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Directive 1998/44/EC on Certain Aspects Of The Sale of Consumer Goods and Associated Gurantees: An Economic Perspective

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Summary

The Directive 1999/44/EC constitutes the fullest development of EU legislation effort on consumer protection in contractual matters, following the path of other Directives such as the door contracts Directive, the unfair contract terms Directive, or the distance contracts Directive. The 1999 Directive, though, involves with high likelihood the potential for a newer, deeper, and wider in scope impact on the existing Private Laws of the Member States, unknown to the adaptation of former Directives into National Laws. It is not, however, this eventually severe impact[1] what makes the subject matter of my contribution, but the economic implications of the rules it contemplates.

Directive 1999/44/EC, broadly speaking, regulates quality and lack thereof in consumer sales, particularly the legal rights of the consumer in case of product failure (also broadly conceived). These issues have been the object of considerable theoretical attention from Economics in the last quarter-century or so. The purpose of this paper is to show how the economic theory of contracts and information and, more specifically, the economic theory of warranties serve to illuminate how the legal provisions contemplated in the Directive affect sellers' and consumers' behavior and welfare.

In the treatment that follows I will take Directive 1999/44/EC as a given, so I will not deal with preliminary issues about justifications for legal harmonization in general, nor the specificities of Private Law harmonization in Europe and legislative interventions from the EC[2]. I will neither consider on fundamental terms the possible rationales behind consumer protection, nor legal paternalism more generally, except to the extent that they bear directly on the discussion of the Directive rules regarding consumers rights in contracts of sale and their protection.

This contribution will be organized as follows: Section I will briefly present the economic theory of sale warranties, with its threefold basis (insurance, signaling, and incentive for quality and risk reduction). Section II will address, with the guide of the economic theory just introduced, the key regulatory decisions contained in the Directive 1999/44/EC, namely the ones concerning scope of application, the concept of lack of conformity and the associated presumptions and burdens of proof, the remedies envisaged, the duration of buyers' rights, contractual guarantees, and the mandatory nature of the Directive's provisions. Section III will conclude.

I. Economic theory of warranties[3]

Economists, following substantially the American legal usage, name under the label *warranty* all legally enforceable claims (be they based directly on legal provisions or on contractual clauses) by the buyer of a given good against the seller[4], in case the product

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[1] On the prospective effects of Directive 1999/44/EC on the Private Law of various European countries, see Grundmann/Medicus/Rolland (2000).

[2] On these issues, from an economic perspective, see Kirchner (1998) and (2000), Kerber (2000), Cooter (2000 at 136).

[3] Very useful surveys of the literature are Emons (1989b) and Wehrt (2000). See also Schäfer/Ott (2000, at 437) and Parisi (2001).

[4] In this context, the economic literature uses the terms *seller* and *producer* almost interchangeably. Not because economists are unaware of the fact that the manufacturer (the producer) and the retailer (the

reveals itself defective, faulty or otherwise unsuitable for the agreed purpose. The economic literature has found that warranties serve (and should serve, when the appropriate conditions hold) three different purposes or functions. The three of them will be succinctly presented in the following subsections.

I.1. The insurance function of warranties

The warranty is a form of insurance policy, the seller acting as insurer. From the point of view of the buyer, product breakdown or malfunction is an uncertain and undesirable event. If risk-averse[5], the buyer would, when feasible, like to get insurance coverage against that adverse eventuality, not unlike against other events such as accidents, sickness, burglaries, etc. A warranty serves this purpose, given that it guarantees the buyer that the negative consequences of product failure will be avoided through repair, replacement, or price return provided by the seller on the basis of the warranty. Of course, repair, replacement and return are all costly for the seller, so the warranty will require a proportionate increase in price. The risk-averse buyer, however, will be willing to face that price increase in exchange for the insurance coverage brought about by the warranty[6]. From the standpoint of optimal risk sharing or insurance, if the seller is risk-neutral, coverage provided by the warranty should be full or complete[7]. When the seller is also risk-averse, optimal coverage for both parties will not be full, but partial, meaning that each one would face a fraction of the negative effects of product failure[8].

I.2. The quality signaling function of warranties

When (as it is usually sensible to assume) the level of quality of a good is negatively correlated with the rate of failure, the warranty serves as an instrument for sellers of high-quality goods to communicate the high quality to consumers, when the latter are not able to distinguish product quality before purchase. Let's assume that there are two types of sellers, high and low quality, being the products of the first group more costly to produce but also less prone to failure. Faced with an individual seller in a prospective transaction, buyers are not able to observe the type, high or low-quality, to which the seller belongs. In the absence of warranties or other mechanisms to overcome this informational asymmetry[9], high-quality goods will be driven out of the market: given their lack of information, buyers will be willing to pay for average quality (weighted average of high and low-quality) at

seller, in the legal sense) do not ordinarily coincide, but simply because the distinction, relevant from the legal point of view, is rather immaterial for the economic theory of warranties.

[5] On the concepts of risk-aversion and risk-neutrality, see Schäfer/Ott (2000).

[6] This does not mean, of course, that the seller of every product or service will be willing to provide this insurance coverage, nor the buyer willing to get it from the seller. For instance, we do not observe doctors offering health insurance to their patients. In many cases, first-party insurance from an insurance company would be more appealing to the buyer. But it is true that for many products, the real world shows that insurance in the form of warranties are freely and willingly bought by buyers from their sellers.

[7] Full coverage in insurance terms means that, given this level of coverage, the utility of the insured person will be the same with or without the adverse event, in this case, product failure.

[8] Parisi (2001, at 12) also considers risk- sharing through warranties when the buyer is risk- neutral. As it is also true regarding risk-sharing through contract remedies in a general contractual situation [see Polinsky (1983)], when the seller is risk-averse and the buyer is risk-neutral, optimal warranty coverage is zero. When both are risk-neutral, any warranty coverage, from zero to full coverage, is indifferently optimal.

[9] Information is asymmetric between contract parties because sellers know their type but buyers don't.

most, price at which high-quality sellers will probably be reluctant to sell. Anticipating that high-quality goods will not be offered, buyers will just be willing to pay for low-quality, and that is exactly what they will get[10].

The use of warranties by high-quality sellers, though, is able to overcome this dreary situation. Warranties can serve as credible signals of high-quality. Warranties shift costs arising out of product failure or malfunctioning from buyers to sellers. The expected costs of warranty coverage, for all levels of it, are lower for high than for low-quality sellers, given the fact that the products from the former are less likely than those of the latter to fail or to dissatisfy consumers expectations. So there will always be a level of warranty coverage that high-quality sellers could offer profitably (or at least at no loss for themselves), but which low-quality sellers could not provide at the same price as the high-quality ones, unless by incurring losses (remember, warranty coverage is always more costly for low-quality sellers to provide, because their products fail more). By offering the product with a level of warranty coverage that the low-quality sellers cannot mimick, high-quality sellers credibly communicate to consumers that the product is of that high-quality type[11].

Warranty coverage does not operate in this case as an insurance device[12]. Even when buyers are risk-neutral, high-quality sellers offer that level of warranty coverage that enables them to distinguish themselves from their low-quality counterparts[13].

A qualifying remark seems now appropriate to conclude this subsection. It refers to the assessment of risks by consumers. Warranties will be offered as signals of high-quality if buyers do not underestimate the risks of product failure, malfunctioning or lack of conformity with the contract. When consumers, on the contrary, misperceive risks, no warranties will be provided, or those offered will not be the ones socially desirable[14]. For instance, for those consumers who totally disregard the risk of product failure (in other words, who deem the risk as nonexistent) the value of a warranty is zero. They will not be willing to pay even a cent as price increase for the warranty coverage, though this coverage is in reality costly for the seller to provide (so the seller would need to charge a positive price in exchange for it not to incur losses). Warranties, thus, will not be offered.

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[10] This is the well-known *market for lemons* result, first presented by Akerlof (1970). If we had assumed a continuous distribution of sellers types, the market would have actually collapsed, and no goods would be sold.

[11] A somewhat technical remark might not be misplaced at this moment, specially for those who might be suspicious of sellers enjoying certain degree of market power: the signalling function of warranties is even more clearly easily shown in market structures that are monopolistic [Grossman (1981)] or oligopolistic [Gal-Or (1989)] than in competitive markets.

[12] Of course if, in the circumstances described above, the buyer is risk-averse, the warranty jointly serves signalling and insurance functions. As might be expected (see *supra* subsection I.1), risk-aversion on the buyer's side causes an increase in optimal warranty coverage with respect to the level that would have been optimal in its absence (*id est*, makes full coverage the optimal amount of warranty to be provided by the high-quality sellers).

[13] This does not imply that the signalling function collides with the insurance function. The fact that a risk-neutral buyer receives warranty coverage because of the signalling impulse of the seller does not mean that this coverage is undesirable from the point of view of risk-sharing or insurance. As was pointed out above (*supra*, note 7), when both buyer and seller are risk-neutral, any level of coverage (including zero coverage) is optimal from a risk-sharing perspective, so there is no efficiency loss in this case when warranty coverage is provided for signalling reasons.

[14] See Spence (1977), Shavell (1987, at 61), and Wehrt (2000).

I will not deal here further with this important matter of consumers' misperception of risks. I will return to the issue when dealing with its possible implications for legal regulation of consumer rights in the case of product failure or lack of conformity[15].

I.3. Risk reduction function

Nothing said so far concerning the economic role of sale warranties as insurance or signaling devices is based on the assumption that sellers[16] or, eventually, buyers might influence with their behavior the likelihood and/or magnitude of product failure and its adverse consequences. The insurance motivation simply drew on the fact that product failure represents an uncertain and negative event for the buyer. And the signaling one assumed throughout that the quality of any given seller was fixed and nothing could be done to improve it and, thus, reduce the expected costs of product failure or malfunctioning.

In reality, there is little doubt that the seller can affect both the likelihood and magnitude of product failure. The design, building, strength, reliability and durability, among others, of a certain product, can be improved by the seller, though improvements are, of course, costly to produce. The legal obligations that the warranty imposes upon the seller induces him or her to care about the quality of the good: even if lowering quality might save production costs, it will simultaneously increase the costs associated with the warranty obligations that bear on the seller, and, thus, provides incentives not to lower quality and to invest in product failure reduction. In the words of Priest, the warranty operates as a performance bond[17].

Warranties are not the only scheme able to induce this incentive for reducing the risk of product failure. Even in the absence of warranties, there might be other forces working in the same direction and towards the same result. When consumers are perfectly informed about the risk of product failure or malfunctioning, sellers also get appropriate incentives for product quality and reliability: when consumers knowledge of the probability and magnitude of incurring costs (arising out of necessary repair or replacement of the failed product) is perfect, they will add up this expected cost to the market price of the product. Their willingness to pay for the product will be reduced if the seller cheats on quality (and thus, increases the costs, borne by buyers in the absence of warranty coverage, of product failure), and this provides the seller with the adequate incentives for quality[18].

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15 See *infra*, subsection II.6

16 Throughout the remainder of this section I will keep on using the term seller to refer both to the final seller in the sense of the party to the contract of sale with the consumer-buyer and, when they do not coincide, to other parties necessary for the product to get to that point, namely the producer of the good and, eventually, the wholesaler. It is true that usually it is the producer (the manufacturer) the one who can most directly affect product failure. But wholesalers and retailers can also, in many cases and to some extent, affect (through handling, conservation, storage, installation and so on) the likelihood of its occurrence and the gravity of its results. Anyway, even if this is not the case, I will just speak of one seller, treating all of them as if they were vertically integrated, or their contractual relations were conducive to materially that same effect.

17 Priest (1981, at 1309).

18 Shavell (1987, at 52).

Reputation (better: loss of it) is also a powerful source of incentives to invest in quality and risk reduction[19]. Reputation can work effectively as a safeguard on sellers opportunistic behavior when the seller anticipates repeat purchases from the same seller. But also, when repeat purchase by a given consumer is a rare event, if the news of the stained or damaged reputation will be transmitted to other prospective buyers[20].

Nonetheless, it is undeniable that warranties do really provide serious and immediate incentives to sellers for quality maintenance and reduction of the risk of product failure or malfunctioning. This positive incentive effect would, in principle, advocate ample and generous warranty coverage: the fuller the warranty, the stronger the direct incentive to control quality and prevent product failure.

The trouble with this proposition is that the expected costs of product failure are not only influenced by the seller. The buyer is, at least in many circumstances, in the position to affect the probability that the product will not work properly and the amount of the negative consequences of this failure. The more careless the handling of the product by the consumer, or the more intensive its use, the higher the likelihood that the product will fail or cease operating as expected, and the greater the gravity of the breakdown if it happens. When the warranty is full, the consumer is largely indifferent about the fate of the product, because the adverse effects of its failure (cost of repair or replacement) are shifted to the seller by virtue of the warranty[21]. Given that careful treatment and less intensive use of the product are costly for the consumer, but he bears no cost in case of product failure given the warranty, his incentive to engage in precautionary behavior that reduces it is nonexistent. This is a typical moral hazard problem[22]

If inappropriate behavior on the part of the consumer regarding the product were verifiable before an independent decision-maker (most notably, before the Courts), we could still retain a full warranty without much concern for the incentives (or lack of them) on the buyer's side. Warranty coverage could be made contingent on the consumer acting adequately with regard to the risk of product failure. Or, even in case the relevant contractual clauses to that effect were absent, Courts could craft and use a rule analogue to the contributory negligence or the comparative negligence rules[23] in Tort law, and deny or

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[19] For this market schemes of quality safeguard, see Klein/Leffler (1981), and Arruñada (2001).

[20] This effect is particularly strong when the seller has incurred heavy advertising expenditures. If the seller lowers quality, the goodwill so strenuously created by the advertising campaigns will quickly disappear (all the money invested in advertising is worthless after reputation is gone), and consumers will turn to other competing brands once the news about lower quality are known (as a matter of fact, the best-known the cheating brand, the quicker the customer reaction will be). Advertising expenditures constitute, in this way, an indirect form of performance bond, operating not very differently as warranties do.

[21] We abstract here from the fact that the warranty, even if full, in legal terms, might not make the consumer whole in case of product failure. For instance, consequential damages might be totally excluded from the warranty, or they will be borne by the seller only under certain limited circumstances. As a matter of fact, Directive 1999/44/EC does not include the claim for consequential damages among the mandatory rights of the consumer in case of product failure. This is an issue to which I will return in section II. If the consumer is not made whole in case of product failure, of course, he will not be entirely indifferent towards this type of event. The argument presented in the text, however, will not loose its theoretical force, it will just be somewhat weakened in practice.

[22] This moral hazard problem is emphasized by most economic commentators of warranties: Emons (1989b, at 49), Schwartz/Scott (1991, at 206), Wehrt (2000, at 188), Schäfer/Ott (2000, at 445). For the basic concepts of moral hazard and adverse selection, see Schäfer/Ott (2000).

[23] As has been shown in the Tort context by Shavell (1987, ch. 1), both rules induce optimal behavior on the part of the victim (the consumer, in our case).

reduce coverage accordingly in view of the omission of the appropriate care taking measures by the consumer. In both cases, consumer's moral hazard could be successfully checked.

Unfortunately, the verifiability of buyers`behavior towards the product is a rare occurrence. In most situations, what happened is simply unknown or, at least, sufficiently hard to discern to prevent the use of a contributory or comparative negligence-like rule from becoming a viable alternative. The only feasible option to cope with the problem, or to mitigate it, is the introduction of partial (along several dimensions) warranties, that is, restrictions in warranty coverage[24]. Therefore, it is not surprising to find express warranties limited to parts or components of the product that cannot be easily mishandled by consumers, or limited in duration in order to exclude those instances of product failure most likely to be caused by heavy or intensive use of the good in question.

From the point of view of optimal incentives for reducing product failure, thus, warranty content should be such as to place upon the seller the duty to undertake those investments in risk reduction for which the seller has a comparative advantage (motor strength and resistance, for example) while, at the same time, excluding coverage for those other investments that the consumer can provide more cheaply (paint and outer scratches, for instance). This is, in short, the so-called comparative advantage or investment theory of warranty, mainly associated with Priest[25].

On top of the moral hazard problem, full warranties show weaknesses in front of adverse selection situations. From the point of view of product failure riskiness, consumers might be inherently divided into different groups. For instance, some buyers are more intensive users (large families, commercial users) of appliances than others (single-person households). The former have an intrinsic higher risk of experiencing product failure than the latter, but sellers do not know at the time of sale to which group a given buyer belongs. With full warranty, the sale contract is more appealing to the high-risk buyer, because for the same price they get more out of the warranty (they face product failure more often). The only way to avoid the low-risk buyers from being driven out of the market [26]is to restrict warranty coverage. Low-risk buyers are screened into a contract with a lower price but the associated warranty has limited coverage[27], so the high-risk buyers are not tempted to pass themselves as low-risk and buy the contract with coverage designed for these. High risk buyers, then, can be sorted into a contract with full coverage at a higher price. Similar effects as the restriction in material coverage of the warranty can be obtained through restrictions in the length of the warranty[28]. So not only moral hazard, but adverse selection

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[24] In the insurance context the analogue is the use of deductibles.

[25] Priest (1981). It is true that in his comparative advantage balance Priest includes not only allocative investments, but also superiority in risk-bearing or insurance capacity.

[26] It is again a market for lemons situation, just that here it is buyers who know their type (their propensity to experience product failure) and sellers who ignore it. The expected outcome of the situation is, however, the same as before.

[27] As a matter of fact, the level of coverage for low-risk buyers is inefficiently low, that is, it is less than what these buyers would have chosen. The inefficiency is consciously introduced by the seller in order to get high-risk buyers away from the contract designed for the low-risk ones. This is not an specific property of warranties in these circumstances, but rather a general feature of adverse selection models [see Macho-Stadler/Perez-Castrillo (1997, at 106)].

[28] Emons (1989a), Emons (1989b).

as well explains, the presence in real world markets of less than full (in some cases, much less than full) warranties.

As is readily observable from the arguments presented in the three previous subsections, although the insurance, signaling and risk-reduction functions are, to a greater or lesser extent, always behind warranties, the truth is that the three of them do not necessarily coincide for the optimal design of warranty coverage. An extension of coverage might be desirable for furthering risk-shifting away from highly risk-averse buyers, but it can simultaneously exacerbate the moral hazard problem when those buyers can affect the risk of product failure. Or a rationing in the coverage to ameliorate adverse selection problems on the side of different groups of buyers might collide with the desire to signal the reliability of the product through an extension of the warranty.

In a perfectly contingent contract the parties would be able to craft a pareto-optimal warranty clause. Warranties observable in real-world markets, even assuming away the significant level of legal regulation in most legal systems, are miles apart from that perfect warranty. The economic theory of warranties, nonetheless, has unearthed a series of factors and considerations able to illuminate the design of legal policy and to guide the interpretation of the relevant legal provisions, and more specifically, those of the Directive 1999/44/EC.

II. The main regulatory options of the Directive

Directive 1999/44/EC does not intend to offer a complete regulation of consumer sales contracts, not to speak of the sale contract generally. But it contains the minimum set of buyers' rights that will constitute, across the EU Member States, the legally mandated warranty in consumer goods contracts. It also includes the conceptual building blocks needed to organize the rights and remedies of the consumer in this type of economic transaction. Before we turn to all these, though, it is necessary to discuss in the first place the scope of the Directive, which is determined by a series of definitions and (possible) exclusions. The economic underpinnings of the Directive's scope are by no means negligible.

II. 1. Scope

The subjective scope of Directive 1999/44/EC results from the definitions of seller (and producer[29]) and consumer in Art. 1.2. Consumer and seller are defined in line with the usual concepts already familiar in preexisting consumer Directives. But more than mere consistency or coherence with past definitions can be said in favor of the Directive's subjective scope resulting from these definitions.

To exclude from the Diretive's scope contracts in which the seller is not a professional seller is a very sound option, the reason for this judgment lying not on the (presumable, given the non-professional nature of the seller) absence of inequality of bargaining power between the parties. A legally ordained warranty, such as the one contemplated in the

[29] The Directive differentiates sellers from producers. Seller is the natural or legal person who sells consumer goods in the course of his trade, business or profession, whereas producer is the manufacturer of consumer goods (to whom the importer into the EC territory and any person placing name or trade sign on the good are assimilated). Contrary to what I did in the previous section, and following these definitions, I will now use the terms seller and producer with the more precise meaning attributed to them by the Directive. The role of the producer, however, will not be addressed in this subsection.

Directive, would not, with high likelihood, serve, when the seller is no firm or professional, any of the economic functions described in the previous section. The insurance function would likely be nonexistent, given risk-aversion on the seller's part. And the incentive to invest in quality and risk-reduction would be moot, due to the fact that the non-professional seller usually has little control over quality of the good (he has not produced it, nor is his trade to know about it) and to the isolated nature of the transaction. General Private Law provisions concerning fraud and mistake, and those mandating disclosure duties prior to sale seem, taken in combination, more fit to control possible misbehavior by the non-professional seller. As for signaling, other ways to overcome, if necessary, the asymmetry of information (personal knowledge between the parties, search and inspection by buyer, social sanctions) exist and, in the end, a voluntary warranty might be provided.

The definition of the other contracting party, the consumer, has been criticized as being underinclusive. The exclusion of legal persons (not acting in the course of trade, profession or business)[30] and of individual professionals[31] has been negatively judged. I tend to think, though, that the good reasons that support the decision to exclude from the Directive's scope the contracts in which the buyer is a firm or corporate professional do largely apply as well in those two cases.
When buyers are corporate and repeat players, the asymmetric information problems with sellers tend to be less acute than when buyers are consumers. Moreover, reputational and non-legal constraints on sellers' misbehavior are stronger and more effective when the former category of buyers is the party to the transaction, so reliance on the legal system, through legally mandated warranties, seems much less required to assure adequate contract performance by the seller. On top of all this, it seems that the corporate nature of the buyer significantly weakens the need for warranties as instruments for valuable economic functions: The insurance motive is much less of an issue in this case, and adverse selection due to differences in product failure riskiness is more likely when individuals and firms are pooled together for legal reasons into one and the same warranty coverage group[32].

These features, though probably in a somewhat attenuated form, are also present with regard to non-professional legal persons and individual professionals, so the exclusion from the Directive's concept of consumer looks on balance a good idea.

As for the material or objective scope of the Directive, Art. 1 relies on a definition (that of consumer goods), a possible exclusion, and an additional inclusion related to the contract's legal type.

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[30] Parisi (2000, at 19).

[31] Medicus (1996, at 1925), Schäfer (2000, at 566).

[32] Firms and professionals are intensive users of products, and so, it might be thought, more risky than individual consumers from the point of view of product failure. Sellers, to avoid an adverse selection market breakdown, would screen each type into a different contract and warranty (see supra, subsection I.3). If, as the Directive does, a full warranty is legally imposed, having both groups of buyers under the same mandatory warranty (this would be the result of including firms within the scope of the Directive), would make such screening impossible, thus exacerbating the adverse selection problem.

Consumer goods are defined as any tangible movable item, with the exception of goods sold by way of execution or otherwise by authority of law[33], water and gas where they are not sold in limited sets or quantities, and electricity.

This definition covers both new and used goods, both unique and nonunique (generic) items. Among the second-hand or used goods typically sold by professional sellers (and so, the only ones to qualify for the legal warranty provided for in the Directive) one can count antiques (in the broadest sense, books and jewelry included), art and other collectibles, on the one hand, and cars and other motor vehicles, on the other. As for the first category, I doubt whether warranties are able to strongly display in this setting their usual and positive economic features, namely, insurance, signaling and incentives for risk-reduction. As for the lattertype of effect, it appears to me they would be totally moot with respect to these classes of goods. Sellers cannot do much to improve art and antique goods[34], nor buyers can do much to make them fail (loose value, might be more appropriate) or prevent them from failing[35]. As a matter of fact, the meaning itself of product failure in paintings or *incunabula* is totally alien from that in computers, domestic appliances or garden furniture. The key aspect in the former is authenticity and value, not reliability, working capacity or suitability for a certain function or purpose. The incentive purpose for art and antiques is not to give incentives to produce better, more durable and higher quality items (to produce better art and antiques is almost an oxymoron), but to give appropriate incentives to the parties so that a given good will end up in the hands of whoever values it more. Key issues for this goal are diligent valuation and description (in case of auction or catalogue sales) of the goods, socially desirable disclosure of material facts concerning the goods, and efficient (that is, not excessive) reliance on the part of the buyer. Valuation and description are akin to professional services activities, typically submitted to negligence-like rules, and disclosure and reliance matters can be more aptly handled by rules specifically addressed to them (such as the general Private Law rules on duties of disclosure in the precontractual phase, fraud and mistake). And even if there might be some room for the insurance and signaling advantages of warranties with regard to these types of goods, I rather find more appealing the view that the amount and quality of the differences with the core area that should be covered by warranties clearly tip the balance in favour of leaving outside the scope of the Directive the sale of unique goods, such as art and antiques.

It is true that the possible exclusion of second-hand goods sold at auction (Art. 1.3) mainly, albeit not exclusively, points at art and antiques. But the (sound, in my view) economic reason for this exclusion does not lie principally in the use of auction as the sale mechanism, but in the unique character of the goods and the properties of the market in art and antiques[36].

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[33] By the way, this is a restriction of the meaning of consumer goods as movables that does not really refer to the goods as such (they might well be tangible movable items indistinguishable from others not excluded), but to the legal mechanism through which they are disposed of .

[34] Abstraction made of obvious conservation measures.

[35] Apart from gross mishandling on the owner's side.

[36] There is an additional condition foreseen in Art. 1.3 for the exclusion to apply: consumers must have the opportunity of attending the sale in person. This requirement seems also immaterial. Moreover, typically in both English (the usual one for art and antiques) and Dutch-type auctions, prospective buyers can attend the public auction.

As far as second-hand motor vehicles are concerned, on the contrary, I think we are securely in an area in which warranties have a role to play[37]. An entirely different matter, of course, is to what extent the mandatory warranty envisaged in Directive 1999/44/EC is able to play a positive economic role.

The scope of the Directive expands also along the contract type dimension. Art. 1.4 establishes that contracts for the supply of consumer goods to be manufactured or produced shall also be deemed contracts of sale for the purpose of the Directive. It seems just right that the warranty (the customer's set of rights *vis-á-vis* the other contracting party) accompanying a made-to-measure suit or piece of furniture should be no different than the one accompanying an already made one, and regardless of the fact that in some legal systems the contract over the former class of goods might not be legally labeled as a contract of sale.

But there are also good economic reasons behind this solution. For the incentive for risk-reduction function, ostensibly, but also for the signaling function, to diffuse its salutary effects in the economy, some kind of dynamic element is needed. If all what is involved is the pure transfer of an existing good and nothing else, the efficiency considerations don't go beyond that of taking care that the good ends in the hands of whoever values it most. Some sort of "production" is required for the full display of those functions, albeit it just can be the production in the future of identical or similar items by the same producer. To include in the Directive's scope, alongside contracts of sale, other types of contracts immediately directed at the production of a good is, thus, a positive move.

II.2 Conformity with the contract

The principle that the delivered goods should be in conformity with the contract seems an obvious enough starting point to determine the extent of the rights of the consumer. If a contract is an specification of the actions that the parties are supposed (and, because of the support of the legal system, legally bound also) to take as its consequence, delivery of the object has to conform to what the parties had agreed to.

To determine in a given case what had the parties agreed to and what does conformity with the contract require is somewhat more complicated. To facilitate this task, Art. 2.2 of the Directive lists a series of factors that, if complied with, make the good presumably in conformity with the contract, These factors are cumulative, although one or more of them might not apply in a given contract (for instance, correspondence in quality to a sample or model, if there were none).

The list starts most reasonably with the compliance with the description given by the seller. But not only the contractual description binds the seller. Reasonable expectations on the part of the consumer and based upon public statements[38] about the good, particularly in advertising or labeling, have also to be satisfied by the product. There is no social value in messages addressed to the public (in advertising most notably) which raise reasonable

[37] Martinek (2000) strongly criticizes the inclusion of used cars in the Directive's scope. But his arguments, mainly directed against the mandatory nature of the legal warranty, equally serve for new autos as well.

[38] Sellers are bound not only by public statements for which they are responsible, but also by those originating in the producer or representatives of the latter, as long as the seller was not reasonably unaware of the advertising (it is hard to imagine the seller reasonably unaware of the labelling). The solution makes economic sense, because otherwise sellers would be largely unresponsive to advertising, which is mostly for the manufacturer or importer to organize and decide.

expectations and representations in consumers and on which sellers are later allowed to renege. If an ad is capable of inducing in a reasonable average consumer for the type of product in question a certain representation about the product, its absence should amount to a lack of conformity with the contract.

To require that the product is fit for the purposes for which goods of the same type are normally used, and that it shows the quality and performance which are normal in goods of the same type (Art. 2.2 (c) and (d)) makes also a lot of economic sense. Not to bind the seller to the normal purposes or performance of that type of good would cause a significant increase in transaction costs: most parties would typically prefer that the product satisfies that requirement but they would need to explicitly agree on a contract clause to that purpose, which implies the transaction costs associated with negotiating and drafting such clause. A legal rule that achieves the same result would thus save substantial transaction costs. Moreover, it seems difficult to deny that an average buyer can reasonably believe that the seller would have agreed to bear the risk of unfitness for normal purposes or of less-than-normal performance had both parties hypothetically bargained upon the subject[39].

For special and idiosyncratic purposes of the consumer, the seller is bound only if the special purpose was made known to the seller at the time of contracting and he accepted it. The rule has also a sound economic basis. It saves communication costs between contracting parties (only the minority, that is, those who have the idiosyncratic purpose, have to communicate, and not the majority of buyers who lack it), much the same as the famous rule of *Hadley v. Baxendale*, that limits damages in case of contract breach to those foreseen or reasonably foreseeable at the time the contract was made[40].

More troublesome is the question of the immutable or default character of the normal purpose and normal quality and performance standards. As already explained, they make a lot of economic sense as default rules, but not as immutable rules. A consumer, cognizant of the unfitness of a good for a normal purpose, or of its lower than average performance might be nonetheless interested in buying the product, naturally for a smaller price than the good in normal condition would have demanded. After the sale, the consumer should not be authorized to claim warranty protection against that lack of conformity. The Directive, I think, allows for the interpretation that is preferable from an economic point of view: Art. 2.3 disregards the lack of conformity if the consumer was aware of it at the time the contract was concluded. Those standards are, thus, mere defaults and not mandatory.

But lack of conformity ceases not only when the consumer was actually aware of the lack of conformity[41], but also when he could not have been reasonably unaware of the lack of conformity. As Parisi correctly points out, this rule implies that the legal warranty mandated by the Directive covers the experience properties of the good and those search

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[39] Hypothetical consent by the majority of contracting parties had they had the opportunity to costlessly contract is the basis of the so-called "majoritarian" default rules, which are the ones favoured by most *law and economics* scholars, particularly for transaction-costs-saving purposes. See on this Ayres (1998).

[40] This rule is also the Law in Latin countries (art. 1150 Code civil, art. 1225 Codice civile, art. 1107 Código civil) and the CISG (art. 74). The rule has attracted numerous contributions from a *law and economics* perspective: See Ayres/Gertner (1989) and (1992), Bebchuk/Shavell (1991), Adler (1999), Gomez (2001).

[41] Awareness should be understood in the sense of real knowledge of the lack of conformity, and not as a mere artifact of contractual clauses stating that the buyer has knowledge of the state and condition of the good. Such clauses fall under the prohibition of Art. 7.

properties that the buyer could not observe before purchase at low cost[42]. This, however, should not be interpreted as implying that as soon as a lack of conformity could have been observed before purchase this immediately eliminates the legal warranty for it. A certain (negative) feature of a product might be observable prior to purchase and, thus, be considered a search property, but the search costs for the prospective buyer might be higher than the costs for the seller of making explicit or disclosing that feature of the product[43]. If this is the case, search property or not, the lack of conformity should be covered by the legal warranty.

Art. 5.3 contains a rule on the burden of proof that is important to adequately grasp the real scope of the lack of conformity notion. For a lack of conformity to give rise to warranty protection, the defect or anomaly should exist at the time of delivery (Art. 3.1), though unobserved by the buyer or otherwise there would have been either no contract at all or there would be a known lack of conformity of Art. 2.3. By definition, then, the consumer is in the position to discern the lack of conformity only after delivery. If the lack of conformity becomes apparent within six months time, the failure is presumed to have been present at the time of delivery[44]. After this period, it is for the consumer to provide evidence able to prevail as to the fact that the lack of conformity existed at the moment in which the good was delivered. The likely impact of these rules on the burden of proof cannot be underestimated. In the first of those periods, except in extreme cases, evidence contrary to the presumption will be very difficult for the seller to assemble, so in fact the rebuttable presumption will be almost equivalent to full and absolute warranty coverage for six months. As for the second period, though my guess is that the burden of proof would be somewhat lighter to overcome for the consumer, no doubt introduces a significant restriction on the legal warranty (and also a substantial amount of uncertainty and, in the worst of scenarios, litigation). Contractual guarantees, as foreseen in Art. 6, when offered by sellers, would be extremely important to alleviate this problem.

II.3 Remedies

The rights of the consumer in case product failure arises open four different remedies: repair, replacement, price reduction and rescission of the contract. But they operate in two different stages. The primary remedies are repair and replacement, at the choice of the consumer (with certain limitations, though). Only if both of them fail the consumer can proceed to the second stage and get a price rebate or the contract rescinded.

In theory, in a costless world, the optimal remedy would be the reduction in price exactly equivalent to the diminution in value caused by the lack of conformity. This amount could be any quantity between slightly more than zero (when the lack of conformity is negligible) and the price of the good (when the lack of conformity brings the value of the good to nil). With this amount of money the consumer could ideally obtain what the other remedies could provide: repair the product, get another one from the same seller or get a substitute from a different seller (when necessary, obtaining the money needed by reselling the good

[42] Parisi (2001, at 23). Experience properties of a good are those that cannot be observed before purchase and only become apparent after purchase and use of the good (durability, for instance). Search properties, on the contrary, can be ascertained before purchasing the product (colour, for instance). The distinction is due to Nelson (1970).

[43] This happens with the annual percentage rate of charge in consumer credit. Annual interest rates of a loan are a search characteristic. Prospective borrowers can calculate them, albeit at a cost. It is less costly for lenders to make the annual percentage rate explicit in advertisements and loan contracts. This is exactly what the Directive 87/102/EEC on consumer credit has made mandatory.

[44] Unless the nature of the goods or the nature of the defect are incompatible with existence at delivery.

with the defect). This remedy would enjoy the same theoretical advantages over the rest as, in the general breach of contract context, damages enjoy over other alternative remedies, notably, specific performance[45].

Unfortunately, such a solution would be hardly imaginable as a real-world alternative. Thus, the priority given to repair and replacement seems reasonable. This allows sellers to exploit economies of scale in repair (investment in costly equipment for repairs, specialization of labor in repairs, large inventories of spare parts)[46]and, to some extent too, in replacement (large inventories of products). This can contribute to reduce the cost of the warranty for the seller which, in turn, benefits buyers.

It is true, though, that some limits are required to the preferential use of repair and replacement, and to the choice between the two of them by the consumer. Otherwise, chances do exist that the consumer could exercise his rights opportunistically: threatening to make use of one of the remedies that has become very costly, even prohibitively costly, for the seller (peak period for repair personnel, run out of the good), the buyer can extract an amount of money larger than the actual diminution in value caused by the lack of conformity[47]. In fact, Art. 3 foresees that the choice between repair and replacement is subject to a proportionality standard (explicitly worded, moreover, in terms of costliness for the seller). A not dissimilar one apparently applies also to the transition from the first to the second stage of remedies. On top of that, in some cases either repair or replacement, or the two or them, are impossible (physical destruction of the good after failure, unique or second-hand goods). Undoubtedly, the preference for repair and replacement gives also ample space for sellers' opportunistic behavior: sellers can drag their feet for ages before effective repair or replacement. To prevent this, Art. 3. 5 allows the consumer to move on to price rebate or rescission when seller has not acted within a reasonable time or without significant inconvenient to the consumer.

Finally a word is needed on consequential damage. The Directive is wholly silent on awarding damages to the consumer for consequential harm, albeit National legal systems can contemplate this type of remedy as well. The decision not to include compensation for consequential damage into the legally mandated warranty is fundamentally a sound one. Concerning mass-marketed consumer products, which constitute the core area covered by the Directive, sellers are typically bad risk-bearers of buyers' consequential losses arising from product failure. It is notably hard for a seller to estimate the likelihood that a defect in the product might cause further financial damage to the consumer, and also the magnitude of this damage. Buyers are in a better position to undertake this estimates and, thus, to take steps to protect themselves against the risk of loss or to shift it through an insurance policy[48].

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[45] On the theoretical superiority of damages over specific performance, see Shavell (unpublished, chapter 13). In fact, repair and replacement are both of them versions of specific performance as a general ideal type of remedy.

[46] Schwartz/Scott (1991, at 204).

[47] This type of situation also typically arises with the use of specific performance in the more general contractual context.

[48] See Schwartz/Scott (1991, at 206), Schäfer/Ott (2000, at 441).

II. 4. Duration

The rights of the consumer under the mandatory legal warranty shall last at least two years from the time of delivery[49]. This time limit will uniformly rule over all categories of consumer goods, except for second-hand goods, for which Member States are allowed to authorize contracting parties to shorten the duration of the legal warranty down to a minimum of one year.

Optimally, warranties should be allowed to vary in length, according to factors such as the estimated useful life of the product, the relative abilities of the parties to influence the risk of failure, or the value of the good[50]. Of course, the duration of the legal warranty should not be so differentiated across categories of products so as to add uncertainty and obscurity to the legal situation of the prospective parties to a contract over consumer goods[51]. It is clear, however, that the fact of being second-hand instead of new does not, in itself, constitute a sound criterion to base a reduction in the duration of the legal warranty. Many used goods have longer expected useful life spans than new products, and the risk of failure in the former may remain latent for a longer period too.

II. 5. Contractual guarantees

Art. 6 of the Directive sets out certain rules and disclosure requirements for commercial or contractual warranty provisions (guarantees). These guarantees bind the offeror.

Given the legal warranty mandated in the Directive, what is the use of the contractual guarantee? First, it expands the range of liable parties for the consumer. The liable party in the legal warranty is the seller, whereas guarantees are typically offered by the manufacturer or his representative. Second, it can expand the set of rights conferred by the legal warranty upon the consumer, by extending the duration of the coverage beyond the legal time limit, or otherwise facilitating the exercise of rights and remedies by the buyer (cash-back guarantees, presumption that the defect lies within the guarantee after six months of delivery, an so on). A guarantee offering more generous terms for the consumer than the relevant legal provisions can be for a producer a useful signaling device of reliability, quality and service.

Art. 6.2 and 3 imposes certain disclosure obligations on the offeror of the guarantee: it must state in intelligible language the content, duration, territorial scope and identification of the guarantor, it must be (at the request of the consumer) made available in writing or other tangible medium, and it should state that the guarantee does not negatively affect the legal rights of the consumer. This latter disclosure requirement assumes that consumers are largely unaware of the legal protection afforded by the legal warranty. If consumers were informed, even roughly, about their legal rights, only guarantees offering more generous terms than legally mandated ones would appear on the market. Because including a guarantee is costly for the seller (even if only for drafting costs), and one more restrictive than the legal warranty is uneffective due to the (one-sided) mandatory nature of the latter,

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[49] One should not forget, though, that the burden of proof of the existence of the defect at the time of delivery lying with the consumer after six months, may, at least in a non insignificant number of cases, imply in real terms a noticeable shrinkage of the legal warranty's duration.

[50] See Schäfer/Ott (2000, at 455).

[51] The legal system should ideally try to balance the marginal gains in adapting warranty duration to the relevant features of a given market and the marginal costs of increased complexity. On these issues, see Kaplow (1995) and (2000).

offerors have incentives for truthfully revealing the content of their guarantees, all of them offering relief always above the legal floor. Those not offering any guarantees would be correctly assumed by consumers as being firms providing only the minimum legal warranty. A classical unraveling result[52] would thus take place. If the consumers' ignorance is a plausible assumption for the Directive to make, or else the disclosure requirement is unnecessary (and unnecessarily costly too, albeit may be only slightly), is an empirical question for which I have myself no informed answer.

Art. 6.5 provides, in addition, a nice illustration of how the lawmaker can use the promotion of contractual opportunism by one of the parties to deter the circumvention of a mandatory rule of contract Law. Even if the guarantee infringes the legal requirements, a consumer can still rely on it and ask it to be honored. This implies that if a guarantee contains a clause that violates the legal rules set out in the Directive, and thus has no effect against the consumer, but at the same time contains another clause that is more favourable to the consumer than the legal *statu quo*, the buyer can, even knowingly, accept the guarantee with the shortcomings and later claim against the offeror those contractual rights that suit him. This opportunistic behavior on the part of the consumer constitutes a powerful incentive for the offeror not to evade the legal requirements on contractual guarantees.

II.6. Mandatory or immutable nature of the legal warranty

Law and economics literature typically favors legal rules on private contract that have a mere default character, that is, only apply when the parties have not offered themselves a contractually agreed solution to the point. No more than default rules are needed to save transaction costs and to force information transfer when that is the obstacle to efficient contracting[53]. Contrary to popular belief among non law and economic scholars, there is also room for mandatory or immutable rules[54]. These can serve to protect either the parties to the contract themselves[55] or third-parties outside the contract but nonetheless affected by it[56]. As there is no indication that contracts of sale of consumer goods can typically create significant negative externalities on non-contracting parties, I will restrict the analysis on the mandatory nature of the legal warranty contained in the Directive to the first of these two possible rationales.

In fact, Art. 7 of the Directive determines that the rights of the consumer constituting the legal warranty created by the Directive cannot be waived nor restricted, directly or indirectly. It is clear that the legal warranty is (one-sided) mandatory in nature. Even without this provision in the Directive, though, disclaimers or limitations of the legal

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[52] Grossman (1981), Gertner (1998).

[53] See Ayres (1998).

[54] Mandatory or immutable rules can be two-sided or one-sided. The latter ones just prescribe floors or ceilings, but not both. This means that the rule can be altered by the parties' agreement in one direction, but not in the opposite. The legal warranty created by the Directive is clearly one-sided immutable, because the warranty cannot be reduced against the consumer, but it clearly can be expanded to his advantage.

[55] Typical examples of mandatory rules on contract designed to protect the parties are the rules on contract formation, seeking to assure with reasonable confidence that the contract is the product of the free expression of the preferences of the parties. Mandatory rules (like restrictions on security interests or limits to foreclosure) may be used in some settings to avoid excessive signalling on the part of one of the parties: Aghion/Hermalin (1990).

[56] If the contract creates a negative externality a mandatory rule would be required.

warranty would be extremely doubtful in standard form clauses, given the wording of letter (b) of the Annex to the Directive 93/13/EEC on unfair terms in consumer contracts: a term with the object or effect of inappropriately excluding or limiting the legal rights of the consumer *vis-á-vis* the seller or supplier or another party, in the event of total or partial non-performance or inadequate performance by the seller or supplier of any of the contractual obligations, will be considered unfair and, thus, non-binding on the consumer.

My starting point in the analysis, and one which I think would be widely shared, is the following: the legal warranty for consumer goods should be a default regime, unless good reasons for the alternative of immutable character are present. The initial preference for default rules is, as I see it, well grounded. Not only on general principles of private autonomy and self-determination, rightly praised in contract Law and in Economic Theory, but also on the specificities of the markets for warranties in consumer goods: a legal warranty of a default nature would provide a significant amount of consumer protection while, at the same time, accommodating the no doubt real diverse preferences of consumers and sellers concerning insurance against risk of product defect or failure, use of the product, or quality, and the different situations affecting information asymmetries between the parties. It would also allow the needed flexibility for addressing moral hazard and adverse selection threats to the smooth functioning of these markets.

Despite this initial superiority of the default notion, are there any reasons that could be brought forward in favour of a more stringent nature of the legal warranty? Some of the arguments that could be advanced might run as follows:

- Consumers do not search for legal terms granting warranty coverage. Even if they really have a preference for it, they will not shop around looking for the warranty terms they like. Sellers, anticipating this, will not offer the level of rights consumers really prefer, but would assume no warranty at all or almost so.
- Even if consumers searched for warranty terms, they would not be able to understand the contract clauses dealing with the issue. Consumers might think that they are getting full legal warranty when in fact that warranty has been disclaimed or substantially reduced by the seller.
- Consumers are very poorly informed about risks. Specifically, consumers systematically underestimate the risk of product defect or failure. Therefore, they would demand (and contractually agree to) much less warranty coverage than they should (or, in slightly different terms, less warranty than their more informed selves would have asked for).

The first two reasons don't seem to be, on a theoretical level, too persuasive. As for the lack of search on warranty terms, it has been convincingly shown[57] that for the consumers' preference for warranty coverage to be satisfied by sellers, it is not necessary that many, not to say all, consumers shop around investigating warranty protection. If consumers know the risk of product failure and have a preference for warranty coverage, a small number of consumers searching for it is able to make sellers offer the level of coverage that consumers want. Sellers would gain nothing by denying consumers the warranty protection they demand. There might be a problem if not enough buyers shop around, but that problem is supracompetitive prices, and the solution to it has nothing to do with the mandatory nature of a legal warranty. The lack of ability to understand contract clauses, in turn, might advocate more extensive or better information and disclosure requirements in

[57] Schwartz/Wilde (1983).

advertising and contract documents. But it does not by itself make economically advisable to forgo the benefits of having the legal warranty as a mere default.

The latter argument carries more theoretical weight. It is true that if consumers systematically misperceive risks in a downwards direction, they will not demand the optimal amount of warranty coverage and, as a result, products would be less reliable and durable, more defective than it is socially desirable that they should be. In theory, an informed law-maker could correct this market failure and improve on the situation mandating a legal warranty that optimally corresponds to the true risks involved.

The question is if the assumption of consumers' systematic underestimation of risks[58] is empirically well grounded. Some[59] think it is, whereas others[60] challenge the assumption. The question is, of course, an empirical one and probably the true answer is not uniform across types of products and types of risks of product defect. In any case, the empirical evidence necessary to support the claim of systematic misperception of risks, if it exists, was not made public during the legislative process leading to the Directive.

Moreover, even if it could be shown that underestimation of risks is in fact the case, it is doubtful that the law-maker could do better in this case than the (imperfect) market or, at least, that the Directive is able to do better: it is obvious that a single and homogeneous legally mandated warranty coverage cannot be optimal for the multiplicity of products, risks of defect and types of consumers that will be subject to the mandatory regime that the Directive creates. A more diversified rule would require an enormous amount of information to craft and to enforce, an amount hardly imaginable that any real-world law-maker (EC included) woud be in the position to acquire and process.

In the end, the economic case for a mandatory legal warranty seems on the whole unconvincing. From an economic point of view, thus, a set of consumers' rights in case of product defect constituting a default regime would have been preferable. Moreover, the immutable character of the warranty will not only imply an increase in price for the consumer goods but, if the preferences for warranty coverage are heterogeneous among consumers (as is very plausible to assume they are), some consumers will get hurt by the introduction of the immutable legal warranty[61].

III. Conclusion

Insurance against product defects, information signaling and the provision of incentives for the reduction of risk of product failure are the economic rationales that account for the use of warranties in contracts for consumer goods. Optimality along these three dimensions, though, cannot ordinarily be achieved simultaneously. Compromises and second-best

[58] It must be noted that the force of the argument requires persistent underestimation of risk of product failure by consumers. If some random consumers underestimate risk but others overestimate it, or if consumers randomly underestimate and overestimate risk, the argument does not hold. Random oscillations of risk estimates, if they are unbiased, lead very much to same result than accurate estimates on the part of consumers.

[59] Eisenberg (1995) and literature cited therein.

[60] Schwartz/Wilde (1983), Shavell (1987).

[61] See Craswell (1991).

alternatives are thus required in the furtherance of the insurance, signalling and incentive goals of warranties.

In light of this fact, a law-maker trying to design an optimal legal regime on warranties in the sale of consumer goods has a difficult task ahead. In Directive 1999/44/EC, traces of insurance, signaling and incentive considerations can be traced, and the economic theory of warranties has proven useful (or so, at least, have I tried to show) to understand the implications of the main rules in the Directive. The scope of the Directive appears then as somewhat overinclusive, given that goods of unique character don´t seem to fit well with the economic functions of warranties. The notion of lack of conformity plays a key role in the Directive's overall scheme and its underlying economic logic seems undeniable. The system of remedies, ordered in a two-stage manner, also appears consistent with the main findings of the economic theory of warranties and, further, with those of the economics of breach of contract remedies. The rules on warranty duration, though, seem both too inflexible and dependent on a largely meaningless factor, such as the second-hand character of the good. Finally, the one-sided immutable legal warranty introduced by the Directive represents a crude policy instrument to correct the market failures likely to emerge in the markets for consumer goods. It is an unnecessary hindrance to the valuable role that market forces and negotiations by the contracting parties in finding mutually satisfactory solutions to the design of warranty coverage.

A last point is worth noticing and mentioning in these final remarks. Art. 12 of the Directive, almost in passing, draws attention towards an important issue: the direct liability of the producer in case of product failure. Art. 4 also refers to a related problem when foreseeing that the final seller, in case the lack of conformity was attributable to the manufacturer or the wholesaler, should be entitled to pursue remedies against the responsible parties[62].

Some economic analysts[63] tend to favour the view that direct liability of the manufacturer would further the incentives of those who are ultimately in control of decisions affecting the risk of product failure (that is, the manufacturer himself) and, moreover, will give producer the adequate incentives to avoid perverse inclinations to make use of undercapitalized and potentially insolvent retailers[64]. Others[65] argue that the benefits of eliminating privity of contract in this area are, at best, speculative, whereas transaction and litigation costs might well increase: the risk of retailers' bankruptcy is typically low, and the level of consumers' losses due to product failure is also low[66]. And if contractual relations between manufacturers and retailers currently allocate the costs of consumer claims with the retailer, the introduction of direct producer liability towards the consumer would simply engender substantial transaction costs and eventually, litigation costs between manufacturers and retailers.

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[62] Deference to national Law and the role of freedom of contract in this area significantly weakens the impact of this provision.

[63] Parisi (2001).

[64] If retailers are judgement-proof in front of consumers' claims arising out of product defects, consumers' rights (absent producers'direct liability) become largely moot. Moreover, this would shortcircuit the chain of incentives to reduce risk of product failure: the impact of liability will not reach the manufacturer's stage.

[65] Schwartz/Scott (1991, at 208).

[66] Of course, death and personal injury are quite a different matter, but those are subject to product liability Law were direct liability of the manufacturer is undisputed.

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