where chemical defoliants, (such as Agent Orange) asbestos, and toxic wastes have posed challenging questions for courts in product liability cases.

A further consequence of this breadth of meaning may be that injuries which in the past would not have triggered a product liability claim may now do so. For example, the capsize of a roll-on roll-off ferry may, result in a claim based on design defectiveness against the producers rather than, or in addition to, any allegation of operator negligence.[46]

The extension of the term goods to include moveables which have become heritable by accession to heritable

property is of some interest. This clearly covers moveable items such as window frames, pipes, and central heating systems which have been incorporated into heritage. In this way the Act implements Article 2 of the Directive. Further, building materials themselves fall within the definition. It would also appear that the definition covers moveable structures which have been affixed to land. This would cover not only fixtures within the normal meaning of that term but would also, arguably, include attached structures such as the swings and roundabouts of a children's play park, or the structure and equipment of a ski-lift.

One final matter which has caused some anxiety is the position of those who produce printed textbooks, manuscripts and the like. In their Explanatory and Consultative Note the DTI stated

> "Special problems arise with those industries dealing with products concerned with information, such as books, records, tapes and computer software. It has been suggested, for example, that it would be absurd for printers and bookbinders to be held strictly liable for faithfully reproducing errors in the material provided to them, which - by giving bad instructions or defective warnings - indirectly causes injury. It does not appear that the Directive is intended to extend liability in such

situations. On the other hand, it is important that liability is extended to the manufacturer of a machine which contains defective software and is thereby unsafe, and to the producer of an article accompanied by inadequate instructions or warnings, the article thereby becoming a hazard to the user. The line between those cases may however not be easy to draw, particularly in the field of new technology where the distinction between software and hardware is becoming increasingly blurred."[47]

The anxiety of the printing industry is that incidents such as that involving a textbook on chemicals, published in 1979, could recur and could trigger liability under the Act. In the textbook a proportion between two chemical elements was stated as 2:30 rather than 2:3 and there was a major explosion in a school as a result.[48] Publishers' anxiety will not be eased by looking to the meaning of the terms product and produce, for both are clearly wide enough to include textual errors in published works. Nor would the industry be particularly comforted by the Minister's statement that

"it seems to us reasonably clear that the Directive does not apply to mis-statement"[49].

This view rests in the rather metaphysical distinction

between written words and other products, a distinction which U.K. courts may or may not be prepared to recognise. However, given the conservative treatment of liability for mis-statements under current negligence law, it is to be expected that a cautious approach will be taken.

The exemption of game and agricultural produce from strict liability.

Section 2(4) of the Act exempts from the Act's scheme of liability, any game or agricultural produce which has not undergone an industrial process. 'Agricultural produce' means any produce of the soil, of stockfarming or of fisheries. Game is not defined. This provision purports to implement the directive. But, Article 2 of the Directive states that

> "Primary agricultural products means the products of the soil of stockfarming and of fisheries, excluding products which have undergone initial processing" (my emphasis).

However, the preamble to the Directive speaks of it being appropriate to exclude liability for agricultural products and game, except where they have undergone processing of an industrial nature which could cause a defect in these products.

A wide range of processing goes on in the food industry. For example, milk is pasteurised; grain is milled; meat is slaughtered and butchered; prior to slaughter, animals are injected with a variety of chemicals for a variety of purposes; vegetables and fruit are sprayed with pesticides, fungicides and insecticides; meat and vegetables are frozen; game is plucked. Which of these are industrial processes? That question is not answered in the definition section of the Act, a matter which caused Lord Denning to observe

> "...but what is an industrial process?...it is so vague and uncertain that it will give rise to all sorts of litigation" [50]

and

> "... I can see this exception giving rise to no end of legal problems and uncertainties .. I can see no end of argument about these cases" [51]

The nearest statutory usage to industrial process is that in the Clean Air Act 1968 section 1(5) which speaks of 'industrial or trade process'. This is not defined and the only case [52] on the matter is of no assistance in the present context. Judicial interpretation of "process" indicates that a continuous and regular operation carried on in a definite manner is required [53]

The government's view was expressed at the Committee Stage in the Lords. [54]

> "The test is twofold. First, there must have been processing, and for processing to take place some essential characteristic of the product must have been altered ... Moreover, the process must be an industrial one - that is, it must be carried on in a large and continuing scale and with the intervention of machinery".

This view is reasonable, but a court may not be convinced that some essential characteristic of the product must have been altered or that the scale of the operation must be large.

What then is the effect of this exemption for game and agricultural produce? Every other member state is set to take a similar line to that in the new Act. Thus, in policy terms, our farmers will not be at a competitive disadvantage, which, it was agreed, would have resulted had there been no exemption. However, the net effect of the exemption is to pass liability for defective foodstuffs on to those further along the chain of supply. Those who freeze or can foods, for example, could be held liable for defects caused by pesticide residues. It is true that the pesticide producer would still be liable if pesticide was itself defective. However, if it has been used in the wrong

concentration or on the wrong product then it will not be defective. This leaves the injured person to pursue the farmer in negligence. Here, one of the government's own arguments in favour of the exemption of primary agricultural products proves to be rather a two edged sword. It was agreed that one reason for the exemption was that it is difficult to trace the producer of primary agricultural products, especially when bulk supplies are mixed. But where does this leave the injured person? Quite apart from establishing negligence, he will be faced with the almost impossible task of tracing the producer.

Unhappily, the exemption for primary agricultural products must be viewed as a victory for the very strong EEC and UK farmers' lobbies over the interests of food consumers. Problems with misuse of fertilisers, pharmaceuticals and pesticides are becoming increasingly apparent and it is suggested that time will show this exemption to have been misconceived. That it had to be achieved by preferring the preamble of the directive to the wording of an article therein makes the motive of the legislators all the more suspect.

(B) The chain of liability

As noted in Chapter 1, persons other than the producer of a product may incur liability under the new regime.

The Act achieves this in two ways: firstly by giving in Section 1 an extended definition to the term producer, and secondly, by establishing, in Section 2, the range of persons who may be liable and the circumstances in which a mere supplier can have liability visited upon him. Section 1(2) states:

> '"producer", in relation to a product means -
> (a) the person who manufactured it;
> (b) in the case of a substance which has not been manufactured but has been won or abstracted, the person who won or abstracted it;
> (c) in the case of a product which has not been manufactured, won or abstracted but essential characteristics of which are attributable to an industrial or other process having been carried out (for example, in relation to agricultural produce), the person who carried out that process.'

Thus, manufacturers, those who win or abstract raw materials or other substances, and those who process other products can be liable. Again the wording leaves room for interpretation by our courts. What does 'essential characteristics' mean? What is an 'industrial or other process' (and why not just 'a process')?

Section 2 goes on:

'(1) Subject to the following provisions of this Part, where any damage is caused wholly or partly by a defect in a product, every person to whom subsection (2) below applies shall be liable for the damage.

(2) This subsection applies to:

(a) the producer of the product;

(b) any person who, by putting his name on the product or using a trade mark or other distinguishing mark in relation to the product, has held himself out to be the producer of the product;

(c) any person who has imported the product into a member State from a place outside the member States in order, in the course of any business of his, to supply it to another.'

Section 2(2)(b) is designed to catch 'own-branders' of goods but could worry others, for example, retail pharmacists who may supply a prescription drug with a label bearing the pharmacist's name. It is suggested, however, that such a person does not hold himself out to be the producer. The position of importers into the EEC is clear from section 2(2)(c) but this will raise some interesting conflict of laws issues including those generated by the Civil Jurisdiction and Judgements Act 1982. What is the position of a UK consumer who has been injured by a defective product which was imported into the EEC by a German importer?

Can the injured person sue in a UK court or must resort be made to the legal system of the importer? Under the 1982 Act it is possible to sue the importer in the state of his domicile or in the state in which the harm occurs. Judgments given in one state are, in general, ~~unforeseeable~~ enforcible in all the others. Similarly, what is the position where a product is manufactured in an EEC country, then exported outwith the EEC, and then imported back again? Here it would seem that both the producer and the importer incur liability (jointly and severally) and again interesting conflicts questions arise, including those regarding contribution and recourse between the producer and the importer.

The inclusion of own-branders and importers in the chain of liability creates serious new burdens for such businesses. It is arguable that the increased insurance costs caused by the new regime of strict liability will have the greatest incidence on own-branders and importers.

Section 2(3) is relatively straightforward and achieves its aims in a fairly succinct manner. It states:

> "Subject as aforesaid, where any damage is caused wholly or partly by a defect in a product, any person who supplied the product (whether to the person who suffered the damage, to the producer of any product in which the product in question

is comprised or to any other person) shall be liable for the damage if-

(a) the person who suffered the damage requests the supplier to identify one or more of the persons (whether still in existence or not) to whom subsection (2) above applies in relation to the product;

(b) that request is made within a reasonable period after the damage occurs and at a time when it is not reasonably practicable for the person making the request to identify all those persons; and

(c) the supplier fails, within a reasonable period after receiving the request, either to comply with the request or to identify the person who supplied the product to him."

What this provision does is to visit, upon all of those who supply products, the threat of strict liability for product defects. That threat can be obviated by identifying either a person within subsection 2 - producer, certain own branders, or importer into the EEC, - or the person who supplied to the supplier. The aim of the provision is clear but the questions of reasonable period and reasonable practicability are eminently litigable.

A large range of persons are caught by the definition of supply in section 46 of the Act:

> (1) Subject to the following provisions of this section, references in this Act to supplying goods shall be construed as references to doing any of the following, whether as principal or agent, that is to say -
> (a) selling, hiring out or lending the goods;
> (b) entering into a hire-purchase agreement to furnish the goods;
> (c) the performance of any contract for work and materials to furnish the goods;
> (d) providing the goods in exchange for any consideration (including trading stamps) other than money;
> (e) providing the goods in or in connection with the performance of any statutory function; or
> (f) giving the goods as a prize or otherwise making a gift of the goods and, in relation to gas or water, those references shall be construed as including references to providing the service by which the gas or water is made available for use.

It would appear from s46(1) that private sellers, lenders and donors are all suppliers and hence could incur liability under the Act. Section 46(5) seems to confirm this:

"Except in Part 1 of this Act references in this Act to a person's supplying goods shall be confined to references to that person's supplying goods in the course of a business of his, but for the purposes of this subsection it shall be immaterial whether the business is a business of dealing in the goods".

Thus far the rather strange spectacle of, for example, a person being liable in respect of a defective lawnmower loaned to a neighbour, or a relative being liable in respect of a defective toy gifted to a child, has been conjured up. However, section 4(1)(c) quells the anxieties of the private seller, lender or donor, by providing that it will be a defence to show that the following conditions are satisfied, that is to say -

"(i) that the only supply of the product to another by the person proceeded against was otherwise than in the course of a business of that person's; and
(ii) that section 2(2) above does not apply to that person or applies to him by virtue only of things done otherwise than with a view to profit ..."

Thus, many private transactions or arrangements will fall outside the Act's provisions.

The chief impact of section 2 will be to cause all suppliers (as defined) to maintain records of their own sources of supply, and in order to allow the prescriptive period to expire, those records should go back for ten years. This will present an onerous extra task for many small suppliers, a large majority of whom will either not be insured or will be under-insured and hence unable to meet a product liability claim. Like the general need for record keeping which this Act creates, there will be difficulties of document retention and storage. The fact that many modern methods of storing information have limited lives will create a temptation to store information on computer, leading to interesting questions as to the admissibility of evidence when the record is produced for use in a case.

Section 1(3) contains an important provision on the liability of suppliers under the Act:

> 'For the purposes of this Part a person who supplies any product in which products are comprised, whether by virtue of being component parts or raw materials or otherwise, shall not be treated by reason only of his supply of that product as supplying any of the products so comprised'.

This somewhat enigmatic provision was inserted in order

to alleviate the position of a supplier who would otherwise incur liability under s2(3) if he could not identify the person who supplied the product to him. Specifically, it deals with the situation in which a supplier can identify his source in respect of the finished product but cannot identify (and it would of course be wholly unreasonable to expect him to do so) the suppliers of component parts or raw materials which are comprised within that finished product. Let us suppose that I buy a computer which has a defective piece of electronic circuitry, thus causing a fire. Assume that for some reason the producer of the computer is not worth pursuing (for example, where he has gone out of business of has much more limited resources than the producer of components). Were it not for s1(3) the retail supplier would be liable if he could not identify the supplier of the defective component.

On a cursory reading, it might appear that section 1(3) has the effect of enabling a producer to avoid liability for component parts in his product, which would defeat a major aim of the legislation - that of making producers liable both for finished products and components therein. However, the key words are 'shall not be treated by reason only of his supply of that product'.[55] The producer of a finished product has not merely supplied a product, he has produced it and hence is liable for defects in it or in its components.

The subsection also has an effect on the identification of the time when the product was supplied. Where a finished product contains a defective component part then there are two defective products and two times of supply: the time of supply of the finished product and the time of supply of the component part. Which time of supply is to operate for the purposes of for example, prescription, or for the purposes of the defence given in s4(1)(d): 'that the defect did not exist at the relevant time'? It would seem that the effect of s1(3) is that the time of supply of components is the time of their supply by the component manufacturer rather than their supply by the producer of the finished product. If this is correct then, if one sues the producer of a finished product which is defective because of a defective component, the time of supply will be the time of supplying the component part rather than the supply of the finished product. This is certainly the view taken by the Lord Advocate [56]:

> "If Clause 1(3) were removed, the effect would be that the relevant time as far as the manufacturer or importer is concerned would be the time when he supplied the product rather than when it was supplied by the component manufacturer. So one would have two different dates for determining whether there was a defect in a component, depending on who was sued. That cannot make any

sense at all."

Section 2(3)(a) hints at a real loophole for the unscrupulous producer, own-brander or importer: exploitation of the ease and inexpensiveness with which limited liability can be acquired. Clearly, the subsection allows the supplier to escape liability if he can point to his source, whether or not it is still in existence. But that raises the wider issue - how many will form the classic £100 company as a vehicle for the marketing of defective or doubtfully safe products? It has been argued that some foreign traders who sell in the UK market will be tempted, as of course will some indigenous rogues. Company law is notoriously inept at dealing with abuse of the separate corporate personality and limited liability principles.[57] It is difficult to imagine that the provisions of the Insolvency Act 1986 [58] as to wrongful trading could be invoked to provide any assistance here. Similarly, the 'fraudulent trading' [59] exception to the separate personality concept would not seem capable of being stretched to the situation envisaged above. The existing case law on sham or puppet companies,[60] on the use of separate personality as a device to evade a contractual or other obligation, [61] and on the use of companies as agents for holding companies or others,[62] does not afford a great deal of hope of the courts being prepared to lift the veil on the situation outlined above.

The danger of a subsidiary company being used as a vehicle for the production of questionably safe products is clear. Equally well recognised is the inability of the present law to cope with the situation:

> "If one subsidiary company is insolvent, there is nothing, beyond the pressure of public and market opinion, to prevent the holding company from putting it into liquidation and leaving its creditors to whistle for their money notwithstanding that the group as a whole is fully solvent."[63]

Gower's view has been echoed by Schmitthoff, who spoke of

> "...the danger of the parent company carrying out speculative and risky transactions through a wholy owned subsidiary in another country.... If the speculation miscarries it is tempting for the parent to allow the wholy owned subsidiary to be liquidated on the ground of insolvency. That would mean that the parent, the actual <u>dominus</u> of the speculation, would escape unscathed and the creditors of the subsidiary would suffer loss."[64]

In Woolfson v. Strathclyde Regional Council [65] the House of Lords affirmed the Inner House's view that

> "it is appropriate to pierce the corporate veil only where special circumstances exist indicasting that it is a mere facade conceding the true facts". [66]

Thus, it seems that some development would be required in order that the law could cope with those who seek to avoid liability for product defects by trading through a shell company. It might be contended that this is not a problem peculiar to product liability and that it is applicable throughout the law of obligations. In answer, it is suggested that product liability may well provide the most important challenge here, especially if the insurance difficulties, which some predict, eventually transpire. There are some solutions which could be suggested - including compulsory insurance for product liability, liability of parent companies for debts of their subsidiaries, and personal liability of company directors for all torts of their companies - but none of these can be considered likely in the foreseeable future. Rather, a more imaginative and robust attitudes by our courts towards lifting the veil of incorporation is required.

Section 2(5) restates the now general common law approach in joint fault:

> "Where two or more persons are liable by virtue of this part for the same damage, their liability shall be joint and several".

Similarly, existing rights of contribution and recourse are preserved by Section 6.

The US Position-some comparisons.

(a) Products

For many years it seemed that strict liability in the US was applicable to product-caused harms and that, subject to the usual exceptions, negligence applied elsewhere. This apparently preferential position of product liability has been subject to some erosion, in the sense that strict liability has been extended beyond the accepted meaning of product. Thus, concept of product has been extended to incorporeal property [67] and even to land [68]. Phillips [69] sums up the position thus:

> "Products law has been applied to leases, bailments, licences, and in the transfer of goods where no transfer of property interest is contemplated. There is an ermerging trend to apply strict products liability law to occupiers of business premises. The law is being extended

> to testers, franchises, licensees, and it may well soon include mere advertisers. Similarly, the providers of professional services - doctors, lawyers, architects and like - may be brought within the penumbras of product law".

Perhaps the most challenging questions which product liability has posed for the American legal system as a whole are those raised by the so-called toxic torts. Litigation arising from for example use of the defoliant agent orange, from asbestos, toxic wastes and cigarettes, has strained the US tort system and raised the crucial question about whether after acquired information should be used to evaluate product safety. It is interesting to notice that only some of these toxic torts would ground strict liability under the U.K. regime. Clearly, the definitions of product and producer in the 1987 Act will not permit the kind of expansion of product liability to which Phillips adverts. In particular, strict liability for toxic wastes will not arise under our new regime. Article 11 of the directive speaks of liability being confined to those who

> 'put into circulation the actual product which caused the damage'

and Article 7 provides a defence that

> 'the product was neither manufactured by him for sale or any other form of distribution for economic purpose nor manufactured or distributed by him in the course of his business'.

The Act implements these provisions of the directive in the definition of supply (section 46). Also, section 4(b) provides a defence

> "that the person proceeded against did not at any time supply the product to another',

while section 4(c) (as noted earlier) gives a defence where the product is supplied other than in the course of business by someone who is not the producer, own brander or importer, or if he is the producer, own brander or importer, that he was not acting with a view to profit. The effect of these provisions is to exclude from the Act's scheme of liability all injuries due to by-products such as toxic wastes (unless those are supplied with a view to profit) and all injuries caused by products which have not been put into commercial circulation [70]. Thus, persons injured by toxic wastes such as chemicals which are dumped, or those injured in a trial of a product fall outside the Act. These apparent anomalies are the necessary result of any system which imposes a particularised regime of stricter liability, and which thus has to draw boundaries by the use of concepts such as product,

producer, defect, supply, and which uses, as the vehicle for change, statute rather than common law.

There is, however, one other divergence of approach to the question of 'products' between the US and the U.K. regime which ought, albeit briefly, to be considered. As noted, many courts follow s402A of the Restatement (Second) on Torts. For present purposes the important wording is

> "One who sells any product in a defective condition unreasonably dangerous ..."

These words make it clear that strict liability is contingent upon there having been a sale of a product rather than the supply of services, the latter situation being usually a negligence rather than strict liability issue.

Of the types of case in which US courts have made the products/services distinction three are the most striking: the supply of human blood; the supply of pharmaceutical services and the supply of information [71].

Cases on the supply of human blood products are controversial and indeed infamous, in particular the Cunninghame decision, adverted to elsewhere 72], which rejected the unknowability of the defect as a defence

to a strict liability claim. Some jurisdictions have applied s402A's strict liability to blood suppliers [73] while others have characterised the supply of human blood as a service [74], hence attracting negligence rather than strict liability. But the vast majority of states have solved the problem by legislation to the effect that the supply of human blood is a service rather than a sale. This has been done on policy grounds, including the fear that the availability of medical services might be adversely affected by the imposition of strict liability. For example, the California Court of Appeal [75] in deciding whether or not the supply of blood products to a haemophiliac who had died after contracting AIDS from the product attracted strict liability, applied the state legislation [76] to the effect that the manufacture or supply of a blood product was the rendition of a service.

Legislation has not solved the products/services question in other spheres, and it has been left to the courts to proceed on an ad hoc basis. So where plaintiffs have sought to have strict liability imposed upon, for example, pharmacists, some courts have felt able to differentiate pharmacists from other retailers, finding the former to have supplied a service [77]. A leading recent illustration from the California Supreme Court is Murphy v. R R Squibb and Sons, Inc. [78] in which a plaintiff sought to hold a pharmacist strictly

liable for loss caused by the defective drug, DES. However it is suggested that the reasoning of the court in finding a distinction between pharmacists and other retailers was rather contrived since it rested on the characterisation of pharmacists as professionals. This in itself may be true but when dispensing drugs their activity is chiefly retail rather than advisory. Take the example of a customer who wishes to purchase a proprietary cold remedy from a pharmacist. It would seem wholly illogical to subject the pharmacist to strict liability if he remains silent, but to liability in negligence if he proffers his advice.

The difficulties inherent in the legal treatment of information are exacerbated in the context of information technology. Should manufacturers of computer software be viewed as supplying a product and hence be subjected to strict liability standards? This matter has not yet arisen before the appellate courts in the US [79] but in some 'information product' cases strict liability has ben applied. For example, in Fluor Corp. v Jeppeson, Inc. [80]where an airport instrument approach chart did not designate a hill, which was the highest point in the area, the chart was held to be a product for the purposes of strict liability. The primary reasons for the court's decision were that the charts were mass-produced, unlike information supplied 'under individually-tailored service agreements' [81], and that the policy reasons underlying strict

liability, in particular the need to afford protection from manufacturing defects, should be considered in deciding whether something is a product[82]. Accordingly, the catastrophic nature of the potential harm was significant.

It is to be expected that any Federal legislation on product liability would retain the need for the sale of a product [83] rather than a service, and would exclude human tissue, organs and blood products from the definition of product [84].

This products/services dichotomy is also important in UK law, for example in deciding whether or not the Sale of Goods Act 1979 applies to a particular transaction. Oft cited problem cases include the manufacture and supply of false teeth made to order [85], the supply of food in a restaurant [86], the manufacture to specification of a ship's propellor [87] and the supply and fitting of roofing tiles [88]. There have of course been more clear-cut cases, such as Robinson v. Graves [89] in which the painting of a portrait was not a sale of goods. In contract, the supply of services is generally governed in England by the Supply of Goods and Services Act 1982. There is no Scottish equivalent, and so in Scotland resort will usually be made to the common law. In delict however no product/services dichotomy exists. It is of course true that Lord Atken's dictum in Donoghue uses the term

'product' but the general principles of negligence liability have been interpreted as covering the whole range of production related negligent acts [90]. What, then, is the positon under the Consumer Protection Act 1987? The answer to this question lies principally in an understanding of the terms 'producer' and 'own-brander', and of the meaning of the term 'supply'. The former set of terms were explained earlier. In the present context it is clear that, for example, someone who repairs a product will not be included in the definition of producer. Similarly, the product's designer will be excluded, assuming that he is not also the manufacturer or own brander. Those who recondition products would fall into the category of producers if their activity could be construed as manufacture of the products. Those who install or fit products manufactured by others will not be producers unless the installation or fitting is into some other finished product: such a person will be liable as an own brander only if he has held himself out as producer. Difficulties may arise in some cases however: if, in the example above of the potrait, the paint was defective as a result of materials mixed by the artist, would he be regarded as the producer of a product? It is difficult to avoid an affirmative answer to this question.

Thus, many persons performing services will be excluded from primary liability under the new rules. However,

they will often be caught as suppliers of the product and hence liable unless they can identify the producer, importer or own brander [91]. The definition of supply was given earlier, but it is worth noticing that those who hire goods or perform any contract for work and materials to furnish the goods are suppliers. In summary, one who performs services using products manufactured by another will not be liable (except as own brander or importer) unless, as supplier, on failure to identify the producer, own brander or importer.

By way of illustrating the application of the new rules let us take the three US examples quoted earlier. Human blood, blood products and derivatives, organs etc are certainly products within the meaning of section 1(2). Leaving aside the metaphysics, who is the producer? According to section 1(2)

> 'in the case of a substance which has not been manufactured but has been won or abstracted, the person who won or abstracted it' [92].

Thus, the health authority would be liable for loss caused by defective blood although the development risks [93] defence may apply in some cases. The health authority would not be able to use the defence in section 4(1)(c); it would have been acting 'in the course of a business' since section 45 defines business

as including

> 'a trade or profession and the activities of a professional or trade association or of a local authority or other public authority'.

The position of the pharmacist is fairly straightforward and has been alluded to elsewhere [94] - he will not be a producer unless he manufactures products; he will not be an own brander simply by putting his name on a product; he may of course be an importer; like other retailers he may incur liability as a supplier. There is no room, it is suggested, for the US products/services dichotomy in relation to pharmacists in the U.K.

Product liability problems posed by 'information' products were also mentioned earlier [95]. Clearly, loss caused by reliance upon the written word may trigger liabliity for mis-statement, but the printed page is a product and the publisher is its producer. It will take some nimble footwork for the U.K. courts to find an escape route for the publisher of written works such as computer software. Courts will certainly be tempted to find an exception for 'information products', as the separate treatment of mis-statements at common law shows. The approach of some of the U.S. courts, based upon the mass-produced nature of the information, and the policy reasons behind the common

law development of strict liability, is quite convincing. Books and magazines are, however, also mass produced, and it would not be open to a U.K. court to invoke policy reasons for avoiding the application of the statute. It may well be the case that the exclusion of such things from the scheme of strict liability is not by means of the definition of product, but is on the basis that they were not defective or that the the pursuer was contributorily negligent in relying upon the information. Arguably, however, Lord Denning's familiar marine hydrographer [96] who omits a reef from a published chart causing a ship to sink, will not be liable in negligence but the publishers may find themselves liable under the 1987 Act.

(b) The Chain of Liability

Most of the states in the US now recognise some form of strict liability for defective products, and many have expressly adopted the provisions of section 402A of the Second Restatement of Torts. This provision imposes strict liability on those who engage in the business of selling a defective product. Among the states which have enacted or introduced product liability bills based on s.402A are Alabama, Arkansas, California, Connecticut, Florida, Hawaii, Idaho, Illinois, Kansas, Louisiana, Minnesota, Montana, Nevada, North Carolina, North and South Dakota, Oklahoma, Oregon, Pennsylvania and Texas. However proposals for a Federal product

liability statute are being discussed and if these are accepted there will be a retreat back to negligence in design defect and warning cases.

Comment C to s402A gives the justification for the imposition of strict liability on those in the marketing enterprise:

> "on whatever theory, the justification for strict liability has been said to be that the seller, by marketing his product for use or consumption, has undertaken and assumed a special responsibility towards any member of the consuming public who may be injured by it; that the public has the right to expect and does expect, in the case of products which it needs and for which it is forced to rely upon the seller, that reputable sellers will stand behind their goods; that public policy demands that the burden of accidental injuries caused by products intended for consumption be placed upon those who market them, and be treated as a cost of consumption against which liability insurance can be obtained; and that the consumer of such products is entitled to the maximum protection against injury at the hands of someone and the proper persons to afford it are those who market the products."

Comment F to the section goes on to identify those persons engaged in the business of selling whom the provision perceives to be strictly liable:

> "The Rule stated in this section applies to any person engaged in the business of selling products for use or consumption. It therefore applies to any manufacturer of such a product, to any wholesale or retail dealer or distributor, and to the operator of a restaurant..."

Judicial acceptance of 'enterprise' liability.

The idea that the manufacturer, and others in the distributive chain, should be liable in respect of a defective product has long been recognised in American courts. Examples of manufacturer's liability have been cited earlier. American Optical Company v. Weidenhamer [97] provides an illustration. A lathe operator who sustained an eye injury when safety glasses shattered during use recovered damages from the manufacturer. There had been a small warning notice wrapped around the nosepiece of the glass which had stated that the glasses were not unbreakable and should be checked for pitting and scratching before use. The warning had been removed, by another, before the glasses were given to the plaintiff. This removal was held to be inconsequential since the warning was deemed to have been inadequate.

There can be no doubt that the majority of product liability claims in the US are raised against the manufacturer of the defective product - research indicates that 87% of product liability payments stem from claims made against manufacturers [98] but there is also a clear body of case law which supports the imposition of liability on others in the production and marketing chain.

The liability of component manufacturers in negligence follows similar principles to those applied in this country. Thus, in Pabon and Hackensack Auto Sales v. Ford Motor Company [99], a claim in negligence against Ford, relating to defects in a ball bearing assembly, was dismissed on the ground that ...

> "latent defects, not discoverable by reasonable inspection methods, will not result in the liability of the assembler or supplier."[100]

However, there is a 'growing body of case law' which does not limit the manufacturer's liability in such circumstances, taking the view that the discoverability of the defect is not a material factor [101]. Such decisions certainly seem more consistent with the trend towards strict liability, although the commentary to section 402A remains ambivalent on the question of whether responsiblity shifts to the assembler.

In any event, the component producer will be required to indemnify the producer of the finish product. Recent examples of component manufacturer's paying such compensation include: payment of damages where aerosol spray cans were rendered valueless by defective spray valves [102]; payment of expenses to a soup manufacturer who had to withdraw the product because of contaminated noodles[103]; and compensation for loss of profits and injury to reputation of a tennis racket manufacturer resulting from defective racket frames. [104] In many such cases, pure economic loss wil have been suffered by the plaintiff, causing recovery in tort to be difficult if not impossible, and recovery in contract to be at the mercy of contractual devices such as exclusions or limitations of liability.

Wholesalers, distributors and middlemen have likewise been subjected to liability. As in this country, liability will not arise, in negligence, if the distributor was not required to test or inspect the product and had no knowledge of its defectiveness [105]. However, these considerations obviously do not apply under a strict tort theory of liability. Thus, in Canifax v. Hercules Powder Company [106] the wholesaler was liable for loss caused by dynamite caps which had a short-burning fuse, having failed to warn of this characteristic. Liability was imposed notwithstanding the fact that the wholesaler did not directly supply the goods (indeed he never took

possession of them) but had simply passed the order on to the manufacturer.

Suppliers who hold out products as their own ('own branders') are expressly deemed to incur the same liability, in negligence, as manufacturers by section 400 of the Second Restatement of Torts. Under strict tort any retailer, as a member of the producing and marketing enterprise, can find himself liable. Thus, in Vandermark v. Ford [107] Traynor C.J. stated that

> "Retailers like manufacturers are engaged in the business of distributing goods to the public. They are an integral part of the overall producing and marketing enterprise that should bear the cost of injuries resulting from defective products. In some cases, the retailers may be the only member of that enterprise reasonably available to the injured plaintiff."

Similarly, in Chappius v. Sears [108] a retailer was held to be strictly liable for failing to warn of dangers inherent in the use of a chipped hammer. The court felt that the retailing enterprise had the power to control the quality of products which it bought for re-sale.

Other defendants

Applications of strict liability outside the field of the selling and marketing of moveables can also be found in US judgments. In a number of cases, car-hire firms have been held liable, in respect of defects in vehicles hired[109]. The Supreme Court of Pennsylvania cited the following reasons for the imposition of strict liability on such lessors:

> "(1) In some instances the lessor, like the seller, may be the only member of the marketing chain available to the injured plaintiff for redress. (2) As in the case of the seller, imposition of strict liability upon the lessor serves as an incentive to safety. (3) The lessor will be in a better position than the consumer to prevent the circulation of defective products. (4) The lessor can distribute the cost of compensating for injuries resulting from defects by charging for it in his business, ie by adjustment of his rental terms."[110]

Builders of heritable property (real-estate) have also been subjected to strict liability. In Schipper v. Levitt [111] for example, the builder-vendor was liable for injury suffered by a young child caused by the defective installation of a hot water system.

Employers, on the other hand, are usually exempt from a strict liabiity action. This arises from the 'exclusive

remedy' rule in relation to work-related injuries which has been incorporated in all state workers' compensation statutes. Broadly speaking, the rule is that state compensation is the sole remedy available from the employer. Common-law tort claims against employers ceased to exist following the incorporation of the rule [112]. However, in recent years some claims against employers have succeeded. These are the so-called 'dual capacity' suits in which the employer is also the manufacturer and where, therefore, the exclusive remedy rule can be circumvented. [113]

The virtual elimination of employers' common law liability, coupled with the inadequacy of workers' compensation, was probably the single most influential factor in the development of strict liability in tort. Employees who were dissatisfied with state compensation pursued the manufacturers of defective products in order to 'top-up' the state's award. What began as a 'top-up' measure has burgeoned into a massively important area of litigation.

Successor Corporation liability and Market Share Liability.

(a) Successor Corporation liability

Some ten years ago, American courts began to recognise a form of liability which has now become quite widely

recognised and which is usually described as successor corporation liability. This term is used to refer to the situation resulting from a takeover, merger or sale of assets in which a successor business becomes liable for loss caused by defective products marketed by its predecessor. It has been said [114] that the key characteristics of a successful successor corporation claim are (a) an exchange of predecessor assets for successor stock; (b) dissolution of the predecessor shortly after the exchange; and (c) the successor continuity of employees and management . The basic justification for imposing liability commonly is continuity. [115 In Ortiz v. South Bend Lathe [116, Fleming J. (who perhaps lacks the eloquence of Lord Cooper) summed up the situation in vivid terms:

> "Product liability today has become an integral part of a manufacturing business and the liability attaches to the business like fleas to a dog, where it remains imbedded regardless of changes in the ownership of the business."

In Ray v. Alad Corp. [117], the court identified policy reasons for the imposition of successor corporation liability: firstly, the remedy which the plaintiff would have had against the predecessor business is no longer available, usually because of its dissolution; secondly, the defendant as successor corporation had the resources to assume the risk spreading role of the

original manufacturer; and, thirdly, the defendant, having benefited from the predecessor's goodwill in continuing to produce the same goods, should properly bear the burden of loss caused by previous goods. These considerations have continued to guide courts in successor corporation cases [118] and indeed in some cases courts have applied successor corporation liability where some of the basic characteristics, listed above, were absent [119]. Thus, in some cases, the requirement that assets be exchanged for stock has been ignored;[120] in others, the requirement that the predecessor be dissolved [121] has been dispensed with and the need for management and/ or employee continuity has been questioned.[122]

There is currently some doubt as to the limits of the doctrine of successor corporation liability, and the cases have proceeded on rather an ad hoc basis. It is clear, however, that in some states it is simply not imposed, even where the predecessor's assets are used by the successor to produce the same product. Also, most courts continue to insist that the basic characteristics, mentioned earlier, are present before alowing a claim and most courts also require that the same product is produced by the successor. Thus, it can be concluded that the law on successor corporation liability in the US is in an embryonic state and as yet no viable and consistent principles have been established.

If the American position is embryonic, the UK law is not yet in utero; the question of successor corporation liability for predecessor torts simply has not arisen before UK courts. The reason for this is that in the UK, because of the transaction costs, the most common method for transferring control of a business is the take-over bid, agreed or contested, by which shares in the target company are acquired either for cash or in exchange for shares in the offeror company[123]. Hence, the target company will commonly remain as a separate legal entity and thus be liable inter alia for its own past torts including the manufacture of defective products. However, it is possible for the target company to be extinguished as a legal entity or, indeed, for two companies to merge into a new company. Take, for example, what Palmer's company law describes as 'a very popular method of amalgamation'. [124]

> "Companies E and F want to amalgamate. A new company, E (Holdings) is formed. E (Holdings) issues shares to the shareholders in E and F in exchange for their shares in E and F. The former shareholders in E and F thus become holders of shares (credited as fully paid) in E (Holdings). E and F are then dissolved and E (Holdings) alters its name to E. The amalgamation is complete."

What then is the position of those (who could be

described as involuntary creditors) who have tort claims against the original E or against F in respect of a product marketed prior to dissolution? On creditors generally, Palmer offers the following view [125]

> ".. their position is that they remain creditors of the transferor company, and have all the rights against that company that their debts confer. It will normally be part of the arrangement that the transferee company agrees to meet the liabilities of the transferor company and gives an indemnity to this effect or, alternatively, that the transferor company retains sufficient assets to meet its liabilities".

But what if the 'normal' indemnity is not given, or does not cover tort liabilities, or the assets retained by the transferor company are insufficient to meet tort claims? Similarly, if one company sells assets and goodwill, rather than shares, to another and this results in the dissolution of the former, where do tort victims stand?

The key issue is, of course, whether the predecessor company dissolves. As indicated above, this does happen in some takeover or merger situations. If it does happen, then tort claimants against the dissolved

company have no remedy in the absence of an indemnity which, can be construed as covering tort liabilities.

(b) Market share liability

One of the most fascinating departures from traditional tort principles in US product liability law is the so called 'market share' liability for product defects.

This form of liability, which is particularly likely to arise in 'mass tort' claims (i.e. where many have been injured by a defective product) is derived from a decision of the California Supreme Court in 1980: Sindell v Abbott Laboratories [126], in which liability was imposed, severally (it seems), on producers of a defective drug without proof of causation and on the basis of percentage of market share. The case was a class action concerning the drug Diethylstilbestrol (DES), a synthetic oestrogen used to prevent miscarriage, which can cause cancerous vaginal and cervical growths, occasionally fatal, in daughters exposed to it while in utero. These cancerous growths are of the type adenocarcinoma, which until the 1970's was rare, and which manifests itself at the earliest 10-12 years after birth, and commonly more than 20 years later. It seems that somewhere between 200 and 300 companies actually produced DES although in the present case only five of the major producers were involved as defendants at the final stage. The court

considered an earlier case, Summers v. Tice [127], in which two defendants, who had each fired shotguns in the direction of the plaintiff, were held jointly and severally liable for the resulting harm even though it was impossible to establish whose gun caused the injury. The court shifted the burden of proof of causation to the defendants, effectively obliging each to establish that his act was not the cause of the harm. In Sindell, the court considered that it could not apply the Summers ratio, since in Summers the harm had certainly been caused by one of the defendants while in Sindell it was not clear that any of the five defendants had actually produced the particular pills which had caused the injury. Thus, in Summers the person repsonsible was being made liable, while in Sindell the producer of the offending substance may have escaped all liability. Nevertheless, the court in Sindell was prepared to find all the defendants prima facie liable[128].

> "But we approach the issue of causation from a different perspective: we hold it to be reasonable in the present context to measure the likelihood that any of the defendants supplied the product which allegedly injured the plaintiff by the percentage which the DES sold by each of them for the purpose of preventing miscarriage bears to the entire production of the drug sold by all for that purpose. Plaintiff asserts in

her briefs that Eli Lilly and Company and 5 or 6 other companies produced 90 per cent of the DES marketed. If at trial this is established to be the fact, then there is a corresponding likelihood that this comparative handful of producers manufacture the DES which caused plaintiff's injuries, and only a 10 percent likelihood that the offending producer would escape liability...

The presence in the action of a substantial share of the appropriate market also provides a ready means to apportion damages among the defendants. Each defendant will be held liable for the proportion of the judgment represented by its share of that market unless it demonstrates that it could not have made the product which caused plaintiff's injuries. In the present case, as we have seen, one DES manufacturer was dismissed from the action upon filing a declaration that it had not manufactured DES until after plaintiff was born. Once plaintiff has met her burden of joining the required defendants, they in turn may cross-complaint against other DES manufacturers, not joined in the action, which they can allege might have supplied the injury-causing product".

The court concluded that

> "... under the rule we adopt, each manufacturer's liability for an injury would be approximately equivalent to the damages caused by the DES it manufactured"..[129]

What are we to make of such an approach to causation? For a start, there are, as the court conceded, practical problems in defining the market and the market share. As Teff notes [130],

> "some companies were major national suppliers of DES; others operated only in a regional market, and their respective shares may have varied considerably over time and from place to place".

These certainly are difficult obstacles, but it seems that the court would absolve from liability those producers whose product could not have been used by the plaintiff, for example, where it could not have been obtained from the source from which she obtained it, or where the producer only commenced manufacture after the injury was sustained [131]. It must be presumed, however, that such producers will be liable in respect of other plaintiffs, since in such other cases they will be unable to disprove the presumption of causal link. There will also be major difficulties in applying the court's criterion that a 'substantial percentage' of the producers should be joined in the action. A

further question, upon which the majority of the court were silent, concerns the nature of liability but it would seem quite unreasonable for it to be joint and several.

It is clear that the inability of a plaintiff to identify the producer of the offending product will increasingly feature in product liability cases of the 'mass tort' or 'toxic tort' type. Can Sindell be justified as the proper judicial response in such circumstances? Hart and Honore say of the decision [132]:

> "Hence in effect the court dispenses with the need to prove fault and causal connection and instead treats the manufacturers of the drug as collectively insuring in proportion to the market share of each, those who suffer harm after using the drug".

It is with some reluctance that one seeks to differ from such learned contributors to the causation debate, but their view of Sindell seems lacking in sophistication. Firstly, as Hart and Honore state [133] recovery of damages in Sindell was 'on the basis of strict products liability'. In such cases a court must dispose with the need to prove fault. The criterion for liability is defectiveness and all DES is defective. Thus, unless Hart and Honore are using

'fault' to connote some unusual meaning, that part of their critique is untenable. They then go on to assert that the need to prove causal connection is dispensed with. Of course, in traditional terms this is quite true, but there is a wider dimension in which causality can be examined. As stated earlier, DES has a proven propensity to cause harm - any DES is a defective product. The actual harm which is finally manifested should therefore be borne by all of those who produced the defective product, since every producer of DES has caused harm to some users. Thus, it is suggested that in the particular circumstances of the case - an unidentifiable producer of a particular defective product which has a proven propensity for harm - market share liability was a novel and just solution. It may not be causation in the traditional sense, but the probabilistic form of causation espoused by the Sindell court was a sensible solution to a challenging causation issue. It may be agreed that insurance for market share liability will be prohibitive, but the law is not the handmaiden of the insurance industry, which in any event seems to have coped with Sindell.

Conclusion

At the outset it should be clearly stated that the new U.K. regime of strict liability has, in general, achieved the correct balance with its provisions on 'product' and persons liable. However, as we have

seen, in some respects the provisions remain open to criticism.

Any particularised scheme of liabilities brings in its train definitional problems. Although the Act gives a wide meaning to the term product, the production and sale of heritage, of incorporeal moveables and of 'pure' services will fall outside the scheme of liability; nevertheless, the full range of goods and substances falls within the statutory definition, including moveables incorporated into heritage and products supplied with services. In general, the definition of product is satisfactory and there should be little scope for litigation in which pursuers seek artificially to fit their claim into the new regime; the boundaries are quite clearly drawn.

In the course of the many debates which have taken place both in the European Community and in the U.K. own Parliament, virtually every industry has had its official or unofficial spokesman indulge in special pleading. Wild claims of all kinds of blight and hindrance being caused inter alia to the aerospace industry, pharmaceutical producers, pharmacists and the farming community have beem aired. In the main, the directive which gave rise to the new Act stuck to its principles and applied strict liability across the board, with the notable exception of primary agricultural products and game. Despite the arguments

marshalled in favour of this exception (some cogent, others of doubtful worth) the deviation from the principle of strict liability which it represents, is unfortunate, introducing unnecessary ambiguity, particularly in relation to the enigmatic notion of 'industrial process'. The agricultural produce exception is even less acceptable when set against the fact that the more meritorious claim for exemption for pharmaceuticals was (and, on balance, rightly) rejected.

In these anxious times it is very tempting to allow an exemption for pharmaceutical products in order than innovation is not inhibited. But, as the Pearson Commission pointed out [134], drugs are relatively common causes of injury. Since the Pearson Report this has continued to be so. Primodos, Eraldin, Debendox, and benzodiazepine sleeping pills such as Halcion have all been challenged as unsafe. Massive litigation over Opren is threatened. In July of this year an American court awarded $95M damages to a victim of the drug Benedictin [135]. This accident rate associated with pharmaceuticals demonstrates a need for the imposition of strict liability on drug producers. The new rules will not unduly inhibit innovation, as is shown by the experience of West Germany (where a statute imposing strict liability for pharmaceuticals came into effect in January 1978) and of the United States.

It was noticed earlier that the majority of US jurisdictions do not impose strict liability where human blood, organs or blood derivatives are involved. There may be forceful policy reasons in the US for this derogation, but these do not apply in the U.K. Private agencies in America are involved in the distribution of blood products while in Britain the overwhelming majority of distribution is in the hands of public authorities who are well placed to meet liability claims.

Grey areas remain. There are bound to be some attempts by suppliers to argue that services are being performed rather than products being manufactured or supplied. However, the new Act leaves much less scope for such an argument than there is in the United States. As noted, information products are also likely to cause difficulties in the application of the new rules. While the Americans are prepared to impose strict liability in cases involving such products (for example, the aircraft approach chart), UK law has not moved much beyond the non-liability rule exemplified in Lord Denning's hypothetical of the marine hydrographer [136]. It is true that a foreseeability and reasonable reliance test, as used in some of the cases involving accountants [137], could lead to liability in the hypothetical case, but 'floodgates' fears still run strong. The legislation should have clarified the position on information products; the minister's rather

woolly statement

> "it seems to us reasonably clear that the Directive does not apply to mis-statement" [138]

is not based on firm enough ground.

Difficulties with imposing liability on a range of persons have been addressed earlier. The new rules will have quite a marked impact in this regard, since the general principles of negligence liability would preclude a finding of fault where a reputable manufacturer had been used or where inspection by the distributor was impossible. One immediate effect of the new provisions will be to cause distributors and retailers to maintain full records of their sources, undoubtedly a burden, but a necessary one, on the smaller business.

The imagination of judges in the United Kingdom is likely to be severely tested if the abuse of limited liability and separate personality which some predict actually transpires. Similarly, successor corporation liability and market share liability may be held up as examples for U.K. courts to follow[139]. There are no simple answers to the questions raised by these difficult areas but the experience in the United States could provide guidance for our judiciary.

One question which arises from the treatment of importers is why the Act imposes liability upon importers into the EEC rather than into an individual Member State. The answer would appear to be that the legislators have faith in the Civil Jurisdiction and Judgments Act 1982 as a vehicle for pursuing and enforcing successful judgments. It will be of interest to see whether or not this faith has been misplaced.

An underlying difficulty with both the common law on this area and the new statute is that neither is based wholly on a particular policy aim. As regards the common law this is perhaps understandable. It is, however, less excusable in relation to a set of legislative provisions. Rather than identify a particular aim for the strict liability regime each set of proposals for change to a strict liability system proceeded in a fragmented fashion, sometimes arguing that the protection of the consumer is the paramount interest, at other times taking the ultimate cost as the crucial criterion.

The treatment by the various proposers of a central theme of all the recommendations - the 'channelling' of liability towards the real producer vindicates this contention. Each set of proposals sets up channelling as the aim but goes on to reach a compromise between that and a form of enterprise liability, thus depriving the channelling argument of much of its cogency. As

has been noticed, the manufacturer of the finished product is to be primarily liable, but a host of others can be rendered responsible. So, component manufacturers, importers, 'own branders', distributors and retailers may find themselves liable. The Scottish Law Commission, perhaps the firmest adherent to the channelling argument, came closest to the application of the same criterion to all of those in the production chain. But it is suggested that the criterion which the Commission applied - the minimisation of the economic effects of product liability - was wrong; surely the proper policy aim in this area must be accident prevention.

If accident prevention is taken to be the goal then any new regime should involve the likely imposition of a penalty (in the form of compensation) on any person who creates the risk by marketing a defective product. A real chance of this penalty being imposed would then have a deterrent effect, causing the producer to pay more attention to product safety and thus reduce the number of accidents.

Clearly, the Act, in accordance with the proposals for change, is correct in seeking to impose liability primarily on the producer. If this could be done in all cases then the accident prevention aim would be realised. All of the proposals recognise that in some circumstances it may be difficult or impossible to

render the real risk-producer liable and would in such cases make others liable. It is conceded that in doing so the proposals go a considerable way along the road of accident prevention since the imposition of liability on some others in the distributive chain - who could then seek an indemnity from the manufacturer - furthers the 'deterrence' aim. It could be suggested, however, that the Act does not go far enough, and that all of those in the manufacturing and marketing chain (including distributors and retailers - even where they can identify their sources) should be subject to strict liability in respect of defective products which they sell. The effect of this would be to create an economically motivated safety consciousness amongst all product sellers. On the positive side, distributors and retailers, having been required to compensate an injured party, would exercise a contractual right to an indemnity, thereby effecting the transfer of the responsiblity to the ultimate producer. However, as the proposals point out, a broader scheme of liability involves a concomitant increase in costs.

This economic argument is the main plank in the case against strict liability being imposed upon distributors and retailers and will be examined shortly. Firstly, there is the 'fairness' point - it is wrong and unfair to impose liability on persons who have not created a risk, and so retailers and

distributors should be exempted from strict liability. One response to this is that retailers and distributors who market defective products are contributing to the creation of the risk.

There is, however, a more cogent point. The policy aim is accident prevention rather than simply fairness. Further, existing legal rules in the area of product liability are not grounded in fairness. For example, sellers are strictly liable in contract, despite the fact that they have not created the risk and all those in the marketing chain can be strictly liable under the consumer safety legislation irrespective of culpability. Arguments such as those caused the Ontario Law Reform Commission to recommend that all in the chain of supply should incur strict liability.

On the 'costs' front, the point is often made that a product liability crisis like that in the United States (where, as has been noticed, all members of the marketing enterprise may find themselves liable) would arise here if we adopted a strict liability scheme. The validity of this argument is brought into question when it is remembered that other causal factors, for example, awards of punitive damages, contributed to the high levels of compensation paid in the U.S. Moreover, the fact that the Interagency Task Force Report on product liability in the U.S. did not identify the breadth of liability as a crisis-causing factor,

indicates that the range of potential defendants is not really a problem. Despite this, however, the current drafts of proposed federal legislation would impose liability on product sellers only if negligent, or in breach of an express warranty, and the seller could be subjected to similar liability to that imposed upon manufacturers only where the manufacturer responsible is outwith the jurisdiction or is 'judgment-proof'[140].

The principal theme of the economic argument against a broad spectrum of liability is that, since all in the marketing chain would have to insure against liability and since ultimately the public would have to pay for the strict liability regime, there will be an unconscionable rise in product prices. This, it is claimed, would put British manufacturers at a competitive disadvantage and would fuel inflation. However, spokesmen from the insurance industry have stated that, since the average cost of product liability premiums is so small, an increase in insurance costs would not significantly affect product prices [141]. Commenting on the U.S. position, the Interagency Task Force Report states that

> "... the alleged product liability insurance crisis has not resulted in a substantial increase in the cost of products". [142]

It seems then that the broad scheme of liability introduced by the 1987 Act will not seriously affect prices.

The argument that all those in the producing and marketing enterprise should incur strict liability is a strong one. All product sellers are already strictly liable in contract and under consumer safety legislation. Presumably insurance is carried for these risks. Widening this insurance provision to cover injury to non-purchasers would be the effect of a strict liability regime. Arguably, there would be no significant increase in costs. In effect, product sellers would be in the same position as employers are under present law - strictly liable in respect of risks they have not actually created. Although superficially inequitable, such a change could be argued to be a majaor step towards the furtherance of the primary policy aim - accident prevention. In any event, a sense of justice would be preserved by the existence of contractual and delictual rights of indemnity. Further, product sellers and distributors would have an incentive to monitor the safety aspects of products which they stock, and would cease to deal with unreliable producers, thus furthering policy aims.

Why then does our new regime impose strict liabiity on distributors and sellers only where original producers cannot be identified? The answer, it would seem, is

that notions of culpa still lurk, albeit at some depth, in the philosophy behind the new rules. There is great force in the argument that the primary creator of the risk should, in delict, bear a greater burden than that borne by the agency of its distribution.

REFERENCES - Chapter 3.

1. Winterbottom v Wright (1842) 10 M & W 109.

2. Ibid, per Alderson B. at 115.

3. 12 July 1978, Q.B.D. See discussion in Miller and Harvey, Consumer and Trading Law Cases and Materials, (Butterworths, 1985.) at 159 et. seq.

4. See Miller and Lovell, Product Liability, Butterworths, 1977, at 197, 200-201, 227.

5. [1936] 1 All E.R. 283.

6. See Miller and Lovell, op. cit., at 284 et. seq.

7. [1978] 1 Ll. Rep. 610., aff. [1982] A.C. 225.

8. Ibid, at 624.

9. 1982 S.C. (H.L.) 244.

10. See discussion in Chapter 6 infra.

11. Watson v Buckley, Osborne, Garrett & Co. Ltd. [1940] 1 All E.R. 174.

12. 1903 6 F. 210.

13. Ibid.

14. As in Frost v Aylesbury Dairy Co. [1905] 1 K.B. 608.

15. 1938 S.C. 778.

16. 1959 S.C. 604.

17. Ibid, at 645-6.

18. Section 1.

19. See Coltman v Bibby [1987] 1 All. E.R. 932.

20. Cmnd. 7054 (1978) para. 1213.

21. These cover, inter alios, nightdresses, heaters, electric blankets, cosmetics, toys, fireworks, upholstered furniture, and asbestos products.

22. Part II of the Act, implementing the proposals set out in the White Paper "The Safety of Goods", Cmnd.

9302, July 1984.

23. See discussion in Chapter 1.

24. Explanatory Report para. 27.

25. Ibid, para. 28.

26. Explanatory memorandum accompanying first draft Directive, III.3. See Bulletin of the European Communities, Supplement 11/76.

27. Art. 4 (as amended).

28. Explanatory Memorandum. Art. 2.

29. Cmnd. 6831 (1977) para. 125 (h).

30. Ibid, para. 66-96.

31. Cmnd. 7054 (1978) para. 1241-2.

32. See Chapter 1, infra

33. Ibid.

34. Cmnd. 6831 (1977), para. 86.

35. Cmnd. 7054 (1978) para. 1246.

36. Cmnd. 6831, (1977) para. 53.

37. Ibid, para. 64.

38. Cmnd. 7054 (1978) para. 1273.

39. Ibid, para. 1276.

40. Cmnd. 6831 (1977) para. 77-82.

41. Explanatory Report para. 29.

42. Cmnd. 6831 (1977) para. 102-3 and Cmnd. 7054 (1978) para. 1244.

43. Explanatory Memorandum. Article 2.8.

44. Section 45(5).

45. See also, Merchandise Marks Act 1887 s3(1); Factors Act 1889 s1(3); Trading Stamps Act 1964 s10; Theft Act 1964 s34(2)(b); Carriage of Goods By Sea Act 1971 Sched., Art. 1.; Consumer Safety Act 1978 s9(4).

46. See Clark, The Herald of Free Enterprise - A

Defective Product?, 137 NLJ 891 (1987).

47. Para. 47.

48. This incident was referred by Clement Freud M.P. at the Committee stage of the Bill in the House of Commons: Daily Report 13 May 1987, col. 364.

49. Ibid. See also col. 366.

50. Section 1(2). The definition raises the interesting question of whether those vegetables grown by a method known as hydroponics, which does not involve any actual soil, are within the meaning of "agricultural produce."

51. Official Report, Fifth Series, Lords, Vol. 482, col. 1039. See also Official Report, Fifth Series, Lords, Vol. 483, col. 721.

52. Sheffield City Council v A.D.H. Demolition [1984] L.G.R. 177.

53. See e.g. Kilbride v William Harrison 26 B.W.C.C. 197; Vibroplant v Holland [1982] 1 All. E.R. 792.

54. Per Lord Lucas of Chilworth, Official Report, Fifth Series, Lords, Vol. 483, col. 737.

55. My emphasis.

56. Official Report, Fifth Series, Lords, Vol. 483, col. 751.

57. See e.g., Whincup, Inequitable Incorporation, 2 Co. Law. 158 (1981).

58. s214 Insolvency Act 1986.

59. s213 Insolvency Act 1986.

60. E.g., Re F and G (Films) Ltd. [1953] 1 W.L.R. 483.

61. E.g., Gilford Motor Co. v Horne [1933] Ch. 935 (C.A.); Jones v Lipman [1962] 1 W.L.R. 832.

62. See the judgment of Atkinson J. in Smith, Stone snd Knight Ltd. v Birmingham Corporation [1939] 4 All. E.R. 116.

63. Gower, Principles of Modern Company Law, (Stevens 1979) at 120.

64. Schmitthoff, The Wholly Owned and the Controlled Subsidiary 1978 J.B.L 218 at 221.

65. 1978 S.L.T. 159.

66. At 161.

67. Halstead v U.S. 535 F.Supp. 782 (D.C. Conn. 1982). For discussion of whether aircraft instrument approach charts are products see: Brocklesby v United States 753 F.2d. 794 (9th Cir. 1985); Fluor Corporation v Jeppeson & Co. 170 Cal. App. 3d. 468, 216 Cal. Rptr. 268 (1985).

68. Avner v Longridge Estates 272 Cal. App. 2d. 607, 77 Cal. Rptr. 633 (1969). See also, Becker v IRM Corp., 38 Cal. 3d. 454, 213 Cal. Rptr. 213 (1985) for an application of strict liability to landlords.

69. Phillips, The Status of Products Liability Law in the United States of America, Conference paper presented to S.P.T.L. Colloquium, Sept. 1984.

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71. See generally, The Expanding Applicability of Strict Liability Principles: How is a Product Defined?, 22 Tort and Ins. L.Jnl. 1 (1986).

72. See discussion in Chapter 2.

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74. E.g. Perlmutter v Beth David Hospital 308 N.Y. 100, 123 N.E. 2d. 792 (1954); Shephard v Alexian Bros. Hosp. Inc. 33 Cal. App. 3d. 606, 109 Cal. Rptr. 132 (1973).

75. Hyland Therapeutics v Superior Court 175 Cal. App. 3d. 509, 220 Cal. rptr. 590 (1985).

76. Cal. Health and Safety Code para. 1606 (West 1979).

77. See e.g. Batiste v American Home Prods. Corp., 32 N.C. App. 1, 231 S.E. 2d. 269 (1977); Bichler v Willung 58 A.D. 2d. 331, 397 N.Y.S. 2d. 57 (1977).

78. 40 Cal. 3d 672, 710 P.2d. 247, 221 Cal. Rptr. 447 (1985).

79. Walker op. cit., at 12.

80. 170 Cal. App. 3d. 468, 216 Cal. Rptr. 268 (1985).

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82. _Ibid_, under reference to _Lowrie v City of Evanston_, 50 Ill. App. 3d. 376.

83. See for example, H.R. 1115, 100th. Cong., 1st. Sess., 133 Cong. Rec. E 930. (daily ed. April 28 1987).

84. See for example, H.R. 5214, 97th. Cong. 1st Sess., 127 Cong. Rec. H 9529 (daily ed. Dec. 14 1981). Section 8(4) states thet the term 'product' does not include human tissue, organs, or human blood and its components.

85. _Samuels v Davis_ [1943] K.B. 526.

86. _Lockett v A.M. Charles Ltd._ [1938] 4 All E.R. 170.

87. _Cammel Laird & Co. Ltd. v Manganese Bronze and Brass Co. Ltd._ [1934] A.C. 402.

88. _Young and Marten v McManus Childs_ [1969] 1 A.C. 454.

89. [1935] 1 K.B. 597.

90. See e.g. _Herschtal v Stewart and Arden Ltd._ [1940] 1 K.B. 155; _Malfroot v Noxel Ltd._ (1935) 51 T.L.R. 551; _Howard v Furness Houlder Argentine Lines Ltd._ [1936] 2 All E.R. 781.

91. See section 2(3) Consumer Protection Act 1987.

92. This raise the interesting question of whether the Health Board can incur vicarious liability for the negligent acts of a consultant surgeon, whose relationship with the Board may not be one of employment.

93. See Chapter 6 _infra_.

94. See Chapter 1 _supra._

95. See text accompanying notes 47-49 _supra_.

96. In _Candler v Crane, Christmas & Co._ [1951] 2 K.B. 164, 183.

97. CCH Prod. Liab. Rep. para. 8670. (C.A. 4 Ind.)

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99. 164 A.2d. 773 (N.J. Sup. Ct. 1960).

100. _Ibid_, at 782. See also Miller and Lovell, _op._

122. See Phillips, op. cit., n114 supra.

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124. 8 Edit. 1987 para. 80-05, example 4.

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127. 33 Cal. 2d. 80, 199 P.2d. 1 (1948).

128. 26 Cal. 3d. 588, at 611-2.

129. Ibid.

130. Op. cit, at 843.

131. Indeed the suit against one manufacturer in Sindell was dismissed on this latter ground.

132. Causation and the Law, 2nd. edit., at 424.

133. Ibid.

134. See n38 supra and accompanying text.

135. Financial Times 16/7/87.

136. See n96 supra and accompanying text.

137. See Chapter 6 infra.

138. See n49 supra.

139. In perhaps the same fashion as Lord Atkin who in Donoghue commended the approach of the court in McPherson v Buick Motor Co. 217 N.Y. 282 (1916).

140. S.2760 99th. Cong. 2d. Sess. section 302(f).

141. See Editorial, 76 Law Soc. Gazette, June 1979.

142. Interagency Task Force on Product Liability, U.S. Dept. of Commerce, Final Report of the Legal Study, (1977).

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102 Pittway Corp. v American Motorists Ins. Co. , 370 N.E. 2d. 1271 (Ill. 1977).

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104. Hamilton Die Cast, Inc. v U.S. Fidelity and Guaranty Co. 508 F.2d. 417 (7th Cir. 1975).

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111. 44 N.J. 70, 207 Atlantic 2d. 314 (1965).

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113. See Risk Management, Dec. 1982.

114. See Phillips, Successor Corporation Liability, 58 N.Y.U.L.Rev. 906 (1983); Roe, Mergers, Acquisitions and Tort: A Comment on the Problem of Successor Corporation Liability, 70 Va. L.Rev. 1559 (1984).

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116. 120 Cal. Rptr. 556 (1975).

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118. See e.g. Harnandez v Johnson Press Corp. 388 N.E. 2d. 778 (1979); Johnson v Marshall and Hushart Machinery 384 N.E. 2d. 142 (1978).

119. See generally, Phillips, op. cit., n69 supra.

120. Ray v Alad Corp. n117 supra.; Turner v Bitum. Cas. Co. 397 Mich. 406, 244 N.W. 2d. 873 (1976).

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CHAPTER 4

THE ROLE OF WARNINGS IN PRODUCT LIABILITY

The question of whether or not potential dangers or defects inherent in the use of a product have been brought to the attention of the user by an adequate warning or set of instructions for use, is an important aspect of product liability law. Many product liability claims have focused upon this issue, and have involved an allegation that a manufacturer has failed to warn of a defect or danger. It is clear that this emphasis on warnings will continue in a strict liability regime. As one commentator notes:

> "The popular solution to every alleged design defect problem seems to be 'Warn against it'. Like mother's chicken soup it is the panacea for all ills"[1]

He goes on later to assert:

> "The trial of a products liability case under a

> failure to warn theory may appear to be the simplest approach. Indeed, this is something of a trend in product liability law"[2]

Thus, the role of warnings in product liability law should not be under -estimated. In this chapter that role is examined in detail. It will be argued:

(a) that in the United States, despite the advent of strict liability and the much-vaunted "product liability crisis" (allegedly caused by strict liability), cases based on failure to warn are not tried under proper strict liability principles (even where the court purports to apply strict liability) but under principles of negligence. The result of this is that after more than twenty years of strict liability, on the failure to warn issue U.S. law is for most jurisdictions really no stricter than our own; and

(b) that, notwithstanding this lack of progress, there are a number of difficulties inherent in using the failure to warn ground of liability which will probably be exacerbated under a strict liability regime in this country, and which should cause our judges to tread warily when dealing with litigation in this area.

A Comparison Between U.S. and U.K. 'Failure To Warn' Cases

This section comprises a comparison of U.S. and U.K. law on the failure to warn issue, in order to show that after, and notwithstanding, the advent of strict liability in the U.S., there are no major differences in principle between the two regimes. In the course of the discussion, recent U.S. litigation on the treatment of knowledge acquired by the producer after distribution of his product is discussed.

The producer's knowledge of the danger

(a) General principles

In both the United Kingdom and the United States liability in negligence for failure to warn exists only in respect of dangers which the manufacturer knew, or ought to have known, about.[3] There can be no liability where the danger is scientifically undiscoverable or unknowable since the duty is only to take only reasonable care. In any event, it would seem logically absurd to impose liability on a manufacturer for failing to warn of a danger about which he could not have known.

One of the leading authorities on failure to warn is Vacwell Engineering Ltd. v. BDH Chemicals Ltd. [4] The defendants supplied the chemical boron tribromide to Vacwell in glass ampoules labelled 'harmful vapour'. It was not known to the suppliers

that the chemical reacted violently with water. A scientist accidently dropped an ampoule into a sink containing other ampoules and the resulting explosion killed him and caused great damage to the plaintiff's factory. The manufacturers were held to have been negligent in failing to give an adequate warning of the dangerous properties of the chemical, which had been pointed out in scientific journals and therefore ought to have been known. Liability was imposed both in tort and in contract (under s14 Sale of Goods Act 1979). It is clearly established that this contractual liability is strict and that B.D.H. would still have been liable had the dangerous properties of the chemical been unknown and undiscoverable.[5] Another example is Fisher v Harrods Ltd.[6], in which retailers were found liable for failing to warn of the dangers occasioned by a jewellery cleaning fluid coming into contact with the eyes.

Given the tenets of strict liability, one would expect this aspect of the distinction between liability in negligence and in contract to be mirrored in the distinction in American law between negligence and strict liability. In negligence the principle is the same as in U.K. cases; liablity is imposed in respect of all "foreseeable latent product risks" [7] which have not been adequately warned against. At first sight, it might be thought that strict liability in tort would be applied to the failure-to-warn situation.

Section 402A of the Restatement (Second) of Torts purports to do just this: Comment J states that:

> "in order to prevent the product from being unreasonably dangerous the seller may be required to give directions or warnings on the container as to its use".

However, the comment goes on effectively to return to negligence by introducing the concept of foreseeability: the seller must warn

> "if he has knowledge, or by the application of reasonable, developed human skill and foresight should have knowledge of the presence of the danger".

Thus, even under the strict liability principles of s402A attention is focused on the conduct of the manufacturer as in negligence and not on the product, as a strict liability regime logically requires. This was clearly illustrated in Karajala v Johns-Manville Products Corp. [8] where the court stated that failure to warn leads to

> "liability for damages under strict liability in tort ... Of course a manufacturer is only required to warn of foreseeable dangers".[9]

Similarly, the Illinois Appellate Court found that there was no duty to warn of the possibility of "severe and persistent welting" caused in some users by an aerosol spray, unless the manufacturer knew or had reason to know that a substantial number of the population was allergic to the product.[10]

Nevertheless, U.S. courts have from time to time imposed true strict liability in failure to warn cases. In Berkebile v Brantly Helicopter Corp. [11], for example, the plaintiff claimed, inter alia, that a failure by helicopter manufacturers properly to warn of safety procedures to be carried out following engine failure had caused her husband's death. The court stated:

> "It must be emphasised that the test of the necessity of warnings or instructions is not to be governed by the reasonable man standard. In the strict liability context we reject standards based upon what the 'reasonable' consumer could be expected to 'foresee' ... Rather, the sole question here is whether the seller accompanied his product with sufficient instructions and warnings to make his product safe"[12].

But this case is illustrative of the exception rather than the rule. In the vast majority of cases, while purporting to apply strict liability principles the

courts have held that a manufacturer is liable only for a negligent failure to warn.[13] There is therefore little authority to support the conclusion drawn by Miller and Lovell,

> ".... other cases have insisted that considerations of reasonable foresight and fault are irrelevant and that the sole question is whether the defendant marketed his product with sufficient instructions and warnings to make it safe ..... it seems likely that this test of objective safety will prevail", [14]

Rather, the cases support the conclusion drawn by Kidwell, that

> "the intrinsic nature of the duty to warn does not differ between negligence and strict liability theories".[15]

In the context of warnings, this question of the distinction between negligence and strict liability has been extensively litigated in New Jersey. That litigation will now be examined.

(b) The Beshada-Feldman Split: "All the King's horses ...."

The question arises whether strict liability should

apply, on failure to warn grounds, where the manufacturer could not have known of the dangers of his product. In Beshada v Johns-Manville Prods. Corp.[16] the Supreme Court of New Jersey answered this question in the affirmative, finding a manufacturer of asbestos liable for loss caused by the product. But, just two years later, in Feldman v Lederle Laboratories [17] the same court answered the same question in the negative. Thus, asbestos manufacturers in New Jersey were subjected to strict liability irrespective of whether the dangers could have been known, while drug manufacturers were, in Feldman, bound to warn only of known dangers. This line of litigation has very recently visited the United States Court of Appeals [18] where the asbestos manufacturers claimed that the New Jersey Supreme Court's decisions unconstitutionally discrimate among categories of civil litigants because no rational basis for the discrimination can be posited, and that by failing to give adequate reasons for its action the state court violated the Due Process Clause of the Fourteenth Amendment.

The modern roots of the Beshada - Feldman clash can be traced to the New Jersey Supreme Court's decision in Freund v Cellofilm Properties, Inc. [19] where the court explained the difference between a failure to warn claim based on strict liability and a failure to warn claim based on negligence. Under either heading, a manufacturer will be liable where,

> "given the dangerousness of the product, the manufacturer's failure to provide warnings was unreasonable.
> The failure to provide warnings will be found unreasonable if warnings would have made the product safer".[20]

In New Jersey, the appropriate questions to be asked are therefore: (1) does the utility of the product outweigh its risk? and (2) if so, has that risk been reduced to the greatest extent possible consistent with the product's utility? [21] Cases based on failure to warn fit into this second category - effectively the plaintiff is arguing that

> "regardless of the overall cost-benefit calculation the product is unsafe because a warning could make it safer at virtually no added cost and without limiting its utility".[22]

However, the court in <u>Freund</u> affirmed the distinction between negligence and strict liability as regards the manner in which the manufacturer's knowledge of the product's dangerousness is to decided:

> "when a plaintiff sues under strict liability, there is no need to prove that the manufacturer knew or should have known of any dangerous propensities of its product - such knowledge is

imparted to the manufacturer".[23]

Although Freund itself did not explicitly assert that a state of the art defence cannot be invoked in a strict liability failure to warn case, later courts have found such a defence to be logically incompatible with the Freund decision.[24]

In Beshada v Johns - Manville Prods. Corp.[25] the sole question was whether the defendants in a strict liability case based on failure to warn could avail themselves of a state of the art defence by asserting that the danger of which they failed to warn was undiscovered at the time the product was marketed and that it was also undiscoverable given the state of scientific knowledge at that time. Beshada was six consolidated cases against manufacturers and distributors of asbestos products, where it was alleged that asbestosis, mesothelioma and other asbestos related illnesses had been contracted as a result of exposure to asbestos. There was a substantial factual dispute about what the defendents knew and exactly when they knew it, and as will be noticed this knowledge issue became of paramount importance in the Federal appellate court. However, the court in Beshada felt that it need not resolve the factual issues raised and predicated its decision on the assumption that the defendant's version of the facts was accurate (i.e. that the dangers were unknown and unknowable at the

relevant time). Having reviewed the authorities, including Freund supra, the court rejected the defendants' arguements that a warning was not possible within the meaning of the Freund requirement that risk be reduced "to the greatest extent possible", and similarly rejected the contention that the imputation of knowledge which Freund asserted related only to knowledge of the product's dangerousness that existed at the time of manufacture.

Thus, the court held that

> " a state of the art defense should not be allowed in failure to warn cases".[26]

The court went on to assert that state of the art is essentially a negligence defence which seeks to explain why defendants are not culpable for failing to provide a warning, but that in strict liability cases culpability is irrelevant:

> "when the defendants argue that it is unreasonable to impose a duty on them to warn of the unknowable they misconstrue both the purpose and effect of strict liability. By imposing strict liability, we are not requiring defendants to have done something that is impossible. In this sense, the phrase "duty to warn" is misleading. It implies negligence concepts with their attendant focus on the

reasonableness of defendant's behaviour. However, a major concern of strict liability - ignored by defendants - is the conclusion that if a product is in fact defective, the distributor of the product should compensate its victims for the misfortune that it inflicted on them.

If we accepted defendants' argument, we would create a distinction among fact situations that defies common sense. Under the defendants' reading of Freund, defendant would be liable for failure to warn if the danger was knowable even if defendants were not negligent in failing to discover it. Defendants would suffer no liability, however, if the danger was undiscoverable, but, as Dean Keeton explains, "if a defendant is to be held liable for a risk that is discoverable by some genius but beyond the defendant's capacity to do so, why should he not also be liable for a risk that was not as great but was discoverable by anyone?"".[27]

Satisfied on legal grounds with their decision the court went on to deal with what in its view was the most important question: whether the imposition of liability for failure to warn of dangers which were undiscoverable at the time of manufacture advances the goals and policies sought to be achieved by strict liability [28]. Policy aims such as risk spreading,

accident prevention and avoidance of difficulties in fact finding, led the court to the firm conclusion that liability ought to be imposed:

> "Although victims must in any case suffer the pain involved, they should be spared the burdensome financial consequences of unfit products. At the same time, we believe this position will serve the salutary goals of increasing product safety research and simplifying test trials .... We impose strict liability because it is unfair for the distributors of a defective product not to compensate its victims. As between those innocent victims and the distributors, it is the distributors - and the public which consumes their products - which should bear the unforeseen costs of the product".[29]

In this way, Beshada represents a staunch adherence to a fundamentalist doctrine of strict liability, untrammeled by negligence ideas. It should be noticed that the decision was not intended to be limited to asbestos cases - it applied to all product liability suits. Later decisions, it will be observed have sought to restrict Beshada to asbestos. Despite the court's indication that language such as 'duty to warn' is inapposite in a strict liability context, the decision attracted severe criticism for its apparently contradictory finding of a need to warn of unknown

dangers. Ironically, two commentators whose works were cited with approval in Beshada were among the decision's fiercest critics: Wade spoke of the courts appearing

> "to be straining too hard in their efforts to develop a different standard of product actionability for strict liability actions"

and went on to warn of potential insurance problems.[30] Page described the policy bases of the Beshada decision as

> "weak justification(s) for a narrower rule of strict liability" [31]

Other commentators found the decision

> "unjustifiable on grounds of logic and public policy", [32]

and

> "indefensible ... if our only goal is compensation, we should not handle products liability cases through the tort system".[33]

In an attempt to overturn the effect of Beshada, a bill was introduced in the New Jersey legislature, but was

never enacted.[34] The torrent of criticism generated by the decision helped to cause the New Jersey Supreme Court to depart from Beshada at an early opportunity.

The occasion arose in Feldman v Lederle Laboratories. [35] In brief, the facts were that a child suffered grey discolouration of the teeth consequent upon the use of a tetracycline antibiotic. In an action based upon strict liability for failure to warn, the Feldman court refused to follow Beshada, and stated

> "We do not overrule Beshada, but restrict Beshada to the circumstances giving rise to its holding".[36]

The exact meaning of this rather enigmatic statement has perplexed later judges, but its major impact has been to restrict the Beshada decision to asbestos cases. The court in Feldman decided that in 'warning' cases available knowledge is a relevant factor in measuring the reasonableness of the manufacturer's conduct.

The key question is

> "Did the defendant know, or should he have known, of the danger, given the scientific, technological and other information available when the product was distributed; or, in other words, did he have

> actual or constructive knowledge of the danger?"[37]

As was noted in the earlier discussion of Feldman [38] the characteristic which distinguishes a strict liability action from one of negligence is the burden of proof. Accordingly, the court held that it was for the defendant to establish that

> "the information was not reasonably available or obtainable and that it therefore lacked actual or constructive knowledge of the defect" [39]

Thus, the apparently key element in strict liability, which had been so important in Freund and Beshada - imputation to the defendant of knowledge of the product's dangerousness - was to be restricted to available knowledge:

> "A warning that a product may have an undiscoverable danger warns one of nothing" [40]

The court also sought to undermine Beshada by noting in passing that

> "although not argued and determined in Beshada, there were or may have been data and other information generally available, aside from scientific knowledge, that arguably could have

alerted the manufacturer at an early stage in the distribution of its product to the changes associated with its use".[41]

In other words, asbestos manufacturers could not successfully employ a state of the art defence. As will be seen, this observation has been seized upon by the Federal appellate court to destabilise the Beshada decision.

Before coming to the appellate court's discussion of the Beshada - Feldman dichotomy, one last case should be mentioned. In Fischer v Johns - Manville Corp. [42] the court determined that at least one manufacturer did know of the hazards of asbestos at or before the time of distribution of the product. The court decided that personal injury plaintiffs could obtain punitive damages where a manufacturer failed to warn of a reasonably knowable danger. Clearly, one avowed aim of Beshada - to simplify product liability actions by not spending significient trial time in the investigation of what was known at a particular time - is seriously damaged by Fischer since plaintiffs are now being encouraged to investigate the knowledge issue in the hope of triggering a punitive award.

This troubled area of case law was bound to produce further litigation. In September 1987, the United States Court of Appeals for the Third Circuit in

Danfield Et Al v Johns-Manville Sales Corp. Etc. [43] was asked to decide whether the Beshada-Feldman dichotomy violated the constitution by discriminating against asbestos manufacturers and by being inadequately justified by the state court.

Over 30,000 asbestos-related personal injury claims were listed in the United States in 1986 and a court has estimated that by the year 2010 that figure will have risen to 210,000 [44]. Just one month after the apparent retrenchment of Feldman an asbestos manufacturer sought to rely upon that decision in order to avail himself of the state of the art defence. A motion to introduce the relevant evidence was denied by the trial court which relied upon Beshada to assert that asbestos manufacturers could not use the defence. The state court affirmed this decision [45]. In later cases, asbestos manufacturers again sought to introduce state of the art evidence, alleging that they were being discriminated against. The district court decided this matter, en banc, in In re Asbestos Litigation (1986) [46] for the purpose of issuing a ruling applicable to all pending asbestos cases. By a majority of eight to six the court held that the treatment of asbestos manufacturers by the New Jersey courts did not violate the constitution. The matter was then appealed to the United States Court of Appeals, which again by majority (2:1) upheld the decision of the state court.

In the appellate court Judge Weis put the defendants' argument as follows:

> "Essentially, they [defendant asbestos manufacturers] do not argue that the strict liability holding of Beshada is constitutionally defective, whatever its other failings may be, but that asbestos manufacturers have been singled out for discriminatory treatment compared to other producers. Phrased differently, they protest the failure of the New Jersey Supreme Court to reverse Beshada in its entirety, rather than only partially".[47]

Noting that a state violates the Equal Protection Clause only where a classification drawn by its laws has no 'reasonable basis' the judge went on to assess the present position in New Jersey law.

The conclusion drawn was that Beshada does apply to asbestos cases but not to all products liability cases, and Feldman, while not governing asbestos cases, does not necessarily apply to all other products liability cases. Is there a rational basis for this dichotomy? For it to be shown that there was no rational basis, the burden of proof falls upon those who challenge state law to convince the appellate court that the factual assumptions on which the classification is apparently based could not reasonably be conceived as

true by the governmental decision maker [48]. In Judge Weis' view the asbestos manufacturers had not discharged that burden. In particular, he held that the distinction between Beshada and Feldman was not irrational.

However, Judge Weis found the desirability of simplifying the fact finding process, which was an important policy reason for the Beshada court, to be unconvincing as a rational basis for the dichotomy. He noted that

> "Beshada's interest in simplifying the trial of asbestos cases was substantially undercut by Fischer."

and that

> "for all practical purposes what Beshada precluded from coming in the front door, Fischer allows in the back door".[49]

Nevertheless, Judge Weis decided that

> "the policies of risk-spreading, compensation for victims, and simplification of trials in the highly unusual circumstances of asbestos claims furnish an adequate, albeit minimal, basis for eliminating the state of the art defense in these cases and

> preclude a successful equal protection challenge to the New Jersey Supreme Court decision abolishing that defence".[50]

It is clear that the Judge Weis focused upon the New Jersey court's reasons for its findings in Beshada. He suggests that only in asbestos cases are the policy reasons justified. However, the point of the case which is not whether the decision in Beshada was rational but, rather, whether there is a rational basis for the distinction between Beshada and Feldman. A justification of the dichotomy is to be found in the concurring judgment of Becker C.J.

The crux of his argument is that

> "on the basis of adjudicative facts determined in cases that had the full panoply of procedural protections, the New Jersey Supreme Count has determined a legislative fact - that the hazards of asbestos exposure were knowable to the industry at all relevant times".[51]

In Becker C.J.'s view, the New Jersey Court, as a result the trilogy of cases Beshada - Feldman - Fischer, had decided that at all relevant times the dangers of asbestos were knowable to asbestos manufacturers. Thus the court had acted reasonably in deciding to stop endless relitigation of what was

'knowable' to asbestos manufacturers at the relevant time. This could be described as the main 'legitimate state purpose' underlying the Beshada - Feldman distinction.

In a powerful dissent, however, Hunter J argued that there was no rational basis for the denial of a state of the art defence to asbestos manufacturers. In his view, the judgments of his colleagues on the bench were fatally flawed. Hunter J. found the New Jersey court to be in breach of the constitution:

> "Today this court has noted that the manufacturers of one product may not use the state-of-the-art defence. That product is asbestos. The court has said to asbestos manufacturers: there are too many asbestos cases, these cases have clogged up the court calendar, schedules and statistics; the proof of state of the art is too time - consuming and concerned with too many variables; and, in any event, we do not think you could prove the defence even if we gave you the chance. This one number class of defendants is deprived of a potentially exculpatory defense in the interest of expediency and calendar control. The manufacturers of all other products - including Agent Orange, the Dalkon Shield and DES - may use the defense, even if they are also clogging up the court calendar and causing statistical chaos. Only the asbestos industry is

treated differently. This is just plain wrong and I dissent".[52]

The bulk of Hunter J.'s dissent is devoted to a discussion of Becker C.J's 'legislative fact' idea. However, it is suggested that Hunter C.J. nevertheless fails to identify the key weakness in the Becker opinion: Becker C.J. justified the denial of a state of the art defence to asbestos manufacturers on the ground that such manufacturers constructively knew about their product's dangers and hence could not avail themselves of such a defence. Put simply, Becker C.J's denial of the defence differs very markedly from the Beshada court's reasoning justifying denial - in Beshada the court advanced policy and doctrinal grounds for precluding the defence, but Becker C.J. denied asbestos manufacturers the opportunity of using the defence on the ground they could not hope to prove it.[53] In Beshada the court held that the knowledge issue was irrelevant yet for Becker C.J. the knowledge issue was all important.

It is suggested that the majority's decision in the present case is a corruption of the Beshada ruling in an attempt to find a rational basis for the distinction between it and Feldman. Beshada did not deny the state of the art defence because manufacturers had knowledge of the dangers; rather, it denied the defence on the

policy and doctrinal grounds which underpin strict liability.[54]

The final result cannot be rationally justified. Whatever rationale is to be givent to the law in this area, it can hardly be one based upon the kind of product involved. To have different shades of strict liability for different types of product is a wholly irrational and indefensible policy. New Jersey, along with other U.S. jurisdictions, and, indeed, any other legal system which seeks to adopt strict liability must decide between the Beshada approach and that of Feldman.

The user's knowledge of the danger

Both U.K. and U.S. law also recognise that a manufacturer is not required to warn of a danger or defect which is obvious or is a matter of common knowledge [55]. Thus, for example, in Farr v Butter Bros.[56] where an experienced steel erector continued to work on a crane which he knew to be defective and was killed by a falling jib, the court held that there was no duty on the defendant to warn the plaintiff in respect of known dangers. Courts in the United States have normally followed the same principle. Thus, there are many cases in which users of ready-mixed concrete have sustained burns from lime in the product and been denied recovery on the ground of "obvious or known

danger".[57]

The advent of strict liability has not affected this principle: the Restatement (Second) of Torts states that there is no duty to warn where

> "the danger, or the potentiality of danger is generally known and recognised".[58]

In any event, a product which carries an obvious risk of harm is probably outwith the definition of defective (the so-called 'consumer expectation test') under which a product has a defect when it is

> "dangerous beyond that contemplated by the ordinary consumer who purchases it, with the ordinary knowledge common to the community as to it characteristics".[59]

Thus, for example, in Genaust v Illinois Power Company [60] the court found that strict liability did not impose a duty to warn where

> "the possibility of injury results from a common propensity of the product which is open and obvious".[61]

On the other hand, in both systems it is also clear, that use of a product known to be dangerous may result

in a finding of contributory negligence rather than the total preclusion of liability.

In Devilez v Boots Pure Drug Co. [62] for example, the plaintiff accidently spilled corn solvent on his genitals and recovered damages from the manufacturer on the grounds of failure to warn, although he was held to have been twenty five per cent contributorily negligent.

However, there has, at least in the United States, been some recognition of the undesirable consequences of the general application of the rule that there can be no recovery where the danger was known. The problem was articulated as early as 1966 by Harper and James:

> "The bottom does not legally drop out of a negligence case against the maker when it is shown that the purchaser knew of the defective condition. Thus, if the product is a carrot-topping machine with exposed moving parts, or an electric clothes wringer dangerous to the limbs of the operator, and if it would be feasible for the maker of the product to install a guard or safety release, it should be a question for the jury whether reasonable care demanded such a precaution, though its absence is obvious. Surely reasonable men might find here a great danger, even to one who

knew the condition; and since it was so readily avoidable they might find the maker negligent".[63]

This view was vindicated in Micallef v Miehle Co.[64] where the plaintiff noticed a foreign body (known in the printing trade as a "hickie") on a printing press. He informed his foreman that he intended to "chase the hickie" i.e. attempt to remove it. While engaged in this activity the plaintiff suffered injury. It was held that the obviousness of the danger of such an activity would not preclude recovery. Other factors, including the feasibility and reasonableness of a design modification (for example, by the incorporation of a safety guard) were relevant.

However, other courts have continued to apply the obvious danger test [65]. It should also be noted that this departure from the rule illustrated by Micallef has nothing to do with strict liability. As indicated earlier, the patent-danger principle is adhered to irrespective of whether the case is decided on principles of negligence or strict liability.

Who should be warned?

Again for both systems, the general rule is that the ultimate user of the product should receive any warning. However, this rule is tempered by the concept of foreseeability of user and is of no

application in a situation where a responsible intermediary has been warned.

Thus, for example, in Beadless v Severel, [66] the Illinois Appellate Court held that the manufacturers of a refrigerator were liable to a second-hand purchaser for failing to warn of the possibility that poisonous carbon monoxide might be emitted from the burner if it was not regularly cleaned. A warning given to the first purchaser was insufficient.

Other cases indicate that in many circumstances the manufacturer will be exculpated where he has warned persons other than the ultimate user. For example, a warning given to an employer may suffice. In Foster v Ford Motor Company [67] a warning of the danger of a tractor overturning when operated in a particular way was given to the purchaser. The court found that the manufacturer had no duty to warn an employee who was injured when the tractor fell on him. In Jackson v Coast Paint and Lacquer Co. [68] the court stated that

> "a warning to an employer would be sufficient if (1) the actual user was controlled or supervised by the employer, and (2) it would be difficult or unduly expensive to warn the actual user".[69]

In circumstances in which a product is normally used by

skilled persons, it has been held in the United States that there is no need to warn an unexpected, unskilled purchaser. Thus, in Canifax v Hercules Powder Co. [70] a manufacturer of a fuse for dynamite caps was not liable for failure to warn of the short burning time of the fuse.

It might be thought that the "foreseeability of user" doctrine, with its connotations of negligence, would be irrelevant in a strict liability regime, where the issue should simply be the condition of the product rather than the conduct of the manufacturer. It seems, however, that this question has received little discussion in a strict liability context, with the exception of Jackson (above) where the manufacturer of paint was held liable for damage caused by fumes given off from the product. The court, focusing on the condition of the product, held that a warning should have been put on the container. This accords with the requirements of s402A of the Restatement (Second) of Torts, comment j of which states:

> "In order to prevent the product from being unreasonably dangerous, the seller may be required to give directions or warning, on the container, as to its use".

Decisions such as Jackson apart, strict liability has made no difference to the "who should be warned" issue.

The principle that a manufacturer will not incur liability where he has warned a responsible or learned intermediary is also recognised both in the U.K. the USA. Courts have recognised, among others, doctors, teachers and hairdressers as such intermediaries.[71] Thus, for example, in Holmes v Ashford [72] the manufacturers of hair dye were not liable for injury caused to the plaintiff's scalp since the container in which it was supplied to hairdressers, and the accompanying literature, warned of the danger. The hairdresser was a responsible intermediary and in the circumstances a warning to him was sufficient.

There are a number of American illustrations of this point, including a case in which the user of an intra-uterine contraceptive device failed in an action based on failure to warn of possible dangers inherent in using the product. Since the product was obtainable on prescription only, the manufacturer's duty was held to have been been discharged when the doctor was warned.[73]

Adequacy of warning

Both systems attach significance to the question of whether or not a particular warning is adequate in the circumstances. In Vacwell Engineering Ltd. v BDH Chemicals Ltd. [74] the words "harmful vapours" did not

give adequate notice of the explosive properties of the product on its contact with water. This area has been developed further in the U.S. Thus, a warning must be sufficiently prominent: in Maize v Atlantic Refining Co. [75] a warning of the dangers of inhalation of carbon tetrachloride, again in very small letters, was held to be inadequate. Its inadequacy was exacerbated by a positive representation of safety in the product's name - Safety-Kleen.

As in Vacwell, the warning must be commensurate with the degree of danger involved. In Tampa Drug Co. v Wait,[76] another case involving carbon tetrachloride, the warning that vapours from the liquid were harmful was insufficiently intense. Warning of the life-threatening nature of the danger should have been given. Similarly, "effervescence" did not give adequate warning of a blinding explosion [77]. Industry custom, standards and regulations are recognised in both systems as indicative, though inconclusive, of whether the requisite care has been taken [78].

Again, strict liability has had little impact on this particular aspect of the warning issue. It may be that the standards of reasonable care and "defective condition unreasonably dangerous" exact the same requirements.

Defences

In the failure to warn context there is a much-reduced scope for the application of recognised defences like contributory negligence and volenti non fit injuria [79]. The reason for this is that if the allegation is that no warning of a defect or danger is given then, in most circumstances, the user could have no knowledge of the existence of any danger. Having no knowledge of any danger, he is not in a position voluntarily to assume the risk. Similarly, it is difficult to establish that a user failed to take adequate care for his own safety in a situation where he had no knowledge of the potential danger. Admittedly, there is some room for these defences in a failure to warn case. For example, a warning which is inadequate may have been given, the effect of which would be to cause the user to suspect that there was some danger inherent in the use of the product - although having been inadequately warned he will not be aware of the full extent of the danger [80]. Instances of this will however be relatively rare.

Notwithstanding the apparent lack of opportunity to use such defences, courts in both the U.K and the U.S. have been willing to apply them in the failure to warn context.[81]

Further complications arise under a strict liability regime. One major problem is that the terms contributory negligence and volenti non fit injuria

mean different things in different jurisdictions, and in some states the meaning of assumption of risk - "an enigma wrapped in a mystery" [82] - is identical to that of contributory negligence [83]. Comment n to s402A of the Second Restatement attempts to give some guidance:

> "Contributory negligence of the plaintiff is not a defence when such negligence consists merely in a failure to discover the defect in the product, or to guard against the possibility of its existence. On the other hand the form of contributory negligence which consists in voluntarily and unreasonably proceeding to encounter a known danger, and commonly passes under the name of assumption of risk, is a defence under this Section as in other cases of strict liability. If the consumer discovers the defect and is aware of the danger, and nevertheless proceeds unreasonably to make use of the product and is injured by it, he is barred from recovery."

However, voluntarily encountering a known risk is not the only defence to failure to warn claims. Courts in the U.S. have evolved a defence of misuse of the product - in many cases meaning the same thing as contributory negligence. In <u>Proctor & Gamble v Langley,</u> [84], for example, the plaintiff applied a permanent-wave solution to her hair, having ignored the

manufacturer's instructions about testing the preparation before use. As a result, much of her hair fell out and she had to wear a wig. The court described the plaintiff's conduct as "obvious misuse". As has cogently been argued, [85] failure to read and follow warnings and instructions is, if anything, contributory negligence, whether or not the court chooses to describe it as such.

A problem with cases such as Proctor is that a question mark is raised as to the need for any defence at all since, if the warning was adequate, then the product is not defective.

The conclusion which must be drawn from this is that there is little room for defences of contributory negligence and assumption of risk in a failure to warn case. Nevertheless, they are sometimes applied, but when they are it matters little whether the theory under which the case is tried is negligence or strict liability, or which form of words is used to describe the plaintiff's conduct.

A substantial number of product liability cases are based on the failure to warn ground. The above discussion of these cases indicates two things: (a) the theory of liability under which U.S. courts purport to adjudicate a failure to warn claim makes little difference to the decision; and (b) despite the advent

of strict liability in the U.S., both systems adhere to the same legal principles; accordingly, the argument that a strict liability regime in the U.K. will result in many of the problems which have beset U.S. product liability law cannot, at least in failure to warn cases, be valid.

However, as the discussion of the Beshada - Feldman dichotomy shows, U.S. courts are still struggling with the conceptual treatment of warnings in strict liability. Given the hostility which greeted the Beshada decision and the paucity of decisions which have been reached on a similar ratio it is to be expected that the Feldman approach will, in the longer term, prevail. As will be noticed, the statutory regime introduced in the UK achieves a result very similar to the Feldman decision. However, strict liability for product defects in the United States has thrown up problems which have not yet been comtemplated under negligence law in the UK; witness the sheer volume of asbestosis and other so-called 'toxic tort' litigation.

One example of particular interest in the context of warnings is where manufacturers of tobacco products have been pursued by 'victims' of cigarette smoking. The leading litigation in this is Cippolone v Liggett Group Inc. [86] which had already visited both state and appellate courts on preliminary matters such as

discovery of documents and alleged judicial partiality [87] before the recent trial of the underlying product liability issues. Cippolone is the first action to be heard from a number of actions filed in the state and federal courts of New Jersey. At least 100 similar cases are awaiting trial in other jurisdictions. In all of these cases, cigarette smokers or their personal representatives claim that smoking - related diseases such as lung cancer resulted from cigarette smoking. These pending actions are commonly grounded in negligence, strict liability and intentional wrongdoing. One major allegation is that cigarette producers packets failed adequately to inform smokers of the dangers associated with use of the product, even when warnings were used. The plaintiffs argue that such warnings were insufficient and were rendered nugatory by the advertising practices of the manufacturers [88].

In Cippolone [89],the jury held that one of the defendants, Liggett Group Inc., was liable for failing to warn smokers, prior to January 1st 1966 when federal law made warnings mandatory, of the health risks of smoking and for falsely guaranteeing that its products were safe. The other defendants were exculpated on the basis that the deceased had started smoking their brands of cigarette only after 1966. Her decision to smoke and to continue smoking even after the warnings appeared made her 80 per cent contributorily negligent, reflected in a final award of $400,000 in damages.

These cases raise issues of some complexity. In particular, courts will be faced with massive evidential problems regarding causation. Recent decisions in California and Tennessee have rejected damages claims because of failure to discharge this evidential burden, and because the plaintiff was held to have assumed a lesser risk. It is also, likely that at least some plaintiffs will argue that the addictive nature of tobacco nullifies the ability of consumers to take heed of warnings. Problems of contributory negligence, assumption of risk and adequacy of warning will be similarly formidable. In addition, the manufacturers will assert that the warnings given comply with and are dictated by legislation, in particular, by the Federal Cigarette Labeling and Advertising Act 1965. Further problems can be expected where 'passive smokers' (those who inhale smoke from other people's cigarettes) bring actions.

The sheer complexity of the issues raised by cigarette litigation seems to have escaped the notice of the Pearson Commission, which, speaking of the definition of defect, rather glibly commented that

> "That definition would allow the producer to show that the victim should have taken heed of warning notices such as those on cigarette packets".[90]

If successful in the U.S., cigarette litigation is

bound to arise in this country and the experience of the American courts on 'warnings' cases will be of value in determining liability under the 1987 Act. But such litigation in the U.K. may well be pre-empted by fuller and more clear information on cigarette packets about the health hazards of smoking cigarettes.

Increased emphasis on the warning issue in a strict liability system

It is suggested that, despite in the treatment of warnings in negligence and in strict liability, the move to strict liability for defective products will herald an increase in the emphasis placed on warnings by both courts and producers. The reasons for this are:

1. Producers may use warnings more frequently if potential liability is strict, rather than negligence based.

2. There are a number of advantages inherent in basing a defective products claim on failure to warn.

3. The definition of 'defective' emphasises the role of warnings.

4. The 'consumer expectation' test for defectiveness may cause manufacturers to rely on warnings.

5. Courts may be tempted to decide cases on failure-to-warn grounds.

1. More frequent use by producers

Arguably, manufacturers who are aware that the exercise of due care will not of itself exculpate them may be tempted to warn users of a product of potential hazards which would not normally be warned against.

For example, a producer of perfume may feel that in a strict liability regime a warning as to flammability is now necessary, or a shoe polish manufacturer may now feel constrained to warn against the harmful effect of ingestion of the product [91]. There has even been a suggestion that producers of alcohol ought to consider warning against dangers of over-consumption, but even in the U.S. this product is very unlikely to be found to be defective in the absence of a warning [92].

The temptation to warn in such circumstances will obviously be qualified by the desire to maintain product marketability, and also affected by legal constraints on liability such as foreseeability of use, but the possibility of the move to strict liability resulting in greater emphasis on warnings by manufacturers remains a real one.

2. Advantages of basing case on failure-to-warn [93]

The principal advantage inherent in basing a claim on failure to warn is that if the claim is successful, the requirement of establishing defectiveness is automatically satisfied without having to go further. There is therefore no need to embark upon the difficulty and expense of engaging expert witnesses in an attempt to show the feasibility, or lack of feasibility, of a design alternative. Further, difficulties regarding access to production processes and details of quality control techniques are removed. In any event, the product may have been so badly damaged as to render evidence of defectiveness difficult to secure.

Thus, in De Vito v United Airlines Inc.,[94] for example, when pilots were asphyxiated by carbon dioxide in the cockpit, causing a crash, it was simpler to show a duty to warn of the need to provide oxygen masks than to show defectiveness of design. Moreover, establishing a failure to warn of dangers inherent in the use to which the product was put, negates the defence that the use was not foreseeable and virtually eliminate considerations of contributory negligence.

Moreover, it is sometimes difficult to establish that the product was defective at the time at which it was put into circulation or to rebut claims that the defect was due to a modification of the product or some other misuse. Establishing that there has been a failure to

warn obviates these problems.

Finally, a court may be more favourably disposed towards a finding of defectiveness based on failure to warn as opposed to defective design, for the reason that an inexpensive labelling change will enable the producer to correct the defect. The court is thus not forcing actual re-design of the product or a material change in the production process. Thus, even where a whole product line is held to be defective, correction is easy.

3. Emphasis on warnings in the definition of 'defective'

It is clear that the new strict liability system closely mirrors the proposals of the Pearson Commission and is of course based upon the EEC directive of July 1985. At the very nub of the new system of strict liability lies the definition of 'defective'.

The Pearson Commission recommended [95] that the definition given in the Strasbourg Convention of 1976 be adopted:

> "A product has a defect when it does not provide the safety which a person is entitled to expect, having regard to all the circumstances including the presentation of the product".[96]

The Commission felt that this wording coupled the responsibility of the producer to produce safe goods with the consumer's responsibility to use the goods with care. Further, the role of warnings was specifically identified:

> "The definition would allow the producer to show that the victim should have taken heed of warning notices, such as those on cigarette packets; or instructions such as an indication that a fire extinguisher is not suitable for use on electric fires. A victim would be able to point to the absence of such instructions or warnings as a relevant circumstance, for example in the case of a known allergic reaction to a particular product".[97]

The definition of defect used in Article 6 (1) of the directive is only slightly different from the above:

> "A product is defective when it does not provide the safety which a person is entitled to expect, taking all circumstances into account, including:
> (a) the presentation of the product;
> (b) the use to which it could reasonably be expected that the product would be put;
> (c) the time when the product was put into circulation."

Thus, the absence or inadequacy of warnings is elevated to feature in the nucleus of strict liability - the definition of 'defect'. Section 3(2) of the Consumer Protection Act 1987 implements the Directive's definition stating that the circumstances to be taken into account include:

> (a) the manner in which, and purpose for which, the product has been marketed, its get-up, the use of any mark in relation to the product and any instructions for, or warnings with respect to, doing or refraining from doing anything with or in relation to the product....."

Clearly the shift from the generality of 'presentation' to the detail of the wording on the Act has some advantages. The 'manner in which' and 'purpose for which' a product has been 'marketed' seem to allow greater freedom of movement than simply the 'presentation' of the product. Similarly, the provisions as to instructions and warnings are expressed in wide terms. However, read literally, the Act does limit its application to instructions for, or warnings with respect to doing or refraining from doing anything with or in relation to the product. It could be argued that this wording does not cover all users of warnings or instructions. For example, some dangers are arguably not a result of doing or not doing anything with or in relation to the product - these matters

concern the use if the product. Thus it is questionable whether the Act covers, for example, warnings as to side effects of a particular drug or a warning that the product will lose its effectiveness after the lapse of a particular period of time. It is to be expected, however, that the judiciary will err on the side of a wide interpretation of this part of the Act.

As originally drafted, the Act would have sought to draw a distinction between liability for loss caused by negligent misstatement and loss caused by instructions, warnings or other information which render the product concerned to be defective. The difficulties of drawing this distinction in the legislation caused the attempt to be abandoned [98] and it will now be a matter for the courts to distinguish between warnings cases and liability for misstatements. This will often be a straightforward enough task, but, as noted in the discussion on the meaning of the term 'product' there will be some difficult cases.[99]

Clearly, manufacturers who notice that product defectiveness is contingent at least partly or the presence of a warning will err on the side of safety, and hence will be more willing to use warnings.

4 The 'consumer expectation' test

The definition is clear on one fundamental point - that a product will be defective when it does not provide the safety which persons generally are entitled to expect. This 'consumer expectation' test, at the core of the new U.K. regime, has some similarities to the test used in the United States to decide on whether a product is unreasonably dangerous:

> "A product is unreasonably dangerous when it is dangerous to an extent beyond that which would be contemplated by the ordinary consumer who purchases the product, with the ordinary knowledge common to the community as to its characteristics".[100]

The main benefit of such a test is that, in keeping with a system of strict liability, considerations of negligence on the part of the producer are supposedly eliminated.[101] The degree of care taken by the manufacturer should cease to be of relevance, what matters is the expectation of safety of the consumer.

There is however a major difficulty with such a test. The definition implies that if the defect or danger is obvious or the user knows or should know of it, then the product is not defective within the meaning of the definition since it would be unreasonable for persons generally to expect a greater degree of safety than that which is apparent or known to them. Therefore,

when consumers know of a defect or danger, perhaps because attention has been directed to it by a warning they cannot expect a greater degree of safety than that known. Consequently the manufacturer will argue that the product is not defective. The effect of this could be to divert the attention of the court to the presence or absence of a warning when the real issue is whether the product's design causes it to be defective or dangerous. Further, if manufacturers can obviate a finding of defective or dangerous design by giving a warning, at much less expense than re-design, they will do so.

Against this, however, it could be said that the consumer expectation test adopted under the 1987 Act does not leave the same room for subjectivity as the American version; the words 'persons generally are entitled to expect' should be interpreted so as to allow a court to find that re-design rather than a simple warning is what people are entitled to expect.

5. Tempting for courts to decide on failure-to-warn grounds

Given the relative simplicity of 'warnings' litigation, a court may be tempted to deal with a product liability case on the basis of presence or absence of an adequate warning rather than dangerousness or defectiveness of design. One reason for this, noted earlier, is that a

finding of defectiveness based on failure to warn is much less serious from the manufacturer's point of view since he thereby incurs the relatively minor expense of labelling or re-labelling the product, rather than the cost involved in a physical re-design of the product.

Another reason is that by focusing on the warning issue the court may not have to deal with detailed and often complex technical evidence regarding the production processes of the manufacturer. Litigation would thus be shorter and simpler, with the attendant saving for both the public and the litigants.

Problems associated with focusing on warnings

If, as has been argued, the shift to strict liability involves a concomitant increases in the use of warnings, and hence the attention focused upon them, then there are a number of associated problems which have to be recognised. The underlying difficulty is that by focusing on the warning issue the defectiveness or otherwise of the product's design may be overlooked.

A. Efficacy of warnings

An increased emphasis on warnings, by both courts and manufacturers, would have an adverse effect on the efficacy of warnings generally. Arguably, warnings should only be used when there is no feasible design

alternative. If manufacturers use warnings instead of physical redesign then the increased use would devalue the effectiveness of warnings in general and user would become jaded to the warning message.

The foreseeability of the use to which a product is put also has an important bearing on the warning issue. One on the differences between the definitions of defective given by the Pearson Commission and an earlier draft of the EEC Directive is that the draft directive's version contained the words 'being used for the purpose for which is was apparently intended', an attempt to preclude potential difficulties regarding foreseeability of use. Such a provision does not feature in the definition of defective which has been adopted, although 'reasonably expected use' has to be taken into account.

Moran v Faberge Inc.,[102] illustrates how foreseeability of use affects the warning issue. Two teenage girls were discussing whether or not a candle was scented. Having agreed that it was not, one girl decided to make it scented. She grabbed a bottle of 'Tigress' Cologne and began to pour its contents over the wax part of the candle. Flames erupted from the bottle and the other girl was burned. By a majority, the court decided that such misuse of the product was foreseeable, and that a warning as to flammability

should have been given.

In other cases, it has been held foreseeable that a chair may be used for standing on as well as sitting, that a girl may spray her hair and dress with inflammable perfume, and that a boy of five wearing an inflammable jacket may play with and around an open fire.[103]

Such decisions may lead manufacturers to warn of all potential hazards associated with use, or misuse of a product. The effect of this would be to again increase the number and scope of warnings given and thereby devalue warnings in general. Users, bombarded by warnings, may not take cognisance of a warning when they most need to do so.

B. The 'consumer expectation' test and warnings

As noticed earlier, a product will be defective when it does not provide the safety which persons generally are entitled to expect, it is therefore arguable that if the user knows of a defect or danger in a product he cannot expect a greater degree of safety than that known to him.

Liability is predicated on the latent or unknown nature of the defect or danger. Consequently, if the attention of the user has been directed to a defect or

danger by a warning, or because it is obvious, the court may find for the defendant. This can be so even where a low cost design modification would remove the danger. Thus, in a case where a young girl slipped in the path of a power lawnmower, sustaining leg injuries which resulted in amputation, the giving of a warning coupled with the patent nature of the danger persuaded the court to find for the manufacturer [104]. The presence or absence of safety devices on other power movers, and the case of such a modification, were held to be irrelevant.

C. Cases where an adequate warning would render the product unsaleable

In some circumstances the imposition of liability on the ground of failure to give an adequate warning will be tantamount to calling for physical redesign, since giving an adequate warning would render the product unmarketable. In such cases judicial emphasis on warnings is regrettable. The court should address itself to the question of the product's design rather than the warning issue, and should be prepared to hold that the design is defective, if such is the case, rather than call for a warning.

A good example of such a case is Dudley Sports Co. v Schimitt[105] where the metal throwing arm of an automatic baseball pitching machine, which did not have

a safety guard, caused extensive and serious injuries to a young man who had accidentally touched the machine with a brush while sweeping round it. It was discovered that the arm could be triggered by a slight vibration or even a change in atmospheric conditions, despite being unconnected to the electricity supply. Admittedly, the finding of liability was based on design defectiveness as well as failure-to-warn. But what kind of warning would have been necessary? According to one of the leading US commentators on product liability [106], any warning which would adequately draw attention to the dangers inherent in the product would probably render the product unsaleable. Redesign, by the incorporation of a safety guard, would remove the need for such a warning and hence leave marketability unaffected. Courts should be prepared to recognise such cases, where warnings are of no value, and accept that re-design is the only solution.

D. Cases where warnings do not have any effect on the dangerousness of the product

The rationale behind giving warnings about products is that the user will thereby be alerted to the dangers associated with using the product. If the ability of the user to take cognisance of a warning is restricted or non-existent, the warning will be of no value. If it is foreseeable that the user may be unable to take

heed of a warning then the giving of a warning will not exculpate the manufacturer. Children are one class of foreseeable users whose ability to take cognisance of warnings may be restricted or non-existent. Design modification, for example providing a safety-cap on containers of dangerous products, is again the answer.

Another class of foreseeable users unable to take heed of warnings are those who for reasons of language differences or lack of education cannot understand a warning. In <u>Hubbard Hall Chemical Co. v Silverman</u> [107] two Puerto Rican workers died after having come into contact with chemicals used for spraying and dusting crops. The manufacturer's label had warned that protective clothing and a mask should be worn. Liability was imposed on the manufacturer on the ground that the warning was inadequate since it was foreseeable that the product might be used by persons whose reading ability was limited. It had also been suggested that a cause of a major air disaster in 1976 was the inability of Algerian members of the ground crew to follow instructions printed in English upon a Turkish DC-10 aeroplane. A cargo which had not been properly closed was ripped off and over three hundred people were killed [108].

In some circumstances, such as those in the above cases, using pictorial symbols or warning a responsible intermediary may suffice, but in others re-design is

necesssary. For example, it may be forseeable that a sudden or accidental act may occur, rendering it impossible for a warning to be heeded. This could happen where a machine such as, for example, a lawnmower, is inadequately guarded. It is foreseeable that a user, or indeed a non-user, may trip, slip or otherwise accidentally come into contact with dangerous parts of the machine and thus sustain injury. Any warning attached to a machine in such circumstances could not be heeded. The court's attention should again be focused on the safety of the product's design rather than the warnings issue.

The final situation in which a warning is not of any value is where the user is alerted to a defect or danger but cannot reduce the danger level, no matter how much care is taken. In effect he is being warned that the product is dangerous and that any use of the product will involve the same degree of danger. This happened in Davis v Wyeth Laboratories Inc.[109] where a man, having been inoculated with a polio vaccine, contracted polio resulting in partial paralysis. The vaccine was held to have been defective on the ground of failure-to-warn. The reasoning behind such a decision has been questioned [110] on the grounds that the presence The presence or absence of a warning would not affect the defectiveness of the product - all that giving a warning could do is lead to informed consent.

Again, the attention of the court should be directed at the product itself rather than the presence or absence of a warning.

Conclusion

There are a number of features of the move to strict product liability which could cause manufacturers and courts artifically to emphasise the presence or absence of an adequate warning. Such extra attention is undesirable.

The definitions of defective put forward by the Pearson Commission and in the EEC Directive, now echoed in the 1987 Act, are capable of being construed in a way which is prejudicial to the consumer where a warning has been given. This construction should be avoided. In interpreting 'the safety which persons generally are entitled to expect' the court should focus attention on the product itself rather than any warning given.

Emphasis on warnings in product liability cases does nothing to further the principal policy aim in this field - accident prevention. Manufacturers can best be deterred from marketing dangerous or defective products by a real threat of liability. Allowing producers to obviate potential liability by attaching warnings to such products causes the onus of accident prevention to fall on the user. Removal of the chance of injury, by

imposing the burden of accident prevention on the manufacturer, is manifestly more efficient than leaving accident prevention in the hands of the consumer [111]. This can best be achieved if the court concentrates on the product and not on the presence or absence of a warning. Warnings can thus be reserved for circumstances in which the elimination of product risks is not feasible.

Warnings are an effective method of alerting a user to a defect or danger inherent in a product, but if it is feasible for the danger or defect to have been designed out of a product, and reasonable for the consumer to expect it to have been designed out, then the giving of a warning should not exculpate the manufacturer.

There is a strong argument that such matters as feasibility of design alternatives, reasonableness of the manufacturer's conduct and the importance of knowledge are of necessity negligence issues and hence that cases based on failure to warn ought to be addressed under a negligence theory of liability. Thus, in Smith v E.R. Squibb & Son Inc.,[112] it was stated that:

> "The test for determining whether a legal duty has been breached is whether the defendant exercised reasonable care under the circumstances. Determination of whether a product

> defect exists because of an inadequate warning requires the use of an identical standard. Consequently when liability turns on the inadequacy of a warning, the issue is one of reasonable care, regardless of whether the theory pled is negligence, implied warranty or strict liability is tort".[113]

As the foregoing discussion has shown, the characterisation of 'warnings' cases as involving reasonable care has been the approach of most courts. However, a sufficient number of decisions have departed from this view and, as a result, jurisdictions such as New Jersey have found themselves in a state of much confusion. The Beshada and Feldman decisions highlight this confusion but other decisions have added to the difficulty. For example, in O'Brien v Muskin Corp.,[114] it was held that even where an adequate warning was given, and no alternative, safer design was posited by the plaintiff, a manufacturer could still be liable in that the product's risks may outweigh utility. In Texas, the District Court concluded, in Carter v Johns-Manville Corp.,[115] that knowledge acquired by a manufacturer, after the product has been made and distributed, could not be imputed to the manufacturer in a case based upon failure to warn. The court reasoined that such a case ought to be decided on negligence principles. However, the court took the view that strict liability should be applied to a design

defect case:

> "To permit the defendant to defect a strict liability claim by proving that it could not have foreseen the danger, in effect by proving that it was not negligent, would fly in the face of the entire history of the evaluation of strict liability in tort".[116]

On the other hand, the court held that under strict liability, a manufacturer in a design defect case has such "after acquired knowledge" imputed to him.

This distinction between failure to warn and design defect cases is probably untenable [117]. A warning is simply an aspect of a product's overall design, and so failure to warn claims ought to be decided under identical principles to design defect cases.

The real question is whether such principles ought to come from negligence or from strict liability. It is suggested that warnings issues do not automatically require negligence concepts for their resolution. As cases such as Feldman show, 'warnings' cases are amenable to adjudication under ostensibly 'strict' liability; indeed, Beshada illustrates warnings being dealt with under true strict liability principles. However, the actual mechanism of deciding on 'warnings' cases in either form of strict liability seems to

involve either an overly elaborate approach (warning as one element in a risk-benefit calculus) or an overly simplistic, but general, treatment (consumer expectations).

If the after acquired knowledge issue is to be resolved in the manner of Feldman then, this will result only in shifting the burden of proof. It is only if a Beshada approach is used that strict liability achieves its apparent policy aims. If Feldman is accepted then the short step forward from negligence which that decision represents seems hardly worth the effort, especially if that step is achieved as in the U.K. by means of a wholly new set of legal concepts, many of which will themselves require litigation in order to be clarified. Perhaps a deeper argument has been exposed: the very nature of the concept of a warning is not amenable to the doctrine of strict liability. Warnings are, necessarily, about the manufacturer's knowledge and conduct and no verbal gymnastics can allow 'warning' cases to be regulated by pure strict liability principles. Rather, negligence principles - subjected to slight tampering such as a shift in the burden of proof - must be employed. The alternative argument and it is suggested the better view, is to accept that 'warning' cases are not suitable for adjudication under strict liability unless the logical difficulty about finding liability for failure to warn of the unknowable is ignored. As Beshada demonstrates, it is only in

this way that true strict liability can be imposed. However, true strict liability of the Beshada type would not be applied were the proposals for a Federal uniform product liability Act to be adopted; as currently drafted, this legislation would return to a negligence standard for failure to warn actions.[118]

The question of whether ordinary negligence principles, or Feldman strict liability, or Beshada strict liability, should govern 'warnings' cases in product liability is of interest in the wider frame. On a narrower point, it is clear that the Consumer Protection Act 1987 has in effect introduced a Feldman standard for strict liability failure to warn cases into the UK. When deciding upon defectiveness, our courts may apply the consumer expectation test (in section 2's definition of defective) intuitively or they may seek to extrapolate a cost-benefit approach. Either way, if a pursuer argues that the product was defective because of failure to warn and the manufacturer proves that he could not have been expected to have discovered the danger, the claim will fail. This is a result of the development risk defence, adverted to earlier, made available under section 4(e) of the Act. That section makes it clear that the burden of proving the defence rests upon the manufacturer. Hence, it can be concluded that the new regime applies the Feldman approach in UK failure to warn cases. There is no doubt that this represents an

improvement, from the consumer's point of view on the law of negligence. But this advance is small and simply does not justify the new conceptual structure, heavy with inherent uncertainties and pregnant with litigation potential, which is the vehicle for its achievement.

Until cases come before the appellate courts, it will not be known whether a cost-benefit or an intuitive approach will be taken to the question of defectiveness. However, in 'warnings' cases either approach is likely to result in decisions no different from those obtained by applying negligence principles. Indeed, it is probable that existing negligence cases on warnings will guide our courts in the application of the new, so-called 'strict' liability under the Act.

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84. 422 S.W.2d.773 (Tex. Civ. App.1967).

85. Noel, op. cit., at 280.

86. Cippolone v Liggett Group, Inc., 822 F.2d. 335, 7 Fed. R. Serv. 3d.1438 (3d. Cir. 1987)

87. See e.g. Cippolone v Liggett Group, Inc., 785 F.2d. 1108 (3d Cir. 1986); Cippolone v Liggett Group, Inc. 789 F.2d. 187 (3d. Cir. 1981).

88. Ibid.

89. Cippolone v Liggett Group, Inc., unreported, June 13 1988. At the time of writing the case is unavailable, even on Lexis. The comments in the text are based upon a

report of the case inthe Washington Post, 14/6/88 at pages A1 and A10.

90. Pearson 1978 Cmnd. 7054, para 1237. See also Stapleton, Products Liability Reform - Real or Illusory? Ox. Jnl. of Leg. Studs. 392, at 407.

91. See Spruill v Boyle Midway Inc., 308 F.2d 53 (2nd Cir. 1957).

92. In addition to the probably unsurmountable hurdle of the requirement to prove that such products are defective, the obvious nature of the dangers would prompt defences of misuse, contributory negligence or assumption of risk.

93. For an American analysis see Noel, op. cit.

94. 98 F.Supp.88 (E.D.N.Y. 1951).

95. Cmnd. 7054 (1978) para. 1237.

96. Art. 2(c).

97. Cmnd. 7054 (1978) para. 1237.

98. Official Report, 5th series, Lords, Vol. 483, cols. 847-8.

99. See Chapter 3, supra.

100. Restatement (Second) of Torts s402A, comment i.

101. But only in theory, since it is clear that negligence concepts such as foreseeability and duty continue to be of importance even where a court purports to apply strict liability principles. See e.g. Inter-Agency Task Force on Product Liability, U.S. Dept. of Commerce, Final Report of the Legal Study, VII 15-18.

102. 273 M.D. 538, 332 A.2d.11 (1975).

103. Noel, op. cit. at 275.

104. Murphy v Cory Pump and Supply Co., 197 N.E. 2d. 849 (1964).

105. 279 N.E. 2d. 488 (1967).

106. For a detailed critique of the case, see Twerski et al., op. cit., n1 supra.

107. 340 F.2d.402 (1st. Cir. 1965)

108. See discussion in 'Better Safe than Sorry', Engineering, Feb. 1988, 65 at 69.

109. 399 F.2d. 121 (9th. Cir. 1968).

110. See Twerski et al. op. cit. n1 supra.

111. On a more sophisticated level, Calabresi's theory of general deterrence leads to the same conclusion. (See Calabresi: The Costs of Accidents (1970). Liability would be imposed on the 'cheapest cost avoider', in this case the manufacturer (see McKean, Product liability; Trends and Implications, 38 Univ. of Chi. L.Rev. (1970).

112. 273 N.W. 2d. 476 (Mich. 1979).

113. Ibid, at 461.

114. 94 N.J. 169, 463 A.2d. 298 (1983).

115. 557 F.Supp. 1317 (E.D. Tex. 1983)

116. Ibid, at 1319.

117. See the discussion in Twerski, A Moderate and Restrained Federal Product Liability Bill: Targeting the Crisis Areas for resolution, 18 Univ. of Mich. Jnl. of Law Reform, 575, at 598 (1985).

118. Ibid.