universität wien

MAGISTERARBEIT

Titel der Magisterarbeit

An Economic Analysis of the Austrian "Defects Liability" Law

Verfasser

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angestrebter akademischer Grad

Magister der Sozial- und Wirtschaftswissenschaften

Mag. rer. soc. oec.

Wien, im Juni 2011

Studienkennzahl lt. Studienblatt:	A 066 913
Studienrichtung lt. Studienblatt:	Volkswirtschaftslehre
Betreuer:	ao. Univ.-Prof. Mag. Dr. Wolfgang Weigel

Content

1 Preliminaries **3**

1.1 Introduction . . . 3
1.2 Terminology . . . 4
1.3 Why there is a need for a Defects Liability Law . . . 5
1.3.1 Economic Point of View . . . 5
1.3.2 Legal Point of View . . . 13

2 The Austrian Defects Liability Law
Content, Scope and Economic Reflections **14**

2.1 Preface . . . 14
2.2 The Definition of a Defect and the Time of Existence . . . 15
2.2.1 General Rule . . . 15
2.2.2 Extension of the General Rule . . . 17
2.2.3 Time of Existence . . . 19
2.3 Legal Exclusion of the Defects Liability Rules . . . 19
2.4 Contractual Exclusion of the Defects Liability Rules . . . 23
2.4.1 Legal Basics . . . 23
2.4.2 Economic Analysis . . . 24
2.5 Claims in the Case of a Defect . . . 27
2.5.1 Legal Basics . . . 27
2.5.2 General Economic Analysis . . . 29
2.5.3 Application of the Economic Analysis . . . 38
2.5.4 Summary . . . 47
2.5.5 Digression: Consequential damages to Defects . . . 49
2.6 Self-rectification . . . 50
2.6.1 Art. 1168 and Art. 1042 . . . 51
2.6.2 Art. 933a and Art. 1295 *et seqq.* . . . 53
2.7 Offset of Benefits . . . 54
2.8 Limitation of the Period of Liability . . . 58
2.8.1 General Analysis . . . 58
2.8.2 Special Issues . . . 60
2.9 Burden of Proof . . . 62
2.9.1 Legal Basics . . . 62
2.9.2 Economic Reasoning under the Preponderance Rule . . . 63
2.9.3 Application to the Austrian System . . . 65
2.10 Right to take Recourse . . . 68
2.10.1 Legal Basics . . . 68

2.10.2 Economic Analysis . . . 70
2.10.3 Application of the Economic Analysis . . . 72
2.10.4 Conclusion . . . 74
2.10.5 Digression: The Selling User . . . 75
2.11 Summary . . . 76

3 Supreme Court Decisions **78**
3.1 Disproportional Costs . . . 78
3.1.1 6 Ob 85/05a . . . 78
3.1.2 8 Ob 108/06z . . . 80
3.1.3 6 Ob 274/06x . . . 82
3.2 Significant Defect . . . 82
3.2.1 1 Ob 14/05y . . . 82
3.2.2 8 Ob 63/05f . . . 84

4 Enhancements **85**
4.1 (Producer-) Warranties and the Defects Liability Law . . . 85
4.1.1 Legal Basics . . . 85
4.1.2 Economic Analysis . . . 87
4.2 Alternative Legal Remedies . . . 89
4.2.1 Compensation Claims . . . 89
4.2.2 Challenge due to *Laesio Enormis* . . . 91
4.2.3 Challenge due to Error . . . 93

Bibliography **96**

Abstract **98**

Zusammenfassung **99**

Curriculum Vitae **101**

Chapter 1

Preliminaries

1.1 Introduction

This paper deals with an economic analysis of the Austrian "Defects Liability" rules. By "Defects Liability" Rules within this text the German term "Gewährleistungsrecht" is meant. In general both "Garantie" and "Gewährleistung" are translated by warranty although the meaning of these German words is a different one.[1] *Therefore I decided to take the non common term "defects liability" such that a precise distinction is possible. Warranty and the Defects Liability are like two interfering circles, but they are indeed not the same legal remedy. The Defects Liability Rules are used to re-establish the contractual equivalence given that a good or service purchased has a failure at the time of transfer. (Producer-)Warranties in comparison, in general,*[2] *have the purpose to insure the buyer against the malfunction of a purchased product within a certain time period.*[3] *So it is clear that the objective of both, a defects liability and a warranty, is to insure the buyer against some risk. The one due to legal order, the other because of a contractual agreement.*

The Preliminaries will start with the terminology and then provide an analysis of the (general) need of a Defects Liability Law. The examination of the Defects Liability Rules itself is then divided into two chapters. In the first chapter there will be a discussion about the law itself, from an economic point of view.[4] The main question that is then asked is whether the Austrian Defects Liability Rules are used to improve (allocative) efficiency. Do the rules assign the risk to the party that can either influence it or is best in bearing it, and are the rules able to increase social welfare, which means: are they able to impose a reduction of the number of defects to the optimal level? Furthermore within this chapter other possible solutions for how to design certain legal rules will be pointed out. The section will however rely on an analysis of the current rules. In the case that there is some scope left indeterminate by the law, the reader is provided with ideas of how to interpret the law in an economically meaningful sense.[5] The second chapter will deal with selected Supreme Court decisions about Art. 932. There will be a short presentation of a case and the legal reasoning provided by the Supreme Court. In conclusion there will be an examination of the implications of these decisions applied to the economic ideas presented in the previous chapter. The question whether the Supreme Court is able and willing to avoid certain problems the legislator might have caused will be raised.

[1] For the terminology see section 1.2 on page 4.

[2] As warranties are contracts, the actual arrangement can contain anything that is not forbidden.

[3] This neither implies that the buyer may have caused this failure nor that the failure existed prior to transfer. The complexity of this demarcation is examined in more detail in section 4.1 on page 85.

[4] So there will be no weighting of legal arguments. I will only present the stand of the actual literature and jurisdiction.

[5] For the general possibility of applying economic interpretation to the Austrian Law, see Potacs [2008] (the Article mainly focuses on the public law, but the result may also be of relevance for the civil law, of which the Defects Liability Rules are a part.). For the German law see Schäfer and Ott [2005].

The final chapter deals with other legal possibilities to cope with the problem of (pre transfer) defective performances. There are, on the one hand the already mentioned warranties as contractual solutions to the problem, and on the other hand several legal remedies, which are not designed to solve this particular problem, but which can be also used as a remedy. In the section about the warranties a short overview of the manifold current literature about warranties will be provided.[6] Afterwards the effects of an existing warranty contract on the Defects Liability Rules will be reviewed. The section about other remedies will only provide an overview of the possibilities and the implications of different legal solutions. There will be a brief mention of the challenge faced due to error, the *Laesio Enormis* and the compensation claims as part of the law of damages.[7]

At some points in the thesis the reader will find short sections formatted differently than the main text body. These sections are an extension of the core scope of the thesis and serve to contribute a deeper understanding of the topic.

As this text is an economic thesis, basic knowledge about Law and Economics is presumed. As, however, the Defects Liability Rules in Austrian cannot be presumed to be generally known the presentation will be as comprehensive as possible within the scope of the thesis. There will not be solely a presentation of the legal regulation, but also an (extensive) outline of the current jurisdiction and doctrine.

1.2 Terminology

Before we go *in medias res*, the terminology used in this thesis must be defined. The most important term is indeed the one of a "Defects Liability Law". "Defects Liability" is the strict liability[8] of a seller covering defects of his performance which existed (at least latently) at the time of transfer. The meaning of all these terms[9] can be seen in chapter 2 on page 14. With a warranty contract, on the other hand, the guarantor takes over the liability for a particular uncertain performance (or for an arising damage).[10,11] Note that the guarantor and the seller of a performance are not necessarily the same person or entity. The third term one has to define is the one of a performance. On the one hand performance is used in the context of a success or a result, and on the other hand performance can also define the service a seller has to provide. This can either be to deliver a (physical) product or to provide a service. So if one talks about a defect performance one can either mean the failure (malfunction) of a product or a faulty service.

A further critical terminology is the one of the used reference individual. In the legal literature it refers to individuals capable of a proper usage of reason, whereas the economic literature mainly uses the *homo oeconomicus*. The *homo oeconomicus* is a perfectly rational utility maximizing individual that is able to cope with all types of information and situation and therefore optimize it's behaviour and resource allocations given its utility function. In the economic part of the analysis it is presumed that agents fulfill the requirements of the *homo oeconomicus*. Jurists however do not use this figure. They therefore often, but not always refer to the agent capable of proper usage of reasoning. This term is far more vague than the economic term and must not be mistaken with "everyman". One cannot

[6] There is unfortunately almost no (economic) literature about Defects Liability Rules which applies to this thesis.

[7] The most important effect of the particular compensation claim provided in connection with the Defects Liability Rules will be examined in section 2.6 on page 50.

[8] Indeed it seems to be more than a strict liability. See therefore subsection 1.3.1 on page 5.

[9] As there are: defect, time of transfer and existence.

[10] The warranty is (in general) abstract, that means it does not depend on the underlying transaction between the seller and the buyer.

[11] For both definitions see Dullinger [2008]recitals 3/66 and 6/41.

provide a proper enclosure of this term and therefore in general it is not used within the thesis. The reader must keep in mind that all of the legal terms used and all of the legal literature cited refers to this figure at some point and it must be admitted that the figure of the *homo oeconomicus* is not always of use when interpreting certain legal terms. As a result the reader should bear the following in mind: in the economics part of this thesis the *homo oeconomicus* is the figure of references and it is always asked what he would do or not do. When, however, it comes to the legal part and the interpretation of legal terms the "legal figure" is underlain, because another interpretation than that given by the current literature has not been discussed. The inherent consequence is that one "imports" this figure of the individual capable of a proper usage of reason.[12] Of course in order to be able to understand and criticize the Legal Regulations, one has to (properly) use the "notation" and terminology of the legal framework. Only given this understanding of the Liability Rules can one apply economic methods to derive potentially preferable solutions.[13]

1.3 Why there is a need for a Defects Liability Law

First of all a general answer in economic terms will be provided and then the answer one will get if one reads the legal literature will be outlined.[14]

1.3.1 Economic Point of View

1.3.1.1 Complete Contract

To argue why there should be rules about a defects liability it is best to start with the state of nature where there is no need of such rules. This is relatively simple. If the parties can provide a complete contract, that is a contract which implies a rule for all possible states of nature and which will optimally allocate the risk arising from the transaction, there is no need for a legal rule under any circumstances.[15] The assumptions needed are: perfect information[16] absence of externalities[17] and absent, or at least negligible, transaction costs.[18] Note at this point that risk neutrality is of no importance in this context. If one party is risk averse it is only more likely that he/she is willing to sign an insurance contract. It must also be assumed that there are no insolvencies, so that the two parties writing a contract can be sure that the other one will still be in business in the future. If the assumptions hold true, there is no need for any rules, as the allocation is *pareto-superior*.[19] Why? A complete contract implies that the parties have written a rule and its consequences down for each state of the world, as stated above. Indeed there would also be rules about what should happen if a parties provided a defective performance. It can however be doubted that the risk is allocated every time to the same party. At this point one can refer to Priest [1981] and his investment theory.[20] The parties first

[12] My opinion is that in many cases the difference between the two terms is not as grave as it seems to be, the *homo oeconomicus* is only the more formal approach to the same problem: how we assume agents to act - what are their goals, boundaries and what is their way of thinking and deriving solutions.

[13] From an economic point of view.

[14] This is not part of the analysis of the actual Austrian Rules, so I have decided to present the question as a preliminary thought.

[15] See Schäfer and Ott [2005] pages 401 *et seqq.*, Weigel [2008] pages 76 *et seqq.* and Adams [2002] pages 72 *et seqq.*

[16] So there is no information asymmetry which implies there is neither hidden (sole) information nor hidden action.

[17] This assumption will not be dropped, as this is more a question of product liability. Indeed relaxing this assumption would imply the necessity of examining the interaction between defects liability and product liability. This would go beyond the scope of this thesis and will not be examined.

[18] If there are transaction costs the parties would hypothetically be able to write a complete (or perfect) contract, however costs of writing down the contract may be prohibitive.

[19] It follows that the social costs are minimized.

[20] Even though the intention of this theory was to give an economic explanation of why warranties are designed as they are, one could use his reasoning also in the context of this section. The reasoning in the following, indeed in some

allocate the risk to the one who can (best) handle it.[21] In our case, if there is the possibility to influence the risk, it is always the seller rather than the buyer. The buyer cannot affect the performance before the time of transfer.[22] If the seller is the producer, it is obvious that he himself in this case has the possibility to affect the features of his product and the probability of failure. A party which has used a product before transfer can also influence the condition of the performance at the time of transfer. Nevertheless a retailer or wholesaler who never uses nor produces a product, but only sells it to the user[23] cannot affect its performance at all. In these cases it is likely that a chain of perfect contracts would be observed, reaching down from the producer to the user. Every contract would refer to its prior one, and the prior one would refer to the latter.[24] So indeed in this case the allocation would be optimal.

If a contract is written such that the seller provides optimal effort, which means that the marginal costs of an increase in effort are equal to the marginal "revenue" of a decrease in the losses caused by a defect, then the remaining risk can be seen as inevitable. The allocation follows the rules below: in this case and in the case of non influenceable failures the investment theory, by Priest [1981], implies that the party which can best cope with the effects of the defect[25] should bear the risk of failure. Whether this is the seller or the buyer cannot be argued. If the risk of defect cannot be influenced and the defect can also not be restored then the parties must either contract upon a price discount[26] or they set up an insurance for the buyer. The seller has to replace the performance or grant a compensation payment.[27] If the risk is inevitable, but one can repair the defect then the cost for reparation will be allocated with the party which has the lowest costs. Here again one can refer to Priest [1981] who correctly stated that there are also defects which a buyer can repair at lower costs.

One can think of this allocation as a combination of a negligence rule with a risk bearing rule. The negligence part is the one which imposes the optimal effort on the seller, as if he deviates perfect information would imply that this deviation is observable and he therefore is liable only for non-optimal behavior.[28] *The other part of the contract simply describes optimal risk bearing rules imposed by the parties. This has to be seen in contrast to the below presented strict liability rule which allocates all costs caused by inevitable defects to one party.*

1.3.1.2 Absence of a Complete Contract

If we manipulate the above assumptions and allow for example for hidden actions by the seller once the contract is written[29] the contract cannot ensure the optimal effort undertaken by the seller. Therefore

parts, becomes simpler because there is only one party undertaking hidden actions, which is the seller. See therefore below.

[21] The party can then be called cheapest cost avoider. For a closer look on this term see Schäfer and Ott [2005] pages 226 *et seq.* and Weigel [2008]pages 72 *et seq.* (Note that the term used is least cost avoider).

[22] This is a general argument and might not always be true. One can for example think of a contract for services where the principal, i.e. the buyer, provides the material which the agent, i.e. the seller, has to use. If this material has a defect then the performance provided by the seller has a defect in time of transfer. For this reason another risk allocation seems appropriate and will be contracted by the parties in this case. However this is a very special constellation and the question of which legal rule to provide is in fact a question of the law on contracts for work and services.

[23] These are only distributors, so to speak. They hand the performance down to the last buyer, which is either a consumer or an using firm.

[24] As the existence of the latter can be assumed at the time the contract is written.

[25] That can either be the party which can repair the performance at the lowest cost or which can best bear the inevitable losses caused by the defect. This can be seen as the "cheapest insurer" (even though the insurance doesn't always provide a compensation payment but with a restitution action, such as reparation.)

[26] This is likely to happen if both parties are risk neutral.

[27] This is the case particularly if the buyer is risk averse and the seller is risk neutral. If the seller also is superior risk bearer (see for the term again Schäfer and Ott [2005] pages 412 *et seq.*) so that he benefits by the law of large number it is likely that such an insurance will be contracted upon.

[28] This is the difference to absolute or strict liability, where it does not matter if a party does not exhibit optimal behavior. What matters is that a certain situation has arisen for which the party is held liable.

[29] So his effort is neither directly nor indirectly (by signals) observable.

the total risk for influence able defects has to be allocated to the seller and the buyer will have to pay an insurance premium for this, as the seller is then also liable for the remaining failures which he cannot affect anymore. If the buyer is risk averse, this may be a contract both parties can agree upon. If the buyer, nevertheless, is risk neutral he won't be willing to pay the premium the seller would charge.[30]

One must not forget that once a contract has been written the parties in general are stuck.[31] This would leave room for strategical behavior of the parties, which in this case comes down to optimal breach of the contract.[32] So the seller (or the buyer) could reduce his effort at a point at which the marginal payoff of doing so outweighs the marginal costs of breaching the contract. Being able to do so, however, implies some sort of informational imperfection as otherwise the parties would foresee this possibility and write the contract according to it. With imperfect information the general possibility of optimally breaching the contract is given and therefore could effect the contractual relationship between the parties. It is important to understand that the optimal contract breach is an intentional action. As a result there is no distinction between a failure occurring because of contractual behavior and the intentional breach of the contract[33] and so there is also no further possibility to properly react to such a behavior within the Liability Law. Nevertheless an interesting topic such a behavior is excluded and one has to refer the analysis of it's consequences and it's prevention to an analysis of the tort law or the general contract law.

Comment: To make this point clear: within this analysis I will not examine how a contract has to be written to properly avoid a breach of contract. The main focus is the optimal design of the Liability Law to get as close to the complete contract as possible. As it will be shown later on, the Liability Law is not capable of avoiding an abuse or denial of rights but therefore heavily relies on other legal regulations as the e.g. the tort.[34]

It becomes even more complicated if we assume information asymmetry at the time of contractual agreement as then one of the parties, the buyer,[35] is not aware of problems that should be regulated within the contract. Even if he might be aware of which problems should be covered by the contract he cannot derive the explicit optimal contractual design. Therefore the party will either face risk, write a general insurance contract or will refrain from trading at all. Which scenario will take place depends on the situation and is for our purpose of no certain interest as all three states are undesirable.

In the further analysis it will, in general, be assumed that each party has perfect information about its own costs and valuations and that the seller has perfect information about the features and characteristics of his products, so the parties have no, or insufficient information about the other party's costs and valuations and the buyer may have only incomplete information about the features of a product. This assumption is especially important in subsection 2.5.2 on page 29,[36] however is also of some importance in other sections. Under some circumstances another informational distribution will be presumed, for example that the seller does not have perfect information about the product as

[30] The seller would charge a risk premium as otherwise he himself would suffer losses.

[31] Of course they can agree upon a term about a dissolution of contract, however this in general is not the case, as (often) the intention of writing a contract is to carry it out.

[32] See Weigel [2008] pages 79 *et seqq.* about the breach of contracts

[33] At this point this argument may not be understandable to all readers, but as the reader goes on within this section the argument will become clearer.

[34] See section 2.6 on page 50.

[35] There are sound reasons for assuming that it is the buyer rather than the seller of a product, who often has more experience with the performance and therefore also a better knowledge, but this is not obligatory (think of the example of a person selling his used car to a sales man. The seller may know some features of his car, but he may only be aware of fewer defects than the sales man. Also his knowledge about the probability of defects might be inferior to the knowledge of the sales man. So therefore we have an asymmetry of information on both sides.).

[36] And the discussion about the "error in motivation".

he is not the producer.[37]

If transaction costs are prohibitively high a complete contract will not evolve, even though the parties have complete information. Also this state is undesirable as then parties leave open some points[38] in a contract which lead again to unsolved states of nature.[39]

A final problem, not yet covered, may be the existence of unequal bargaining power between parties. This bargaining power might shift risk to the weaker party even though both know that the allocation implied is inefficient.[40] If the weaker party is dependent on the trade then even this inefficient contract will be agreed upon.

So now there are numerous of reasons why no complete contract exists or at least this contract is not implemented by the parties. The question remains as to why a Defects Liability Law is necessary? Indeed some of these problems can be solved either by repeated bargaining and trading[41] or by signaling the choice of optimal effort with warranties[42] and several other possibilities as well. Nevertheless the focus of this paper is to examine the issue of whether a general non-mandatory rule provided by the legislator also can do the job. This non-mandatory rule should therefore be capable of reducing transaction costs as it provides the parties with a regulation that is as close to the complete as one can be. The possible need to provide mandatory rules will be examined below as this would not allow the parties to change the rules to fit a complete contract if one could be provided.[43]

So far we have not talked about the reason why we have distinguished between defects liability rules and warranties. Indeed as stated above the problems are similar, apart from the fact that "cheapest cost avoider" will, in the framework of the Liability Rules, only (mainly) be the seller. This cannot hold true for warranties, as in this case the buyer can also influence the probability of defect of the performance through his own actions. Nevertheless the question remains as to why we can argue that the legislator might do better than the parties writing a contract, as especially the answer to the question who is "cheapest insurer" cannot be answered as generally as the one of who is "cheapest cost avoider". And the answer will be: We can't argue this. There is no sound argument as to why the legislator can do better than the individuals within the framework we build. But one argument has not been stated up to now: the one of examination costs! These are the costs that the buyer bears if he inspects the product/performance before the transfer. This is not possible within the framework of a warranty as there are also failures considered which come into existence after the transfer, whereas a defects liability rule, as used in this thesis, only takes into account failures existing at the time of transfer, so the buyer could (theoretically) find them when inspecting the performance at the time of transfer.

[37] Note that the producer is always assumed to have perfect information about his product!

[38] Or sometimes even all points, except the one determining the product and the price (which indeed are the *essentialia negotii*, as without them, in general, no contract can be written).

[39] This is indeed the reason why non-mandatory rules exist after all, as they are supposed to provide a solution for such unregulated problems, even though it might be (is) second best, so that one doesn't remain with (totally) unsolved situations.

[40] Indeed this inequality in bargaining power, as well as the presence of high transaction costs, is often seen as a reason for consumer protection and inspection of standard form contracts, see therefore Schäfer and Ott [2005] pages 117 *et seqq.* and 513 *et seqq.*

[41] So that both or one of the parties can form an update of beliefs.

[42] For a short summary about the signaling theory see also Priest [1981]. On the other hand there are also notable objections against this theory stated by advocates of the exploitation theory and Priest himself.

[43] Mandatory rules are in general characteristics of consumer protection regulations. See section 2.4 on page 23.

1.3.1.3 Allocation with and without the Liability Rules

Let us therefore consider both states of the world: the one with and the one without the Defects Liability Rules. Assume for the moment that a defect exists pre transfer and that this defect can be discovered at reasonable costs before transfer by examination, and furthermore assume that the seller knows about the general possibility and probability of the defect. [44] A complete contract is not provided and there is no liability law. So there has to be some rule about what should happen to defects which appear post transfer. We can at this point use the simplest rule[45] namely that in the period pre transfer the loss is born by the seller and in the period post transfer the loss is born by the buyer, i.e. indeed the owner bears the losses. The transfer is a harsh cut in loss bearing, therefore there is a great incentive to accept only a performance for which one is sure that the contract is satisfied. The consequence is that the buyer will examine the product very carefully, as he only can reject the product if he examines a failure right then,[46] otherwise he will have to live with it, which means he will have to face the (potential) losses.

We have, up to now, assumed that a failure can be detected, so the buyer will bear the costs of examination iff[47] the expected losses due to a defect are higher than the costs of examination.[48] As we have assumed before there is no perfect information. As the information rests with the seller the buyer will have reasonable problems optimizing his effort of examination. Only if he is able to detect the defect there will be incentives for the seller to optimize his own effort. As we have assumed that the seller has an information advantage one can also assume that charging him with the costs and the duty of examination will lead to an increase in total welfare as both actions, the investment in quality and the investment in quality control will be undertaken by the same agent. Furthermore if this is not true, there is no benefit of charging the buyer with the examination costs, as even though the seller may not be "cheapest cost avoider",[49] the buyer cannot (never) optimize his effort, so we face sunk costs.[50] One reduces therefore an asymmetry in information. Indeed the costs of examination will, very likely, raise the price of the product and so the buyer in total will have to pay for it if he is willing to.

What changes if no one can detect the defect pre transfer? One might argue then that the liability rule only has a distributive character, which indeed is not true. If neither the buyer nor the seller

[44] Take as an example a material defect in a product that occurs with probability x and causes a total loss of the product. Every product can be scanned by the seller and all the defects would be found and could be repaired or the products could be replaced. As a real world example think of a steel girder that is used to carry a ceiling. Some of the girders have tiny haircuts because of the used material. All of the haircuts can be detected by using a special machine and the steel girders could be recast. If a defect girder breaks down the whole ceiling is at risk and could collapse.

[45] Even though often in economic analysis it is not pointed out, one rule of thumb is always used: the owner of an object (by the way also the definition of what is an owner is often neglected (one can refer to the discussion of property rights in Schäfer and Ott [2005] pages 549 *et seqq.* and Weigel [2008] pages 25 *et seqq.*)) bears the risk of damage/defect to/of the object. Even though this rule seems obvious to most it is not always efficient to do so (that is way in some cases the legislator decided to change it, also for economic reasons, see for example the law of damages.). Nevertheless we will simply assume any fault by any party away for the moment and use the rule *casus sentit dominus*.

[46] Even though in Austria we in general don't face an obligation to accept a performance (and in economics I cannot remember that I have ever read about such a discussion), there are good reasons to do so (from a legal point of view), as the risk is reallocated to the buyer even though he does not accept the performance if the performance was contractual. I would argue that economists would also agree with the rule that the buyer has to bear the risk if he does not accept a flawless performance and he furthermore has to compensate the seller for his damages. If there should be a rule to force the buyer to accept a flawless product, is doubtful, as the damage claims provide enough incentives to do so.

[47] "If and only if".

[48] Or to put it in a general way he will optimize his examination effort given the probability to find the defect, the probability that a defect exists and that there are losses caused by the defect.

[49] In this case the "cheapest cost avoider" is the party that has the lowest costs in searching the defects.

[50] The same holds true if the defect cannot be influenced by the seller, but examined. Also in this case the information that the product has a defect is of no social value. Either the seller or the buyer will have to dump it or face the lower value.

can detect a defect, allocating the risk to the buyer will lead to decreased incentives for the seller to provide optimal quality. One might ask what the parties would have agreed upon if they had been able to write a partly complete contract[51] and the bargaining power had been equal? They would for sure allocate this risk to the seller as otherwise optimal effort by the seller could not be assured. So the law in this case would only lead to a contract closer to the complete one. As noted before there may be a point at which the seller cannot influence the probability of a defect any longer. So he will charge an insurance premium, that the buyer will only be willing to pay if he is risk averse.[52] The same is true if a defect cannot be detected at reasonable costs. If a detection at reasonable costs is not possible this is similar to the case that no detection at all is possible. As costs exceed the benefits of a defect search no *homo oeconomicus* will ever run the search. As a result the consequences are the same as if no detection was possible after all.

The assumption, that the seller is in the better position to examine the product, can be violated easily by assuming that the seller is a retailer or a wholesaler, or that he is a selling consumer.[53] In all cases neither the buyer nor the seller may be in any position to examine the product. It cannot even be assured that the buyer is in the better position. We will split up the problem into two cases: the seller is retailer of unused products and the seller is either the previous user of a product or distributor of used products. If the seller is a distributor it does not matter if he or the buyer is the best in examining the performance. In any case rejecting the product only leads to one consequence: the distributor has a defect product and he can't do anything about it, he can't even influence the quality of the product or anything else. So there is a need to pass on these costs and the defect product to the previous salesman and so on until one reaches the producer, the one who is actually able to influence quality. This would be achieved by allowing for a right to take recourse,[54] so one can simply blank out the distributor in this relationship. If the product at hand is used there are a lot more influences on the problem: on the one hand the previous user might have information about the quality of the product through updating his beliefs by using the product. On the other hand his usage also influences the stability of the performance and might lead to material fatigue. Furthermore his usage might also cause defects itself, for which he would be liable as they exist prior to the (anew) transfer. In case the buyer is a salesman, he might have better possibilities to examine the product and therefore figure out its real value, inclusive defects. So in this case a liability rule is of no use itself, as the only really important thing is that the seller is liable for defects which are known to him. This can be reached in other ways, as e.g. a duty to unveil known problems of a performance.[55] Nevertheless one has to also take these trades into account and allow for interference in the allocation even though there might be welfare losses. Excluding the sale of used products would lead to a huge incentive for the seller to use

[51] With partly complete it is meant that the parties cannot distinguish between the defects influenceable by the seller and these, which are not influenceable, but they know that both exist with a certain probability and that the first kind of defect depends on the sellers effort.

[52] We have not talked about why the buyer should be risk averse? Indeed it is not always true that a buyer is risk averse, but the less of a product he buys and the less information he has the more it is likely that he is willing to insure himself against the risk of a defect. So for two large firms trading huge quantities this will indeed not be true. This, however, does not harm the argument as those parties are likely to have at least symmetric information to some point and that transaction costs do not prevent them from bargaining so that they can find a better rule than one provided by the legislator.

[53] Think of a consumer selling his used car or maybe even his old house, or the currently very popular sales on internet platforms, as e.g. eBay.

[54] See section 2.10 on page 68.

[55] The same rule can be imposed on the seller if he is as a producer. However there is a reason why this rule is not sufficient and that is the difficulty in proving such a knowledge. Nevertheless the Defects Liability Rules should not be misused to impose such duty toward revealing relevant information on the seller, especially if no one, or at least the buyer, cannot verify this revelations.

his product once so that he can avoid the law. It might very well require a separate thesis to answer the question of how to handle the sale of used products.

What we have not talked about so far is why a Defects Liability Law should be a strict liability and not a negligence rule, as it would have been agreed upon in a complete contract. One therefore has to first look at the prerequisites of a liability under both rules and compare them.

1. ***damage**: To be held liable for an action a damage has to arise following this action. In our case the damage can simply be seen as the defect. About the definition of a defect see section 2.2 on page 15.*
2. ***adequate causality**: The action has to be conditio sine qua non for the damage, so if one thinks away the action undertaken the damage has to vanish. Furthermore the damage following the action may not be beyond the life experience of a reasonable person (adequation theory).[56] In this context it comes down to assuming away the lack in effort by the seller, or to put it another way, adding the necessary effort such that he would reach the optimal level and checking if the probability of the failure is reduced. If it is the reduced effort was causal.*
3. ***Unlawfulness**: The action undertaken has to violate either the law itself or a contract. Furthermore the violated law or contract clause has to be intended to prevent the violation.[57] In our example this is also very simple: the contracting parties want to transfer a defectless product or at least a product that has only inevitable defects. A product that does not provide a contractually agreed feature due to a defect is unlawful. Therefore it is very important to prove that the product was defect before the transfer, as otherwise this would not be unlawful. This will be significant in the context of defining a defect in section 2.2 on page 15 and the effects of burdening one of the two parties with the proof in section 2.9 on page 62.*
4. ***fault**: This is the final part, needed only if the negligence rule applies, not if a strict liability is concerned. The parties action has to deviate from the optimal level. Because this proof in general is the hardest for the aggrieved party the Austrian law of damages provides with some rules to ease the proof, as e.g. Art. 1298 Austrian Civil Code which imposes the injuring party to prove that it did not deviate from the optimal effort in the case of the violation of a contract.*

To better understand why it is not very useful to apply the general tort in the case of a defect one only has to think about the above argued: the producer is the one who influences the quality of the performance, but he is in general not the contracting partner of the end-user. So the end-user does not benefit from Art. 1298. He would have to prove that the producer has deviated from the optimal effort. This will hardly be possible. On the other hand the seller, which is not the producer, will easily be able to prove that he did not act faulty, as he could not influence the quality after all. So the final user would be left without a liable party. The reason why Art. 1298 does not apply if the buyer sues the producer, is that the two have not chosen each other as contracting partners. No one can burden the producer who chose the retailer as a contracting partner a shift in the burden of proof with a third party he never wanted to contract with. This, even though disregarded in this thesis, also has solvency reasons.[58] Nevertheless the application of a liability rule that holds the producer only liable if he did not exert the optimal effort would be closer to the complete contract we derived above!

Now one has to argue that indeed the Austrian Defects Liability Law covers more than a strict liability, as one only has to prove two things: the defect itself and that the defect existed at the time of transfer. The first is that one has to prove a damage the second is to prove the violation of a contract, as in general the

[56] Note that adequacy has nearly no application in the tort as this should only rule out cases that no one could imagine. One example that comes to my mind is that of a driver violating the honk-prohibition in some cities which leads to a heart attack of an older lady in her apartment. This also is a question of "unlawfulness connection", see therefore below.

[57] To use our above given example with the old lady: the prohibition to honk in some cities is not intended to prevent heart attacks but wants to prevent noise pollution.

[58] Note by the way that in the Product Liability Law the producer faces the burden of proof, but in this case we are talking about a delictual law of damages and not about a contractual law of damages. Both parties do not want to interact with each other, so there is no space for the Art. 1298. So in general the injured party would have to prove the unlawful behavior of the producer. The shift in the burden of proof however can be justified because of the superior information the producer has about his product.

delivery of a flawless product is owed. One however does not have to prove that the liable party was causal for the defect.[59] *However, as there is no good word for such a liability we will stick to the notation of a strict liability.*

In Summary: the aim of the Defects Liability Rules from an economic point of view is to induce optimal behavior by the producer. Against the argumentation of Schäfer and Ott [2005] the insurance of the buyer against defects is only a side-effect of this regulation and not its goal. If the seller/producer was not liable for all defects existent pre-transfer, the induction of effort would not be optimal.[60]

1.3.1.4 Outlook

There are many problems connected to the liability law which will keep us busy through out the next section. As we have already assumed that information is not perfect it follows that we cannot distinguish properly between failures existent pre and post transfer. Another problem we face is that it is not clear what a defect in the sense of the law should be, because the incomplete contract may also not contain special information about the features a performance should have. Moreover we have already touched the topic about the reaction to the presence of a defect. There are certain reactions to this: the performance can be repaired, the total performance can be replaced or the parties could have agreed upon a discount for the risk bearing by the buyer. In addition they nevertheless could have agreed upon a termination of the contract if certain events arise.[61] Furthermore the seller might only be a distributor never influencing the quality of a product. To weight him with the consequences of a liability rule leads to no welfare gains at all. He cannot influence anything, so the seller will be simply forced to act as an insurer.[62] One has to ask how to establish a rule such that it is ensured that the effecting party, the producer (outside the contract), will after all face the risk and therefore the losses. Ultimately an optimal choice in effort is ensured. There are also other secondary problems which will be examined in the following.

One can summarize this chapter by stating that there are reasons for implementing a Defects Liability Law under many circumstances even though one faces a diversity of problems.[63]

[59] This is logical if one again takes the example of the retailer: Which of his actions could one think away such that the defect would not arise? Well, none. Therefore the prerequisite for the liability is of no use.

[60] The reader at this point should note that it could very well happen that the seller exerts to high effort, because of the costs of the liability. This is however only true if he cannot pass on the costs of insuring the buyer against inevitable defects, as otherwise he would, by the law of large numbers, automatically offset the costs of insurance by the higher price. What remains is the maximization problem from the complete contract.

[61] One can think about this problem as the relationship between compensation claims and compliance. As we will see in section 2.5 on page 27, the term compensation claim in the sense it is used in tort, does not properly fit the reduction in price or the termination of a contract but comes close to it. So as the reparation and the replacement lead to an allocation in which the buyer remains with a flawless performance (which is nothing else than the compliance of the contract), the reduction in price and the termination of the contract want to compensate or reintegrate the buyer so that even though the contract was not properly fulfilled the buyer, at least, is compensated for the loss he faces (reduction in price) or can buy a new product (termination of the contract).

[62] And even though we have not in particular examined this problem there are many reasons why a seller, particularly a distributor is not the "cheapest insurer". He may only be the Superior Risk Bearer (See Schäfer and Ott [2005], pages 412 *et seq.*), in the sense that he profits from the law of large numbers. And even that is not for sure (think of a distributor only selling one or two products in question per year?!).

[63] One has to admit at this point that though for many problems one is able to come up with an economic argument for some issues there is no proper solution and therefore we have to face the fact the solution provided is a political decision not accessible to economic reasoning.

1.3.2 Legal Point of View

From an legal point of view the purpose of the liability rules is to re-establish the subjective equivalence within the contractual relationship once it is disturbed due to a defective performance.[64] The reason is, according to Bydlinski [2010], that it is unacceptable to leave one party with a minor performance/product even though it itself had to comply with the contract, i.e. pay the full price (so one party would be enriched). He argues that therefore the liability law is irrespective of any parties fault and furthermore he concedes the law a high level of justice.
Furthermore one can see the liability rules as a consequence of the claim of one party to receive a contractual performance before transfer, which is lost if the party accepts the performance. To ensure that the party does not lose all its claims at the time of transfer, there has to be a possibility to claim a rectification of the performance if possible.[65,66]
The first argument given (the one provided in every piece of literature I've read) immediately implies one thing: the parties have not agreed upon any rule of risk bearing and its effects on price. Would they do so there is a possibility that an assigned risk has occurred for which one party *ex ante* was held liable. So the authors[67] assume that every contract is only made upon a fully functioning performance against a fully functioning performance. That may indeed be true for many contracts, where the parties did not anticipate possible defects. A defect in performance itself does not imply that the equivalence is disturbed.
Not surprisingly no legal book or paper ever mentions the negative consequences of an absence of such liability rules on the incentives for the producer to provide optimal quality, indeed for most authors justice or equity is the reason why such rules exist (or should exist). Despite the reasons why such rules should be written both arguments agree upon the consequence: there is a need for a liability law.

[64] see therefore Bydlinski in KBB (eds.) Kurzkommentar zum ABGB^3 [2010], Art. 922 recitals 1,6 or Binder and Ofner in Schwimann (ed.) ABGB Praxiskommentar^3 [2005], Art. 922 recital 1, Dullinger [2008] recital 3/67 or Perner, Spitzer, and Kodek [2008] page 168

[65] Bydlinski [2010] interprets this as harmonization of the law of delay with the liability rules.

[66] At this point it should be mentioned that the claims due to debtor's delay or rejecting a faulty performance (which leads to debtor's delay) are somehow different than those of the liability law. Indeed the creditor can easily withdraw from the contract (sometimes after setting a period of grace). The argument as to why this should not be possible within the liability rules, is that the creditor once accepted the product so there is a closer relation to the debtor and therefore the contract has higher persistence (note at this point that a termination of the contract is still possible under some circumstances).

[67] See footnote 63.

Chapter 2

The Austrian Defects Liability Law Content, Scope and Economic Reflections

2.1 Preface

As this is an economic thesis, in the following no knowledge of the Austrian legal background is presumed. Some presentations, especially of the somewhat more complicated rules for remedies, are rather extensive, as well as to understand the functioning of the law. Therefore there will be an short overview of the Articles 922 *et seqq.* Austrian Civil Code, which are, by the way, based on an EU-Directive, so that the reader in the following is made aware of the structure of the rules:[1]

1. **Art. 922** regulates what a defect in the meaning of the law is.
2. **Art. 924** states, in its first sentence, for which defects the seller is liable and furthermore implements, in the second sentence, a reversal of the burden of proof limited to 6 months.
3. **Art. 928 to Art. 930** deal with cases of the legal exclusion of the Defects Liability Rules.
4. **Art. 931** regulates the special problem of a third party claiming the return of the performance/product as its property.
5. **Art. 932** lists the remedies in the case of a defect and the prerequisites to claim them.
6. **Art. 933** governs the limitation period for the claims and the fact that the claims have to be made at a court.
7. **Art. 933b** deals with the rules of recourse.

Note that the Liability Rules only apply if the trade is for valuable consideration. Examples such as donation and transfer because of heritage are not covered by the rules.

Before we go *in medias res* some preliminary remarks are necessary. For a detailed examination of the Liability Rules two things will be assumed: First there is no warranty contract between the buyer and any other party, including the seller or the producer (if he is not the seller). All interactions between these two causes of action are covered in the last chapter of the thesis.[2] The second assumption is that the parties do not alter the Liability Rules on a contractual basis. In general they would be

[1] The Art. 925 to 927 and 932a are not covered by this list as they govern a special case of the Liability Rules: the liability for "defects" of animals. It would go beyond the scope of this thesis to also talk about this very peculiar problem. Art. 923 only lists some examples of defects.

[2] So see section 4.1 on page 85.

allowed to do this as the rules are non-mandatory. So even though general business terms might exist, it is assumed that they do not tangent the Liability Rules at all.[3]

In the following there are some remarks on the intention of the law from an *ex ante*/*ex post* view: As economists we tend to think of parties writing *ex ante* complete contracts so that *ex post*, all problems can be solved by using this contract and its regulations. In the previous chapter when talking about the need to have liability rules, subsection 1.3.1 on page 5, it has not been clarified whether the rules intend to *ex ante* ensure the optimal allocation or simply use *ex post* risk allocations to do so. The Austrian Rules are *ex post* risk allocation rules (in general). Indeed for legal regulations this is often the case as they seem to be much easier to write down and implement. So the rules the Austrian legislator wrote down allocate the losses caused by a defect to either the buyer or the seller once the defect is revealed. Given this *ex post* allocation the individuals have to *ex ante* optimize their effort to minimize costs *ex post*. However there are also some rules that try to optimize the allocation *ex ante*. In the Liability Law one can name (at least) two: the first is about the exclusion of some defects that can be detected *ex ante*. Here the legislator *ex ante* wants to induce a behavior by the buyer, namely that the buyer at least carries out some visual inspection to avoid unnecessary future disputes. The second rule is one about information asymmetries. The seller is halted to clarify misinformation caused by advertisement about a product or statements on the packaging of the product as otherwise he is liable for missing features. This regulation also wants to *ex ante* prevent misallocations because of misinformation. Nevertheless the consequences of both rules also result from the *ex post* risk allocation rules. In the following the treatment of the problem will be, as in economics mainly used, an *ex ante* treatment. This can, as argued in this paragraph, be done without loss of generality.

In this chapter an attempt has been made to cover the Defects Liability Rules as a whole, yet to keep the analysis at a manageable level the problem has been split into several sub-problems which are examined step by step. At the end there is an aggregation of all of these sections.

One last note before we go *in medias res*: if we don't speak about the Law of Recourse explicitly there will be no distinction between the seller and the producer, as we assume that there is full compensation for every non-producing seller. In the discussion about the rules regarding legal redress[4] this assumption will be dropped. The case that the seller is the producer, however, can be better solved by the Law of Damages, as we will see in subsection 4.2.1 on page 89.

2.2 The Definition of a Defect and the Time of Existence

2.2.1 General Rule

A defect in the sense of Art. 922/1 is a negative deviation of the supplied from the owed. This raises the question what is owed? Owed are the, in general presumed and explicitly stipulated, characteristics of the product. [5]

So take for example a car: it is in general presumed that buying a (new) car implies that it fulfils the current safety standards[6] *and that it fulfils the current admission requirements. So if the car does not fulfill this requirements it has a defect.*[7] *As the general presumption is a legal term one has to use the figure of the individual capable of a proper usage of reason, which yields that the individual presumes that the car satisfies legal needs and official safety standards, which are well known to the informed car buyer. It is hard to say anything*

[3] About mandatory Liability Rules see section 2.4 on page 23.

[4] See section 2.10 on page 68.

[5] See Bydlinski in KBB (eds.) Kurzkommentar zum ABGB[3] [2010], Art. 922 recitals 1,8-11 and Ofner in Schwimann (ed.) ABGB Praxiskommentar[3] [2005], Art. 922 recitals 17-19.

[6] Like the ÖAMTC crash test.

[7] The parties can also agree upon a selling a wreck, then obviously the possibility of driving it is not presumed

more about such a general presumption without assuming special circumstances, because these circumstances also influence the general presumption that underlies a contract.

It is not in general presumed that a car can drive faster than 200 km/h. If the parties agree upon a car with maximum speed of 250 km/h then a delivered car with maximum speed of only 249 km/h has a defect, as it does not fulfill the explicitly stipulated characteristics.

Also defects in title are covered by this definition as it is in general presumed that one becomes the owner of the performance without having to face any encumbrances. This of course does not violate the analysis given in subsection 1.3.1 on page 5 as the buyer can even by examination not discover that the performance is property of a third party or that there are encumbrances bound to the performance. If one knows about these things after all it is the seller. Therefore in this case the aim of the Liability Rules is to force the seller to reveal information he has and to refrain from selling alien things. If neither the seller nor the buyer know that the item is alien or alien rights are bound to it there is no allocative effect caused by this regulation and so the regulation has only distributive effects. Hence, it does not matter to whom one charges the losses caused by these circumstances. So the regulation in total should imply that the seller is liable for situations in which either the property is the one of a third party or the property is restricted because of rights of a third party, to encourage the seller to reveal his information. [8]

This definition has an important implication: parties are released from the burden of agreeing upon each single capability a product has to have. A complete contract is from an economic point of view the most desirable contract of all[9] and this regulation is a step towards it. Furthermore this regulation also reduces transaction costs. One may not forget, however, that a notion like "generally presumed" also increases the insecurity about what is meant by this. It often depends on the *Kulturkreis* (cultural circle) of the parties, the circumstances under which the contract is concluded or e.g. on business conventions.[10] So there is indeed a tradeoff between reduction of transaction costs by presumptions and an increase in the number of hidden dissents within contracts.[11] Even though there is a legal solution to this problem, the *bonafide* addressee, from an economic point of view this solution is unpleasant. It only shifts the risks of misunderstanding to a certain party and cannot prevent them at all. So the usage of such general presumptions should be kept rather narrow[12] as in many areas the negative effects of dissents will outweigh the positive effects of reduction in the transaction costs. Indeed if one only uses the presumption in such a narrow sense the regulation is economically justified. If liability rules are non-mandatory the parties can certainly exclude generally presumed features, as the explicitly stipulated ones rule out the general presumption.[13] If the rules are mandatory this is not possible in this generality, as the seller simply can avoid the mandatory rules if he explicitly stipulates that no

[8]The possibility of becoming an owner of an item even one does not buy from the owner or the holder of the right of disposal is regulated within the Art. 367 and is bound to some prerequisites. This regulation should prevent interruptions in the legal relations because of unclear ownership. Without further examination I argue that there is a sound reason for such a regulation. I cannot say without a deeper analysis whether the Austrian implementation is also efficient. For the German law see Schäfer and Ott [2005] pages 571 *et seqq.*

[9]Indeed also from a juridical point of view this is desirable, but indeed legal rules are exactly stated because of the fact that agreements are in general not complete.

[10]Business conventions by the way are only considered if both parties trade within the same business segment, which does make sense as otherwise business convention were no business conventions but general knowledge.

[11]If two parties say the same but mean different things this is called hidden dissent. So for our purpose this means that if one party presumes a certain characteristic and the other not, one has to help himself by the idea of the straight addressee. So jurists ask what a *bonafide* party which would have agreed upon the contract would have presumed.

[12]I would argue that the general presumption should cover the narrow purpose of a product: e.g. a television should provide a picture and a tone. One does not have to argue about these features. A car has to be able to be driven, a pencil to be written with, a mobile phone should be able to be telephoned with, receive calls and enable conversation, and so on. This is rather straight forward, but in practice this bears a lot of uncertainties one can only try to minimize. Indeed the very same problem goes hand in hand with every contractual relationship and is therefore not of special interest within this thesis.

[13]This indeed helps to reduce the problems the general presumption creates.

feature at all is owed.[14]

Comment: *I have asked myself the question about what a defect, independent of the definition of Art. 922, in an economic sense would be. The fact is that I wasn't able to come up with any proper definition either by myself or in the literature other than the one given in Art. 922. Indeed I have not found in all the economic articles*[15] *I've read a single question as to why the defect he considers is really a defect in the sense of the contract between buyer and seller. If this question would have been asked I'm sure that the answer would be that a defect is something the parties call a defect in their (complete) contract. Unfortunately we face the situation that we indeed have no complete contract, so the correct question would be: What would the parties have agreed upon in the different states of nature and what would they have called a defect (or something similar)?*[16] *This is interesting with respect to the legal literature according to which the buyer often fails to prove that the state of the nature the performance is in, is indeed a defect.*[17] *If we asked this question now we would come up with the answer that the parties would have called everything a defect for which a deviation of the agreed performance is seen and for which the seller should be hold liable for efficiency reasons. This does not have to coincide with the above definition of Art. 922 as for unpreventable defects maybe the "cheapest insurer" is the buyer, but trying to create such a complete contract afterwards by law, would overload the capability of a law in general. The term "explicitly stipulated features" indeed tries to bring the legal definition of a defect close to the one the parties would have used, but cannot substitute a peculiar contractual agreement.*

2.2.2 Extension of the General Rule

A very useful regulation is also provided by paragraph 2 of the Article in question: This paragraph governs that the owed also depends upon public comments of the seller or the producer,[18] as there are for example advertisements or attached statements (e.g. on the packing of a product). These comments are treated in the following as if they would make the features presented generally presumed.[19] The reason is that the comments are only part of the contract if it can be assumed that the parties want them to be.[20] The economic reasoning in this case is clear: the one making such comments is the one which can more cheaply avoid misunderstanding caused by his own comments and is furthermore the party which wants to present his product in the most favorable way so that someone will buy it. The risk of deviation from the features of the performance to the one publicly presented should be

[14] This sounds a bit harsh, but one can think of a race to the bottom between the sellers which can lead to such or similar outcomes. About the mandatory rules see section 2.4 on page 23.

[15] The economic literature is mainly about warranties, but there the problem is somewhat similar. The difference is that often the seller himself regulates what a defect in the sense of his warranty is.

[16] It seems rather unlikely that the parties would have used such a term, but one could simply define a defect in this sense as a state of the nature for which the parties would have agreed upon a reallocation of the performances or a rectification.

[17] See Augenhofer [2007] page 778.

[18] Or the importer to the European Economic Area. This has the primary reason that sometimes the main importer is the one giving public comments if the producer is from abroad. So the regulation wants to ensure that no gap exists because the producer is from abroad and a third party which distributes the products carries out the advertisement. This would give foreign producers a competitive advantage. In general no one can be held liable for comments of third parties, so this is a reasonable exception, as is the exception for comments made by a quasi-producer, that is a party using the brand or signs used by the producer, so that he cannot be distinguished from the producer (the reason for that is that the producer in this case is the one who can stop this be either withdraw the right to use his sign or by an injunction suit).

[19] See Ofner [2005], Art. 922 recitals 19-21.

[20] This is a bit complicated, but should rule out the situation that a blatant comment, which is only passed to make people aware of the product, and which should obviously never be part of the contract. Meant are comments like: "the safest care ever", "the best shaver in the world", "Red Bull provides one with wings". It is clear that one cannot contract upon safest or best. It is also obvious that an energy drink does not really provide one with wings. On the other hand a more substantial comment is part of the contract, e.g.: the producer claims a certain energy consumption of the product.

allocated towards him. This helps reducing transaction costs and furthermore reduces the information asymmetry between buyer and seller as the seller or producer is forced to make true statements, as he is held liable for wrong statements, or to not make any statement at all (which will clearly reduce the level of awareness of the performance). There are three exclusions mentioned within the paragraph:[21]

1. There is no such general presumption that the feature is owed if the seller clarifies the statement before the contract is closed. This is from the point of view of an economist a sound argument as then the seller has done his duty to reduce transaction costs and has removed the caused disinformation. More cannot be asked from the seller.[22]

2. Furthermore the feature is not owed if the seller does not know the comment and did not have to know it. This is an unreasonable exception: if a party other than the seller has passed the comment (that is either the producer or the importer (or in some cases the quasi-producer)) it is inefficient to allocate the damage caused by such misinformation to the buyer. First of all one has to say that both parties cannot influence the comment, but indeed there are two reasons why the risk should lie with the seller: first of all he trades the performance in question so he should be aware of the comments publicly made about it[23] and secondly once the harm is done, he has (more likely) some contractual relation to the party passing the comment, so he should be allowed to raise a compensation claim against the commenting party on a contractual basis.[24] The buyer, however, is forced to raise a compensation claim on tortious basis. The harm done by the regulation is minimized because the seller is obliged to prove that he did not have knowledge of the comment, which is hard to carry out. Rescinding this regulation seems to be a favorable way to deal with the problem.

3. The feature is also not owed if the public comment mentioning it did not influence the contractual agreement. This again has to be proven by the seller. The EU-Directive speaks of the fact that the decision could not have been influenced by the public comment. Whether the buyer had knowledge of this comment is of no relevance. Indeed that exception is also justified from an economic point of view because if the parties did not consider the feature to be part of their contract the buyer should not be allowed to claim a remedy afterwards because of a defect in this peculiar feature. This is again an approximation towards the complete contract, but it is not obvious how one should prove that!? If the comment did or did not influence the buying decision is only known by the buyer himself and he certainly won't reveal this information to harm himself. There is also no possibility to observe this fact before the contract is closed as the only action that would reveal this fact is talking about the feature in question, but then indeed the feature is explicitly owed or explicitly not owed, so there is no need for this regulation.[25]

So it remains to be said that the Art. 922 is overall a sound regulation used to determine the owed quality of a performance, despite paragraph 2 having some weak points (which indeed easily can be

[21] For the legal discussion see Ofner [2005], Art. 922 recitals 19-29 and Bydlinski [2010], Art. 922 recitals 10,11.

[22] But indeed it is inefficient to charge the seller with the costs of correcting the misunderstanding, if the producer (or importer) has caused it. In this case a regulation that charges the causer with the costs seems to be desirable. So a rule is to some extent provided within the competition law (especially by the "protection against unfair competition law").

[23] As he is the one dealing on a daily basis with the performance, whereas the consumer only has contact with comment and the product once in a while. So one can say the seller is the "cheapest information collector" (one may regard this as a kind of "cheapest cost avoider"), as if he collects the information about the product once many consumers can spare these costs, so overall we have an increase in welfare.

[24] Which is, without going into the details of the law of damages, favorable to simple compensation claims because of delictual injury.

[25] Indeed I doubt much harm is done by it, as no seller will even try to prove it as success seems very unlikely.

adjusted).

2.2.3 Time of Existence

The seller is only liable for defects existent at the time of transfer (Art. 924 sentence 1). The time of transfer is, to put it more precisely, the time point at which the buyer accepts the performance as a fulfillment of the contract.[26] This does not have to be the time at which the product is transferred to the buyer. It also does not have to coincide with the time the contract is closed. Even though the term "time of transfer" is therefore from a legal point of view not very precise we will use this notation. The reader should keep in mind that by "time of transfer" the time of acceptance of the performance as fulfillment is meant. For the economic analysis nothing remains to add as in subsection 1.3.1 on page 5 it has been shown that it is most efficient to only hold the seller liable for failures or defects existent at the time of transfer.

The final term that should be examined more carefully is the term "existent" at the time of transfer. This existence does not mean that one has to be able to find the defect or that the defect has to have had any impacts on performance.[27] Again from the economists point of view one can refer to subsection 1.3.1 on page 5, where it was stated that the seller should be liable for all defects at the time of transfer. There should be no distinction made between whether the defect has already an effect or not, as otherwise this could encourage the producer to camouflage the defect.

2.3 Legal Exclusion of the Defects Liability Rules

Until now all the cases in which the Liability Rules should apply have been listed. The cases in which the legislator himself wanted the Rules to be excluded will be examined in the following:

1. **Art. 928 Case 1** states that if defects are clearly observable before the signing of the contract[28] there is no liability for them.[29] The legal reason is obvious: if the parties examine the performance in question and there are visible defects it can be concluded[30] that the agreement is signed in presence of this defect.[31] If, however, the defect is only obvious after signing, at the time of transfer this should not preclude the liability as it, in general, cannot be expected that the buyer immediately examines the performance.[32]

[26] Note that at this point the remedies provided by the law of delay expire. See therefore subsection 1.3.2 on page 13.

[27] One can think of a material weakness which causes the failure of a certain part of the product, e.g. the axis of a car. In this case the defect was only latently existent (or as it is called in German: *"angelegt"*) at the time of transfer.

[28] The Article itself puts it this way: *"in die Augen fallen"*. There is neither a clear translation nor is the expression very clear. In general it is supposed that this means that the defect has to be (clearly) observable throughout a (visual) inspection, e.g. scratches on the side door of a car. Indeed it is argued (see Binder and Ofner in Schwimann (ed.) ABGB Praxiskommentar^3 [2005], Art. 928 recitals 3-5) that every defect perceptible by the senses is meant. Especially defects that can only be discovered by an expert are not observable in the sense of Art. 928 Case 1.

[29] Only observable defects are effected by this rule, so if a performance has as well obvious and obscure defects, the unobservable ones are still a liability for the seller.

[30] As it is stated in Bydlinski in KBB (eds.) Kurzkommentar zum ABGB^3 [2010], Art. 928 recital 1 this rule is only a rule of interpretation. Indeed if the parties agree upon an exclusion of the liability in respect to a defect there is no need for such a rule, as they can do so whenever they want. So this rule is only important for the interpretation of a non-complete contract as the parties might forget to speak about the observable defect. It does not have to be proven (by the seller), that the buyer knew about the defect. However the buyer can destroy the presumption of the Art. 928 by proving that he didn't act in a careless way when he overlooked the defect.

[31] That does not exclude the parties from agreeing upon a duty to fix the defect before transfer is carried out.

[32] From interpreting the rule it is fairly obvious that the parties should be able to price in the observable defect and that is not possible if the product either did not exist or couldn't be examined. This distinction is only relevant if the time of transfer and the time of closing the contract do not coincide.

Again the general rule set by the Austrian Civil Law is sound. As already said in subsection 1.3.1 on page 5 it is inefficient to burden the buyer with the duty to examine the product at the time of transfer as this might (or will) cause unnecessary expenses. The exclusion of defects which are, however, observable at the time of signing has to be seen from a different perspective as the parties in this case contract upon a product with a history. This has to do with the above mentioned problem pertaining to used products. As has been stated for these products the general rule provided by the law is not appropriate. It has also been stated that one should not put the producer or seller in the position to avoid the Liability Rules by simply using the performance for a short period of time. The balance between these two aspects seems to exclude visible defects. One should not overload the responsibility of the buyer in this case. [33] Again one remains with a very unclear duty for the buyer but if the term "observable" is used in a very narrow sense the positive and negative effects of the duty should result in a balance. [34]

Again the costs for the buyer are sunk as the seller in general knows about these defects and imposing a duty to tell the buyer about them seems to be favorable. One can, however, never prove knowledge on the part of the seller about the failures. The seller seems, again, to be the one who is in the better position to collect information about these defects than the buyer is. So, similar to the discussion we faced about Art. 924 sentence 1 in section 2.2 on page 15, it seems favorable to burden the seller with the duty to tell the buyer about these defects.[35] *Unfortunately we remain afterwards with some difficulties in proving the comments the seller made. The buyer will first claim a discount for the defect and then come again and claim rectification. This reaction can indeed be avoided by a written contract. Many contracts are, however, not written, or both parties abandon a remark about the defects priced in. In this case it is not clear who should bear the costs. For both parties the costs of proving the truth seem to be equal. So one has to admit that the duty to prove has no (obvious) allocative effects but only distributive. For distributive effects we cannot argue, from an economical point of view, which one is to be preferred, so the decision is solely political.*

Note, by the way, that in Art. 928 the legislator also mentioned that if the seller maliciously conceals the defect he is again liable. This indeed is the case in which it is obvious that the seller knew about the defect so all examination costs born by the buyer are indeed sunk. This is a general rule as malicious behavior is never tolerated and is nearly impossible to prove and thus is simply of academic value. Above a short discussion of strategic behavior and the possibility of defrauding the contracting partner were presented. There we argued that we must omit this possibility to keep an analysis simple. Indeed, to briefly reopen this case, it is obvious that a regulation like this cannot prevent the seller from fraudulent behavior as it is nearly impossible to prove such behavior. Nevertheless this is the problem with all these regulations, as if we put it the other way round and say that the seller should prove that he did not act maliciously he will regularly fail in doing so. It is hardly possible to prove that oneself did not act fraudulently. A deeper analysis goes beyond the scope of this thesis, but a deeper analysis about the legal reactions to fraud and the possibility of proving a fraud is, itself, an interesting field of research.

2. **Art. 928 Case 2** is similar to Case 1 only that it pertains to encumbrances on estates which are listed in public registers. Again the costs caused by obtaining a land register record are minor, but the costs caused to the seller are even less, they are zero (as he for sure knows about the encumbrances on his property). He only faces the transaction costs of telling the buyer. This allocation therefore may not be optimal, but has the reason that the legislator wants to publicly provide the information about encumbrances. It seems counter-productive to enforce the seller

[33] Bydlinski [2010] uses the expression that the buyer should be in the position to find the defect without any ado.

[34] From an economic point of view I would suggest only a visual examination, so that one is able to find dents, scratches and breakages on the hull of the performance. In these cases the seller can assume the buyer is aware of this defect and has adjusted his willingness to pay for this performance and the buyer only faces minor examination costs.

[35] These comments of course also cause transaction costs and so it cannot be argued which costs are lower.

to tell about the encumbrances on his own. Again if the seller is asked about the existence of such burdens on his property and he lies, thus is a case of malicious behavior and therefore he is liable.

3. **Art. 929** rules out that someone has claims because of the Liability Rules, if he knows that he is buying a third party property[36] or if he abandons the Liability Rules. The first regulation needs no further explanation. The second rule will be covered in the general section about contractual exclusion of the Liability Rules, section 2.4 on page 23.

4. **Art. 930** excludes the Liability Rules if the buyer purchases products as a whole.[37] Again the economic reasoning is simple: The buyer obviously wants the items as they were at the time of interest, with the same faults and merits, therefore he also takes into account that he has to bear the losses caused by these faults. This rule does not apply if the seller assured a certain feature (or a certain content within the items), the performance itself violates the contract or another party owns things within the purchased ones.[38] Again if the seller assured a certain feature he should be liable because he could simply have prevented the loss by telling the truth (i.e. not assuring the feature). If the performance as a whole is defect[39] the situation is a bit tricky as the buyer purchased the things "as is", so there is no reason why this should not have been considered in pricing. However in these cases one will be able to assume that the seller (who for sure not knows the exact amount of failures within the performance) knows that his total performance is defect, so there is no reason to reward him for not being honest.[40] The last case is similar to the second case: to find out if some things have belonged to a third party is impossible for the buyer, but if anyone has the knowledge it is the seller, therefore it is inefficient to keep this knowledge to himself.

5. **Art. 931** states that if a third party claims the performance to be its property the buyer has to report the litigation to his seller, otherwise his predecessor can counter every argument he would have been able to make against the third party.[41] There is a sound economic reason for this: If the seller knows something with which he can stave off the claim of the third party he should be forced to reveal this information in the original litigation against the third party. This prevents a wrong allocation of the property and a second trial because of the claim of the buyer against the seller. If the seller, however, has no useful information no harm is done by telling him about the trial. If the seller refuses to take part and help the buyer he should bear the consequences. The same is true for the buyer if he did not report to the seller, as he then has cut the seller out of the possibility to raise objections against the claim of the third party. So the regulation on the one side assures that the buyer reports to the seller and on the other side makes sure that the seller reveals all of his information.

6. **Art. 377 Austrian Commercial Code**[42] excludes the Defects Liability Rules if the buyer

[36] Only the case is covered in which the buyer knows about the fact that the product is alien and the seller does not know. If both know that they trade a third party property the contract is void.

[37] Or as the law puts it: to buy the things as they stand and lie.

[38] See Bydlinski in KBB (eds.) Kurzkommentar zum ABGB[3] [2010], Art. 930 recitals 1-3 and Binder and Ofner in Schwimann (ed.) ABGB Praxiskommentar[3] [2005], Art. 930 recitals 1-6.

[39] Bydlinski [2010] speaks of 70 % of warehouse stock being spoiled. In this case the contract as a whole is breached.

[40] As so often this is again a case in which it is most appropriate to force the seller to share his knowledge.

[41] If the seller knows about the litigation he can decide whether to intervene as joinder of the buyer (For the consequences of such an intervention see Rechberger and Simotta [2010] recitals 355 *et seqq.*). If he does not he also loses all counters against the buyer which he would have been able to bring up against the third party.

[42] This is one of the regulations about the Defects Liability Rules not contained in the Austrian Civil Code we will cover within this thesis.

didn't report the defect, which he detected or had to detect,[43] within appropriate time and both buyer and seller are business men. The (legal) justification for this rule[44] is that the seller should be able to go on in daily business without expecting liability claims from previous business deals and the buyer should be urged to gather evidence that the defect existed at the time of transfer so that afterwards he has no problems proving it.[45] In general 14 days are appropriate according to the Austrian Supreme Court. So the buyer is urged[46] to examine and report the defect detected or detectable.

How does the Art. 377 fit into the reasoning given in subsection 1.3.1 on page 5? In fact not at all! The formulation of the article leads to overwhelming costs for the buyer because he will try to detect every error as soon as possible as he can lose also claims for defects he has had to discover.[47] Given this point it would be just to abstain from the rule as it implies no efficiency gains. It leads in many cases to unnecessary costs and if there are no unnecessary costs the only effect is that maybe a failure is discovered earlier.[48] So Art. 377 is only a discrimination of firms which buy from firms for which there are no good reasons. The legal reason, that the flow of daily business is supported by this rule, is suspicious. Clearly one problem within the Defects Liability Law is the possibility of proving that a defect exists at the time of transfer and indeed the earlier one detects a failure the higher the chance is that the proof works. Why is there a need to speed this up by the law itself? If a party wants to wait with an examination it will afterwards face the risk of failing to prove the existence of a defect at the time of transfer, this should be incentive enough to check the product. And why should the other party face any additional costs caused by a later detection of the failure?[49] The last point which argues against this article is the term "had to detect". This only leads to one effect: it complicates the trial as the seller will try to prove that the buyer had to detect the error. So indeed the trial will then have only one purpose: to find out which defects are hidden (or could not be detected at reasonable costs) as well as which can be detected. The economic value of such knowledge is questionable! There is again an exclusion of the exclusion if the seller grossly negligently or willfully concealed or caused the defect, or if he delivered a performance that deviates from the owed in such a grave way that the seller could never have expected an acceptance (Art. 378 Austrian Commercial Code).[50] Again these two exceptions have only one effect, they generate a lot of unnecessary cost within a trial, and furthermore, the exclusion of the exclusion in cause of gross negligence implements a negligence rule.

In summary the Art. 377 and Art. 378 Austrian Commercial Code must be rejected as inefficient

[43] So for hidden defects or such that can't be discovered at reasonable costs this rule does not apply, but as soon as the failures are revealed the buyer has to tell the seller about them (see Art. 377/3 Austrian Commercial Code)

[44] In general Krejci [2008] page 343 *et seqq.*

[45] This sounds like a protection of the buying business man against himself. Why then should the buying consumer not be "protected" the same way is not obvious.

[46] He is not obliged as he doesn't face any claims if he do not report the defect, he only loses rights himself, therefore obliged is not the appropriate word. In economics there is no reason to distinguish between the wording in these cases so carefully, however in legal literature this is critical.

[47] By the way, without stating that also defects that had to be discovered are meant by the article, Art. 377 would have no field of application, because if one only has to report defects one detects. I one doesn't detect them nothing happens, so who will after all carry out any examination?

[48] We will see later on in section 2.8 on page 58 that a moderate limitation period for claims does the job as least as well as Art. 377.

[49] Now for a moment disregarding the reversal of the burden of proof about which we will talk in section 2.9 on page 62.

[50] This is the case if the seller delivers a car instead of a horse (a bit ridiculous), or in general an *aliud* that is non approvable. In Krejci [2008] the case is mentioned that the buyer and the seller bargain about two different types of a product and the buyer decides to take type A, then type B is such an *aliud*. If the buyer only orders type A without bargaining than type B is in general an approvable *aliud* (*sic!*).

and should therefore be annulled!

We have seen that there are reasons to exclude the Liability Rules by the law itself, even though many exclusions the legislator has named are obviously already covered by the law in general (as the liability for malicious behavior) and other rules, especially Art. 377 and Art. 378 Austrian Commercial Code are completely flawed.

2.4 Contractual Exclusion of the Defects Liability Rules

2.4.1 Legal Basics

According to Art. 929 in general parties can exclude the Liability Rules if they do so explicitly. So Art. 929 implies that the Defects Liability Rules are non-mandatory, which however does not mean that one can exclude them in total every time. Explicitly means that the release of rules through the buyer is obvious or clear, even though the disclaimer may be conclusive.[51] The disclaimer can imply physical defects, as well as defects of title. However, as defects of title cannot be discovered at the time of transfer, as previously argued, the jurisdiction and doctrine tend to deny the possibility to disclaim the liability concerning these defects. There are a lot of examples in which the Supreme Court decided that a disclaimer was legal. There are also some common expressions which exclude the rules partially such as "as inspected and test-driven"; that exclude all defects that could have been discovered throughout a proper inspection, but not hidden defects.[52] An exclusion of hidden defects can be *contra bonos mores*, if the buyer did not know about the possibility of such defects, which is not presumed if both parties are merchants.

For explicitly stipulated features the liability cannot be excluded as this stipulation overrides the disclaimer. Furthermore an inspection is not necessary. Of course generally presumed features can be excluded. Restrictions of the access to the secondary remedies are allowed, a complete exclusion in general not, especially if the defect cannot be rectified. If the buyer can choose between two prices, one with and one without liability, a total exclusion is harmless. However, for brand new products a general exclusion is not possible, the same holds true if the product did not exist at the time of the conclusion of the contract because then an inspection was naturally impossible. An exclusion under exploitation of monopoly power is not allowed. For the general business terms the general rules apply: Art. 864a[53] or Art. 879/3.[54] Bydlinski [2010] argues that because of distortion in the contractual equivalence major defects can't be excluded. He wants to use the *Laesio Enormis* rules as a borderline, so that the seller is made liable for defects that lead to the fact that the purchased product is worth less than half the actually paid price.[55]

Art. 9 Consumer Protection Act rules that if the contract is closed between a consumer (as buyer) and a business man (as seller) the Defects Liability Rules, Art. 922 to Art. 933 cannot be excluded or changed to the disadvantage of the consumer (relative mandatory rule).[56] To not overstretch the liability of a business man it is also ruled that for used moveable products the limitation period can be

[51] See Binder and Ofner in Schwimann (ed.) ABGB Praxiskommentar[3] [2005] (recitals 4-20) and Bydlinski in KBB (eds.) Kurzkommentar zum ABGB[3] [2010] (recitals 3-9) about Art. 929 for the whole section.

[52] Which leads to the consequences that are criticized in the discussion about Art. 377 Austrian Commercial Code. See section 2.3 on page 19.

[53] This article forbids terms of unusual content if they are unfavorable and the other contracting party did not have to reckon with them at the given place.

[54] This article forbids subsidiary agreements if they are grossly discriminatory for one party.

[55] About the skepticism towards the *Laesio Enormis* see subsection 4.2.2 on page 91.

[56] So if a consumer sells a product to a business man the Art. 9 CPA does not apply.

reduced to 1 year iff this reduction has been negotiated explicitly (so a reduction in general business terms is not sufficient). This applies for used cars only if one year has elapsed from the date of first registration. The seller also has the possibility to reduce his liability if he excludes certain generally presumed characteristics. However, general exclusions such as "there are no general presumed features" are *contra legem* as they would circumvent the intention of Art. 9.[57] Art. 9 is not effective if the buyer knows about the defect, so parties can agree upon an exclusion if the defect is already known. Tacit exclusion has to be viewed critically and can only be assumed if the facts only (without any doubt) lead to the conclusion of tacit exclusion.[58] The idea is to protect the vulnerable consumer against a general disclaim of the Defects Liability Rules because of his weak bargaining position. Indeed consumer protection was the aim of the European Regulation on which the last reform of the Liability Law is based. The Austrian legislator only expanded the application area of some rules, however he only decided to protect the consumer against a preclusion of the Liability Rules.[59]

According to Bydlinski [2010] it cannot be assumed that the legislator wanted to unequally treat buying consumers and non-consumers and so he argues that one has the tendency to avoid a blatant unequal treatment of these buyers. He also argues this with the high justice content of the Defects Liability Rules.

2.4.2 Economic Analysis

Before this analysis will start the understanding of the Liability Law as it has been used up to now will be pointed out once again: these rules were non-mandatory and therefore had the main purpose of reducing transaction costs between parties to provide a regulation about what should happen if parties could not agree about rules on how to cope with defects after a transfer is executed.[60] In subsection 1.3.1 on page 5 the question, as to what the parties would agree upon in a complete contract, was asked. The solution which has been presented, was that they would hold the seller liable for defects that he can influence and would find an allocation for non-influenceable defects according to the rules introduced by Priest [1981]. As a law cannot perfectly distinguish between these types of defects it has to treat all defects equally. It was argued that there are reasons to hold the seller liable for all defects that exist at the time of transfer. There was, however, no reason to prevent parties from changing the rules if they find a better allocation or risk-bearing mechanism and the transaction costs did not prevent them from writing the design down. One crucial implicit assumption which was made was that if the parties differ about their idea of how to write the contract one party cannot impose its wishes on the other party because markets function optimally and the other party will simply be able to look for another contracting partner. So the whole idea of a liability rule was to reduce transaction costs and find a mechanism to allocate risk if the parties do not argue about certain aspects.

Within the legal framework one now faces two different regimes of contractual exclusion possibilities. One is the general rule under which an exclusion is widely possible and only fails if it is *contra bonos mores*.[61] The second one is the total absence of any possibility to exclude liability rules.

We have seen in the introduction that there are economic reasons that speak in favor of liability

[57] See Apathy in Schwimann (ed.) ABGB Praxiskommentar[3] [2005], Art. 9 CPA recital 3.

[58] Apathy [2005], Art. 9 CPA recital 2.

[59] On the contrary the German legislator only introduced these liability rules in favor of the consumer. See Art. 474 to 479 German Civil Code. The headline of these articles is *"Verbrauchsgüterkauf"* ("Consumer Products Purchase").

[60] Besides that the rules should also be able to cope with the information asymmetry between the parties and find an allocation of risks given this information asymmetry, even though transaction costs may be negligible.

[61] This is no analysis about the Austrian *contra bonos mores* rules, but such undefined terms lead to a large insecurity for contracting parties as it may very well happen that a court terminates the contract because of a rule it thinks is illegal, which the parties could not foresee. However one has to admit that these rules tend to give the courts a broad range to reach justice in each individual case.

rules and the presence of such rules tends to reduce social costs, and therefore increase total social welfare. Furthermore, those rules increase the incentives for the producer to exert optimal effort. If markets are assumed to function perfectly and there is no distortion in market power there would be also no need to prevent parties from rearranging the Defects Liability Rules according to their needs, as one can assume that a rearrangement is simply a *pareto improvement*, otherwise one party would not agree to the contract. An unequal distribution of bargaining power or malfunctioning markets can prevent this favorable allocation from taking place. It might even happen that these frictions lead to a total loss of the benefits of liability rules and the unpleasant *casus sentit dominus* rule is the result.

The bargaining power may be unequal because of a monopoly serving a market. Even an oligopoly may lead to an unequal distribution of bargaining power.[62] Bargaining power in this context is the power to write down the contract as one wishes without the possibility for the other party to change the content, e.g. of the business terms.[63] So this has nothing to do with the monopolistic situation that may arise after the contract is written. An abuse of such an situation was ruled out in the introduction, so it is assumed that once the contract is written, no party tries to optimally breach it by not delivering the required good for example. Nevertheless a breach of contract in the context of the Defects Liability Rules, i.e. a defective product instead of a non-defective one is transferred, is considered because it is the scope of this thesis.[64] A malfunction in markets may occur when all producers exclude the liability and in succession their distributors also disregard a liability, such that in the end the buyers are not able to find a seller that is able to offer them a liability at a reasonable price.[65] The reason is that the seller himself cannot influence the occurrence of defects and therefore would face an unpredictable risk and would refrain from offering such coverage. Indeed this "insurance" would be of no economical need anyway (if the buyer is not risk averse) as it does not provide incentives to optimize quality or to reduce defect search costs.[66] Another problem with the contractual exclusion of the Liability Rules is the use of general business terms. These business terms are said to reduce transaction costs as the using firm does not have to write down a contract every time a purchase is executed. The trading partner has an incentive to carefully read the terms as he might expect them to be unpleasant terms, this however increases the transaction costs on his side.[67]

The economic idea behind the application of the *contra bonos mores* rule is to sustain a minimum application of liability rules in order to maintain their positive economic effects. If it is necessary to withdraw liability rules completely from the private autonomy, as Art. 9 CPA does is doubtful. This regulation certainly has in mind that without protection of the consumer every business man would exclude the Defects Liability Rules as the consumer is in a weaker position than the sales person.[68] That is not true in this generality. If the market functions perfectly the consumer will find a firm (at reasonable searching costs) that offers him a contract with liability as long as he is willing to pay for it. A consumer who wishes to cover all risks himself cannot do so, even though it is doubtful that there is a reason to do so.[69] In the field of mandatory liability the connection between the rules and

[62] Think of the many cartel cases that have been revealed throughout the last years.

[63] So in this context one talks about e.g. a cartel that imposes the concept that all business terms exclude the application of the Defects Liability Rules.

[64] Even though this is a very strong assumption it keeps analysis smooth. See subsection 1.3.1 on page 5 for a detailed discussion.

[65] About this problem see also section 2.10 on page 68.

[66] It is very likely that the seller then himself will try to reject all defect products the producer offers him. So the search costs are multiplied as each transfer initiates another search.

[67] A common problem is that of the battle of terms if two business men have their own terms and want to underlie their contract and therefore can't agree on a contract. In this case either no contract evolves or the terms in the last accepted offer "win". That this is not very meaningful is another problem.

[68] Therefore the CPA does not apply if a consumer sells to a consumer.

[69] One may think of a product that only has inevitable defects, so a defects liability does not imply any increase in incentives to provide optimal quality for the producer.

warranties is of interest. Firms tend to expand the coverage of defects, even though the remedies that can be executed under a warranty may be limited in comparison to the Defects Liability Rules.[70]

It is beyond the scope of this thesis to argue whether, in some markets, consumer protection is necessary to prevent the total extinction of a liability and in others it is not. It is also hard to say where to draw the line up to which an exclusion between parties is possible and from when on it is *contra bonos mores*. The casuistic is rich and as said before often follows the interest to rule special case justice. Thus a general rule however is difficult to implement, and an argument for the distinction between buying consumers and buying non-consumers, as made by the law in some areas, is hard to find.[71] The total exclusion of a possibility to adapt the Liability Rules to the favor of the seller in Art. 9 CPA is also hardly justifiable.[72]

A solution would be to make a minimum part of the Liability Law mandatory, like total coverage of explicitly stipulated defects (as it is done today by the jurisdiction and doctrine), coverage of generally presumed defects but only including some remedies (one may think of the reduction in price as general every time possible remedy), the possibility to change the limitations periods only in some range (so from half of the legal period upwards) or the possibility to widely exclude generally presumed features (but not such features that are covered by public comments of the producer).

On the other hand consumer protection can be reached by prohibition of a disclaimer in the general business terms. So the idea is to force the seller to orally indicate the restrictions made to the Liability Rules. This has the following consequences: The seller no longer has the possibility to take the consumer by surprise by regulating large exclusions in his business terms, furthermore the consumer is not forced to read these terms and the third advantage is that the consumer and the seller can find *pareto-superior* allocations that were prevented by Art. 9 CPA if the transaction costs do not prevent from such an undertaking. Nevertheless if one stays with the idea that every possibility for the sales man to alter the Liability Rules leads to harm of the consumer one will also reject such an alternative way of solving the problem.[73]

At the end of this section the possibility to reduce the limitation period for used products to one year will be looked at.[74] As such a possibility is exactly what, as claimed above, was missing in Art. 9, only this one exception is minor. Indeed this exception was implemented because used cars salespeople feared unpredictable costs and the legislator wanted to avoid a break down of the market. As a result he gave them the possibility to reduce their liability to only one year.[75] This may very well be useful, from an economic point of view as well, even though it leads to the problem of regulation when a product is used, as the difficulties of proving that a defect existed at the time of transfer may rise with

[70] About the remedies see section 2.5 on page 27, about the warranties see section 4.1 on page 85.

[71] Think of a person who also runs an one-man-firm. The person buys a PC, that will be half used for the firm, half for private. If he reveals himself as a business man, he will be able to offset half of the purchasing price from the taxes, but he might not benefit from the Liability Rules. On the other hand if he buys the PC as a consumer he cannot offset the price, but will for sure benefit from the Liability Rules. In either case the PC will be used 50:50. Note that here also the argument given by Priest [1981] that warranties in favor of business men are excluded because of the intense use fails, firstly the Defects Liability Rules are not influenced by the usage of the buyer and secondly the concept does not imply any solution in a 50:50 case. It is hard to see a justification in the totally different treatment of the same person, and so one will have to refer to Bydlinski [2010] and argue that it can't be that we only have a 0-1 choice, no or total Liability.

[72] Bydlinski [2007a] (recital 5/26), also laments that the possibility of altering the Liability Rules in the old Art. 9 CPA was greater (even though today the old Art. 9 CPA is partially covered by the two step system in the remedies (Art. 932)).

[73] If this argument however holds an empirical analysis is hard to say, but I doubt it, even though there may be single markets in which such a race to the bottom through out the general business terms might be possible.

[74] For the limitation period in general see section 2.8 on page 58.

[75] See Apathy [2005] recital 7 *et seqq.* (also for the following).

the period of usage of the product.[76] A market distortion as it is implemented in favor of one special market, the one for used cars, and not for general economic reasons.

So it remains to argue that the contractual exclusion of the liability is a difficult issue from an economic point of view. A general possibility to exclude all liability rules is not preferable nor is a general mandatory rule. As often in life the solution lies somewhere in the middle, where it is, is nearly impossible to say. An idea of how one can solve the problem alternatively was attempted by regulating some minimum content and trying to protect the consumer (if one thinks that they are worthy of protection) by increasing transactions costs for the seller to exclude certain rules and by removing the seller's possibility to catch the buyer out.

2.5 Claims in the Case of a Defect

Up to now we have only dealt with preliminary questions about liability rules. "What is a defect?", "At which point in time it has to exist?" and "When there is no liability?" were all relevant questions. The next section will deal with the problems occurring once a defect is detected, as the question then is: "What should happen to the defect?" and "Who is the one to choose the legal remedy?". The answer to these questions is regulated within the four paragraphs of the Art. 932.

2.5.1 Legal Basics

Article 932 lists four different legal remedies:[77] rectification, replacement, reduction of price and redhibition. It divides them in two parts: primary and secondary remedies. The primary remedies are rectification and replacement and the secondary are price reduction and redhibition. The secondary remedies can only be claimed under certain circumstances, which will be handled shortly. The legal reasoning for this division is the idea of the second chance. The seller should have a second try to fulfill the contract correctly if his first served performance has failed.[78,79]

The choice between rectification[80] and replacement is in general the one of the buyer. If the buyer chooses the one which for the seller is more expensive (at a disproportional level) there has to be a weighing of interests.[81] If the sellers interest substantially outweighs the buyers, he can choose the remedy. This weighing has to take into consideration the severity of the defect, the difference in costs for the seller and inconveniences caused to the buyer because of not being able to use the product or disturbances caused by the carrying out of the remedy. The seller has to carry out his duty in an

[76] As older products tend to have more defects than new ones because they are worn out.

[77] For the whole section see Bydlinski in KBB (eds.) Kurzkommentar zum ABGB^3 [2010], Art. 932, Ofner in Schwimann (ed.) ABGB Praxiskommentar^3 [2005], Art. 932, Dullinger [2008] recitals 3/86-3/111 and Perner, Spitzer, and Kodek [2008] pages 171-173.

[78] The idea of the second chance does not imply that there is really only one additional chance for the seller. If he is willing to improve his performance he could get a lot of second chances for different defects (but never a third chance for the same defect, in agreement: Bydlinski [2010] and Ofner [2005]). At some time one could reach the point at which the primary remedies are unacceptable for the buyer because of substantial inconveniences (see below).

[79] According to Reischauer [2002] (page 146) the second chance implies an adaptation of the Art. 918 (Law of Delay) and the Defects Liability Rules. In Art. 918 it is regulated that the seller, who is in delay without fault, must be granted a grace period. He argues that the primary remedies, which in the end should lead to fulfillment of the contract are similar to this grace period. He admits though, that this differentiation was invented on the request of the firms, as (according to him) the primary remedies are supposed to be the cheaper ones for the seller and also lead to no unreasonable discrimination of the buyer. Bydlinski [2010] (Art. 932, recital 2) argues that the second chance corresponds best to the intention of the original contract as the aim is the fulfillment of the originally owed.

[80] Note at this point that rectification in general means either reparation or additional delivery of missing parts.

[81] Of course the buyer cannot choose the impossible remedy. If one is impossible he has to choose the other one. If the other one causes substantial inconveniences to him he might also choose the secondary remedies.

appropriate time frame and with as small displeasure for the buyer as possible.[82] What this means can be figured out by considering the above mentioned points. But the seller has to carry all costs caused to him and has to start rectification or arrange for replacement immediately or as soon as possible.

Only if rectification or replacement are impossible,[83] or connected with disproportionate expenses for the seller, or the seller refuses to carry out the primary remedies (or is in an unreasonable delay) or finally the buyer either faces substantial inconvenience or the primary remedies are unacceptable for the buyer because of reasons lying by the seller, can the buyer claim the secondary remedies. Redhibition can furthermore be claimed only if the defect is not insignificant.

In the following we will briefly examine what the possibilities to claim the secondary remedies mean[84] and what an insignificant defect is. We will start with the prerequisites to claim the secondary remedies:

1. **Impossibility:** Either the primary remedies are technically impossible,[85] or they are impossible because they were already executed by another party or the buyer himself.[86]

2. **Disproportional expenses:** This is a reason that can only be put forward in a meaningful way as defense by the seller. What a disproportional expense is, is hard to state, but one has to consider the loss in value caused by the defect and the inconveniences the buyer faces because of being directed to the secondary remedies.

3. **Refusal or unreasonable delay:** The term refusal needs no further explanation and leads to an immediate failure of the primary remedies. One can, in this case, presumably also raise compensation claims beside the secondary remedies.[87] What the term unreasonable delay means is harder to say. It can be argued that this implies some substantial deviation from the appropriate time and therefore depends on the time which one can reasonably estimate for rectification or replacement.[88]

4. **Substantial inconveniences:** This term is interpreted in a narrow sense, to ensure that the buyer cannot easily bypass primary remedies, and the inconveniences of the buyer have to outweigh the inconveniences caused to the seller by the secondary remedies.[89] Another reason for substantial inconveniences is the one of an useless rectification or replacement. This is the case if the trade was a time deal, so a later fulfillment does not have any use for the buyer [90,91]

[82] This of course needs no further mentioning as dealing with another party implies taking care of its sphere, especially causing no evitable damage.

[83] Replacement is (only) impossible if the duty was a specific obligation and not an obligation in kind or the kind has perished (this may be true if the production was ceased, or if the obligation in kind was limited, e.g. not rice in general but rice from a certain cultivation area). Which of both is true depends on the contract, but in general buying an unspecified product is an obligation in kind, e.g. a (not "the") car brand x type y. Used products are always specific obligations, as only one product exists with exactly that history of usage, therefore it is unique.

[84] For a (very) detailed discussion read Ofner [2005], Art. 932 recitals 45-64.

[85] This implies actions that no person can carry out (Art. 878), but according to the jurisdiction this also implies that the primary remedies would create a new product (so the old one is not rectified or replaced, that does not mean that a slightly changed new production line is a new product in this diction) or it is not possible anytime soon (It seems doubtful to use this notation to catch that possibility, summarizing it under the point unreasonable delay would also be appropriate, but that does not change anything).

[86] See therefore section 2.6 on page 50.

[87] See therefore also subsection 4.2.1 on page 89.

[88] The reader might note at this point that the literature and the jurisdiction in this case only replaces one highly interpretable term by another one, which indeed is of no real help.

[89] An example often used in the literature is the one of major craftsmanship in the buyer's living facilities to repair a minor defect. In this case a price reduction seems from the legal point of view to be the appropriate solution.

[90] This is no direct implication of Art. 932/4 but is reached by using it in analogy. According to Bydlinski [2010] it is the corresponding legal consequence to the Law of Delay.

[91] If one takes a closer look at this reason and the one called "disproportional expenses" he will see that the two are

5. **Unacceptability because of reason lying on the part of the seller:** This is a very rare case in which the seller set an action so careless that a further contractual relationship is totally unacceptable for the buyer.[92]

If one of these points is true the buyer can claim secondary remedies. He only can claim redhibition, however, if the defect is not insignificant. Whether a defect is insignificant or not is traced from the loss caused by the defect[93] and the contract. So if a certain feature is declared to be as important in the contract it is certainly not insignificant.[94]

At this point one should discuss the legal consequences induced by a negligible error. Ofner [2005] argues in accordance with the explanatory attachment to the government bill that for minor defects there should be no remedies of any sort. Against this, Bydlinski [2010] (in accordance with the European Directive where one cannot find such a distinction between insignificant defects) argues that if the presence of a defect can be proven there should be a remedy in each and every case.[95]

2.5.2 General Economic Analysis

The question that is raised in this section is how to arrange these different remedies such that the sellers effort is optimal and the risk is allocated with the "cheapest cost avoider" (or at least the "cheapest insurer"). To figure this out we once more refer to the complete contract and therefore want to figure out its structure. One however must be aware that this complete contract is still one with limitations. We want to consider the complete contract if the parties are forced to hold the seller liable for all defects existing at the time of transfer. If we would not assume this we would end up with a structure of the contract as provided in subsection 1.3.1 on page 5: some sort of negligence rule and a risk bearing rule. We however want to examine the effects of the strict liability!

This is the most analytical section in this thesis so there are a lot of assumptions needed, especially when it comes to an *ex ante* consideration of the problem. Because of this the reader is reminded once more of the assumptions/simplifications that have been used until now:

1. There are no externalities.
2. There are no insolvencies.
3. The seller is the producer.[96]
4. No fraudulent behavior by one of the two parties.[97]

the same, only seen from the different points of view of the parties.

[92]Here the example, used in the explanatory attachment to the government bill, is the auto repair shop in which the brake system of a car was repaired so badly that the buyer had to fear for the safety of his life. Providing the seller with a second chance to re-repair the brakes is unsuitable and unacceptable in such a case.

[93]A quarter of the value of the performance is not any longer insignificant (Bydlinski [2010])

[94]One well known case of the Austrian Supreme Court (see 1 Ob 14/05y in subsection 3.2.1 on page 82) involved a car, which made unusual noises every time the gears were changed. The Supreme Court decided that this error was insignificant (even though the car was a high price one). It took into account the displeasure caused to the buyer and the negative effect caused to the seller if there was a redhibition because he couldn't sell the car without a major price discount. Another case involved a weak heating device in a car with a luxury package, which was considered to be not insignificant (see 8 Ob 63/05f in subsection 3.2.2 on page 84) as the luxury package was mainly chosen because of the heating system.

[95]Without intervening into the legal dispute it is clear that the implementation of an European Directive into the national law has to be interpreted in accordance with the EU-Directive.

[96]As stated in previous sections this assumption is in general dropped in section 2.10 on page 68. If within this section a differentiation is necessary that will be pointed out separately!

[97]So when the remedies are examined from an economic point of view only their economic effects should be examined, but not their contractual design: So a complete contract would exactly arrange how a remedy is executed to avoid the abuse of rights by one party (e.g. the rectification in case defect x occurs is to repair part y within time z and use

5. The contract does not change the Defects Liability Rules or affect them in any other way (as there for example could be other legal redresses).[98]

6. The individuals are presumed to act according to the idealized figure of the *homo oeconomicus*, i.e. they are perfectly rational, utility (earnings) maximizing individuals capable of handling every amount of information.

7. Each party has perfect information about its own costs and the seller has perfect information about the features and the valuation of his product.

8. Perfect information is present[99] (for the examination of the complete contract).

9. Absence of transaction costs (for the examination of the complete contract).

In the following we further assume: Let p be the buying price (=market price) of the performance at the time of transfer t_0. Let $v^b(t_0)$ be the value of the product for the consumer at time t_0[100] and $v_t^b(t_0)$ be the value of the, in time t[101] replaced, performance to the buyer.[102] Besides that $v_t^b(t)$ is the remaining value of a performance to the buyer in time t discounted to t_0 by t periods and $\ell_t^b(t)$ is the loss caused by the defect again discounted to t_0.[103]

There are some pictures provided to clarify the notation. In Figure 2.1 on page 31 one can see a (non-discounted) utility stream. Red is the price paid in time t_0, green is the utility provided by the product from t_0 onwards. In Figure 2.2 on the same page the same graph is provided with a discounted utility stream only. Figure 2.3 on page 32 shows the stream from $t = t_1$ onwards, including the negative effect of the defect, where in this case the defect revealed at t_1. The previous "payments" are the bars with the lower contour (indicating the past). Therefore the red bars on top of the green ones show the losses caused by the defect. We don't treat the defective performance as one, but we split up the stream of the performance after t_1 and the stream of the losses, which is shown in Figures 2.4 and 2.5 on page 32. If the good is a durable good, for example a car or a computer, the representation of the value in a discounted income stream is very reasonable. For products that only create an income at one point in time, which may be true for some services and also for some physical products, this representation is reasonable. In this case the stream consists of one element (or two if one includes the

material s, so that one party cannot repair within time t, with $t > z$ to the harm of the other party). We don't bother about this design, as the focus is on the total economic effects of the optimal execution of the remedy (where optimal again means: marginal costs of an increase in effort are equal to marginal revenue of a decrease in losses caused by the defect or/and remedy).

[98] In particular: There is no interference by the law of damages. This will be considered in subsection 4.2.1 on page 89.

[99] So both parties have perfect information about all costs and valuations as well as all features of a product.

[100] The value is calculated from a discounted utility stream over the life time of the performance. It is in this context of no special interest how exactly this stream looks, as we are only interested in the existence of such a value. If the buyer is a firm not a consumer it is simply the income stream the performance gives to the firm (this can be a reduction in costs, the value of the products produced itself, or anything else). Note that it has to hold true that $v^b(t_0) \geq p$, as otherwise the consumer would not buy the performance in question. Note that given the assumptions above it is under some circumstances (monopoly or oligopoly market structure) likely that the price and the willingness to pay coincide as perfect price discrimination is possible (by the assumptions made above). This however has no further implications in our analysis and can therefore be omitted. Furthermore note that t_0 is assumed to be 0 such that $t - t_0 = t$.

[101] The time point t will be referred to as the time point the remedy is carried out. Indeed it may be true that carrying out the remedy needs some time span and therefore one can think of t as the time point in which the execution is completed. As stated in the previous footnote t also refers to a time span, as $t_0 = 0$. Note that there are no assumptions about whether t should be smaller or larger than any number as at the moment it does not matter when the defect arises.

[102] Which is assumed to give the same income or utility stream as the initial performance only discounted to time point t_0 by t periods.

[103] These losses are again calculated with respect to the utility function of the buyer and are a discount stream over the (remaining) lifetime of the performance. The loss itself can also be a shortening of the life span.

payment made). If a defect arises it either arises at the same time as the performance is carried out or is an after-effect.

E.g. think of a consumer that buys a fruit. He eats it at time t. If the fruit is rotten the moment the consumer eats it he will also taste that it is rotten. He then faces the disutility at the same time as he would face the utility of eating the fruit. If, however, the fruit has been treated with some kind of tasteless chemical which causes pain in his stomach, he will face the disutility hours later. In both cases the fruit was "defect" as it does not satisfy generally presumed features (fruit are presumed to be fresh and not treated with poisonous chemicals). In both cases the representation as a stream of utilities fits, even if the stream only consists of a single value.[104]

The general problem in such cases is that most remedies cannot any longer be imposed, and the proof of a defect will be even harder because sometimes the performance itself may already be gone. Even though this would be an interesting topic we will exclude such problems for simplicity.[105]

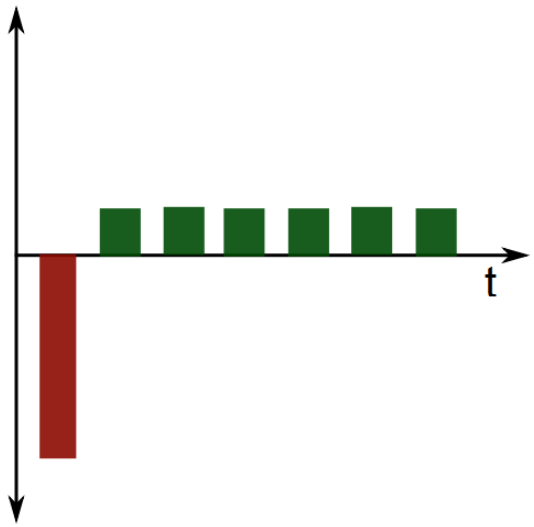

Figure 2.1: (Utility) Stream

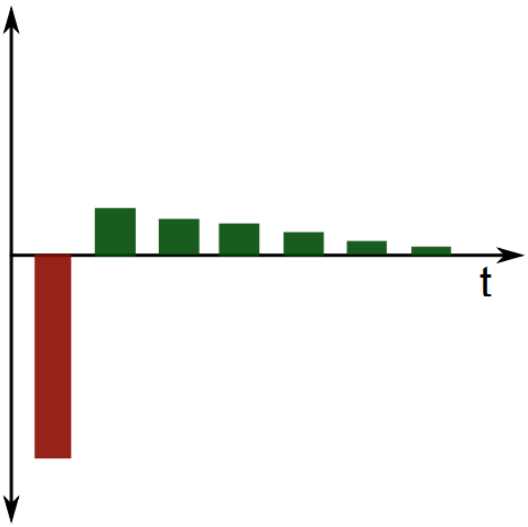

Figure 2.2: (Utility) Stream discounted to t_0

The value of the product to the seller at time t_0 is $v^s(t_0)$[106] and $v^s_t(t)$ is the resale price of the product in time t again discounted to t_0. $\ell^s_t(t)$ is the reduction in resale price caused by the defect at time t discounted to t_0. The seller is able to either buy the product himself or produce it at costs $e(t_0)$, which are the marginal costs in this case and therefore $p \geq e(t_0)$.[107] Note that if the product has to be reproduced, so that it can be replaced, the seller faces the marginal costs of $e_t(t)$, so that are marginal costs of producing the product at time t discounted to t_0.[108,109] At this time it should be pointed out that one can also assume that $v^b(t)$ and $v^s(t)$ are decreasing in t, so the (market and

[104] A recent example is the EHEC-scandal in Germany in Mai and June 2011.

[105] Especially the problem of rotten malnutrition and of defect services come under this exclusion.

[106] It is assumed that all values for the seller are market values, so that they don't depend on the sellers own utility function if he is a consumer (of course if he is a firm this does not need any further mentioning). So indeed as p is the market price of the performance in time t_0 it follows that $v^s(t_0) = p$ under perfect competition.

[107] So one can assume the difference between p and $e(t_0)$, if there is one, to be the spread to bear fix costs, or invention costs, insurance fee or simply in a non-competitive market the mark-up.

[108] One can further assume that the nominal costs of reproducing do not change, then $e_t(t) = e_t(t_0)$, so the costs are the nominal costs at t_0 discounted over t periods.

[109] The assumption that the product can be reproduced at t goes beyond the assumption that the seller does not become insolvent. One also has to assume that the line of production is not closed for a given reason. For a related problem see section 2.7 on page 54.

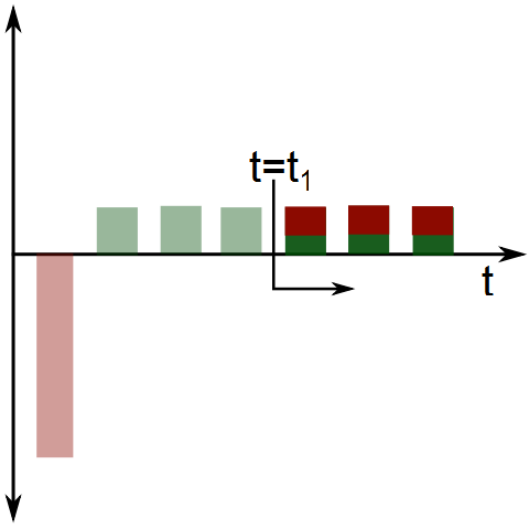

Figure 2.3: (Utility) Stream from $t = t_1$ including the losses caused by the defect

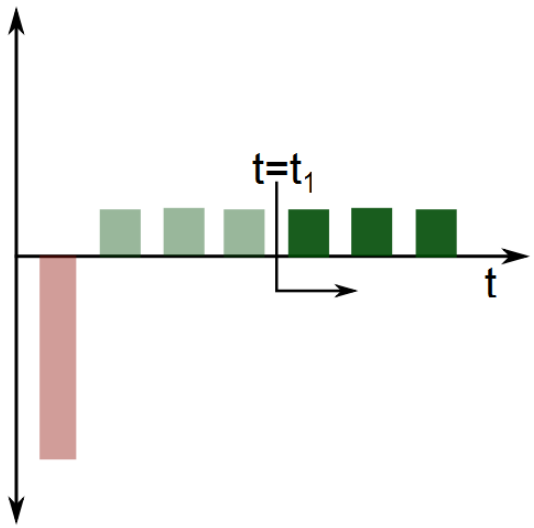

Figure 2.4: (Utility) Stream from $t = t_1$ without the losses caused by the defect

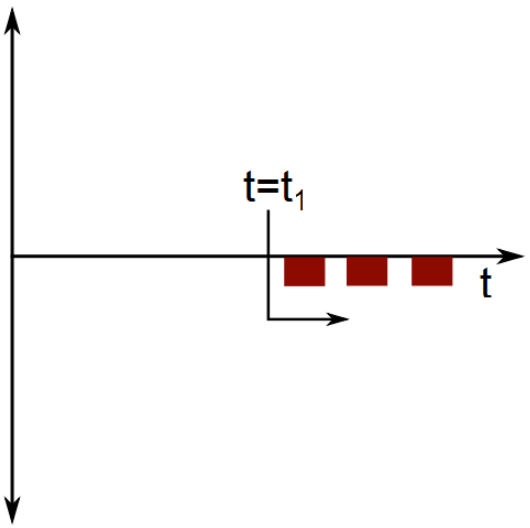

Figure 2.5: Stream of losses caused by the defect

usage) value of a product reduces over time.[110]

Furthermore let c_r^b be the buyers costs of rectification,[111] let c_p^b be the buyers costs of replacement,[112] let c_h^b be the buyers costs of redhibition[113] and at last let c_u^b be the buyers costs caused by the price reduction.[114] On the side of the seller let c_r^s be the sellers cost of rectification,[115] c_p^s the costs of replacement,[116] c_h^s the costs of redhibition[117] and c_u^s be the costs caused by the price reduction.[118] All these costs are incurred at time t and are discounted over t periods to t_0. As the notation is complicated enough, this additional information is dropped, but please keep it in mind. All the cost variables listed are (of course) minimal in the sense of both parties, which choose their level of effort such that the sum of the costs of the remedy is minimized.[119] Note that the reason for the assumption that all costs to the seller are market costs is that in the case of the relaxation of perfect information we can assume that these costs are amenable to evidence submitted by an expert. This cannot be said about the value of the product and the costs for the buyer as these in many cases depend upon an unknown (unverifiable) utility function. In addition assume that the value of the performance cannot become negative for the buyer. This means that a defective performance simply has no value for the buyer at all, but also causes no displeasure to him. Also assume that for now, rectification leads to a total correction of the defect, so no partial defect remains. We will briefly examine the relaxation of this assumption below. The last assumption before we start the analysis is that there is no third party which is able to rectify the performance at all, or at lower costs.[120]

Before we start the analysis it must be emphasised that the seller only chooses the effort to influence the probability of defects and is, in this framework, not able to alter the overall quality of the product in question. If his product is in general of low quality because it has only minor features, he does not influence the quality of these features, but only the likelihood of a defect affecting these features.[121]

Furthermore the reader should take note that the execution of a remedy is 0-1 decision, so if one

[110] One can think of circumstances under which the performance has a higher value at $t > t_0$ for the buyer. For example take a machine that has to be adjusted to the needs of the buyer over a certain time period. After the adjustment has taken place the machine has the largest value to the buyer and afterwards it is again a decreasing function in t. We will rule out such cases by assumption.

[111] One can think of the utility losses caused by the non-usage of the performance in the time of rectification, but also of the disutility caused by the rectification measures (as noise and dust within the living facilities during the repair work).

[112] See the previous footnote.

[113] Note that these costs are not the utility loss caused by the absence of the product. This loss will be captured by simply subtracting the value the product would still have for the buyer if it was defectless. Here e.g. the cost of dismantling the product are meant (so again disturbances caused by work, as well as time losses caused by the retransfer of the performance).

[114] In the following we assume that these costs are zero. Transaction costs can be caused by this remedy as well, but in general a simple transaction of money causes only minor (or negligible) transaction costs. At the end of the section there will be a short discussion of what happens if we assume c_u^b to be non zero.

[115] These are the total marginal costs caused by the remedy, including the time needed, the additives and repair parts used, cost of shipment and so on.

[116] See the previous footnote.

[117] As for the buyer only the costs of dismantling are meant. The compensation payment from the seller is again considered to be a separate post.

[118] Also these costs are assumed to be zero or negligible.

[119] The costs of a remedy are a function of the effort the seller undertakes to carry out the remedy (so how fast he works, how much and which type of material (quality) he uses and so on) as well as the one the buyer undertakes. The buyer can also influence the total costs by holding back information he discovered about the defect (About the design and effects of the peculiar defect that the seller might need to carry out the remedy as fast as possible) or by obstructing the undertaking of the seller (because of any reason).

[120] This assumption will be relaxed in section 2.6 on page 50.

[121] So if the contract is about a very cheap sound system with awful sound the seller does in our framework not improve the quality of the sound. What he e.g. influences is the probability of a rip in the membrane inside the speakers, as a ripped membrane is a defect of the sound system.

remedy is executed no other remedy is executed for the same defect.[122] So there is in general no mixture of remedies. This has to be seen in contrast to the choice of effort by the seller to influence the probability of the defects. This follows a general economic maximization problem so the seller chooses the level of effort such that marginal costs of an extra effort are equal to marginal revenues of the reduction in the total losses caused by the defects. Once the defect occurs there is no longer such a maximization decision as the remedies are 0-1 variables, so one has to compare the different states of the world to find an optimal solution.

We will start the analysis by figuring out the total effects of each of these (idealised) remedies individually and then compare them in order to reconstruct the complete contract. Before we do so please keep in mind that the information required for the analysis is emense because this analysis only works if one assumes complete information!

Rectification: The execution of a rectification implies the following: the buyer remains with $v^b(t_0) - p - c_r^b$ the seller with $p - e(t_0) - c_r^s$. Given all the above assumptions, the remedy will be agreed upon only if the total wealth after the execution of the remedy is larger than before. Without the rectification the total wealth is $(v^b(t_0) - p - \ell_t^b(t)) + (p - e(t_0))$, the total wealth with the rectification would be $(v^b(t_0) - p - c_r^b) + (p - e(t_0) - c_r^s)$.[123] If one puts these two together, the execution of the remedy only makes sense if the total costs of rectification are smaller than the losses caused by the defect, i.e. $c_r^b + c_r^s \leq \ell_t^b(t)$.

Replacement: If the seller replaces he gives the buyer a product which he buys or produces at costs $e_t(t)$ and receives in exchange a product worth $v_t^s(t) - \ell_t^s(t)$. So we remain with $v^b(t_0) - v_t^b(t) - p + v_t^b(t_0) - c_p^b$ for the buyer[124,125] and with $p - e(t_0) - e_t(t) + v_t^s(t) - \ell_t^s(t) - c_p^s$ (***Case 1***) for the seller. In this case one must also consider the possibility for the seller to rectify the performance once the commodity is transferred back to him. So if it holds that $\ell_t^s(t) \geq c_r^s$, the wealth of the seller after the replacement is $p - e(t_0) - e_t(t) + v_t^s(t) - c_r^s - c_p^s$ (***Case 2***) and the rectification pays off. The total wealth without replacement is again $(v^b(t_0) - p - \ell_t^b(t)) + (p - e(t_0))$, the one with replacement is, in ***Case 1***, $(v^b(t_0) - v_t^b(t) - p + v_t^b(t_0) - c_p^b) + (p - e(t_0) - e_t(t) + v_t^s(t) - \ell_t^s(t) - c_p^s)$. So in ***Case 1*** the remedy should be carried out if $(v_t^b(t_0) - e_t(t)) + (v_t^s(t) - v_t^b(t)) - (c_p^b + c_p^s) > (\ell_t^s(t) - \ell_t^b(t))$, or to put it another way if $-(v_t^b(t_0) - e_t(t)) - (v_t^s(t) - v_t^b(t)) + (c_p^b + c_p^s) + \ell_t^s(t) \leq \ell_t^b(t)$. The first term is indeed the difference between the value of the performance to the buyer minus its production costs at time t discounted to t_0.[126] The second term is the difference in the market value of the defectless product and the value of the product without the defect to the buyer at time t (again discounted). Whether this is positive or negative cannot be predicted. One can, however, make an educated guess that indeed the value of the product to the buyer is larger than the market value[127] so this is likely to be negative. The last term represents the costs caused by the remedy. The sum of these three terms have to be larger than

[122] Given that the remedy does not fail. That however is only possible in the case of the rectification. Within this thesis this aspect is not covered, so it is assumed that the rectification once executed is successful with probability 1.

[123] Note that the first bracket represents the "wealth" of the buyer, the second the "wealth" of the seller.

[124] The buyer has to return a product that would have given him (without defect) an utility stream which sums up to $v_t^b(t)$, the remaining value of the product at t discounted to t_0.

[125] About the question whether the buyer should pay some extra money for receiving a product worth $v_t^b(t_0)$ to him, even though he returns a product, even without defect, worth $v_t^b(t)$, will be discussed in section 2.7 on page 54.

[126] So as we have assumed that $v^b(t_0)$ and $e(t_0)$ do not change over time, this is simply the discounted difference, and as it has been assumed that $v^b(t_0) \geq p \geq e(t_0)$, the discounted difference is also greater than zero.

[127] This is especially true for products losing market value very fast, like e.g. cars, televisions, computers (so mainly all kinds of technical products).

the difference between the market value of the defect and the "value" of the defect to the buyer.[128] In ***Case 2*** the remedy should be executed iff $(v_t^b(t_0) - e_t(t)) + (v_t^s(t) - v_t^b(t)) - (c_p^b + c_p^s) - c_r^s > -\ell_t^b(t)$. The only thing that has changed is that c_r^s replaces $\ell_t^s(t)$. The interpretation is the same as above.

Redhibition: If a redhibition is carried out the buyer is left with the repayment of the seller minus his costs. Three possible payments can be thought of: the seller can refund p at t, so the value of this refund is p_t, which is the price discounted over t periods. The seller can repay $v^b(t)$ i.e. the value of the performance to the buyer without defect[129] which discounts to $v_t^b(t)$, or the seller can finally refund the market value of the product $v^s(t)$, which discounts to $v_t^s(t)$. If the seller has to pay too much he might exert an inefficient effort.[130] If the seller has to pay too little his effort also might be lower than the optimal one. The effort of the seller should be maximized with respect to the total wealth created by the contract. As the product is transferred to the buyer, the seller will maximize his effort with respect to $\ell_t^b(t)$. If the loss caused by the defect can be reduced by reallocating performances the seller should consider this, therefore, small value. The redhibition cannot (always) ensure this.[131] Therefore a complete contract (in general)[132] won't consider the case of a redhibition. One can also show that the redhibition is similar to a replacement with the exception that only two transactions take place.

Consider the case where the refund is p_t.[133,134] In this case the buyer remains with $v^b(t_0) - v_t^b(t) + p_t - p - c_h^b$, the seller with $p - e(t_0) - p_t + v_t^s(t) - \ell_t^s(t) - c_h^s$. Again if $c_r^s \leq \ell_t^s(t)$ the seller will rectify the performance once it is transferred back to him. The total wealth in ***Case 1*** given that a redhibition has been executed therefore is $(v^b(t_0) - v_t^b(t) + p_t - p - c_h^b) + (p - e(t_0) - p_t + v_t^s(t) - \ell_t^s(t) - c_h^s)$, without it, it is $(v^b(t_0) - p - \ell_t^b(t)) + (p - e(t_0))$. So redhibition would be carried out iff $(v_t^s(t) - v_t^b(t)) - (c_h^b + c_h^s) > (\ell_t^s(t) - \ell_t^b(t))$. So what is the difference to the required circumstances under which a replacement is carried out? One can conclude that the term $v_t^b(t_0) - e_t(t)$ is missing. But this term is simply the discounted wealth of the transfer in t, so in a case of redhibition the parties will remain with the same (discounted to t_0) if they transact again. The costs of the remedy are different, but if one thinks of both the costs of replacement and those of redhibition one would certainly figure out that a redhibition is half of a replacement. In a redhibition one only has to go half the way because one only has to dismantle the product and bring it back to the seller. In the case of a replacement it is also necessary to rebuild the performance. But if the original buyer purchases the product a second time he faces these costs anyway.[135]

Redhibition has a separate effect if the buyer decides to get rid of the product after all, i.e. he does not want to purchase it again.[136] In this context one can think of the redhibition as a resale option

[128] One cannot really say if this is either positive or negative.

[129] Note that the defect has to be covered by the seller otherwise there would be no (or not sufficient) incentives to support optimal choice of effort by the seller.

[130] In this context this means that he reduces the likelihood of a defect below the optimal level, such that a reduction in effort would lead to a marginal revenue larger than the marginal losses because of the increase in the number of defects.

[131] The reduction in price can ensure it, given that information is perfect, as we will see immediately.

[132] For deviant examples see below.

[133] If the refund is $v^b(t)$ this could imply that the seller has to pay more than p, which he would certainly not agree upon as a payment larger than the costs to buy the performance again. It is an unnecessary excess insurance both the buyer won't be willing to pay and the seller won't be willing to provide, in general. However if there is no possibility to buy the performance again (if it is a specific obligation) the parties might as well agree upon a compensation payment larger than p to offset the buyers inconveniences. That is, however, not the purpose of a Defects Liability Law.

[134] If the repayment amounts to $v^s(t)$ this implies that the buyer is able to buy exactly the same used product on the market (without defect) that he had to return to the seller. However this is not sufficient to ensure optimal behavior by the seller as he then only faces losses in the market value not specific to the contractual relationship.

[135] The reason why we did not consider the costs of installation or integration of the performance was that they do not matter. If replacement is carried out these costs have to be born a second time, but this is also true if one redhibits and buys the product once again.

[136] This might be the case if he wanted to resell the performance anyway after a certain time and then it broke down

in case certain circumstances (like a defect) occur. One can imagine circumstances under which the parties would agree upon the possibility of a redhibition, but only if the buyer has no need to possess the performance for a whole life time, or in a replacement after a certain period of time. In these cases a reduction in price also seems to be more favorable under many circumstances. That is especially the case if $v_t^s(t) - \ell_t^s(t)$ is sufficiently small, so that the seller doesn't want the product back. One has to admit that these are very special cases that cannot be captured within the scope of this analysis.[137,138]

The second field of application is the case in which a replacement is impossible, because we face a specific obligation. In these cases it could be efficient to agree upon a redhibition as the defective product has a higher value on the market than for the buyer because therefore the seller would not be willing to agree upon the for him more expensive reduction in price (now assuming that also rectification is either impossible or too expensive). Redhibition in this case ensures a *pareto-superior* allocation compared to the price reduction.[139] So in ***Case 1*** the redhibition is superior to the rectification if it holds that: $v_t^s(t) - \ell_t^s(t) - (c_h^s + c_h^b) > v_t^b(t) - (c_r^s + c_r^b)$, and is superior to the reduction in price if it holds that:[140] $v_t^s(t) - \ell_t^s(t) - (c_h^s + c_h^b) > v_t^b(t) - \ell_t^b(t)$. One can interpret this the following way: the redhibition of the product is better than the rectification if either the gain in value by transfer outweighs the costs of retransferring the performance or if the costs of rectifying are substantially larger than the one of the redhibition. The redhibition on the other hand is preferred the reduction in price if the loss caused by the defect to the buyer compared to that caused to the seller outweighs the costs of retransferring. This is especially true if the defective performance is worthless to the buyer, but it has still a (positive) market value. The result for ***Case 2*** is similar.

Reduction in Price: As we have stated above, when talking about the redhibition, the seller should optimize his effort so that the total wealth is optimized. This in general implies considering the value of the performance for the buyer.[141] Therefore the reduction in price should always amount to $\ell_t^b(t)$ and not $\ell_t^s(t)$ as this does not provide optimal incentives.[142] It then holds that the buyer remains with $v^b(t_0) - p$, which is as if there were no defect as in the case of rectification, the seller with $p - e(t_0) - \ell_t^b(t)$. Indeed the reduction in price is the one imposing optimal incentives to the seller. It can now be seen that the reduction in price is *ex post* a simple distributional remedy, which *ex ante* has an allocative effect.

Nevertheless the other remedies will be part of the contract especially if the price reduction is more expensive for the seller than the rectification or replacement. So the fact that a rectification makes sense coincides exactly with the above said, as it has to hold true that $(c_r^b + c_r^s) \leq \ell_t^b(t)$. The interaction with the replacement is somewhat more complicated. In ***Case 1*** the replacement should be preferred to the rectification, if it is already preferred to reduction in price, iff $(c_r^s + c_r^b) - (c_p^s + c_p^b) \geq \ell_t^s(t) - (v_t^b(t_0) - e_t(t)) - (v_t^s(t) - v_t^b(t))$. One can summarize this by saying that the replacement is induced if the costs of rectification are sufficiently larger than the cost of replacement and this difference

before he could sell it. In this case his loss is the decrease in resale price, $\ell_t^s(t)$.

[137] Cases in which a sale-back term in the contract may be reasonable for both the seller and the buyer only concern durable goods (by nature). In particular products, with a very long life expectancy or which the buyer only needs or uses for a much shorter period of time than the life expectancy, are concerned. Examples are of course real estate but also heavy machinery or cars. Why in these cases the parties do not agree upon a rental contract is of no interest here (maybe they are able to save taxes?!).

[138] There are also other objections against the redhibition which will be provided below.

[139] Such cases bear no incentive problem for the seller, as the parties foresee this possibility and optimize their effort again subject to total wealth.

[140] For the costs of the reduction in price see immediatly below.

[141] As long as perfect information is available this is no problem.

[142] Note that the buyer cannot exploit this compensation schema as the assumption of complete information prevents every hidden action or fraudulent behavior itself (even though fraudulent behavior is assumed away).

is larger than the gain in wealth caused by a retransfer of the defective performance.[143] In ***Case 2*** this changes to a comparison between the rectification costs of the consumer and the total replacement costs again related to the wealth created by the retransfer. For the replacement to be cheaper than the reduction in price it has to hold that $(\ell_t^b(t) - \ell_t^s(t)) - (c_p^b + c_p^s) \geq -(v_t^s(t) - v_t^b(t)) - (v_t^b(t_0) - e_t(t))$ for ***Case 1***. In other words the replacement is cheaper if difference in losses outweighs the costs of replacing and furthermore this difference is larger than the gain in wealth caused by retransferring the performance.

At the end it remains to say that all three (four) remedies induce optimal behavior of the seller and for all circumstances a regulation can be found within a complete contract. Note that even though, under these assumptions, there might be a negative value in trade if a defect is uncovered. This is especially true if neither rectification nor replacement are possible or affordable and $\ell_t^b(t) > p - e(t_0)$, nevertheless as not every product has a defect but only some portion $x\varepsilon(0,1)$ it may hold true that the overall *ex ante* value of the transaction is positive. If this is not the case then no purchase at all will take place.

If we relax the assumption that the rectification (not always) leads to a total recovery of the performance we end with the following situation: the seller and the buyer can agree upon a mixture of remedies to optimize effort and minimize costs. The parties can agree upon a partial repair and a reduction in price for the rest of the losses or about a total repair. If no total repair is possible at all then it depends on the costs of the particular remedies what the outcome is, but as at least the price reduction is always possible the incentives for the seller to exert optimal effort are given.

It looks different if we relax the assumption about c_u^s and c_u^b to make them equal to zero. If then both rectification and replacement are either impossible or too expensive it may happen that the reduction in price is inefficient. This is the case if $c_u^b + c_u^s > \ell_t^b(t)$. Settling the losses of the buyer will cause larger (total) losses itself. One has to see this point in the context of the discussion about negligible defects. Nevertheless, even though the remedy might be inefficient itself, no remedy at all will provide the wrong incentives for the seller. In this case the only possible solution is to choose the remedy that causes the least losses. It seems to be unlikely that retransferring money causes such prohibitive costs, although it is theoretically possible.

One may not forget after this analysis that the result can only be supported if the seller optimizes his effort with respect to the certain contractual relationship. Indeed mass production and other forms of non-individual production cannot be supported within this system.[144] In these cases the seller has to choose his effort constantly given a larger group of buyers. Within contracts for services and goods given the above assumptions such a contract and its effects are reasonable.

The reader should at this point be reminded that the current legal situation is totally different. The above analysis can only be sustained in an idealised world in which all of the presented assumptions hold. With this analytic background, however we come closer to the analysis of the law in force, in which we heavily depend on the previous results.

Now we can relax the assumptions of complete information and absent transaction costs, as we did in subsection 1.3.1 on page 5. The seller only knows about his costs, and the buyer only knows about his costs and utility/income provided by the product. Nevertheless the assumption that all costs the

[143] Note that as replacement and redhibition are similar under some circumstances, given the compensation payment is p_t. In these cases also the redhibition would be preferred compared to the reduction in price and the rectification.

[144] But as we will see this does not make any difference if one relaxes the assumption of perfect information as then the seller optimally only consideres his own losses and costs.

seller faces can be proved by evidence submitted by an expert within a trial will remain.[145] Given that a rule can be found which punishes the seller for providing the buyer with wrong information about his costs, after the truth has been revealed in a trial, one can impose the second best outcome by letting the seller choose the remedy. He will then optimize his effort given the objective information about market values he has. If the buyer is not satisfied with the choice of the seller he can reimburse the seller for carrying out the remedy he prefers. He will only do so if the reimbursement pay to the seller is lower than his gain in wealth. Under these circumstance the optimal remedy will always be chosen.[146] But only the second best effort level of the seller will be chosen, as he only considers the market costs of the defect, not the losses caused to his contracting partner.[147]

2.5.3 Application of the Economic Analysis

With this analysis in mind we proceed with the task of examining the Austrian Rules as presented at the beginning of the section. We will start with the primary remedies and then go on to the secondary remedies.

On page 48 the reader will find two tables in which the relationship between the different remedies are presented in a clear way.

Art. 932 provides the buyer with the right to choose between rectification and replacement.[148] He will choose the one which imposes the smaller costs on himself. If this coincides with the one also imposing the smaller costs on the seller no problem occurs. Nevertheless this can in general not be assumed. The rule that the buyer chooses has one exception. The seller can point out that he faces disproportional costs[149] and therefore he is allowed to choose the other remedy. This can economically been seen as the case: $c_r^s > e_t(t) + c_p^s + \ell_t^s(t) - v_t^s(t)$. In the case the rectification is more expensive. In fact the question remains: what does "disproportional" mean? The European Directive states in the Recital 11 that one has to consider all costs the seller faces including the costs of shiping and so on, not only the costs of rectifying or replacing the item. The criteria are objective. Indeed in the subchapter above there no distinction has been made between the seller having subjective extra charges or not (or even his subjective costs are less than the objective ones). It only leads to more analysis and has no other implications such as for the costs of the buyer. One cannot or can hardly verify them,[150] but the seller knows about these costs, so his choice of effort will still be second best. Having estimated these objective costs one has to compare the costs of the remedies among each other to assess if they

[145] One may wonder why this assumption is so crucial, but to impose the duty on the seller to truly reveal the information one has to assume that at least *ex post* these costs are verifiable. As stated above for the buyer this cannot hold true as we don't know his utility function. Nevertheless if the buyer voluntarily reveals information *ex ante*, by telling the seller about his losses once a defect occurs, this revealed information should be used even though there is no perfect information present. See therefore the discussion of the Supreme Court decision 8 Ob 108/06z in subsection 3.1.2 on page 80.

[146] The proof for that is simple. Let w_x^b be the wealth for the consumer under remedy x and let w_y^b the wealth under remedy y. The corresponding values for the seller are w_x^s and w_y^s. The seller chooses remedy x iff $w_x^s \geq w_y^s$. If for the consumer it holds true that $w_x^b \leq w_y^b$ he will be willing to reimburse the seller iff $w_y^b - w_x^b \geq w_x^s - w_y^s$. This means that the buyer is only willing to change the choice of the remedy as long as the costs to do so are smaller than his benefit. One can rearrange this to $w_y^b + w_y^s \geq w_x^b + w_x^s$, which indeed is the comparison of the total wealth between the two remedies, which coincides with the parties contractual agreement under perfect information. □

[147] However "second best" has to be seen in the context that the optimal level of effort is nearly never sustainable. So the second best can indeed be seen as the best we can achieve without perfect information, or without the possibility to perfectly react according to this information because of other restrictions (as e.g. mass production).

[148] Note that in our economic analysis we made no distinction between secondary and primary remedies. The law wants to provide the seller with a second chance so to fulfill this goal it has to draw a line between remedies in which the seller is left with a defect less performance and those where he either remains with a defective or no performance at all. Whether this is reasonable from an economic point of view will be examined below.

[149] In this context between the two primary remedies.

[150] This would lead to the fact that no useful regulation can be found at all.

are disproportional.[151] Only if the are in remarkable unbalance this justifies a deviation from the choice of the buyer.[152,153] But even if the costs are disproportional the buyer can put forward that he faces major inconveniences because of the other primary remedy. Again these inconveniences have to be verifiable.[154] If the buyer can prove that his inconveniences are major, this can outweigh the disproportional costs of the seller.[155] So to formulate this in an analytical way, the seller has to prove, in court, that the remedy, e.g. the rectification, chosen by the buyer imposes extra costs on him, which are equal to $\varepsilon > 0$ or $c_r^s - (e_t(t) + c_p^s + \ell_t^s(t) - v_t^s(t)) = \varepsilon$. The buyer, however, could manage to prove that his costs, of the not-chosen remedy, deviate by an value $\delta > 0$ i.e. $c_p^b - c_r^b = \delta$. The idea is to say that if $\delta > \varepsilon$ the buyer is the one to choose, otherwise the seller. Given that δ can be verified, this rule also induces the choice of the optimal remedy. However under higher costs most likely than the rule which leaves the seller with the choice, as one has to verify both δ and ε. If the seller chooses, ε at the most has to be verified. If one also consideres that the outweigh has to be substantial, no such result can be achieved.

Earlier in this paper it has been stated that the rule where the seller chooses will only induce the second best choice of effort as the seller only considers one side of the costs. Because the buyer chooses the seller has the problem that he has to form some beliefs about the buyers costs such that he can optimize subject to these beliefs. It cannot, therefore, be argued that the seller chooses a level of effort below the optimal level if he overestimates the costs of the buyer. He could, as a result, wrongly estimate the distribution of remedies he faces, but it is very likely that he chooses at least a higher effort than the level we called second best, if he assumes that the costs of the buyer deviate from his own. If the effort is excessively high one cannot predict.

Nevertheless this regulation does not lead to suboptimal results under each circumstance even though the interest of the buyer and seller may be different. Indeed the buyer has to claim the remedies in front of a court[156] but has to inform the seller about the defect before he does so. This information should also imply what the buyer wants the seller to do. If the seller now acknowledges the right of the buyer but wants to carry out another primary remedy because of disproportional expenses, the buyer faces a problem. He does not really know how large the costs of the seller are, he only knows his own costs, so he knows if he faces major inconveniences. In fact, he knows δ. If δ is large he will insist on his choice as he will be likely to win the trial. If not he either believes the seller about his costs and bears the slightly larger inconveniences from the other remedy[157] or he risks losing a process, if the seller is able to prove that ε is large (or at least substantially larger than δ).

[151] A comparison to the losses caused by the defect is only relevant if both are disproportional compared to these losses. Than we only remain with the secondary remedies. See below.

[152] Indeed in all legal texts there is simply one unclear expression replaced by another. Clear is that marginally higher costs than the loss caused by the defect do not justify the modification of buyers choice.

[153] Note at this point that costs higher than the purchasing price do not imply that they are disproportional, see therefore the discussion of 8 Ob 108/06z in subsection 3.1.2 on page 80.

[154] Even though it has been stated above that in general the buyers costs are not as likely to be verifiable as the sellers it is nevertheless true that they might also be provable.

[155] Note also that Art. 932/4 provides the buyer the right to reject the primary remedies if the inconveniences caused by both are substantial. Both Bydlinski [2010] and Ofner [2005] list as example the longer work of craftsmen in a household because of rectification instead of replacement.

[156] Art. 933/1 states that the buyer loses the right to claim a remedy if he does not take legal action before the allowed time lapses (see therefore section 2.8 on page 58). So extrajudicial notice to the seller is not sufficient. But note that without it the conduct of the case leads to the situation that the seller can acknowledge the right of the buyer within the first session and the buyer has to bear all the costs (Art. 45 Civil Process Order, the Art. 45 calls it: the defendant party did not give rise to bring the affair to court.).

[157] Indeed as he has not chosen this remedy one can assume that his costs are at least as large as the ones of the remedy he has chosen.

In Austria with regard to the costs of a trial, the continental rule is valid.[158] *Prior to the end of the trial all parties have to bear their costs. So the settlement in general takes place with the decision of the court. Costs are cash expenditures, court fees (and fees for the experts and witnesses) and, it is in general one of the major points: the payment of the lawyer according to the special tariff.*[159]

If, in this thesis, it comes to law enforcement by the buyer always a trial is meant in the end. Nevertheless extrajudicial law enforcement is also implied, because if one party acknowledges the claim of the other one there is no need for a trial. Even though this might be[160] *the more common case it is the possibility of enforcing rights in front of a court that encourages the out-of-court settlements. So in the end it always ends in court.*[161]

What does this imply for our case? The costs of a trial are even in the first instance high. [162] So the buyer faces a high risk if he starts a trial where he has no or only insufficient information about the probability to win. So indeed if he does not face major inconveniences he will refrain from a trial, so in this case, it is the choice of the seller which (primary) remedy he carries out.[163] This is not as clean as the result we have argued above in the economic part, but it is somewhat close to that. We have argued that the seller should choose because he takes only his own costs of rectification/replacement into account so that the second best choice of effort is induced. If the buyer wants the other remedy to be carried out he should reimburse the seller. So the buyer bears the additional costs. If one compares this rule with the one given by the Austrian legislator one sees that its exactly the opposite. In general the seller not the buyer is the one who bears extra costs. The rule that has been supported imposes the extra costs of the opposite remedy on the buyer, to ensure that the seller can optimize his effort *ex ante* because he has got all the information needed. Furthermore the suggested rule, to reveal the true costs, will force the seller to stay close to his actual costs[164] and not exploit the buyer if he wants to change the remedy. The rule provided by the Austrian legislator imposes all extra costs to the seller. Nevertheless a trial over the choice of the primary remedy is a risk for the buyer if he does not face verifiable inconveniences, so he indeed has incentives to let the seller choose under many circumstances. The Austrian Rule cannot provide the best choice of remedy in every situation. Furthermore the diffi-

[158] So the costs of the trial are divided in accordance to the "level of recovery" (Art. 41/1 CPO). However a fall against the other party at an amount of up to 10 % has no influence (Art. 43/2 CPO).

[159] For an economic analysis of the law of costs see Weigel [2008] pages 93 *et seqq.* or Adams [2002] pages 311 *et seqq.* (with reference to the Austrian Law of Costs). About the Austrian law of costs see either Rechberger and Simotta [2010] recitals 429-441 or Neumayr [2010] pages 106 *et seqq.*

[160] Without any data it is hard to say what is more common, but if one thinks of daily life in general an extrajudicial settlement of disputes is reached.

[161] Note that the possibility of an arbitration is assumed away in the following, as it is more than a simple out-of-court settlement and less than (or even as good as) a verdict. However this very interesting way of settling disputes would go beyond the scope of this thesis.

[162] Or: Especially in the first instance the costs of a trial are high, because of all the experts and witnesses needed. One has to know that in Austria in general one can only prove facts in the first instance. Later instances are in general only (mainly) responsible for legal aspects not for fact finding. In Rechberger and Simotta [2010] it is stated that the costs nearly never are below the value in litigation. Especially if an evidence submitted by an expert is needed within the trial costs tend to explode (For the District Court Inner City (*"Innere Stadt"*) the values cited are 180 % of the value in dispute with an expert and 139 % without an expert).

[163] Note that the seller and the buyer form beliefs about their probability of winning the trial and act according to these beliefs. It may very well happen that q^b, the probability with which the buyer thinks he will win is not equal to $1 - q^s$, where q^s is the probability with which the seller thinks he will win. Whether there is an overestimation of the chance to win, then $q^b + q^s > 1$, which seems more likely, or their is an underestimation so that $q^b + q^s < 1$ cannot be stated. It is clear that both situations are inconvenient as they either lead to an inefficient high or an inefficient low number of trials.

[164] Even if one assumes that the costs of the seller can be verified it seems to be a bit an illusion that in reality this can be done at the level of cents. So this rule will in reality allow the seller to claim minor deviations from the costs the expert uncovers. To give a simple example: say the seller claims his costs for rectifying are 100, the one of replacing are 500, so his difference is 400. If the buyer does not believe him and starts a trial and the expert reveals that the costs of rectifying are 105 and the one of replacing are 490 it is inefficient to charge the seller with the costs of the trial, though he stuck very close to the truth. Note that is only a thought about how to implement such a rule in practice, not a general statement.

culties of verifying the buyer's costs, also speak against the Austrian Regulation as, in the other rule, this is not a question in trial. The buyer either pays the difference or not. There is no need to bother about verifying his costs and losses. The fact that the seller will price in his extra costs of carrying out the remedies speaks against the Austrian Rule. It follows that the buyers[165] won't save any money. However in favor of the Austrian Regulation is the fact that the buyer will under some circumstances, especially if he is a consumer and lacks the money to do so, is not able to reintegrate the seller and therefore suffers avoidable losses. Furthermore if the seller is not the one to optimize his effort, and the seller cannot recourse himself, the derived rule does not make more sense than the one given by the legislator, except that the insurance premiums the seller will charge are lower, but the coverage is also minor.[166]

Before we go forward to analyse the legal prerequisites of the permission to claim the secondary remedies, we have to examine why it is necessary to impose such a distinction between the remedies.

We will start with the redhibition. If the buyer is the one to choose the remedy that has to be carried out, primarily it is the buyers' "wealth" (or utility) that is to be maximized. So the buyer will only redhibit if it is the best option for him. In general this is no problem, or at least not a greater one than caused by giving the buyer the choice anyway. As Schäfer and Ott [2005] (page 484) have pointed out correctly the buyer might make a mistake in calculating the value the product has for him, so in our notation the buyer miscalculated $v^b(t_0)$.

The problem is called "error in motivation". In the discussion about this problem in Schäfer and Ott [2005],[167] *the authors argue that exactly these errors in motivation lead to increases in costs caused by the redhibition(s) and make this remedy therefore inefficient.*[168] *First of all what is an error in motivation or a business error? This is in general an error, made by the buyer, about the value of the product. To stick to our notation, the buyer is wrong about $v^b(t_0)$, or eventually only about $v^b_t(t)$ for some time point t. Why should this be the case? That may simply be due to the fact that the buyer does not have all the information needed to correctly assess a performance and therefore made "calculation" errors. This raises the question of who should bear the losses caused by such an error - and that exactly is the point where the distinction between an error in motivation and a business error is important. In general*[169] *a business error is an error that is caused by another party*[170] *or the other party could simply have prevented the error.*[171] *In other words, the other party is the "cheapest cost avoider". An error in motivation is therefore an error for which the party itself is the "cheapest cost avoider".*[172] *This implies that the party itself could have (or should have) provided the information needed to correctly assess the value of the performance.*[173] *The business error should have effects for the third party*

[165] For a single buyer with a defect this insurance might indeed be valuable, but in aggregate the seller will charge his customers with the costs.

[166] For the implications of the right of recourse see section 2.10 on page 68.

[167] There is also a discussion of the error in motivation in Adams [2002] , pages 76 *et seqq.*

[168] Not likewise in this thesis they argue that the remedies rectification, replacement and redhibition, lead to the same outcome for the buyer, as he ends up with a defectless product. As argued above this is not true because the parties face different costs carrying out the different remedies, but indeed the authors have a point in arguing that the possibility of getting rid of errors in motivations (or better: of rolling over the negative effects caused by such errors) leads to a rise in redhibition above the "optimal" level.

[169] The Austrian Rule is a bit different but not much. See therefore subsection 4.2.3 on page 93.

[170] For example the other party made a wrong statement about the performance or did not correct a wrong statement undertaken by the opponent mentioned to it.

[171] Because the party knew about the misinformation of its opponent and did not make its opponent aware of it.

[172] As correctly stated in Schäfer and Ott [2005]. That indeed is somewhat an economical expression of a legal term.

[173] There is indeed another case of an error in motivation, but this case has no bearing on an economic analysis: the party could have, even given all information available, made the wrong decision on a whim. It is obvious that such "failures" cannot be considered in an economic analysis as they violate the simplest assumptions about rational behavior. Nevertheless they exist, but fortunately the legal system does not protect people who make such mistakes!

as it was the "cheapest cost avoider".[174] *The error in motivation therefore should not.*[175] *Nevertheless the right of redhibition violates this rule. The party making an error in motivation*[176] *and being able to choose the secondary remedy will try impose the losses on the seller by choosing to redhibit instead of taking the reduction in price. So why didn't we consider this case above? The problem with this error in motivation is that in a complete contract it would not arise, as the parties have perfect information. One cannot ask what the parties would agree upon, even though it is rather obvious that they would allocate the risk of this error with the buyer, as he is the "cheapest cost avoider".*

To stick to our notation one has to think of the problem the following way: *ex ante* the buyer valued the product he intended to buy with $v^b_{est}(t_0)$. If the price p he has to pay for the product is marginally lower than this valuation he will carry out the purchase. *ex post* however because of changed knowledge the buyer realises that the true value was actually $v^b_{true}(t_0)$ with $v^b_{true}(t_0) < p$.[177] The best thing he can now do is get his money back and return the undesired product. As we said before in the discussion this is no problem as long as the other party was "cheapest cost avoider" in the sense that it should have clarified the misinformation. However if the buyer himself has "caused" the misinformation or has failed to gather the necessary information even though he would have been "cheapest cost avoider" it is highly inefficient to now let him roll over his losses to the seller. If the seller was the one to choose the remedy, the buyer could reimburse him and carry out the redhibition. However, if the buyer is the one to choose, he burdens the seller with the costs of his "negligence".[178] This is first of all a distributional effect as now the seller bears the costs, which otherwise would have been born by the buyer. It also has an allocative part as the buyer is not forced to optimize his effort in collecting information. This would not be the case if he had to bear the consequences of his actions. This cannot, however, be reached within the framework the Austrian Defects Liability Rules. There are indeed good reasons to allow the buyer to choose this remedy only under special circumstances.[179]

Now about the reduction in price: The buyer will prefer the compensation payment if either way it is larger than his personal loss so $\ell^s_t(t) > \ell^b_t(t)$, or if the costs of the other remedies are larger than the difference between $\ell^b_t(t) - \ell^s_t(t)$, with the difference being smaller than 0. Both are not necessarily efficient as it could be optimal to rectify because of low total costs even though $\ell^s_t(t) > \ell^b_t(t)$ if $c^s_r + c^b_r < \ell^b_t(t)$. Indeed the seller himself would be willing to rectify in this case anyway, as it follows that $\ell^s_t(t) > c^s_r$. The buyer is not willing to except a reduction in price if the loss caused by the reduction in price is substantially larger than any costs of rectification. However this situation is not at all different from the one with the primary remedies as in this case letting the buyer choose has no influence on his effort in collecting information to avoid errors in motivation.[180] Indeed if he chooses

[174] It could have either prevented the contract at all, or at least prevent that the contract was written as it was.

[175] That the Austrian legal system in general fulfils this goal is stated in subsection 4.2.3 on page 93.

[176] Even though in many parts of the literature it is assumed that this party is the buyer, no reason can be seen why it shouldn't be also the seller, especially if he is a selling consumer. As we however have assumed that the seller has perfect information about his product he cannot be in err about its features, otherwise the assumption would be contradicted.

[177] If it holds that still $v^b_{true}(t_0) \geq p$ although $v^b_{est}(t_0) \geq v^b_{true}(t_0)$ no harm is done, as then the buyer made still a favorable purchase, even though it might not be as favorable as he had expected.

[178] Note that fault in this case is not the most appropriate word, one should actually call it a carelessness in one's own business, as it cannot be negligent to not take care of one's own property/wealth, as long as no externalities are caused (of course)!

[179] Note that this does not hold true for the replacement, as, even though he gets rid of the original performance, he will only get exactly the same performance back. So the buyer will not misuse this remedy as he has no incentives to do so.

[180] There is the implicit assumption that the buyer's maximization problem yields the result that errors in motivation should be minimized, given the information gathering costs. Anything else would not be reasonable as the error in motivation causes losses for the buyer and if his marginal costs of gathering information are lower than the marginal losses caused by the error in motivation then he will rationally increase his effort to gather information until the two are equal.

the payment he also remains with his bad purchase only including a defect, but still he can't undo his bad choice. The reason the legal literature gives is the second chance for the seller.[181] So indeed one can interpret the differentiation between the remedies as a protection of the seller. And as we have seen for the redhibition there is a need to do so. No need, however, can be seen for the case of a reduction in price. If the buyer would choose the payment and the seller would face much lower costs if he carried out another remedy (as the costs of the rectification of the defect are a lot lower than the loss in market value caused by the defect), the seller again can prove the disproportional costs. So there is no need to restrict the access to the price reduction.

Problematic is that the reduction in price granted to the buyer is not ex ante $\ell_t^s(t)$ as it should be. The prevailing view[182] *is that a price reduction has to be computed by a "relative method of calculation". Furthermore the values at the time of the transfer have to be used. So one has to consider $v^s(t_0)$ and the value of the defect performance at the time t_0. So given that the defect was revealed in t_0 and caused an objective loss of $\ell_t^s(t)$, one has to ask which loss would have been caused if the defect had been revealed in t_0 in order to find out $\ell^s(t_0)$. It is not taken into consideration that the buyer could use the functioning product between t_0 and t. As it is obvious that $\ell^s(t_0) \geq \ell_t^s(t)$ this rule favors the buyer and may leave him with a (monetary) surplus. The relative method of calculation now implies that one has to compare the ratio between the paid price p and a price that would have been paid given that the existence of a defect was known (sic!) to the ratio between the value of the product at t_0 with and without defect. The price that would have been paid is termed p_d (for price with defect). Then it must hold true that $\frac{p}{p_d} = \frac{v^s(t_0)}{v^s(t_0)-\ell^s(t_0)}$. One can rearrange terms and define $r_d = p - p_d$, where r_d is the price reduction granted. The result is the following: $r_d = \frac{p}{v^s(t_0)}\ell^s(t_0)$. It is obvious that this regulation favors the buyer that made an unfavorable deal, which means $p \geq v^s(t_0)$ for a given reason.*

This method of calculation has to be rejected for several reasons. Firstly no reason can be stated as to why one compares the value of the product without defect to the value of the product with a defect that revealed at t_0. It is true, that for the Defects Liability Rules to apply, a defect had to exist at t_0, but if it only affects the performance starting from t, why should the seller be held liable for a period of time in which the defect caused no losses to the buyer? Even within a complete contract the parties would not hold the seller liable for such a hyphotetical loss. So one must compare the value of the performance without a defect in t_0 and the value of the performance at t_0 with a defect that reveals at t (ex ante consideration). So if one wants to apply the relative method r_d has to be equal $\frac{p}{v^s(t_0)}\ell_t^s(t)$. The second reason that speaks against the method used by the courts is that this rule favors parties that have made unfavorable deals from an objective point of view.[183] *Where is the justification in granting a party that was personally only willing to pay $p \leq v^s(t_0)$ because it holds that $v^b(t_0) \leq v^s(t_0)$ less a reduction in price than a party that paid $p \geq v^s(t_0)$? Well, there is none. We cannot assume that we have any information about $\ell_t^b(t)$ by looking only at the price paid so we cannot say that the party paying more would have experienced a larger loss by the defect. This would be hypothetical. Therefore the relative method of calculation has to be rejected from an economical point of view and therefore the absolute method is preferred. The buyer has to receive $\ell_t^s(t)$.* [184]

Note that, and that is a similarity between the two secondary remedies, both remedies cannot be impossible. That may sound a little strange for the redhibition, but is, in a legal sense, nevertheless possible. If at the time of the redhibition the product is destroyed because of a defect that would imply that $v_t^s(t) - \ell_t^s(t) = 0$ and $v_t^b(t) - \ell_t^b(t) = 0$, so the market value of the non-repairable product is zero and the value to the buyer is zero. If the buyer redhibits he has to hand back the performance and therefore receives the price he paid. If no item is there to hand back, the redhibition should coincide with the reduction in price. The reason is that in this case the buyer's possible error in motivation

[181] For the interpretation of the second chance itself, see subsection 2.5.1 on page 27.

[182] Ofner [2005], Art. 932 recital 65, Bydlinski [2010], Art. 932 recital 21 and Dullinger [2008] recital 3/109.

[183] As we have no information about $v^b(t_0)$ we cannot say how favorable the deal was for the buyer personally, but assuming away an error in motivation it had to hold true that $v^b(t_0) \geq p$.

[184] This solution is advocated by Reischauer (although because of other reasons). See therefore Dullinger [2008] recital 3/109.

has no allocative influence. The buyer might have bought a product at a price he wasn't willing to pay from an *ex post - ex ante* point of view, but in this case the remedy has to provide the optimal incentives for the seller as he is the one who is in the position to influence the defect. The buyer misinformation does not influence the allocation in this particular situation so taking into account any error in motivation has no influence in this case as it only leads to a distributional effect in favor of the seller which cannot be the objective in this case. But this is exactly the case in which the insufficiency of the reduction in price at an objective (=market) value base shows. The reduction in price in this case would yield to a transfer of $l^s(t)$ (not discounted) and not to a transfer of p. That the first value is smaller than the latter is obvious. It is dissatisfying that under the identical prerequisites the two different remedies lead to a completely different result. In such cases the unrestricted access to the redhibition would suffice to assure optimal behavior. For the seller this incurs no unpredictable costs as he knows p and can therefore optimise his effort with respect to it.

Another problem that touches the relationship between a reduction in price and a redhibition are the un-repairable defects that do not result in a total loss. If the seller was the one to choose he would therefore insure the buyer at the rate of $\ell^s(t)$, where the *ex ante* value is $\ell^s_t(t)$. If the buyer wishes to get rid of the product he has to bear the extra costs. In the case where the buyer chooses and there is no (legal clean) possibility for the buyer to reimburse the seller,[185] it may happen that the buyer is caught in a contract that he on the one hand, would not have signed and on the other hand can't get rid of. This can only happen if the access to the redhibition is restricted, as the reduction in price is technically a primary remedy.

Now both problems seem to coincide: the barrier to the redhibition, which is listed in subsection 2.5.1 on page 27 , is among other things, the impossibility of the (legal) primary remedies or the disproportional costs for the seller. Indeed a reduction in price is never impossible nor, as assumed above, costly. So the buyer would (nearly) never get to the redhibition if one sees price reduction as technically a primary remedy. As we have seen in the above example it is unsatisfactory not to reach the redhibition in some cases, so it is justified to treat the reduction in price as a secondary remedy to reach a consistent system of remedies.

Before we examine the prerequisites for claiming secondary remedies, we will take a closer look at the term "not insignificant". This can be seen as the legislator's willingness to protect the seller against an overwhelming number of redhibitions due to errors in motivation on the buyer's side, as presented above. A defect is always significant if an explicitly stipulated feature is effected. This coincides with the thought that if the buyer reveals information about his valuation of a certain feature there is no longer an error in motivation but a business error.[186] If the defect is regarded as stipulated[187] the seller is responsible for the semblance of the product exhibiting the certain feature. He is "cheapest cost avoider" in this case[188] and should be held liable.[189] If this is not the case it is hard to say which

[185]For sure both parties can contract upon such a reimbursement, but that is always a possibility. The idea would have been that the legal rule enforces such a reimbursement to ensure the optimal choice of the remedy.

[186]And he for sure does so if he explicitly contracts a feature, as if he does not or does not highly valuate this feature he won't bear the transaction costs. However, this should not be misunderstood as he does not reveal a certain valuation only the fact that he has concern about this feature.

[187]See therefore the discussion in section 2.2 on page 15.

[188]He is "cheapest cost avoider" for two reasons: first of all because he caused the misinfromation and second because he has all the information needed to clarify the misinformation, as we have assumed that the seller has perfect information about his product.

[189]An interesting case is when error in motivation and such a misinformation by the seller coincide for the very same feature, so e.g. the seller promotes a feature z of the performance and the buyer thinks he needs exactly the feature z for a special purpose, although he could have found out easily that this wasn't the case. If then the performance does not provide this feature for the buyer there is no (or almost no) loss caused by that (except for the higher price he eventually paid), so he will choose the reduction in price. However in this case there is no reason why the buyer should be prohibited from redhibition even though he made an error in motivation as this only supports the sellers position. So

is the most appropriate way to deal with the possibility of an error in motivation. The legislator chose an interesting way, by ruling that only the defects that have a non-insignificant influence on the value of a product allow for a redhibition. One can interpret this as an idea to restrict potential losses caused by errors in motivation by saying that the smaller the loss caused by the defect is, the more minor the incentive to redhibit is, as the product is still useful. Again if the defect influences the major features, even if they are (only) generally presumed, the defect is not insignificant. One must at this point admit that this distinction, even though not very clearcut, has its merits, because this rule also avoids the unnecessary costs of the redhibition in cases where the defect has only minor influences. The Supreme Court then combines this again, weighing the interest between the seller and the buyer especially considering the resale price the seller could achieve in case of a redhibition compared to the losses the buyer faces.[190] The Supreme Court tries to estimate the total wealth under each allocation and establish the maximizing allocation. With the little information the courts in general face, particularly regarding the losses the defect causes to the buyer, is a worthy but also somewhat hopeless undertaking.

After this somehow complicated part we will, in the following look, into the access limitations the legislator has imposed on the secondary remedies. Again we will use the same list as in the legal introduction to this chapter, so that the secondary remedies are allowed, if one of these statements is true:

1. **Impossiblity:** There is not much to say about this point as it is obvious that only the secondary remedies can be chosen if the primary are impossible. Such a fact in the complete contract will also be considered.

2. **Disproportional expenses:** This is in some ways a similar reason to the one discussed above, when the disproportional expenses one of the primary remedies causes have been discussed. Here it is asked that, for both primary remedies, the expenditures caused by the execution are disproportional compared to the loss caused by the defect.[191] So the courts compare the costs of the seller of the two primary remedies with the costs of the secondary remedies[192] as well as the buyers losses under the different remedies. Only if the difference in costs for the seller is substantial and outweighs the losses caused to the buyer, the seller can refer the buyer to the secondary remedies. The cited rulings and the literature about the cases under which the seller has even to bear disproportional costs have one thing in common:[193] the seller knew about the special wishes of the buyer and that he wouldn't accept a product with the certain defect. He could charge a higher price because of this wish and furthermore take special care of the actions he undertakes.[194] Such a generalization seems to be reasonable as the more the seller knows

when it comes to an encounter of an error in motivation and a business error the business error should outweigh the error in motivation, as the latter is the one with the major impacts, as in such cases potentially every contracting partner of the seller is effected.

[190] For a detailed discussion about this jurisdiction see 1 Ob 14/05y in subsection 3.2.1 on page 82 and also 8 Ob 63/05f in subsection 3.2.2 on page 84. Note that the argumentation of the Supreme Court is similar to the one given in the general economic analysis above, and therefore is efficient, if the information is available.

[191] Again one can refer to the discussion of the decision by the Supreme Court 8 Ob 108/06z in subsection 3.1.2 on page 80. Furthermore the discussion of the Supreme Court decision 6 Ob 274/06x in subsection 3.1.3 on page 82: The court ruled that it is not sufficient to prove that the costs are disproportional, again also the importance of rectification/replacement for the buyer has to be taken into account. For the burden of proof the seller faces in the context of claiming disproportional expenses see 6 Ob 147/04t.

[192] If the defect is insignificant only the price reduction is taken into account as redhibition cannot be claimed.

[193] This is a generalization of a small segment of available rulings and literature, but seems nevertheless appropriate as it also makes sense from a legal point of view.

[194] Both are true for the case 8 Ob 108/06z in subsection 3.1.2 on page 80 and also to some degree in the ruling 6 Ob 147/04t and on the opposite exactly not the case in 6 Ob 274/06x in subsection 3.1.3 on page 82.

about the buyers interest, in a certain deal, the larger his responsibility is, to fulfill exactly the performance demanded as he can set the price accordingly to the situation. The second argument is that in this case the information asymmetry is solved *ex ante* by the buyer as he clearly reveals some of his interest and therefore also his willingness to pay. So as the seller knows about relevant costs the defect causes he can optimize his effort due to this information.[195]

3. **Refusal or unreasonable delay:** The buyer should be allowed to claim the secondary remedies if the seller refuses to carry out the primary ones. This is rather obvious as otherwise there would be no incentive to do so. Furthermore the buyer could force the seller[196] to do as he wishes[197] by first claiming the primary remedy he wishes and then execute it (or let it be executed). In this case it does make sense to offer him another solution. It might be that the seller because of a given reason insists on his opinion and then in the end,[198] another party carries out the remedy throughout the execution. It might seem reasonable for the buyer to avoid all this and claim either his money or a reduction in price.[199] The third alternative[200] is not covered by the core of the liability rules, but is covered by Art. 933a and will be discussed in association with the self-rectification problem.[201,202] The economic reasoning in this case is clear as no one should be able to avoid his responsibility by refusing to undertake action.

   The unreasonable delay was already stated in the subsection 2.5.1 on page 27. Nevertheless the legal terms hardly imply a simply rule for application. It is (often) the case that the faster the seller works the lower the inconveniences for the buyer are, and so are his own costs, but the costs for the seller are higher.[203] The term reasonable period to carry out the remedy should capture these effects. On the one hand it is obvious that a rectification or replacement takes some time, including for preparation under certain circumstances, but on the other hand a repeated commitment of the seller without undertaking any action is not a reasonable time period any longer. Indeed the liability rules seem to be (again) inappropriate to force the seller to act without delay. Again the buyer will be referred to compensation claims, if the seller does not or does not react in a reasonable time. The possibility of claiming a secondary remedy is the only logical consequence here as an unreasonable delay from an economical point of view does not appear to be different from a refusal.[204] This is a point which is very hard to prove and which

[195] Note that in these cases the non-producing seller can influence quality as he can reveal this information to his seller so that he can choose the optimal effort. If this is not true the seller has to either clarify that he cannot assure this feature (so the buyer will desist from contracting) or he will simply act as an insurer which further justifies imposing the higher costs on him.

[196] By going to court and obtaining a verdict which then will be executed.

[197] As long as no other reason speaks against the primary remedies. But refusal in this context simply means that the seller does nothing for no good reason, if he would face disproportional costs this would not be subsumed under this point.

[198] If the action is fungible, if not, one has to force the seller by charging him with either fees or with imprisonment for contempt.

[199] Note that this also has to be executed, but to execute a debt is "easier".

[200] That is the one I think is most important from an economic point of view.

[201] The buyer can claim the costs of a self rectification as a compensation claim if the seller is responsible for the refusal, which means applying the negligence rule. Note that this refusal is a fault in the sense of the tort and therefore also compensation claims are appropriate to punish the seller for his behavior. The strict liability rules are not the place to claim compensation in such cases as there is no differentiation between parties acting negligently and not. That once more is the beauty as well as the curse of the liability rules.

[202] Indeed the buyer does well to first claim a price reduction on behalf of the liability rules and then claim the extra costs he faces because of self rectification with compensation claims, but that is only a practical solution.

[203] In this sense the Supreme Court also argued when it states that the appropriate period is not only dependent on inconveniences caused to the buyer but also on costs that the seller faces (see therefore 6 Ob 85/05a in subsection 3.1.1 on page 78).

[204] Indeed technically it is something different, as the seller is at least willing, or says he is willing, to carry out his duty. Nevertheless who is able to say if the seller not only wants to avoid any action until the rights of the buyer have

cannot be determined by the buyer *ex ante*. Therefore threatening the seller with compensation claims in case he does not react in a sufficient period of time to the requests of the buyer seems the only way to induce the optimal time of execution. This cannot be granted by a strict liability rule, but it is, at a sufficiently high degree, granted by the Art. 933a.[205]

4. **Substantial inconvenience:** That is the direct reflection of the sellers right to oppose disproportional costs. This regulation again should rule out inefficient primary remedies. In this case there also has to be a weighing of interests. One can refer to the discussion about disproportional costs. The only difference is that substantial inconveniences have to be proved by the buyer, whereas the disproportional costs have to be proved by the seller. That the buyer faces major problems proving his own costs was already stated in subsection 2.5.2 on page 29.

5. **Unacceptability because of reason lying in the person of the seller:** This last case is also one we have not particularly considered in the economic analysis. One can see this as a special subset of the substantial inconveniences as the buyer faces a large loss in utility because of the seller being the one carrying out the remedy, so he faces substantial inconveniences. As the buyer should not be able to avoid the primary remedies and go for the redhibition, this reason has to be used in a very narrow sense. The case of the brake failure because of sloppy work on the part of the seller already presented in subsection 2.5.1 on page 27 seems to describe the situation very well. If the buyer has to fear for his life, when he uses the product that should be rectified, the disutility he faces is major and certainly outweighs the sellers interest.[206]

2.5.4 Summary

In the last section we have examined the (rather) complicated relationship of the remedies granted by the Austrian Defects Liability Rules. The general economic analysis revealed that a Defects Liability Law can never induce a first best level of effort by the seller, but only a second best level, where the seller only considers his own direct costs, and does not consider the buyer's costs caused by a defect. Nevertheless a rule, that ensures that the seller chooses the remedy and that allows the buyer to change the decision if he pays the difference in costs, can ensure the optimal choice of the remedy. The rule provided in the Austrian Law is, however, not capable of imposing the optimal remedy as the buyer is allowed to choose. To avoid problems arising because of the buyer making an error in motivation the remedies are divided in two parts.[207] The reduction in price, even though not effected by an error in motivation has to be part of the secondary remedies for consistency reasons. Another major problem arising because of the buyer's choice is the verification of the buyer's costs which is general not guaranteed.

lapsed. Therefore a different treatment is neither justified from a legal nor an economic point of view.

[205] Note that in the analytical part we have not considered this question, as the costs listed were the optimal ones for each remedy. Every deviation of the seller that increases the costs should be avoided. The only way to implement the optimal time span is to let the buyer pay the seller for acting in a certain time period, in the case the seller chooses the remedy. But the optimal speed of carrying out the remedy could in this case also be reached by the rule under which the buyer chooses, by imposing a negligence rule. It is, therefore, best to use the tort in this case which would sentence the seller to replace the costs caused by the delay (this more a problem of the coverage of the law as in the Defects Liability Law the seller replaces no costs of the buyer he only has to face his costs to handle the defect). Note that here the problem with proving the negligence drops as the seller is the one the buyer is referred to with his remedies, and the seller has therefore to prove that he acted in appropriate time (Art. 1298).

[206] A case in which the Supreme Court (for good reason) denied the presence of this reason is 6 Ob 85/05a in subsection 3.1.1 on page 78.

[207] This is not the legal reason, but the only acceptable economic explanation.

Primary Remedies

	No Inconveniences	*Substantial Inconveniences*[1]
Proportional Costs	Buyer	Buyer
Disproportional Costs[2]	Seller	Weighing of Interests[3]

[1] The substantial inconveniences refer to a comparison between the primary remedies.

[2] The disproportional costs refer to a comparison between the primary remedies.

[3] If the seller's interest (substantially) outweighs the buyer's, he chooses.

Remark: If one of the two remedies is impossible the disproportional costs and inconveniences refer to the secondary remedies, see therefore the table below.

Secondary Remedies

	Impossibility		**Inconveniences**[1]	
	Insignificant	***Significant***	***Insignificant***	***Significant***
Proportional Costs	Reduction in Price	Buyer	Reduction in Price	Buyer
Disproportional Costs[2]	Reduction in Price	Buyer	Weighing of Interests *Seller: Primary Remedies*[3] *Buyer: Reduction in Price*	Weighing of Interests *Seller: Primary Remedies*[3] *Buyer: Both Remedies*

[1] The inconveniences refer to a comparison between the primary and the secondary remedies.

[2] The disproportional costs refer to a comparison between the primary and the secondary remedies.

[3] If the seller's interest (substantially) outweighs the buyers, he is allowed to carry out the primary remedies.

Whether the buyer or seller chooses one of the two primary remedies can be seen in the table above.

Remark: If the seller faces disproportional costs between the two secondary remedies his interest have to be weighed against the buyer's, only considering the two secondary remedies. If his interests (substantially) outweigh the interests of the buyer he is allowed to choose. Otherwise the buyer may choose with respect to the significance of the defect.

Although the Austrian regulation is not the economically optimal one, courts tend to be able to repair some of the misallocations arising,[208] even though they have only limited information and therefore limited possibilities to do so.[209]

A suggestion for an economically superior regulation would be to dissolve the distinction between the primary and the secondary remedies and grant the seller the choice of the remedy. As accompanying measure the legislator would have to impose a rule that guarantees the disclosure of the sellers costs at a sufficiently high level. One possible regulation would be to charge the seller with the total costs of the remedy (and of course of the trial) in case he was dishonest. The second regulation would concern the burden of proof. It would be reasonable to charge the seller with the duty to substantiate his costs.[210] If he fails to substantiate the costs he presented to the buyer, he should be obliged to carry out any remedy the buyer chooses, independently from the costs for the seller. For once the substantiation does not impose an unbearable burden of proof onto the seller[211] and the deterrence of being obliged to carry out any remedy the buyer chooses should prevent the seller from being dishonest. The buyer faces the costs of the litigation if he sues the seller to substantiate his costs and the seller is able to do so.[212]

2.5.5 Digression: Consequential damages to Defects

There are two types of consequential damages: the one outside the defect product and further damages to the product itself. As we have ruled out all externalities, as they are more a question of the Product Liability Law, in subsection 1.3.1 on page 5, we will only consider those damages within the product itself caused by the damage. Note that the Austrian Product Liability Law rules in its Art. 1 the liability for damages to physical objects different from the causing product itself. That does not cause problems because if a product has a defect A that leads to a defect B in the same product both defects are defects in the sense Art. 922. If defect A existed at the time of transfer than implicitly also defect B (latently) existed at that time and Art. 924 sentence 1 is fulfilled. Therefore the seller is liable for both defects.[213] A remedy can be executed for both defects, however, there is no reason that it is the same, so e.g. one defect can be repaired and for the other a price reduction granted. If however either the product is replaced or a redhibition is carried out naturally the other defect cannot any longer be rectified or a price reduction be granted, iff both defects are known at the time the remedy for one defect is executed.[214] If defect A did not exist at the time of transfer, B did not either so the seller is

[208] One cannot say if this preferable economic effect is intended by the courts or if they only decide because of equity and fairness. To get an idea why judges might exert such an effort even though payment does not alter if they do so, see Posner [1993].

[209] For the analysis of Supreme Court decisions see chapter 3 on page 78.

[210] To substantiate a fact is less than to prove it. In this case the seller would only have to present a reasonable calculation of his costs. For the distinction see Rechberger and Simotta [2010], recitals 755-757.

[211] Indeed as argued above, it is hard to estimate costs accurately, so in the following one can exclude the case that in a trial an expert presents slightly different estimations.

[212] That in the beginning such a change in system would lead to a huge increase in the number of trials is inherent in the system of a major change in such a regulation and will only last as long as the Supreme Court needs to come up with a stable jurisdiction. One might however not overlook that this regulation places a heavy duty on the shoulders of the judges as the *prima facie* evidence should be carried out quickly and without unnecessary proof submitted by experts, so that in the end the judge is the one who will have to decide whether the costs of a to him (mostly) unknown area of business are reasonable. At this point it would be a good idea to train special judges partly only responsible for such *prima facie* evidence proceedings.

[213] See Reischauer [2010] page 219. The German term for such a defect is *"Weiterfressermangel"*, there is however no equivalent English translation.

[214] I have no information about whether the inconveniences a buyer faces for each defect are added up such that even if one single primary remedy does not cause such substantial inconveniences to the buyer, he can claim the secondary remedies if the sum of all remedies causes substantial inconveniences. As for many different defects independent of each

not liable for both.

The complexity of this problem from an economic point of view is to find the (*ex ante*) optimal remedy for both (all) defects. A detailed discussion would go beyond the scope of this thesis, so this problem will be left for further discussion in future studies on this topic. There will only be a brief introduction to the topic. As already stated above, the execution of a replacement or redhibition for one defect excludes the reduction in price or rectification of another defect, iff both defects are revealed at the same point in time. So for two defects only 6 different combinations are possible. It is reasonable to argue that the replacement is the remedy that will mostly "benefit" from multiple defects as one can get rid of all defects at once with this remedy. However, the relationship remains complicated in the case of consecutive defects or defects, which indicates the presence of another defect or increase the probability of following defects. Indeed a design has to be found that induces the seller to optimally react to the problem when the first defect occurs to minimize consequential costs. Questions in the context of the reversal of the burden of proof also rise, for example whether the burden of proof should be stretched, if the buyer can *prima facie* show that the defect is a follow up defect of a defect for which Art. 924 sentence 2 was valid.[215] A similar problem comes with the limitation period.[216]

2.6 Self-rectification

The title of this section refers to two different problems. But before we go into details we should point out what the term "self-rectification" itself means. It means that the buyer helps himself to get rid of a defect. There is only one possibility that the buyer can repair the defect - he can himself rectify the performance, because he can't replace it himself.[217] Rectifying by the buyer also includes that the buyer delegates the task to an external contractor, a specialist.[218]

The two application areas will now be discussed. The first is that the buyer can make any primary remedy impossible, so that the seller is forced to execute only a secondary remedy.[219] This is (in general) not intended by the law, so the buyer loses his claim on the secondary remedies as a consequence. The problem of how to solve this has been a controversial issue. In the literature, mainly three possible ways are advocated. The first is to deny any claims because of self-rectification.[220] The second is the usage of Art. 1042 (analogously) a norm used to solve problems of unjust enrichment. The last one is the Art. 1168[221] a norm set by the law about contracts and services. The primary one regulates that the enriched party has to surrender the amount by which he is enriched, which is the marginal cost he saved because he did not rectify. Art. 1168 (and also Art. 1155) regulates that the contractor (or the employee), in our case the seller, has to deduct everything he spared because he did not rectify. In both case there is no restriction with regard to the costs the buyer faced, so if the costs of the

other that is not always the case, it seems reasonable that this is open to the bounded weighing of the court.

[215] About the burden of proof see section 2.9 on page 62.

[216] For a general discussion see section 2.8 on page 58.

[217] Note that granting himself a price reduction or a redhibition is a contradiction in terms and logic!

[218] The external (or substitute) contractor is any party other than the buyer and the seller.

[219] The idea is that the buyer himself believes (or knows) that his own costs of rectifying (or the price of a rectification by a substitute contractor) are lower than the price reduction the seller would be forced to grant the buyer, once the primary remedies are impossible. So the buyer would remain with a rent. Take as an example that the buyer himself is a mechanic and has only limited opportunity costs and low material outlay, so that his costs are lower than $\ell^s(t)$ (Note that in this case a discounting is not necessary).

[220] That is argued by Ofner in Schwimann (ed.) ABGB Praxiskommentar[3] [2005], Art. 932 recital 10 and Dullinger [2008] recital 3/96 (who wants to grant this claim only in the case in which one could also use Art. 933a as a subsidiary remedy). Both argue that the Defects Liability Rules would be undermined by granting a remedy in this case.

[221] Or also as it is technically similar the Art. 1155 which is part of the labor law.

buyer are lower than that of the seller the buyer remains with a profit.[222] The consequences of the two regulations are most of the time indeed the same.[223]

The second problem is that of a refusing seller, or a seller that is in a reasonable delay with carrying out the remedy. Under these circumstances the buyer should not be forced to claim only the secondary remedy but should be able to claim the costs of a rectification beyond the price reduction he could claim.[224] This problem has already been mentioned in subsection 2.5.3 on page 38 and the appropriate solution is provided by the Art. 933a,[225] a rule that is part of the Law of Damages (Art. 1295 *et seqq.*).

As these two situations are different we will also split up the economic analysis.

2.6.1 Art. 1168 and Art. 1042

We will first start with the simplest case, and indeed the only one that the legal literature and the Supreme Court seem to consider.[226] It is the case in which the costs of rectification are the smallest for the seller, so if the buyer would claim rectification the seller would willingly execute it. But first some definitions: let c^t_{tr} be the third party's marginal cost of rectifying and let c^b_{tr} be the buyer's cost if the substitute contractor executes the rectification.[227] Let p^t_{tr} be the total price the contractor charges for the rectification. [228] In contrast let c^b_{sr} be the buyer's total costs if he himself rectifies.

So if the sellers minimal costs are c^s_r as assumed above we ask again what the parties would contract upon in a complete contract. The parties have other options. They could imply in the contract, they can, as in the sense of Priest [1981], charge the buyer the duty to rectify if he is the "cheapest cost avoider" in this case or the substitute contractor if he is the cheapest one. In this case the parties have to consider p^t_{tr}, which someone will have to pay, even though the direct costs are only c^t_{tr}, as the external contractor cannot be forced to contract at marginal costs. As the information is perfect there is no need to charge the seller the costs. If he deviated from the optimal effort this would be discovered immediately and he would be liable because of it (negligence rule). If he executed optimal effort the parties would simply write down a risk bearing rule, but if either the seller or the buyer faced the costs of rectification would be of no allocative importance.

If we assume that the buyer cannot monitor the sellers actions after the contract is written to ensure optimal behavior, the seller has to bear the costs. As all costs are assumed to be known the seller would have to pay the buyer c^b_{sr} in the case that the buyer is the one to rectify or pay the contractor p^t_{tr} if he is the "cheapest cost avoider". It is simple to figure out which party should be obliged to carry out the rectification, by simply looking at the $\min\{c^b_{sr}, p^t_{tr} + c^b_{tr}, c^s_r + c^b_r\}$.[229] If we drop the perfect information

[222] See Holzinger [2008] page 640.

[223] That is the reason why I don't want to go into detail in the legal discussion as the result from an economic point of view is the same. For a complete compilation of the discussion see 8 Ob 14/08d, where the Supreme Court decided in favor of Art. 1168, also because Art. 1042 is in general only used in a three sided relationship. Unfortunately the Court did not decide the case because the court of first instance did not gather the information about the amount the seller saved. A difference which is pointed out by Holzinger [2008] (the article is a discussion of the previous mentioned Supreme Court decision) on page 639 is that in the case of Art. 1168 the seller never has to surrender more than the price of the original contract. This according to Holzinger [2008] speaks in favor of the application of Art. 1042.

[224] Of course in such a case if the defect was non-insignificant the buyer could also redhibit (there is also no problem caused by the errors in motivation as the seller in such cases seems less worth protecting), but then the difficulties with the self-rectification do not rise.

[225] For a detailed treatment of this norm see section 4.2 on page 89.

[226] As far as I know.

[227] Note that we distinguish cases and call *tr* external contractors rectification and *sr* as proper self rectification, both are parts of the general term self-rectification.

[228] Note that it has to hold that $c^t_{tr} \leq p^t_{tr}$. We again make no assumptions about the presence of mark ups, fix costs or market structure.

[229] Note that even with complete information we cannot (always) implement a contract that considers $c^t_{tr} + c^b_{tr}$, that is because even a complete contract between two parties can never take into account the marginal costs of an external agent but only the price the substitute contractor is going to charge!

and the absence of transaction costs, the best rule which we have figured out in subsection 2.5.2 on page 29 is to charge the seller with the direct costs. In this case one has to ensure that the seller has to bear his costs so that the buyer receives c_r^s if he rectifies himself or lets a substitute agent repair. To ensure of course that the optimal choice is made, there is no need to grant the buyer more than the costs he faced or he would face if he carried out the cheapest of the three alternatives, formulated as $\min\{c_{sr}^b, p_{tr}^t + c_{tr}^b, c_r^s + c_r^b\}$.[230] Here a problem arises as we have argued that we cannot verify the buyers (total) costs. So especially if the buyer himself does the whole rectification he might need some parts or other material to do so. These costs can be verified and we will therefore call them c_{srv}^b. It is clear that in this case we cannot assure that the "cheapest cost avoider" will carry out the reparation if we restrict the sellers obligation to replace the buyers costs with $\min\{c_{srv}^b, p_{tr}^t, c_r^s\}$. So the best alternative would be to oblige the seller to surrender c_r^s. In this case the buyer would either face the costs of c_r^b if he let the seller rectify, $p_{tr}^t + c_{tr}^b - c_r^s$, if he delegated the reparation to a substitute contractor and $c_{sr}^b - c_r^s$ if he himself carried out the work. If one rearranges terms[231] it can be seen that one remains with the fact that the choice will made according to the following function: $\min\{c_{sr}^b, p_{tr}^t + c_{tr}^b, c_r^s + c_r^b\}$, which indeed coincides with the optimal choice. And indeed this solution can also be implemented if the buyer chooses, given that he receives the c_r^s in the case of self-rectification.[232] If one follows the legal argumentation this can no longer hold true. If it holds true that $c_r^s > p$ the solution of Art. 1042 is preferable, provided that the rectification is the cheapest remedy, as otherwise the result would be distorted. Of course the opinion that there should be no reimbursement by the seller has to be rejected as it surely cannot impose the optimal choice of the remedy.

A problem however that is not covered by the legal literature, but that is a very immanent one, is that of another remedy being the cheapest to the seller, for example the replacement or the reduction in price. In this case if it holds true that an external contractor or the buyer can provide a cheaper settling of the defect there is no reason why the parties would not consider this case in a complete contract. If the seller chooses the remedy there is no problem as he again would be obliged to surrender $\min\{c_r^s, -v_t^s(t) + \ell_t^s(t) + e_t(t) + c_p^s, \ell_t^s(t), -v_t^s(t) + \ell_t^s(t) + p_t + c_h^s\}$. The buyer would then consider his costs, of proper self-rectification or of substitute rectification, subtracting the reimbursement by the seller and would come up with the cheapest remedy. If now the legal rules of Art. 932 are applied the analysis gets complicated. First of all one would have to think of which remedy the seller would have had to carry out in the case the buyer would have claimed a remedy. Therefore one has to go through the whole series of steps provided in subsection 2.5.3 on page 38 and especially figure out if there would have been disproportional costs and inconveniences for the buyer.[233]

Comment: Why the legal literature did not consider the case, I don't know, even though it seems obvious to me that it would contradict the idea of Art. 932 if the seller had to surrender the costs of rectification even though he would have been allowed to oppose disproportional costs and carry out the replacement. My opinion is that the buyer has to put up with the sellers objection to the costs of rectifying so indeed that he never has to surrender more than he would have, given that the buyer

[230] Note as in the previous section there is only a 0-1 choice of one of these remedies. If the buyer self-rectifies than no other rectification can be carried out. Therefore again we cannot consider marginal costs and revenues to optimize the decision.

[231] Simply adding c_r^s to every expression.

[232] One distortion of course remains: if the buyer has false beliefs about c_r^s (as perfect information is dropped) then he might choose the wrong remedy. The party that made the wrong choice also faces the exceeding costs and has no more incentives to precisely assess the costs of the seller. Indeed the case of self-rectification is one where there is space for a *pareto improvement* as the buyer and the seller could argue about a compensation payment for the self-rectification. So the buyers informational problem is solved and the seller may be able to contract upon a payment smaller than his costs, so the optimal allocation is supported and the contract has only distributional implications.

[233] There is much uncertainty in this case.

claimed the remedies of Art. 932. Every other solution would give the buyer an incentive to avoid Art. 932 and create a *fait accompli*. Whether the trial will be very complicated is another question. Furthermore in the case that both primary remedies are too expensive for the seller the buyer will be referred to the reduction in price as he could not claim redhibition in such a case.[234] Applying this complicated procedure yields the optimal choice of the remedy given Art. 932.

Letting the seller make the choice between the four remedies would be optimal, but it is true that the self-rectification is self-enforcing. Why this is the case is immediately clear: the seller offers to carry out the cheapest remedy, which ever it is. The buyer on the other hand, will very well know $c^b_{sr}, p^t_{tr} + c^b_{tr}$ and the costs he faces in the case of the seller executing the remedy. He is always granted the possibility to alter the sellers choice by covering the extra costs, so he can always alter the choice in a reduction in price where the seller has to surrender the marginal costs of the cheapest remedy.[235] Given that the buyer has all the information necessary to execute the optimal remedy, again the seller only faces the minimal costs he would face anyway. This solution is preferable to the one provided by Art. 932 as it only requires the same information it would require given that there is no self-rectification possible. The problem that self-rectification causes under the current regime vanishes automatically!

2.6.2 Art. 933a and Art. 1295 *et seqq.*

As already stated in the introduction to this section, the case in which the seller refuses or delays the execution of the remedy will be discussed. First of all one has to point out that as the tort is applied in this case we face the negligence rule.[236] This implies that one can apply Art. 933a iff the seller acted negligently. Note that the problem with this regulation is that if the seller is not the producer he will (in general) not act negligently if the product has a defect as he cannot influence it. However once the defect has occurred and the seller either refuses the primary remedies for no reason or is an unreasonable delay, he acts at least carelessly and that is enough to justify the application of the tort. That this case is covered by the tort follows directly from Art. 933a/2 sentence 3.[237] The amount the buyer is granted is regulated by the general rules of the tort. If he delegates the rectification to a substitute contractor he receives the total costs of rectification.[238] If he rectifies himself (proper self-rectification) he of course gets the direct costs he had, as there are material costs. He can however choose to claim the objective losses caused by the defect[239] or a price reduction according to the relative method of calculation.[240] In this case he has three possibilities, to claim c^b_{srv}, $\ell^s_t(t)$ or $\frac{p}{v^s(t_0)}\ell^s(t_0)$.[241] He will claim the one yielding the maximal monetary compensation for himself, but it is not assured that the maximum is at least as large as his actual costs c^b_{sr}. This is a discrimination of the proper self-rectifying buyer, but is, due to the problems of proving the actual costs, reasonable. He can also

[234] That is the logical consequence of the fact that he already rectified. He cannot first keep the performance, repair it and then say in the trial that he intended to return it anyway if he had known he was allowed to.

[235] To not misunderstand this argument: the seller faces e.g. costs of $c^s_r < \ell^s_t(t)$. If the buyer would want the reduction in price to be executed he has to pay $\ell^s_t(t) - c^s_r$ to the seller. That is nothing else than reducing the price reduction to c^s_r anyway. So every remedy can be altered into a reduction in price without the need for the buyer to pay anything!

[236] See subsection 1.3.1 on page 5 for the differentiation between strict liability and the negligence rule.

[237] Also see Ofner in Schwimann (ed.) ABGB Praxiskommentar[3] [2005], Art. 932 recital 54.

[238] Ofner [2005], Art. 933a recital 10.

[239] The buyer can choose between the subjective-concrete (in this case the direct costs of rectifying) or the objective-abstract losses (in this case the loss of value caused by the defect) caused by the injury (in this case the defect). Reidinger [2003] pages 218 *et seq.*, Apathy and Riedler [2008] recital 15/53 and also Ofner [2005], Art. 933a recital 6.

[240] For the reasons why this method has to be refused see subsection 2.5.3 on page 38.

[241] If one advocates the absolute method for calculating the price reduction there is no difference to the objective value one can claim by the tort, so both remedies result in $\ell^s_t(t)$.

claim the reimbursement of Art. 1042 or Art. 1168 every time.[242] To summarize this the buyer has enough instruments in his hand to ensure that the seller has to bear the costs of his refusal or delay. This should also assure that at first hand the seller does not want to refuse or to delay the execution. Nevertheless if neither the compensation granted by Art. 1042 (Art. 1168) nor the one by Art. 933a or the price reduction in general are at least as large as the buyers costs of proper self-rectification, he will be forced to delegate the task to an external agent. That is individually rational but might be inefficient if the buyer is the cheapest in rectifying. Unfortunately a better solution cannot be provided. The most important task of the tort in this case is to burden all costs on the seller so that he does not cause such problems in the first place. Imposing the correct choice by the buyer is important, but not the most important aspect in this context.

2.7 Offset of Benefits

This section deals with the problem of allocations under which the buyer is better off after a defect has occurred and a remedy has been executed than if the contract was fulfilled without defects in the first instance. The prevailing legal opinion is that such an off set of benefits is not covered by the Liability Rules[243] and benefits because of certain circumstances should reimburse the buyer, for suffered losses caused by the defect before it was rectified.[244] The literature about the offset of benefits is indeed a bit old. The two major articles still cited are Jud [2000] and Fenyves [1999], both deal with the old Defects Liability Law. According to Reidinger [2003] (page 178) or in the same sense Dullinger [2008] (recital 3/95) the arguments still apply. Fenyves [1999] argues that because of Art. 932 and Art. 1167 in the old version, there should be an offset of benefits iff the seller faces disproportional costs whereas the buyer benefits from the remedy. This indeed sounds like a weighing of interests which is done in the new law automatically if the seller wants to get rid of the primary remedies. Jud [2000] rejects the idea of Fenyves [1999] and argues that the buyer should reimburse the seller for his extra costs because of a rectification or replacement. The idea is that the buyer cannot claim a remedy that goes beyond the contractual agreement the parties entered. The buyer cannot claim a larger hard disk in the case the old one failed, because they never agreed upon a hard disk of that size. If however the buyer only receives what was part of the contract then there is no offset of benefits. To briefly summarize the legal literature about this question one can say that the problem today is unsolved and the ideas of the literature tend to go towards special case justice. Therefore the legal solutions cannot be satisfactorily analyzed in this section and there will only be a presentation of an economic solution.[245]

If one remembers the statements made in subsection 2.5.2 on page 29 it will be clear that benefits for the buyer are indeed possible and under some circumstances very likely. Assume for the moment that the technology from the time of transfer until now has not changed and the remedies have been carried out using the original technology. Take the replacement first: we argued that the buyer remains

[242] In this case the explanatory attachment to the government bill refers to Art. 1042, Dullinger [2008] recital 3/96 and Ofner [2005], Art. 932 recital 10 footnote 22.

[243] See Ofner in Schwimann (ed.) ABGB Praxiskommentar[3] [2005], Art. 932 recital 13, Dullinger [2008] recital 3/95.

[244] In this sense Ob 91/02g. This idea is called *"Guter Tropfen, böser Tropfen"*. It means that a party which suffered a loss or gained an advantage because of a special event should also benefit from future advantages or suffer because of future losses caused by the same event. Event in this context is the revelation of a defect.

[245] No support can be found for the arguments from Fenyves [1999] and for Jud [2000]. The idea of the primer has no application in the Liability Law of today as the weighing of interests, he intended to implement, is already part of the law and the idea of the latter has to be rejected because it also does not fit the current legal situation of the two steps in the choice of the remedy. If the buyer has no possibility of choosing the secondary remedy, e.g. reduction in price (which under the old law was always possible) as he cannot prove any of the reasons needed, he might be forced to reimburse the seller or let the remedy go. One would have to introduce the need for a compensation payment as a reason to choose the secondary remedies, but that does not fit the current legal situation.

with $v^b(t_0) - v_t^b(t) - p + v_t^b(t_0) - c_p^b$. If there had been no defect the buyer would remain with $v^b(t_0) - p$. If $v_t^b(t_0) - v_t^b(t) > c_p^b$ the buyer is better off in the case of the replacement. The assumption lying under this result is that once the defect is revealed the product is returned to the seller and the seller rectifies in optimal time. This causes losses to the buyer to the amount of c_p^b. So in this case the buyer is better off if the increase in value by the new product outweighs the cost of the execution of replacement. This may very well be the case if the defect is unveiled after some time of the life span of the original product has elapsed. In the Analysis of Art. 932 this wasn't a question asked, to keep analysis simple, indeed it would only imply that the seller would exert more effort in such cases under a complete contract if the benefits were not offset. Before we analyze this allocation, let us drop another implicit assumption we have made. Because of any reason that does not lie with the buyer, as in this case it is his problem, the buyer is forced to suffer further losses caused by the defect, e.g. because the seller is not able to immediately replace it.[246] We do not subsume these losses to c_p^b, which would confuse notation, as we have not considered them before and we want to use the term c_p^b with the continuous meaning. Let t_1 be the time point at which the defect is revealed and let again t be the time point at which the product is replaced. So the buyer suffers losses of $\ell_{t_1}^b(t_1) - \ell_t^b(t)$ where $\ell_{t_1}^b(t_1)$ are the losses caused by the defect from t_1 onwards discounted by t_1. The term $\ell_t^b(t)$ in this case are the losses that are not suffered because of replacement. So the total wealth under replacement is $v^b(t_0) - v_t^b(t) - p + v_t^b(t_0) - (\ell_{t_1}^b(t_1) - \ell_t^b(t)) - c_p^b$ and so that benefits exist it has to hold that: $v_t^b(t_0) - v_t^b(t) > c_p^b + (\ell_{t_1}^b(t_1) - \ell_t^b(t))$.

If the two parties write a complete contract it is not very likely, as already argued in subsection 2.5.2 on page 29, that the seller is willing to over-insure the buyer against the occurrence of a defect. Therefore the simplest way would be to agree upon a compensation payment p_c that retransfers the benefits from the buyer to the seller. If we relax the assumptions of absent transaction costs and complete information, which are crucial in sustaining a complete contract, we argued above that it is optimal that the seller chooses the remedy and the buyer may pay for another remedy. In this case the seller only considers his own costs and does not bother with the benefits of the buyer. Indeed there is one case when it bothers him, that is if every (!) remedy leads to a (verifiable) benefit for the buyer, because of *ex ante* in this case for the seller it is clear that he over-insures the buyer in each and every case, which he won't be willing to do. As this is not the most likely case we will leave this case aside. Apart from that, again the optimal remedy is executed. It may only happen that the buyer is willing to pay more for a primary remedy because of the benefits, but that does not effect the optimal choice of the remedy by the seller. The solution of the Austrian Law instead let the buyer make a choice, which will lead to the effect that he will choose the primary remedy which gives him the best payoff. But for the seller at first nothing changes: if he faces disproportional costs he might be able to avoid a special remedy or even both primary remedies, but the effect on him is only indirect, in the case that the seller faces disproportional costs and the buyer substantial inconveniences. The substantial inconveniences result from a comparison between the different remedies. If in this comparison the benefits would be considered in the favor of the buyer, then the seller would be affected.[247]

Comment: I have found no indication in the literature that these possible benefits are considered in any way throughout the weighing of interests between parties so if the buyer enjoys the benefits it is more or less due to other reasons. Indeed Jud [2000] argues that such benefits have to be set aside

[246] Note that we do not consider "not willing" as in this case that would be a refusal of the primary remedy and has to be solved another way. Of course if a court orders the seller to execute the primary remedies an offset of benefits has clearly to be denied. The seller can cause such a benefit by waiting as long as possible such that the life span of the original product has nearly elapsed. As no one should benefit from his own abuse of law (as this would be inefficient as the optimal effort could be avoided) in these cases an offset of benefits should be refused.

[247] To make this clear: A buyer faces costs under each remedy of 30 (units) and if the replacement is executed he faces benefits of 40 (units), it is clear that all other remedies are "inconvenient" for the buyer.

if the court weighs interests. So one cannot talk about an *ex ante* over-insurance by the seller.

If we talk about rectification and also consider the losses caused by defects over some period of time we have to further assume that rectification causes an increase in the value of the product to the buyer which is called $r_t^b(t)$.[248] We come to a similar conclusion by now comparing $v^b(t_0) - p - (\ell_{t_1}^b(t_1) - \ell_t^b(t)) + r_t^b(t) - c_r^b$ with $v^b(t_0) - p$ such that benefits occur if $r_t^b(t) > c_r^b + (\ell_{t_1}^b(t_1) - \ell_t^b(t))$. The right hand side of the equation is similar to before, the left hand side indeed also, even though some reasoning is needed. As the replacement caused benefits are given by $v_t^b(t_0) - v_t^b(t)$ one sees that a positive difference can be named $p_t^b(t)$ so the solution is similar to the one given under the discussion about replacement. So the conclusion made is the same.

The last remedy to discuss is the reduction in price: in this case a benefit occurs if $\ell_t^s(t) > \ell_t^b(t)$. We have already discussed this case above and argued that we cannot avoid this case because $\ell_t^b(t)$ is not verifiable.[249]

But if we argue that a reduction in price may lead to benefits we cannot avoid[250] we can also not argue that benefits caused by other remedies have to be surrendered. This would lead to wrong incentives for the buyer. He will be less willing to choose a primary remedy if these remedies are discriminated compared to the reduction in price, so he will be willing to press a lawsuit to get access to the secondary remedies.

The conclusion if the replacement is only possible with a new product not similar to the one initially contracted upon is somewhat different.[251] As a newer product often has new features it may also have a higher (market) value. It cannot be concluded that it also has a higher value for the buyer. In a complete contract, the parties will either agree upon the exclusion of the replacement in such a case or upon an offset of benefits by a compensation payment. If the seller chooses, the problem does not arise as he will charge the buyer the difference in market value if he chose another remedy. In the other case if the replacement by the new product is the cheapest remedy for him (which seems a bit unlikely) there is also no reason to grant him a compensation. This, however, has other reasons. If the seller chooses and chooses the cheapest remedy for himself and if the replacement is the cheapest remedy he can force the buyer into a relationship where he, under all circumstances, has to pay (or gets a lower compensation). If he let the sellers choice be executed he has to pay the compensation payment. If he wants to change the choice he has to pay the cost difference. It is highly questionable from an economical point of view to grant a party the right to force another party into a relationship in which there is no way out, than back away from the claims by the Liability Law or suffering the lower compensation payment. This would for once lead to the fact that every purchase becomes a gamble for the buyer and that the seller might release himself of duty by inventing a new product line and then being able to level down the compensation payment he would at maximum have to pay. So if the seller chooses, no offset of benefits under any circumstances may be granted!

If the buyer however chooses, it is a bit different. If the buyer chooses the replacement by a new product and the sellers fails to prove disproportional costs the buyer can enrich himself and the seller is, in contrast to the case before, forced into a contract he may have never signed. For example: p against new product! In this case it seems optimal to feign the chioce of the redhibition, give the

[248] This may be caused by a longer life expectancy because of the repaired or new parts (as replacement means the replacement of the total product only partial replacement is subsumed under rectification) or new functions available because of the reparation.

[249] See subsection 2.5.3 on page 38.

[250] I doubt that any jurist will disagree with this conclusion.

[251] Think of a contract about a mobile phone type x series y. The series y is totally replaced by the series $y+1$ and is therefore no longer being produced. No old mobile phones series y are in stock so a replacement of a defect old series y mobile phone is only possible by a series $y+1$ one.

buyer p back and immediately repurchase the new product at p_n. The buyer would then have to pay $p_n - p$. If he is not willing to do so he should either choose rectification or if that is not possible or the seller has disproportional costs, should be allowed to claim redhibition (even though the defect may be insignificant). The main difference to the scenario presented earlier is that the seller cannot force the buyer into a contract. The buyer himself is always able to get rid of the contract, if a settlement by rectification is not possible. So indeed one feigns the impossibility of a replacement plus the presence of a significant defect to come to this result. If the buyer then wants the new product, he can purchase it or agree upon the replacement with compensation, both ways yield the same result.

Why should it be feigned that the defect is not insignificant? If we would allow for insignificant defects, the seller could avoid redhibition by creating a new product line. Therefore replacement would be made impossible even though it was the optimal remedy (as rectification caused disproportional costs or was impossible). If such a possibility were optimal or not one cannot say for each and every case, but forcing the buyer into the reduction in price results in the same problems as above and furthermore the solutions by fiction would differ. If both rectification and replacement with an original product would cause disproportional costs (so the replacement was not the optimal remedy) the fiction of the non-insignificance has to be dropped. This has to be verified within the trial. A similar problem occurs if the rectification leads to a partial replacement by a new technology. The solution however cannot be the same, as we lose the similarities between replacement and redhibition. Iff, without the rectification, the product is completely worthless we can reinvent the similarities. If the buyer is not willing to pay for the new technology we have to feign the impossibility of the primary remedies, but we do not feign the non-insignificance.[252]

One very special problem however remains and this is the case most often considered in the literature. Assume the buyer purchased a new insulation for his home. The seller however delivered a defect one which has to be replaced. Before the day of replacement, it was revealed that the used material was inferior for usage as insulation, however it was state of the art at the time of transfer. The seller is not willing to install the inferior material as he would always be faced with claims because of defects. As a result he must install what is state of the art today. What is state of the art today may either cause a better insulation, a longer life expectancy or whatever. If the product was already available at the time of transfer we can conclude the following. Asking what the parties would have agreed upon knowing that the material they had in mind is inferior, one can conclude that they would have agreed upon a contract including the superior material. So the buyer would have had to pay the higher costs for the material at the time of transfer anyway.[253] *As argued above there is no need to also set off other benefits by replacement because if the parties would have originally installed the correct material and this material would have been defect and a reinstallation necessary, this would be exactly the same case as above: A simple benefit by a remedy carried out under the original technology. A case the German Supreme Court did not consider is the case of what should happen if the old technology was inferior but the superior technology was not available at the time of transfer. The consequence would have been that the parties postpone the contract until the new technology is available, so there are no Anyway-Costs. In this case we could use the argument from above to let the buyer choose between a redhibition or a replacement/rectification by a new technology with a compensation payment. So either redhibition or reduction in price have to be executed.*

To summarize: if the seller is granted the right to choose the remedy, an offset of benefits should never be allowed. If the buyer chooses the remedy, an offset of benefits should in general also not be allowed. The exception is the case in which the original product is no longer available. If this is the case

[252] Note that with this fiction we come close to the solution of Jud [2000], as we drop the distinction between primary and secondary remedies and therefore her approach can be used again.

[253] These costs are called *"Sowieso-Kosten"* or in English Anyway-Costs. The case presented is similar to a German Supreme Court case (BGHZ 91,206) where the court came to a similar conclusion.

the buyer should be allowed to choose between replacement and compensation payment or redhibition if the rectification was impossible (or too expensive) and the replacement by the original product was the optimal remedy or the defect was significant. If the defect was insignificant and the replacement by the original product also would have caused disproportional costs the buyer should be referred to the reduction in price or a replacement by the new product plus compensation payment. If partial replacement by a new technology is possible (i.e. rectification) the buyer should choose between a reduction in price (or a redhibition if the defect is significant) or the rectification with a compensation payment.

The solution is that one has to drop the separation between primary and secondary remedies iff a new technology is available for the primary remedies. This then is similar to the old legal situation and therefore the approach of Jud [2000] has its justification. The solution is, however, *contra legem* and would need a fancy interpretation of the word "impossible", in the sense that the primary remedies are impossible under the old technology, or a change in the law.

Once again we have been able to show that the rule which grants the seller the choice of remedy is superior to the current legal situation. The argument is much simpler and the solution needs no further reasoning by the court as the general rule presented above can always be applied!

2.8 Limitation of the Period of Liability

2.8.1 General Analysis

The first question that should come up when reading the headline of this section is "Why do we need such a limitation?". Up to now we have assumed that the defects (latent) existent at the time of transfer can be distinguished perfectly from other defects. If we would be able to distinguish perfectly between these defects and those which come into existence afterwards, because of misuse or other product failures, we don't need any limitation for the period to claim remedies because of the liability.

The European Directive purports a limitation period of 2 years for moveable objects. The Austrian legislator implemented this period without any change, even though a longer period would have been allowed. For immovable objects the period is 3 years. Both limitation periods are regulated in Art. 933/1. The period starts at the time of transfer except the defect is a defect of title, then it starts at the time at which the defect becomes known to the buyer is relevant. The claims have to be raised before a court, because simply telling the seller is not enough to actively claim a remedy after the period lapsed (Art. 933/3 *e-contrario*).

The distinction between movable and immovable objects is as follows: objects are supposed to be classified as immovable if the contract that includes the performances refers to immovable objects. For example the installation of a movable object to an immovable, one if the connection is so close that the rescission of the connection is inefficient.[254] This applies for the installation of flooring, as a building is immovable and the flooring can in general only be removed under high costs, which also destroy the value of the flooring. The distinction is a bit complicated and not always easy to understand. It seems to be that the reason for the difference of 1 year is that it is assumed that with immovable objects, one faces smaller problems in proving the time at which the defect existed. Indeed in the literature a harmonization of both periods is claimed.[255]

[254] Ofner in Schwimann (ed.) ABGB Praxiskommentar[3] [2005], Art. 933 recital 5 and Bydlinski in KBB (eds.) Kurzkommentar zum ABGB[3] [2010], Art. 933 recital 2.

[255] Ofner [2005], Art. 933 recital 4.

The reason for the limitation of the period in which a remedy can be claimed because of a defect, are the difficulties in proving that a defect in the sense of Art. 924 sentence 1 and Art. 922 is given.[256] According to Bydlinski [2010] this limitation only favors the seller.

The question in the following is whether there is an economic justification for a limitation period. And if the answer is yes, are the periods of 2 or 3 years reasonable? First, one has to drop our previous assumption that we can clearly distinguish between defects (latent) existent at the time of transfer and those not, as otherwise there is no problem in proving that a defect is covered by the Liability Law. If we do so two types of defects remain: the one where it is obvious that the defect belongs to one of the two groups and the second where it is not clear. The first group does not bother us at all. If the defect can be ascribed to the ones covered by the Liability Law the seller *ex ante* is aware of that and therefore will enact the optimal effort. If this is not the case, two things may happen: the seller is held liable for a defect that either belongs to the Liability Law, in which case no harm has been done, or his liability is a fault, the defect was possibly even caused by the buyer. In section 2.9 on page 62 we talk about the best allocation of the burden of proof. In this case we only have to decide if it is reasonable to take the implications of an misallocation because of an excessive liability into account. But, as for this analysis, we have to assume something about the burden of proof. We will simply take the general rule, which implies that every party has to prove the facts it benefits from, so the buyer has to prove that a defect is a defect in the sense of the Liability Law.

What is totally clear is that at the time of transfer and the instant afterwards a perfect distinction is possible and the more time that moves along the harder the distinction becomes and maybe there is a time point reached at which no distinction is possible after all. Because the buyer faces the burden of proof, he will lose the cases in which a distinction is not possible. The more time elapses the worse the chances of the buyer will be to win the trial. This has the consequence that the buyer is willing to try all features of a performance as soon as possible so that he can maximize his chance of winning and reduce the sellers incentives to exert suboptimal effort. Indeed the less likely it is that the buyer reveals a defect in a reasonable time, the higher the incentive for the seller is to reduce his effort to prevent this defect. Looking at this, no one can see a reason to restrict the buyers possibility to claim a remedy as he will carefully think about it when a lot of time elapsed and his chances to win are low. Why shouldn't he be allowed to at least try even after ten years? Well given this constellation only one explanation is reasonable. Trials cost a lot of money and even though there might or might not be an optimal number of trials,[257] for many claims the legal systems has fixed periods of limitation. The more time has passed, the more trials become inefficient as they no longer have any allocative implications and only lead to a huge economic loss.

Schäfer and Ott [2005] (pages 492 *et seqq.*) ask the question whether there is an optimal limitation period for a defects liability law and they come up with the following idea: the limitation period of a certain kind of product should depend on the life time of that product, the economic dynamic of the product,[258] the price of the product,[259] the possibility of the seller to camouflage certain product

[256] Bydlinski [2010], Art. 933 recital 1.

[257] Weigel [2008] pages 98 *et seq.*

[258] The authors argue that the faster a type of product gets renewed within the economical process the lower the willingness is to pay on the buyers side to insure himself against a defect.

[259] The assumption is that the higher the price, the higher the loss for the buyer and the higher is his willingness to pay an insurance premium. As there is no need to assume risk aversion of the buyer when one talks about defects liability rules, this idea can in general not be used, unless one uses the price as an indicator of the complexity of the product and therefore as an indicator of the possibilities of seller sided moral hazard, which can in general not be argued.

defects until a certain time[260] and the possibility of the buyer to overuse the product.[261]

The idea has its merits, the argumentation of Schäfer and Ott [2005] however does not fit with the usage of the "Defects Liability Law" as used in this thesis. It does not have to do with this peculiar problem, but with their explanation of the Defects Liability Law. They argue that a liability law is an insurance for the buyer. That is, however, only one aspect of the problem as stated in subsection 1.3.1 on page 5. Indeed the Liability Rules have their justification in their ability to provide the optimal incentives for the seller to choose his effort and that in the fact that an absence would lead to high economic losses because of inefficient failure searches.[262]

The following must be concluded: The authors are correct when they argue that it is suboptimal that for each and every defect there is only one (or in our case two) limitation period(s). Indeed the limitation period should depend on the cost of a proof (trial) and the discriminability of a defect. This discriminability depends on two aspects: the life expectancy of the performance, as the longer the product "lives" the harder the distinction will become, and the "complexity" of the product. Note that it does not depend on the seller sided moral hazard, as this does not influence the need for a longer limitation period, but for a shift in the burden of proof. And in this context the buyer sided moral hazard is relevant, but therefore see section 2.9 on page 62.

The essence of this section is that, if one follows this argumentation, each and every product (group) would need its own limitation period. But this would lead to a complexity of the law that is currently unknown and therefore itself implies high consequential costs as the regulation itself will lead to a lot of mislead or elapsed claims because of minor knowledge of the individuals about such periods. This itself is inefficient. So one has to admit that the presence of two general limitation periods (3 and 30 years) within the Austrian law has merits itself. The differentiation between movable and immovable performances has, in this sense, justification as in many cases of immovable objects the distinction between defects due to their time of existence seems easier than for movable objects.

Comment: To close this first part of the section, I have to admit that there is no proper economic solution[263] for this problem and so the limitation period remains a political decision.

2.8.2 Special Issues

There are some special issues worth examining:

1. **Defect of title**: As already mentioned Art. 933/1 is designed to regulate that the limitation period for a defect of title starts at the time the defect becomes known to the buyer. This is economical as there would be no limitation period because the buyer has 2 or 3 years from the knowledge of the defect onwards to claim the remedies. This is sound, because for the defect of title, the above reasoning, has only partial implications. It is true that also for a defect of title the provability is a function of time, as the more time has passed, the harder it is to prove a title.

[260] They call this seller sided moral hazard. My opinion is that this seller sided moral hazard increases with the complexity of the product as the more complicated a performance is, the harder it is to prove certain facts.

[261] Why in fact they believe that there is a buyer sided moral hazard I don't understand. If one only talks about defects existent pre transfer and furthermore makes no assumptions that the seller is the one who faces the burden of proof (what they don't assume) buyer sided moral hazard has no influence. This, however, can be explained assuming that defects, which are influenced by both sides, are meant. For example the buyer provides the material of the product before the transfer. This assumption is falsified by the reference to Cooper and Ross [1988] who certainly talks about warranty and not about defects liabilities. One should, however, not forget that the German "Defects Liability Law" is similar to the Austrian, due to the dependence on the EU-Directive, so it is certainly different from a warranty contract.

[262] Assuming that a market solution does not arise for any particular reason.

[263] One may be able to argue that a period of a day is too short as in this case the distinction may be nearly perfect, but whether 3 or 4 or 12 years or any other number is more reasonable can't be said in general for all groups of possible performances.

The buyer, however, can never ever (or at least not reasonably without employing a detective) find out that a product or object is someone else's property or that there are burdens bound to the product. He, in general, will have to wait until someone claims his rights against him and then is referred to recoup himself by the seller. If the seller knew about the defect in title it is obvious that this it is justified that the seller will never be relieved. The Liability Rules in this case only spare the buyer the proof of knowledge. If the seller also has no knowledge, holding him liable also have a positive effect because without the insurance (and in this case it is really an insurance) the willingness of parties to buy products would decrease dramatically. It might happen that one remains without anything if the performance is another party's property.[264]

2. **Executed Primary Remedy**: The consequence of an already claimed and executed remedy to the limitation period is that the period starts from zero again, only with regard to the rectified or replaced part of the performance.[265] The legal solution is to feign a declarative acknowledgement by the executed remedy and therefore let the original limitation period start again (Art. 1497). If the execution itself has caused another defect this defect would not fulfill Art. 924 sentence 1. This applies because it did not exist at the time of transfer. However, as the seller caused the defect there is an analogously application of the Defects Liability Rules and the limitation period starts from zero. Indeed from an economic point of view such an execution of a remedy is a performance itself so it is reasonable to apply the Liability Rules to this particular performance as well and also the justification is the same. What is the difference between the buyer who orders a repair of his car from a salesman and the one that claims a repair of his car because of Art. 932. Well there is none. Both situations are similar, the only apparent difference is that, in the first situation, the parties act on a contractual basis and the seller receives a payment, whereas in the second situation the relationship is on a legal basis[266] and the seller receives no remuneration, but only he fulfils a prior written contract. So the solution has to be supported.

3. **Objection**: If the buyer forgoes his right to claim a remedy he can, even though the limitation period has lapsed, object to a claim of payment by the seller with the justification that a defect in the sense of the Liability Rules is present and only if he told the seller about it within the limitation period (Art. 933/3). The idea behind the regulation is obviously to protect the buyer that told the seller about the defect and has not yet paid the full price, against the seller that simply waits until the limitation period has lapsed and then claims his payment although he knows about a possible defect. The buyer, however, has to prove that the defect is covered by the Liability Rules. This rule favors buyers that haven't fulfilled their duties yet because of whatever reason. Furthermore it opens the door to proofs at a point in time at which they may be inefficient (see above). On the other hand it punishes the seller that wants to sit out the limitation period knowing that afterwards the buyer has no objections. Indeed both sides have their weight and it seems unfair to favor buyers still owing money to the seller, that are not willing to claim the remedy themselves. Being accused is always favorable to accusing. Besides that it is unreasonable to reward the waiting the seller even though he knows about the possible defect and so one has to admit that this rule is justified.

4. **Explicitly assured features**: If the seller explicitly assures a particular feature that cannot be checked or examined until a certain point in time, so that the defect is hidden, the limitation period starts at the point in time when the defect can be discovered.[267] This is a similar but not

[264] About the Art. 931 see section 2.3 on page 19.
[265] Bydlinski in KBB (eds.) Kurzkommentar zum ABGB[3] [2010], Art. 933 recital 13 *et seq.*
[266] Of course derived from the contractual relationship entered with the first purchase the product.
[267] Ofner [2005], Art. 933 recital 10.

equal treatment to defects of title. The reasoning is that if a seller assures a certain feature he has to be liable for its functioning even though the defect is revealed after the general limitation period has elapsed. One can justify this by arguing that the feature and the consequences of its failure are noticeable to the seller at a higher degree than simply generally presumed features. He himself has made this feature part of the contract, or a special part of the contract. The seller, therefore, should not be relieved only by the fact that one cannot verify the functioning of the feature within the limitation period. However the term "can be discovered" has to be rejected. Either one goes the whole way and harmonizes defects of explicitly assured features with the defects of title or one lets it be. As argued in section 2.3 on page 19 about Art. 377 Austrian Commercial Code, a rule that uses "can be" formulations only leads to unnecessary proofs about what could be and not about what actually is. On the other hand releasing this assumption would favor buyers that refuse to be aware of certain facts like the presence of a defect and that is unreasonable too. So one will have to word the question a little bit differently and take into account the point of time at which one can no longer deny that a defect is present.

Comment: That also is not a very clear solution, but I think that the time point is easier to figure out than the one at which one could say that the buyer could have perceived the defect had he only acted carefully.[268]

5. **Delay or Refusal by the Seller**: If the seller delays the primary remedies by repeatedly assuring the buyer the execution or refuses the execution after all, the limitation period is begun with the refusal or the delay.[269] The reason is that the seller that violates the idea of the Liability Rules should not be favored. That is especially true if the seller often assured the buyer the execution and then after the period has lapsed suddenly says he isn't willing to execute the primary remedies any longer. That simply is abuse of the law and can never be tolerated. The economic reasoning on this point is clear: the seller should be held liable for such an action!

As we have seen in this section, the period of limitation is a problem within the Liability Rules which is very difficult to handle. We cannot come up with a proper solution for the length of the period, but we can argue that the system with the exceptions from the general rule is (in general) well-founded and provides optimal incentives for the seller (and also for the buyer).[270]

2.9 Burden of Proof

2.9.1 Legal Basics

In this section we treat the problem of the burden of proof - or which party should prove which aspect in a trial. The general rule in the Austrian Defects Liability Rules is that the buyer has to prove every aspect that causes the claim. So the buyer has to prove that a defect was uncovered within the limitation period, that the defect is one in the sense of the Liability Rules, i.e. he has to prove what is owed, and that the defect, at least latent, existed at the time of transfer. Art. 924 sentence 2 now regulates that the existence at the time of transfer is presumed if the defect was uncovered within 6

[268] So the actual difference would be that the seller has to prove that the buyer acted grossly negligent, not only negligent. Both solutions are not satisfactory, but if one restricts the limitation periods only to cases in which the buyer acted deliberately (so he did not notice the defect on purpose) one could drop the regulation immediately, as this is nearly impossible to prove. On the other hand the distinction would be more precise.

[269] Ofner [2005], Art. 933 recital 11.

[270] As we do not cover "defects" of animals at all in this thesis. Therefore Art. 933/2, which regulates special periods for these defects, is also not covered.

months after transfer.[271] There is an exclusion to this presumption if the presumption itself is not compatible to the kind of the product or the type of defect in question. An example for the first one is the case in which the buyer claims a remedy because of a rotten salad after 2 months. Clearly a presumption that the salad was rotten at the time of transfer because it is rotten 2 months thereafter is senseless. An example for the second one is the case in which the buyer claims a remedy because of outworn brake pads after a few months, although he intensively used the car.[272] The same has to hold if the buyer has obviously misused the product.[273] Bydlinski [2010] (recital 5) argues however that if the buyer misuses the product in the hope to repair a revealed defect, the presumption should not be dropped as no reason speaks against the presumption. A critical question is whether the seller has to prove the presence of one of these two cases according to the general rule, i.e. the probability, that one of the cases is present, is high, or that he simply has to submit a *prima facie* proof, i.e. the probability that one of the cases is true outweighs the opposite. For the implications of the difference see below. The latter idea is represented by Reischauer [2010] who argues that otherwise the sentence 3 would be meaningless as a full proof comes down to proving again that the defect did not exist at the time of transfer. For the case in which the presumption is incompatible with the type of defect he argues that a *prima facie* proof should always be sufficient whereas for the incompatibility with the kind of the product the *prima facie* proof should only be sufficient if a lack of evidence is present.[274]

Another controversial point is what should happen if the life expectancy of a product is shorter than 6 months. Ofner [2005] (recital 9) argues that in these cases Art. 924 sentence 2 does not apply. In contrast Bydlinski [2010] (recital 6, 7) argues that especially for nutrition one should shorten the reversal of the burden of proof from the 6 months to the best-before date/period. The same should be true for other products which have a life experience shorter than 6 months, but for which one can name a certain period in which they in general function if they have no defect. The same is argued by Reischauer [2010] who speaks of an analogous application of Art. 924 sentence 2.

2.9.2 Economic Reasoning under the Preponderance Rule

In the following we ask the question as to whether such a reversal of the burden of proof is efficient as it increases the incentives for the seller to sustain the optimal level of effort. We will, therefore, make some assumptions, beyond the general assumptions, from which in this case the most important one is that of asymmetric information. We uphold, for now, the assumption that the seller is the producer. Furthermore remember the assumption that the emergence of a defect only depends on the seller's action before the transfer and the buyer's thereafter, so that no other party can influence the state of the product.[275] However defects also occur by chance because of nature.[276] A general rule for shifting the burden of proof is presented by Hay and Spier [1997]. The authors argue that the burden of proof

[271] From a legal point more precise is that the defectiveness of the product leads to a presumption of the defectiveness of the performance, where the performance in the sense of this thesis is the transfer of the owed. For a closer look at this distinction see Reischauer [2010] page 220. For our purpose it is sufficient to use the presumption in the way that the uncovering within 6 months leads to a presumption that the defect existed at the time of transfer.

[272] To make this a bit clearer: Suppose the medium usage of a car per year sums up to 20.000 kilometers. Brake pads are outworn after say 50.000 kilometers. If now the buyer drives 50.000 kilometers in 3 months the brake pads reach their life expectancy and are therefore to be replaced. Different from that the presumption would have to hold if the buyer only drove 30.000 kilometers in 3 months and the brake pads are worn out.

[273] See therefore also Reischauer [2010], pages 223 and 224. A simple example is the mobile phone that is broken in two because the buyer has dropped it.

[274] That a lack of evidence is given is the general prerequisite that the *prima facie* proof in Austria is permitted. See Rechberger and Simotta [2010] recital 770.

[275] As stated in subsection 1.3.1 on page 5.

[276] These are the inevitable defects mentioned in subsection 1.3.1 on page 5. One can very well think of another agent, namely nature, that influences these defects. However, nature chooses no level of care, it simply represents the remaining inevitable chance that a defect occurs, even though buyer and seller choose the optimal level of care.

should be located with the plaintiff (in our case the buyer), iff the probability that a state X occurred times the plaintiffs cost of proving that X did occur is lower than the probability that X did not occur times the defendants (in our case the seller) costs of proving that X did not occur. X is the claim constituting fact (in our case that the defect existed at the time of transfer). As in general the court only receives signals[277] they also impliment a dependence on a signal Y.[278] So the plaintiff should be left with the burden of proof iff

$$P(Y|X) * P(X) * c^p < P(Y|\neg X) * P(\neg X) * c^d \tag{2.1}$$

where $P(Y|X)$ is the probability that the court receives the signal Y given that X has in fact occurred. c^p and c^d are the costs of the plaintiff and defendant. The courts, according to them should form beliefs about the probabilities and the costs and then decide from case to case who should bear the burden of proof. Especially if the occurrence of X is very unlikely the burden of proof should be allocated to the plaintiff. On the other hand a strong presumption that the signal Y is highly correlated with X, which means that $P(Y|\neg X)$ is very low, implies that the defendant should be loaded with the burden of proof. Of course a difference in costs also affects allocation in one or the other way.

What would the yield of applying this rule be? First of all we have to figure out whether the parties face different costs in proving certain circumstances. This is very well the case, as the producer (=seller) knows his production process and therefore knows where failures might happen and which defects they may cause, whereas for the buyer it is even difficult to figure out exactly what the defect is, as he in general only faces the consequences of the defect.[279] So we can assume that for technical defects the seller faces lower costs in proving the existence at the time of transfer or not, so that $c^p > c^d$. But on the other hand the buyer also might have caused a defect or uncovered a hidden defect because he has misused the product. In this case of course the buyer is the one in the better position to prove that he did not misuse the product, so in this case $c^p < c^d$. The third "acting" party in this context is nature. Nature influences the state of a product as well before as after the transfer. We can, therefore, simply ascribe the consequences of a defect by chance to the seller before the time of transfer[280] and to the buyer thereafter. Who is best able to prove that nature has caused the defect and when it has caused it? Well, as this would in most cases, be a technical question again the producer seems to be in the better position to reveal evidence about this question.

The second step is to make assumptions about $P(X)$ the probability that the defect existed at the time of transfer. It is hard to tell this in general but what can be said is that the more time elapsed from the time of transfer onwards the less likely it is that the defect existed at the time of transfer. This does not mean that a defect uncovered 10 years thereafter could not have existed since the day of transfer, but it is much less likely than if the defect was uncovered the day after transfer.[281] So we can make the following assumption: $P(X)$ is a function of t where the first derivative with respect to t is smaller zero.

The last point is about the beliefs of the court or the signaling function of the case brought to court. This is very likely the most critical point in our analysis as in this case the court has to weigh the

[277] The term signal in this context refers to the information the court receives in the statement of claim and the statement of defense, as based on this information the court has to decide who bears the burden of proof for which fact. So this decision logically has to be made before the actual trial starts.

[278] So this variable Y is the sum of information the court received from the statement of claim and defense.

[279] E.g. if the graphics card of one's computer fails the result is that the screen remains black. However, the buyer can in general not tell more than that the graphics card failed and not why. This is in general enough to argue if the defect is one in the sense of the Liability Rules as a graphics card is supposed to show the working screen. However, to prove that the defect already existed at the time of transfer one has to figure out why the graphics card failed.

[280] As it was argued in subsection 1.3.1 on page 5 this is necessary to ensure optimal behavior by the producer.

[281] For a similar argument see section 2.8 on page 58.

presented case, which is the claimed defect against the product's life experience. In the example with the salad the court might very well assume that $P(Y|X)$ is very small, close to zero. Life experience tells one that even with good storage salad rots after some time. On the other hand if brakes are in general worn out after 50.000 km and in the presented case the car was only driven a 20.000 km it might very well assume that $P(Y|X)$ is large, maybe even close to one. With its expectations the court can also rule out cases in which a possible misuse by the buyer seems very likely as in this case $P(Y|X)$ is very low. The optimal solution would be to let the court decide about the burden of proof from case to case given the time elapsed, the type of failure (purely technical or also caused by potential misuse) and its beliefs, based on its experience.

According to Hay and Spier [1997] in the common law system, these rules led to some general assumptions about the burden of proof. In tort cases the plaintiff is the one to prove the facts as it can, in general, be presumed that individuals act non-negligently and so $P(X)$ is very low. On the other hand they argue that in e.g. product liability cases the costs of proving a defect are much lower for the producer than for the plaintiff and therefore the producer should be loaded with the burden of proof. Especially the second example is of high relevance for our case, as the main criteria is the proof of a defect, even though the definition of a defect is a bit different between the Product and Defects Liability Rules. So we may very well assume that in most cases, the producer is the one in the better position to prove the presence of a defect in question, however if reasonable objections speak against this assumption such as a high chance of misuse which occurred in the past, the burden of proof should be shifted to the buyer.

2.9.3 Application to the Austrian System

What does this imply for our case within the Austrian law? Well first of all, in Austria, the burden of proof is generally shifted by the law and not by the judges[282] so the regulation used in Austria is somewhat more general. The second difference is that in the common law the preponderance rule is valid, so a party wins if its point is more likely than the opponent's point. As Hay and Spier [1997] argue the preponderance rule and the allocation of the burden of proof coincide. To make this clear take the rule that the judge *ex ante* thinks that both points are equally likely. If at this point the plaintiff has to convince the judge that his point is more likely than the defendants (that is the preponderance rule) that is the same as if the judge rules that the plaintiff has to prove his point. Otherwise the claim would be disallowed. The argument does not hold any longer if the fact has to be shown with a high probability, so that a slightly higher probability is not enough.[283] Another difference is that in common law countries the adversarial system is dominant. That is that the parties are responsible for the collection and presentation of evidence. In Austria a mixture of the inquisitorial system and the adversarial system exists, which is called the mitigated inquisitorial system.[284] The difference between the Austrian system and the pure inquisitorial system are indeed minor and mainly amount to nothing more than that the judge depends on some factoids which the parties raise such that he has a direction into which he is searching. So the judge cannot search for evidence in every direction. Indeed the Austrian civil process is, not without good reason, named "working group civil process"[285]

[282] As example take Art. 1298 that shifts the burden of proof to the defendant in cases of contractual compensation claims or Art. 970 which implies that a landlord has to prove that a damage occurring in his house was neither caused by him, his employees or other parties entering and leaving the house, otherwise he is held liable. However under some circumstances the jurisdiction feels legitimized to alter the general rules and therefore shifts the burden of proof. See Rechberger and Simotta [2010], recital 760.

[283] For the Austrian rules of evidence see Rechberger and Simotta [2010], recitals 753-790a.

[284] The correct German term is *"Abgeschwächter Untersuchungsgrundsatz"*. See Rechberger and Simotta [2010], recital 403.

[285] *"Arbeitsgemeinschaft Zivilprozess"*.

by Rechberger and Simotta [2010], as the parties also face truth and completeness duties throughout the whole trial. So in Austria the burden of proof boils down to a simple fact: it is a rule of how to decide if a *non-liquet* situation arises, that is if the judge cannot tell whether the claims of the plaintiff or of the defendant are true.[286] But one has to point out that if the judge is not willing to investigate a certain direction it again is up to the parties to ask for proof, like evidence submitted by an expert, if the party suggesting the proof pays part of the costs in advance. However in this case the proof is also not a proof by a party as in the adversarial system, but a proof the judge is recording. As this thesis is not an analysis of the Austrian rules of evidence we will simply take these rules as given and try to find an economically reasonable solution for the shift of the burden of proof within these rules.

What can we conclude from this? First of all the high probability needed in Austria to accept a fact as true compared to the preponderance rule leads to much more *non-liquet* situations, as the only such situation within the preponderance rule is the case when both claims are equally likely. In the Austrian rule everything between a high probability that X is likely or that $\neg X$ is likely leads to a *non-liquet* situation. So other than within the rule used in the common law the burden of proof is a shifting of the non-verifiability risk of a certain fact or its negation.[287] The second conclusion refers to the lower costs of proving a certain fact. Indeed this argument weakens if the court is the agent that collects evidence and the most critical evidence, the one submitted by an expert, is indeed submitted by an employee of the court.[288] In contrast, evidence submitted by an expert that the parties employ is only a documentary evidence, as written findings and assessments are a (written) materialization of thoughts.[289] One can see this as a suspicion against evidence that has a nearness to one of the parties as it is presumed that the evidence is biased in the favor of this party.[290] So indeed the parties have fewer possibilities to object against such evidence submitted by an expert, if there are no objections against the expert himself. As a result especially the party's ability to submit their own evidence is limited. So the differences in costs play a minor role. However as stated above the judge only searches into a direction that can be derived from the parties presentations. It follows that the parties have the possibility to somewhat "lead" the court into a direction they believe is reasonable to support their argument. Furthermore they can encourage the hearing of evidence if they are willing to pay in advance.[291] So the producer is in technical question again the party that is most likely to know the area in which the court should search to gather evidence, as well as the buyer is, in cases of misuse. If life experience speaks against the presumption that a defect only comes into existence after the time of transfer there is no reason why the producer is in general in the better position, even though he might also in this case know better about the direction of the search for evidence. The time factor, however, cannot really be implemented in the Austrian system as it again pools all possible types of products. The problem is similar to the one in section 2.8 on page 58. The conclusion there was that we cannot reasonably derive an optimal time period for the limitation period, and so again we cannot derive a

[286] Rechberger and Simotta [2010], recital 759.

[287] Rechberger and Simotta [2010] point out that these decisions, in many cases lead to very inconvenient allocations and unfair decisions (from the parties point of view).

[288] For an expert indeed many rules that apply for judges also apply, as the exclusion rules or the right to ask questions. See Rechberger and Simotta [2010], recitals 809-813.

[289] That is the definition of a document in the sense of the Civil Process Order.

[290] One can however also think of this suspicion as a bias itself, as it reduces the possibilities of parties to come up with their own expertise. The reservation against such privately funded expertise, however, has sound reasons, as the parties will not present an assessment that is not in their favor. The idea that the other party will point out the bias of the expert report is based on the assumption that both experts have access to the same data, so that the possibility exists that a failure is detected, which may, especially in cases in which the producer has superior information over the buyer, not be the case. The buyer can hardly provide "his" expert with the information needed to falsify the other experts assessment.

[291] This is similar to the Anglo-American rule of cost bearing, but afterwards if the party wins the costs are replaced, but *ex ante* the costs might have a similar deterrence than in the Anglo-American system.

reasonable time period for a rule for the burden of proof.

So to summarize this the following holds true: In technical questions, even in the Austrian system the producer seems to be the party more likely to support the finding of necessary evidence. As a result *non-liquet* situations should in general go to the producers costs. This, however, as the probability of a fact to be true has to be high, leads to cases in which the producer also acts as an insurer against defects only existent after the time of transfer. Here the reader can see the relationship to the warranty which will be discussed in section 4.1 on page 85. If reasonable clues refer to misuse by the buyer the burden of proof has to be shifted. In the case of life experience objecting against the presumption that burdens the producer with the proof the solution is mixed. It is unreasonable to shift the burden of proof to the producer even though life experience speaks against this, although it might very well be the case that the producer also has superior information for such defects. So one has to refer to the truth and completeness duty which the parties face, to encourage a revelation of the information by the producer. The question about the period of a shift has again to be left unsolved.

What changes if we drop the assumption that the seller is the producer? Well, in this case one can very well doubt that the seller has superior technical information to the buyer or the court. If we assume that there is a chain of recourses from the seller to the producer in the case that a liability of the seller was ruled then there is no problem as one can assume that the producer has a vital interest in repelling the buyers claim at the first opportunity. The simplest way to ensure this is to burden the non-producing seller with the duty to inform the producer about a trial with respect to a defect of one of his products. If he does not inform the producer he will lose his right of recourse. This would be enough to insure that the producer is part of the process.[292] *This does not coincide with the Austrian legal situation, but in the discussion about the Right of Recourse and its consequences, in section 2.10 on page 68, one will see the soundness of such a regulation.*

If we apply this rule to the Austrian regulation we have to come up with the solution that the idea of the Austrian legislator points in the right direction. For a certain period after the time of transfer the burden of proof goes with the seller, thereafter with the buyer. If severe reasons are against the presumption of Art. 924 sentence 2, such as incompatibility of the presumption with the kind of the product or the defect the presumption is dropped, then, again, the buyer faces the burden of proof. The general solution of the problem that the producer has to prove that the presumption is wrong in this case, however, is inappropriate. The idea obviously is to dispense the seller from the proof of the opposite, i.e. the defect did not exist at the time of transfer, but to prove that the assumption is false at a high probability is no release for the seller, as, in the end, it often comes down to proving that the defect did not exist at the time of transfer with a high probability. One also denies the judge the usage of his own life experience when applying Art. 924 sentence 3. So Reischauer's [2010] rule to use a *prima facie* proof for Art. 924 sentence 3 is very reasonable and should therefore be followed. However as it is difficult to argue case by case if a lack of evidence is given and therefore a *prima facie* proof should, in these cases always be sufficient. The two circumstances under which Art. 924 sentence 3 is applied, are named a bit unfortunately. It is not really clear what is meant, but as one reads the literature and the decisions by the Supreme Court it becomes clear that the rules are exactly applied in the cases we figured out are meaningful. So for once, if the defect indicates a misuse by the buyer, the burden of proof is again shifted and if reasons of nature speak against the presumption the burden of proof is shifted.[293]

Bydlinski's [2010] objection that sometimes the buyer might have caused damage trying to repair the defect

[292] The producer would than be an intervening party on the side of the seller in the process. See therefore Rechberger and Simotta [2010], recitals 347-354.

[293] In this context it is hard to see any reason why the German legislator decided to implement the European Regulation at the minimum level by only regulating a shift in the burden of proof if the buyer is a consumer and the seller a businessman (§ 474 combined with § 476 German Civil Code).

by himself and therefore the shift of the burden of proof might not be justified, has its justification. It is, however, nevertheless to be rejected. Truly he is right when he says that buyers tend to at least try to get rid of the defect before informing the seller.[294] *However, no reason can be seen to burden the seller with the risk that afterwards it cannot be proved that there was a defect other than the one caused by the buyer with his unsuccessful repair attempts.*[295] *If however the two defects, the one existing at the time of transfer and the one caused by the buyers reparation attempts, are different and can very well be separated ex post there are no objections against shifting the proof for the one defect back to the buyer and let the burden for the other one remain with the seller.*

As mentioned above, it is hard to argue that a certain period of time, in which the presumption is true, is optimal. Even in the legal literature one finds evidence that there is a discussion about expanding the period of time, maybe up to the limitation period.[296] On the other hand dropping the presumption of Art. 924 sentence 2 only because the life expectancy of a product is shorter than 6 months is definitely inefficient. One only has to apply the above derived to see that there is economic justification for the presumption even if the period might be short. Think, therefore, of a product that has a life expectancy of only 3 months. If, in the first three months, a defect occurs, whether the presumption is incompatible with the kind of product or the defect has to be examined. The product has a life expectancy of 3 months, so a defect in the first three months will in general not be incompatible with the presumption in the sense of Art. 924 sentence 3. If the defect occurs after 4 months, the life expectancy of the product is expired. The presumption of Art 924 sentence 2 is not compatible with the kind of product, so there is no need to load the seller with the burden of proof. It can be seen that the current system of Art. 924 sentence 2 and 3 leads to the same result as reducing the period of the shift to the period of life expectancy. A total exclusion of the shift in such cases prefers the seller for no good reason, as then the incentives for him to exert optimal effort are reduced, because he is not held liable in cases where he should be. Limiting the period to the best-before period/date is a very reasonable thought even though, especially for nutrition, it is very difficult to figure out a possible misuse by the buyer, which would falsify the presumption.[297]

Comment: *Besides that, I would argue that expanding the period for the presumption up to the period of limitation is an idea worth thinking about. Indeed the 6 months period seems to be a little bit short especially for durable goods. So if one follows the idea to use the period given in Art. 924 as maximum and reducing it if the life expectancy is shorter there are no reasonable objections against expanding the period up to the limitation period or at least up to one year. Nevertheless no hard economic reason speaks in favor or against such a measure, so in this case it comes down to a weighing of interests between seller and buyer, which I would argue has to be decided in favor of the buyer given that one uses the exclusion of the presumption in the way presented above.*

2.10 Right to take Recourse

2.10.1 Legal Basics

This section treats the problem that the liable party to the (last) buyer is often a non-producing seller. As the seller is not the producer we have already argued many times that he should not be liable in the end as he, in general, is not the one in the position to influence the defects. The Austrian law

[294] I'd argue that this is especially true if the buyers think the defect is only minor and can be easily resolved on their own.

[295] The problem is that the buyer might even work on the product to e.g. adept certain features to his need and cause a defect throughout this work. Afterwards it is hard to distinguish if the repair attempt because of a defect was really a repair attempt or just a failed product improvement attempt. As this then is an action undertaken by the buyer after the time of transfer, he truly has lowest costs in proving his own actions and therefore should bear the burden of proof.

[296] Augenhofer [2007] page 771.

[297] Think of an improper storage of milk or cheese.

provides two different ways to take recourse against the previous seller. Even though the seller to the seller of the final buyer may be a producer, we will in the following call him a wholesaler and we will call the seller to the final buyer, seller. Both possibilities to take redress apply the general Defects Liability Rules, the main difference is the limitation period. If the wholesaler is a business man, the seller is a business man and the final buyer is a consumer and the remedy is already executed, the general limitation period of two/three years is changed.[298] Art. 933b regulates that in this case the retailer can claim the remedies even if they are lapsed according to Art. 933 if the seller claims them at the latest two months after he has fulfilled his duty as stated in the Liability Rules. The total limitation period is expanded to five years and a third-party notice to the wholesaler hinders the deadline in the time of the trial between final buyer and retailer. If the prerequisites for Art. 933b are not fulfilled, then the seller can claim the remedies within a two/three years period from the date of transfer between seller and wholesaler. So the difference in total amounts to two/three years.[299] The EU-Directive did not include a limitation of the special recourse, as the Art. 933b provides. Indeed the Directive intended to grant the seller a recourse as long as he could be liable for a performance. So the implementation does not comply with the Directive.[300] The differentiation between the Art. 933b and the rest has to be seen in the light of the Art. 9 Consumer Protection Act. [301] As the seller cannot exclude the Liability Rules if the buyer is a consumer, it is argued that he is more worthy of protection than the other sellers as he always faces the claims because of defects.[302] As everything else remains the same, the wholesaler is liable iff the defect existed at the time of transfer and is a defect in the sense of Art. 922. Furthermore Art. 924 sentence 2 is valid in favor of the seller and the seller can claim the remedies according to Art. 932 (so there is a differentiation between primary and secondary remedies). An additional difference to Art. 933b is that this regulation grants the seller a claim up to his own expenditures, because of his liability, at most.[303]

Complicated is only the relationship between the remedies on the step between buyer and seller and that between seller and wholesaler. If the buyer claims rectification and there are no reasons for the seller to object against this choice, the seller himself can neither claim replacement nor redhibition. The same holds true if the buyer claims a reduction in price. The seller nevertheless is allowed to claim both remedies.[304] In all cases, however, the seller should be granted a reduction in price or a compensation for his expenditures.[305] According to Knöbl [2008] Art. 933b does not guarantee a full compensation for the expenditures as it is a non-mandatory rule and so leads to a discrimination of the seller. He argues that Art. 933b should grant a full compensation and therefore refers to Art. 478/2 German Civil Code, which itself refers to the mandate law. It grants the seller a full compensation for necessary expenditures the agent (the seller) has to bear for the principal (the wholesaler). As the expenditures are imposed by law they are necessary and so a full compensation is granted.[306] An example of when it might be the case that the seller does not receive full compensation is given by Bydlinski [2010] (recital 12): If the seller rectifies the wholesaler can no longer do so. So the seller himself can only claim compensation. This can be done by claiming a reduction in price or by claiming

[298] Note that once the last buyer is a consumer the Art. 933b can be applied the whole way upwards to the producer even if the buyer of the buyer of the producer may as well be a business man.

[299] See therefore section 2.8 on page 58.

[300] Ofner in Schwimann (ed.) ABGB Praxiskommentar^3 [2005], Art. 933b recital 18.

[301] About the Art. 9 Consumer Protection Act see section 2.4 on page 23.

[302] Ofner [2005], Art. 933b recital 4.

[303] In general the difference does not seem grave.

[304] Ofner [2005], Art. 933b recital 14-15.

[305] Bydlinski in KBB (eds.) Kurzkommentar zum ABGB^3 [2010], Art. 933b recital 11-12.

[306] Indeed the argumentation that a seller facing a mandatory liability should be treated superior to all other sellers by granting him a longer limitation period seems strange in the context that this longer limitation period is only non-mandatory and therefore worthless in this constellation.

the savings in costs for the wholesaler.[307] In both cases it is not guaranteed that the seller gets fully compensated.

2.10.2 Economic Analysis

Up to now we did not bother about the relationship between the buyer, the intermediate seller and his seller as well as the seller thereafter and so on. We only argued that given that we can charge the producer at the end with the costs his product has caused, we can induce optimal effort. If one takes a closer look at the problem one will discover that the problem is even more complex. With the additional party in the chain of transfers, different possible executers of remedies also have to be considered, which implies a different allocation within the complete contract. To clarify this statement let us consider a three parties chain with a buyer, a retailer and a producer.[308] Both the retailer and the producer can execute all remedies. Therefore consider the following alternatives: If in the relationship between buyer and retailer the price reduction is chosen, logically in the relationship between retailer and producer the only remedy that remains is the price reduction. If rectification is chosen also only price reduction remains. If the buyer and the producer directly execute a rectification the retailer is not affected at all. The same holds true for a direct replacement. If, however, the buyer and the retailer replace in the relationship between retailer and producer then every remedy is possible. The same holds true for the redhibition. If our main assumptions holds true and the defect in question also existed at the time of transfer between retailer and producer,[309] then, in a world with perfect information and absent transaction costs, the two complete contracts would be written such that *ex ante* they both complete each other, so the contracts would look like they are one. In this case every time the optimal remedy is chosen. This can be every possible combination of remedies, but also a direct remedy between the buyer and the producer. The same analysis as in subsection 2.5.2 on page 29 could be provided only that there now would be a lot more alternatives,[310] but the outcome would always be the same. To ensure optimal effort by the producer in the end the producer would have to bear all costs that in the previous section about Art. 932 the seller burdened.[311] The retailer in this world would be treated like he does not exist, even though he might carry out remedies in the end he is always reimbursed such that the remedies he carries out can as well be assigned to the producer, who finally faces the costs.

Let us relax the assumption about complete information, but keep the assumption that the retailer has all the technical information about the defects the producer has. In our previous analysis we argued that the seller is the one that should choose the remedy to at least induce the optimal choice of the remedy. This statement is still true, unfortunately the "seller" side of the contract is now split between the retailer and the producer. So to ensure the optimal choice either the producer has to report his costs to the seller, who then chooses the optimal remedy on behalf of the producer, who in the end pays, or the seller reports his costs to the producer who then chooses and replaces costs only if the retailer is the one to carry out the remedy. With whoever then knows about all the costs the buyer will agree upon a remedy by paying the extra costs or accepting the choice. The collection of the information and the contact with the buyer will often be (should be) carried out by the retailer as it is very impractical for the producer. He often does not have the infrastructure to deal with a direct

[307] See the discussion in section 2.6 on page 50.

[308] This reduction is without loss of generality as the only "important" parties within the chain are the last buyer, who uses the product, and the producer, who can influence the number and probability of defects. All other parties are only transitory if the defect already existed at the time of transfer from the producer to the first buyer. So adding an additional party to the chain only makes the argument more complicated but does not influence the outcome!

[309] The consequences if we relax this assumption will be treated below.

[310] If one counts all the previously presented constellations 11 different allocations are possible.

[311] As it was assumed that the seller is the producer!

customer relationship and the buyer himself did not choose the producer as a contracting partner, which also may not be possible. The buyer would now be forced to argue with a party, which he never intended to trade with.

Note that without this transfer of information the choice of remedy is not optimal as the retailer cannot consider the costs of direct rectification or replacement between the producer and the buyer and the producer cannot consider the same costs of the seller. This is a lot more complicated than the result we achieved in subsection 2.5.2 on page 29 and also imposes a very strict and regular information transfer between the retailer and the producer. The result even holds true if one thinks of some wholesalers in the chain of transfer as long as all costs are reported to one party which then presents the choice to the buyer.

As long as one assumes that all "seller" sided parties costs can be proved as they are all market costs a legal regulation could even exist that enforces this rule. The simplest rule that comes to mind is to cut a party's right to take recourse in the case it reports wrong costs so that if e.g. a wholesaler in the chain reports wrong costs he is the one to face all costs caused by the liability.

If we relax the assumption that the non-producer-seller knows about the technical implications and consequences of the defects then he won't be able to precisely assess his costs caused by the remedies. Furthermore he won't be able to execute the rectification by himself. The assumption indeed is not very realistic as in many industries a retailer or even a wholesaler has only inferior knowledge about a product's attributes.[312] In this case a transfer of information fails because the information itself may be corrupt. For example the retailer reports a wrong assessment of the defect to the producer who then, as a consequence, calculates his costs on a false base. The only way to ensure the optimal remedy in this case is to report the defect directly to the producer who then collects the information. It was already argued above that this result is not reasonable. So once we relax the assumption about the direct access from the last seller to the information needed to choose a remedy we cannot any longer ensure the optimal choice of the remedy without extra costs. In this context the statement of Knöbl [2008] has to be read. He argues that in many cases the last seller tends to refer the buyer to the producer for the primary remedies and only charges the producer the costs of handling the customer contact.[313]

This can be economically interpreted as a splitting of the choice of remedies. If we consider the Austrian rule of the distinction between primary and secondary remedies it shows up that the primary remedies refer to the producer and the retailer only provides the contact to the buyer and the secondary remedies are executed by the retailer. The consequences in fact are, that the producer chooses if he wants to execute a primary remedy or not and will therefore ask the retailer about information about what will happen if the secondary remedies are executed. Given that the optimal remedy might very well be executed, but the transfer of the product between producer and retailer causes extra costs even in cases where a primary remedy is technically useless because the retailer is not able to assess this himself.

To the contrary if the producer himself does not provide the remedies rectification and replacement directly and is also not interested in doing so[314] or in optimizing the choice of the remedy in the relationship between retailer and buyer by providing information about his own costs, it is efficient to let the retailer choose the remedy and recourse himself directly at full costs. In this case the liability

[312] E.g. large electronic stores don't have trained employees to cope with the technical complexity of non-daily defects.

[313] In this context also the agreements between the producer and his retailers, which Knöbl [2008] mentions, have their justification as such a handling is not covered by the law. Therefore a contractual relationship is needed to decrease the risk for all included parties. We will come back to this point in section 4.1 on page 85.

[314] An example would be the car industry in which the rectification and replacement is executed by the retailers with car workshops (see Knöbl [2008]). The producer may however intervene in cases of failures which affect the whole line (think of callbacks by a producer).

can be interpreted as a two step mechanism, in which for each step the retailer chooses his optimal remedy. In this case an exchange of information seems unnecessary as the producer bears all of the costs and losses caused by his defect and will be willing to change the relationship with the retailer if he can reduce total costs. So the eventually arising allocative distortion is borne by the producer who is in the position to alter the mechanism.

So the conclusion is that, given that a full compensation for the retailer is granted, the optimal choice of the remedy in the relation between retailer and buyer is induced. However, a superior allocation may arise if the producer and the seller enter a regular information exchange and delegate the choice of the remedy to one party. Again full compensation for the retailer has to be provided. The full compensation mode charges the producer with all costs caused by allocative distortions and therefore induces the producer to find the optimal mechanism.

Note that if the defect did not exist at the time of transfer between retailer and producer but between retailer and buyer, it is inefficient to charge the producer with the costs. In this case the retailer bears the risk of failure as it in many cases is an inevitable risk caused by nature as products tend to fail up to a certain number even if they are produced at a high quality without defect. The consequence is that in this case the retailer is treated like a producer in the period he has the control over the product in question. One can refer to subsection 1.3.1 on page 5 where it has been argued that this rule of risk bearing is necessary to induce optimal behavior by the transferring party. That in this case the transferring party is not the initial producer does not matter, as also a selling consumer is liable under these rules to induce optimal behavior by him. It is very likely that the statement of Schäfer and Ott [2005], that the seller acts as an insurer only, holds true under these circumstances.[315]

2.10.3 Application of the Economic Analysis

One can draw an immediate conclusion from the previous analysis: any mechanism of recourse that does not grant the retailer/seller a full compensation is insufficient and thus inefficient. As both Austrian ways to take recourse do not provide a compensation under all circumstances, the allocation imposed tends to be far from optimal. An example has already been given above. The producer, however, in this case is not liable for all costs the defect of his product causes and therefore, optimal effort cannot be induced. The argumentation that he might have faced lower costs by executing a remedy himself is insufficient as shown in the previous subsection. Indeed, according to Knöbl [2008], many producers and retailers tend to agree upon a mechanism to deal with liability claims. As this is on a voluntary basis it is not sufficient to design the legal mechanism in a way that does not stimulate such agreements by treating the producer that refuses such a voluntary agreement better than the producer that is willing to write such a contract.[316] So the regulation by the German legislator seems superior to the one used by the Austrian legislator, but there is no necessity to use the same rule the German Civil Code uses because any rule granting full compensation is sufficient.

The limitation period is also an interesting aspect. It is again hard to tell any optimal number of years, but indeed it seems that in this context it is not necessary. The limitation period as stated in section 2.8 on page 58 is imposed to prevent litigation after long periods of time as the provability of facts tends to decrease. This is very well the risk of the last buyer as we have seen in that section. But it is certainly suboptimal to leave the retailer with his liability alone in cases in which he had to

[315] This might very well be the case if the retailer only distributes the unopened product to the end-user. The rules are necessary to induce optimal behavior throughout the distribution process. It is, nevertheless, not very likely that the distribution process causes any kind of technical defects.

[316] Of course another mechanism might also affect the relationship between producer and retailer but as they are not covered within the Liability Rules they will be kept out of the analysis.

store the product for some time before he was able to sell it.[317] It is sufficient to let him bear the risk of a defect within this storage time, as argued above. In section 2.9 on page 62 it was argued that to justify the reversal of the burden of proof it is necessary that the retailer informs the producer about a litigation on the base of the Liability Rules. In this context it will also be revealed whether the defect already existed at the time of transfer between the retailer and the producer or only thereafter. If this information is revealed then the liability should be according to it. So it would be optimal to regulate an information duty of the retailer in the case of a litigation. If it turns out that the defect already existed at the time of the first transfer, the retailer should be granted the right to take full recourse, if the producer does not execute a primary remedy himself. So there is indeed no need for an absolute period of limitation. A relative period from the litigation onwards is sufficient. If the retailer executes without a trial, which indeed will be the regular case, he should inform the producer or his own seller about the execution and ask for full compensation. If the compensation is refused the existence of the defect will be a question of a trial between those two parties. Anyway in this case there is also no need for an absolute period of limitation. Whether the two months period the Austrian legislator grants in Art. 933b is too short or too long cannot be answered, but it is reasonable to argue that two months time for to inform the producer and, at the end, to bring in an action against the producer seems to be sufficient. Any absolute period of limitation has to be rejected regardless if it is 5 years[318] or 3 years.

The period of time in the Art. 924 sentence 2 is of special interest. As we argued in section 2.9 on page 62 the producer should be forced to unveil his information in a trial up to a certain time period. If however the Art. 924 is now valid in favor of the buyer, but not in favor of the retailer, there might be an incentive for the producer to abandon the retailer in the trial and then in the litigation between retailer and producer also benefit from that. This is inefficient and should, therefore, be prevented. Suppose the defect did not exist at the time of transfer. Then the rule is inefficient because the seller will lose the trial against the buyer, as he has no information to prove that the defect did not exist at the time of transfer and also does not get the information from the producer. In the following he will lose the trial against the producer because the producer is able to prove that the defect did not exist at the time of transfer. This has the implication that one trial, the one between the seller and the producer is not necessary, as the claim of the buyer could have been rejected within the first trial. The other implication is only distributional, as instead of the buyer, the seller faces the losses. This might also imply allocative inefficiencies, besides the excessive trial, as than the buyer's incentives to act carefully after the transfer are reduced as he has the possibility to roll over his losses on the seller, who is not able to defend himself. The economy would profit from the revelation of the information the producer has.

Two alternatives of how to solve this problem seem possible. The period of Art. 924 is expanded for the relation between retailer and his seller (in the end the producer) up to the period between retailer and buyer. So to keep it simple, if Art. 924 acts in favor of the buyer then, in the following, it should also be used in favor of the retailer. The producer will then have an incentive to reveal his information throughout the first trial. The second alternative would be to grant the retailer full compensation if the producer refuses to take part in the litigation. There may be no direct relationship between the retailer and the producer, as e.g. a wholesaler is interposed the first alternative seems preferable. If the producer refuses to take part in the first trial the reversal of the burden of proof should be sustained until he himself is a direct party of a trial or reveals the information. For caused costs however, he should be liable in any case.[319] The solution in the Austrian law that the retailer only is granted the

[317] The important difference is that of usage which leads to defects. These may not be distinguishable from the relevant defects. If the product is not used there is no such problem. See below about the treatment of the using-seller.

[318] Note again that the 5 years are not compatible with the European Regulation! So clearly the European legislator has realized this problem.

[319] Maybe further trials could have been prevented if the producer would have revealed his information in a previous

reversal of the burden of proof 6 months onwards from the time of transfer between him and his own seller is insufficient. It allows the producer to withdraw information which according to our analysis in section 2.9 on page 62 should be revealed.

The last point to examine is the fact that the Art. 933b is only a non-mandatory rule, in case the Art. 9 Consumer Protection Act is valid for the retailer.[320] If the aim of this article is to protect the consumer against a dilution of the Liability Rules as argued in section 2.4 on page 23, it is unreasonable to not grant the retailer a right of recourse under any circumstances. Indeed the argument that the bargaining power between seller and buyer is distorted may not hold true in many cases but if the retailer cannot roll over his costs and cannot prevent them from occurring, two effects take place: there is no allocative preferable implication granted as the costs do not fall on the party capable of preventing them and the retailer has to act as statutory insurer. The consequence is not that any party capable of influencing the occurrence of defects is halted to improve quality and optimize effort and that the price the consumer pays rises at an inefficiently high level as it is doubtful that the retailer is the optimal insurer in such a case, if there is one at all.[321] To create a coherent system of consumer protection, one has to impose mandatory rules from the consumer upwards to the producer.

2.10.4 Conclusion

So we can draw the following conclusion: the Austrian Law of Recourse is inefficient for several reasons:

1. The last seller is not granted full compensation for his expenditures undertaken because of a liability
2. The right to take recourse is limited by an absolute period
3. The reversal of the burden of proof charges the last seller instead of the producer
4. The seller to a consumer is not granted a mandatory right of recourse

All these reasons together lead to the consequence that the Law of Recourse is capable of impeding the positive consequences that a Defects Liability Law might have on the effort undertaken by the producer and other influencing parties. At the end the liabilities are borne by the last seller in many cases who is forced to act as a real insurer, for which there is no economic justification at all.

So the following changes have to be made:

1. A rule should be implemented similar to the one used in the German Civil Code which grants the last seller full compensation for the remedies executed
2. All absolute periods of limitation should be removed and there should be a general relative period of limitation, relative to either the time point in which the remedy by the concerned seller is executed or in which the trial between the concerned seller and his buyer is ended.

trial so he caused unnecessary costs for which he should be liable.

[320] Even from a legal point of view I would argue that this is contrary to the system implemented by the Art. 9 CPA.

[321] Without proof I would argue that a *pareto improvement* in this context is possible, as also the producer would benefit from a full compensation mechanism. Why? Well, first of all he is the one to choose optimal effort if he bears all costs so the overall number of failures will decrease to the optimum. Secondly the producer is for sure at least as good an insurer as the seller is (as he benefits from the law of large numbers), so the insurance premium will in total decrease (for sure not increase). This will lead to a decrease in selling price which will lead to a larger number of sales as the competitiveness of the products increases. So the buyer is certainly better off, the seller is also better off. The only party that is not better off or at least indifferent for sure, is the producer. But in the context of the voluntary (!) contractual relationships named by Knöbl [2008] it seems very likely that also the producer benefits from an alternative allocation. (a *Kaldor Hicks Test* is much more likely to be sustained, indeed one could hardly think of a case in which the Kaldor Hicks Test might fail) (For both efficiency measures see Schäfer and Ott [2005] (page 25 *et seqq.*) or Weigel [2008] (pages 15 *et seqq.*).

3. The reversal of the burden of proof should be sustained to the expense of the producer as long as he is either forced to reveal his information in a trial or he voluntarily reveals the information about the defect in question. He should bear all caused costs by his refusal to support the other sellers within the distribution chain.[322]

4. The last seller who faces a consumer as a buyer and is therefore charged with the mandatory Liability Rules should be granted a mandatory right of recourse.

These four suggestions are sufficient to induce optimize effort by all concerned parties and can indeed by reached by only changing the Articles 924 sentence 2 and 933b as all of the other articles are not concerned.

2.10.5 Digression: The Selling User

If the last seller in the chain is an user himself some arguments change. As an example, think of a business man, for example a plumber, who used a car within his firm and decided to sell the car after some years. This business man, in general, does not deal in cars or has anything to do with the car market, despite buying a car from time to time.[323] The reversal of the burden of proof in this case confronts two different mainly influencing parties: the user and the producer. That the buyer of the user should be favored by the Art. 924 sentence 2 in the relation to the selling-user follows a similar justification to the one given in section 2.9 on page 62. However, the argument weakens because the superior information of the selling-user himself is only partly present. Indeed it mainly concerns the effects of his own usage. To not favor a selling-user against selling-non-users, the consequences of Art. 924 sentence 2 have to be taken into account. Otherwise there would be an incentive for business men to briefly use their products to circumvent Art. 924. The justification for a reversal of the burden of proof in the relation to the producer weakens a lot. If the producer should face the shift in the burden of proof up to a certain time after the transfer to the last buyer (is in this case the selling-user) and is also burdened with the consequences presented in the subsection above it is unreasonable to extend the time of the reversal if the user himself sells the product. We have argued that the reversal is justified as the producer has superior information. We also admitted that usage by the buyer also may lead to other influences upon the state of the product for which the producer has no superior information. There will be a point in time when the superior information is gone after all.[324] So the total time of usage is the interesting part in this case and therefore the producer facing a selling-user at the end of the transfer chain should not be discriminated. Therefore the selling-user should only be granted the remaining period of the Art. 924 sentence 2. To make this a bit clearer take the 6 months from Art. 924. The selling-user bought the product on 1. February and sold it on the 1. June. Art. 924 grants him the shift in the burden of proof against his seller until 1. August. The new buyer is granted the shift in the burden of proof until 1. December. If the defect is uncovered before the 1. August the selling-user is allowed to refer to the shift in the burden of proof he is granted and therefore should be allowed to call in his seller which in the end will call in the producer, with the effect that he gets fully compensated if they refuse. If, however, the defect is uncovered after the 1. August but before the 1.

[322] Note that such a rule is very similar to one the law provides in the case of a defect in title: here also the seller is forced to reveal the information in the first trial, otherwise any objections he would have had against the plaintiff in the first trial (that is the party that claims her property) elapse. Also such a regulation would be possible. Both regulations however lead to the same result as the seller/producer has an incentive to reveal his information as soon as possible. The regulation mentioned above seems to better fit the Art. 924 sentence 2 and the regulated reversal of the burden of proof is simply an expansion of this rule.

[323] Of course the example also works if one exchanges the business man by a consumer that buys the car for private usage and after some years sells it to buy a new one.

[324] Note that we made no argument about a special length of the period.

December the selling-user faces the reversal of the burden of proof and is not granted full compensation if his own seller and the producer refuses to support him. This regulation is necessary to prevent the period of the shift in the burden of proof from boiling over.

There is an ongoing discussion if the selling-consumer (not every user!) should be allowed to apply the Art. 933b against his own seller as the aim of the Art. 933b and Art. 9 CPA is to protect consumers.[325] As argued above the relative period of limitation should be valid in favor of all sellers so also in favor of the selling-user (consumer). But as the selling-user himself does not face Art. 9 CPA there is no need for granting him a mandatory right to take recourse. If the seller however is a business man and the buyer a consumer[326] the selling-user should be granted a mandatory right to take recourse, with the general restriction of the reversal of the burden of proof. There is indeed no need to make the recourse mandatory: if the selling-consumer has a business man as seller himself, he himself is granted mandatory liability claims and should be granted all the other legal proposals made above. If the selling-consumer has a consumer as seller himself there is no need to grant him a mandatory recourse as he can exclude the application of the Liability Rules. In the case that the actual legal system is underlain, the analysis is a bit different. In this case an analogous application seems justified as the consumer has liability claims, but they may be elapsed before he himself faces liability claims. In this case an equality of the selling-user as business man and the selling-user as consumer is justified.

There is no need for other differentiations because the selling-user also should be granted full compensation if his predecessor is liable. Even though, in this case, one might think of an obligation to notify the seller as it is likely that he is in a better position to execute a primary remedy if the selling-user is a consumer. Here the argument that the producer or seller themselves have an interest in supporting a regular information exchange fails, as it is impossible to support such a mechanism with consumers on the other side, because the implementation seems doubtful and costly. Again there is no need for an absolute period of limitation so one can refer to the previously said.

2.11 Summary

In this chapter we have examined the Austrian Defects Liability Law in detail and therefore split up the problem into several sub-problems such that we were able to cope with the complexity of the legal regulations. We determined that many regulations are reasonable from an economic point of view. Others however tend to be suboptimal, as the Art. 932, and some are severe failures from an economic point of view, such as Art. 377 Austrian Commercial Code or the right to take recourse. Sometimes we also had difficulties in determining a solution from an economic point of view, especially concerning the length of the limitation period, or the period for the reversal of the burden of proof. In this last section all these results were put together to come to an overall conclusion. The question we raised in the introduction was whether the Austrian Defects Liability Rules are capable of increasing social welfare and providing the right incentives for the producers to optimize their efforts. The conclusion is the following: if one considers the law of recourse as it is regulated by the legislator the conclusion is that the Liability Law fails to fulfill these two tasks and depraves to an obligatory insurance of the buying-consumer on the costs of the last sellers, without any incentives for the producer to optimize his effort. The Liability Rules, therefore, are unable to induce the optimal effort on the influencing party and cannot increase social welfare after all.

If the suggestions about the right to take recourse made would be implemented, the judgment has to be a different one. The main difficulties that the Liability Rules then cause from an economic point

[325] Bydlinski [2010], Art. 933b recital 7.

[326] Again the car-industry can be named as example: think of the demonstration car.

of view is the choice of remedies, regulated in the Art. 932. As argued in section 2.5 on page 27 it would be optimal to let the seller choose the remedy. We also argued, however, that the distortions by the fact that the buyer chooses, are not so severe as the legislator restricted the access to the redhibition. Furthermore the buyer has only minor incentives to overrule the choice of the seller which primary remedy to execute because of an unpredictable cost risk. It should be highlighted once again that many other regulations very well sustain an economic analysis and also very well fit together as a system which induces optimal behavior by the producer. Most regulations concerning the legal exclusion of remedies are reasonable (the major exception is the often named Art. 377 Austrian Commercial Code) and putting them together does not falsify this result, as they work together as designed by the legislator. One useful expansion of the Liability Rules, however, is the analogous application of Art. 1168 or 1042 if the buyer self-rectifies. Leaving this point open would have caused distortions and a reduction in the incentives for the producers. As we could in general not make a conclusive argument about the length of periods one cannot finally assess the consequences of the limitation of the periods. It is however a fact that the provision of the two regulations Art. 933 and Art. 924 sentence 2 is reasonable and even necessary to sustain the result intended by the Liability Law.

Despite the fact that a comprehensive analysis has tried to be provided some parts of economic analysis of the Liability Rules have to remain unresolved. There are especially the contractual exclusions of the Liability Rules and the implications, if one includes consequential damages to the defects in the analysis (that to some extent coincides with dropping the assumption that there are no externalities). The consequence of dropping assumptions, for example that the costs of the seller can be verified or the assumption that there are no insolvencies, remain unexamined, due to the limited scope of this work.

Chapter 3

Supreme Court Decisions

In the following the reader will find some interesting cases the Austrian Supreme Court decided concerning the relationship of the remedies of the Defects Liability Law. The presentation of the facts has been minimized so that the reader is able to get the main points of the case and understand both the legal reasoning provided by the Supreme Court[1] and the economic analysis which is provided here. Please note that the notation from the previous chapter, especially that introduced in subsection 2.5.2 on page 29 is used within the economic analysis.

3.1 Disproportional Costs

3.1.1 6 Ob 85/05a

3.1.1.1 Merits of the Case and Legal Reasoning

A buyer ordered a kitchen, which should fulfill special requirements concerning the color of the outer walls (of the furniture) such that the new kitchen matches an existing table and such that it withstands water, furthermore, he ordered a special cake plate. The seller was not able to buy the same wood used for the table and so tried to imitate the color. He managed to provide a model, which was accepted by the buyer. After delivery, the buyer claimed that there were rifts on the cake plate, that the color of the outer walls does not match the model and the oil used for the wood does not withstand water. The seller offered to inspect the color first and afterwards wanted to inspect the cake plate. Before he could survey the cake plate, the buyer asked him to submit a general plan of how to fix all of the existing defects. The seller did so in the required period (of 14 days). Afterwards the seller asked the buyer to name certain dates in which he would inspect all the defects on site. The buyer refused this with the reason that the concept the seller submitted was insufficient because it was not likely that the failures were (totally) rectified (which proved wrong in the trial). He, therefore, renounced the primary remedies and claimed the secondary one, in this case redhibition. The seller, therefore claimed payment.[2] The buyer opposed it because once the seller was not able or/and willing to rectify in an appropriate time, the rectification lead to major inconveniences for the buyer and the buyer could not accept rectification. He had lost trust in the abilities of the seller. All three instances rejected the objection of the buyer and granted the seller nearly total payment. The Supreme Court argued the following: It was obvious that the seller was willing to rectify as he submitted the concept in time and as a second reason the seller tried to arrange dates for the rectification. That he needed some time for

[1] Or sometimes given by the Appeal Court, if the Supreme Court followed the decision in parts or as a whole.

[2] In this case the claimant was the seller, as the buyer had not paid yet and wanted to withhold the debt he had as he claimed redhibition.

preparation, especially as the buyer wanted the major work to be carried out in the facilities of the seller, is clear. Not every rectification can be carried out immediately. Furthermore, the court argued that it was impossible for the seller to rectify without the participation of the buyer as the kitchen was in his house. Second the court argued that the inconveniences for the buyer were not unacceptable, as the seller was willing to carry out the major work outside the home of the buyer. Therefore the buyer could only have not used the kitchen for 2 at maximum 3 days. The noise and dust nuisance were also not major and the probability of causing (further) damages because of the reparation minor (or non-existent). For the last point the court argued that the unacceptability due to reasons in the person of the seller are a very special matter[3] and therefore have to fulfill certain requirements as there are: a no longer tolerable unreliableness of the seller or a general disability to carry out the performance. Both are not given in this case. Just because the first chance (the original fulfillment) failed there is no reason to argue that the seller is either incapable or unreliable. Otherwise the idea of a second chance would lose its area of application.

3.1.1.2 Economic Analysis

The decision (which indeed was the first after the reform of the liability law concerning this topic and therefore very detailed) is well-founded also from an economic point of view. First of all as stated in the economic analysis, a redhibition granted to the buyer has negative implications as e.g. there is the possibility to "repair" an error in motivation. The access to the secondary remedies should be aggravated because of this fact.[4] Secondly the rectification would have been the remedy the parties would have agreed upon in a complete contract as it is (obviously) the optimal one. That this holds true for the seller has been figured out by the court. That the costs of the buyer were also minimal can be concluded. For this case, a total rectification was possible, so the buyer would remain with $v^b(t_0) - c_r^b$. That the seller tried to minimize c_r^b can be read in the merits of the fact. A price reduction would still leave the buyer with a loss as he argued that it was very important for him that the colors match.[5] It is clear that the market value of matching colors will be likely be lower so, $\ell_t^s(t) << \ell_t^b(t)$. The buyer would not have agreed upon a reduction in price, but there are no reasons why the seller would have agreed upon a redhibition in such a case, as for him the kitchen is worthless. The seller would remain with $-e(t_0) - c_h^s$, as $v_t^s(t) - \ell_t^s(t)$ will be zero[6] and the buyer would remain with $-c_h^b$. No reason can be seen as to why this is superior to $p - e(t_0) - c_r^s$ for the seller and $v^b(t_0) - c_r^b - p$, as without an error in motivation it holds that $v^b(t_0) \geq p$ and why the total destruction of the kitchen should cause less disutility to the buyer than only a partial repair cannot be seen, so also $c_h^b \geq c_r^b$. So indeed the buyer is better off with a rectification. That for the seller the rectification is better, he himself argued, but this is also reasonable as otherwise the costs of rectification would be larger than the price plus the costs of destruction (that sounds strange).[7] It is very likely that in this case the buyer made an error in motivation and wanted to get rid of the contract.

That just a failure in the first fulfillment makes a seller unreliable is nonsense and therefore one has to refuse this argumentation, as the Supreme Court did. If one would follow the buyer in this case there would be no restrictions to the redhibition and that is inefficient. One last aspect is if the seller tried to rectify in an appropriate time? This has to be approved. The seller submitted a suggestion

[3] Which are likely to avoid the second chance for the seller and are therefore to be interpreted in a narrow sense, see subsection 2.5.3 on page 38.

[4] See subsection 2.5.3 on page 38.

[5] A compensation payment might under the general prerequisites be possible within the law of damages (without verification in this case), but as the plaintiff based his claim on the Defects Liability Law, such a full compensation is not possible, as the reduction in price is taken by an objective measure. See therefore subsection 2.5.3 on page 38.

[6] No reason can be seen as to why the seller should be able to sell a kitchen made to measure at a reasonable price.

[7] Note that as this is a specific obligation replacement is not possible.

about how to rectify in the time the buyer asked him to. Furthermore, he tried to arrange several appointments to rectify, which the buyer refused. More cannot be asked by a seller, indeed more should not be asked as everything he invests beyond this effort is suboptimal and therefore an avoidable loss for the economy.

3.1.2 8 Ob 108/06z

3.1.2.1 Merits of the Case and Legal Reasoning

The buyer, an owner of an apartment building, ran an invitation of tenders in which he asked for offers for flooring which was intended for commercial use (as the building was to be used as a pension/hotel). Especially a long lasting and robust flooring was asked for. The parties agreed upon a flooring (class 33) which is used for commercial property and therefore suitable for the intended purpose. For the buyer the life expectancy of 15 years was of major importance and this was obvious to the seller as it was pointed out in the tender. A subcontractor of the seller delivered and fitted the wrong flooring (class 21 and 22) in 4 of 18 apartments. The seller himself could have easily checked this, but admitted personally that he did not do so. Both classes are suited for private usage. The class 21 has a life expectancy of 10 years given the intended usage.[8] The costs of removing the flooring and rebuilding it, using class 33, were estimated at roughly 28000 €. The original order volume was 20000 €.[9] The costs of clearing and placing the furniture in the rooms again, removing the flooring, disassembling and reassembling the skirting boards were estimated at a total of 14000 € and the costs of fitting the flooring, class 33, at nearly 14000 €. The seller offered the buyer, prior to the trial, a discount of 30 % and a 10 year warranty for the flooring, especially to repair any visual damages. The Supreme Court decided that just because the costs of the replacement were larger than the original value of the order is no reason that the costs are disproportional, so the seller cannot refer the buyer to the secondary remedies. Indeed the court argued that one cannot simply take the reasoning of disproportional expenses between the primary remedies, but also has to consider that the secondary remedies leave the buyer in a situation he never intended. Therefore, the weighing has to be strictly in favor of the buyer. So the weighing does not only have to be relative between the state of the nature with price reduction and the state of the nature with replacement, but absolute. It is especially difficult to estimate the inconveniences a buyer would face because of a price reduction in comparison to the one because of a replacement (or rectification). Absolute in this context means that the expenses are not only disproportional, but in no proportion at all in comparison to the severity of the defect and the inconveniences for the buyer. Therefore it was decided that the disproportion alone does not imply rejection of the primary remedies. Specific facts about the severity of the failure and the displeasure of the buyer were missing in order to make a decision.

3.1.2.2 Economic Analysis

This very interesting decision is about a point which we have omitted in the economic analysis earlier. It refers to the case in which the value of the performance delivered for the buyer seems to be non positive. The reason for that is given in the facts above. The buyer intended to purchase a robust and

[8] The life expectancy of class 22 was not assessed. This and the fact that the court of first instance did not ascertain the consequences of the shorter life expectancy especially on the visual appearance of the flooring (which in a hotel is of major importance) were the reasons that the Supreme Court did not decide the matter, but referred it back to the first instance (which already the Appeal Court had decided).

[9] Unfortunately it is not clear if this is the total order volume or only the one concerning the 4 apartments with the defect. It seems, however, reasonable to assume that it is the volume only concerning the defect flooring, as also the Supreme Court only roughly estimated the order volume (which it would not have done if it was the total order volume, which it could easily have figured out).

long-lasting flooring and made this point very clear to the seller. As he not only intended to buy a flooring for commercial use, but one with 15 years life expectancy, he made the point clear that another flooring would be (nearly) worthless to him (for whatever reason). As he did not wish to remain with this flooring if he redhibits he would remove the flooring (and therefore bear costs of about 14000 €). The question which now remains is what the parties would have agreed upon in a complete contract. They certainly would have not agreed upon a price reduction as $\ell_t^b(t)$ can be assumed to be equal to 28000 € - that is the amount the buyer would need to reintegrate himself. This is, however, more than the value of the order so the seller would not have accepted this. Rectification is impossible, so there only replacement and redhibition remain options. To redhibit the parties would have agreed upon handing back the flooring to the seller, which indeed would be worthless, so $v_t^s(t) = 0$ and reimbursing the buyer (that in this case is a full insurance) with 28000 € such that the buyer could self-rectify. Furthermore, he always faces $e(t_0)$.[10] That, technically, is the same as a reduction in price. Under both circumstances the buyer remains with $v_t^b(t_0) - c_p^b$.[11] If replacement was contracted the seller would remain with a loss of 8000 € plus $e(t_0)$ as he receives the price of 20000 € and has to invest 28000 €. The buyer on the other hand remains with $v_t^b(t_0) - c_p^b$ as he gets the flooring he wanted, he would also get the flooring in a case of a redhibition as he then would have to buy it from a substitute contractor.

But what would happen if there is no complete contract? Well again rectification is not possible. The defect seems to be non-insignificant (even though the Supreme Court did not treat this question), so the buyer would be allowed to redhibit. He therefore would remain with $v_t^b(t_0) - 8000 € - c_p^b$, where the 8000 € are the difference between the money he gets back and the total cost of self-rectification. The seller would remain with a loss of $e(t_0)$. If he replaces, the buyer would remain with $v_t^b(t_0) - c_p^b$. The seller, however, with a loss of 8000 € plus $e(t_0)$. In this case the seller would prefer the redhibition, the buyer clearly the replacement. Even though one truly has to admit that these are disproportional costs for the seller the Supreme Court is definitely right by also considering the buyers inconveniences. The important fact is that, in this case, the seller would have had all the information needed to maximize his effort given the total wealth, as he knows about the losses the defect would cause the buyer. So as the buyer revealed the information the seller needed to optimize. There was no need for protecting him, if the defect occurred anyway. It is senseless to charge him only costs of 6000 €, that is the amount he offered as a reduction in price.[12]

So although the Supreme Court in this case correctly argued that it does not matter if the replacement is more expensive than another remedy for the seller, this reasoning has to be rejected. In cases in which the buyer reveals information about either $v^b(t_0)$ or $\ell_t^b(t)$, the seller has to take this information into account. It does not matter if the redhibition, the reduction in price or the replacement cause certain inconveniences to the buyer. What matters is that the seller knows everything he needs to know to recreate a complete contract and so does the Supreme Court. Therefore the courts should use the information to exactly impose sanctions according to this restorable complete contract![13]

[10] We only know $e_t(t)$ which is 14000 €. As the flooring was of minor quality it is reasonable to assume that $e(t_0) <$14000 €.

[11] Note that, as the buyer wants the class 33, it does not matter to him how he gets to it. If there is a reduction in price or a redhibition he will always replace so he will always face the costs of replacing. It is only assumed that c_p^b is equal to $c_h^b + c_{tr}^t$, which are the costs of redhibition (getting rid of the old flooring) plus installation by a substitute contractor. The same holds true if there is not redhibition. In this case $c_{tr}^t = c_p^b$ as the external contractor has to first get rid of the old flooring. So nothing is won by any of these remedies.

[12] I have no information about the worth of the warranty and also no information if this amount is equal to the reduction in price the courts would have granted.

[13] See therefore especially 8 Ob 63/05f in subsection 3.2.2 on page 84, in which the Supreme Court considered exactly this information being of major importance.

3.1.3 6 Ob 274/06x

3.1.3.1 Merits of the Case and Legal Reasoning

The claimant bought an apartment in which the flooring had a defect because of insufficient installation. The life expectancy was reduced by 20 %, no other losses were caused by the defect (especially no unusual visual damages). The buyer claimed either replacement or the capital to finance the replacement. The Appeal Court, as well as, the court of first instance both rejected the claim. The Supreme Court did so as well (indeed it rejected the revision). The arguments were that even though one has to consider the inconveniences caused to the buyer, in this case, there is no reason to be seen that they outweigh the extreme costs of total replacement.[14]

3.1.3.2 Economic Analysis

This case is, in general, similar to the case above, but the difference is that the buyer, in 8 Ob 108/06z in subsection 3.1.2 on page 80, made clear before the contracting that he wanted a life expectancy of 15 years at a minimum. In this case the buyer bought the apartment as a whole not arguing about the life expectancy of the flooring. So whereas in the other case, for the buyer a (simple) price reduction was never an option, in this case there is no reason why this should not be an option. It cannot be seen what the parties would have contracted about in a complete contract. In the previous case the buyer revealed information about $\ell_t^b(t)$ which in this instance was not true. So as the seller had no further information to consider, his rejection of the primary remedies due to disproportional costs is reasonable. The same holds true for the redhibition. It is reasonable to only grant a reduction in price, in this case of around 20 %, for the reduction in life expectancy.

3.2 Significant Defect

3.2.1 1 Ob 14/05y

3.2.1.1 Merits of the Case and Legal Reasoning

The parties agreed upon a purchase of a brand new car, which after only a 1.000 kilometers made strange noises when the gears were changed. The problem was known and could be fixed (reduced) by installing a special comfort gear shift. This shift was installed by the seller. The noises however did not disappear. As a result, the buyer claimed redhibition, because the primary remedies were impossible[15] and he argued that the defect was significant. The seller argued that the defect at most was insignificant and therefore only a reduction in price should be granted. As a matter of fact the noises only occurred if the engine of the car was cold and one accelerated, especially if using the 1st or 3rd gear. If the engine block was hot the noises only occurred if the switching operation was very slow. There was no reduction in life expectancy nor was a safety problem caused by the problem that caused the noises.

The court of first instance judged in favor of the buyer, the Appeal Court referred the case back[16] and the Supreme Court in the end decided in favor of the seller.

The reasoning was as follows: after examining all current opinions about non-significant defects the conclusion was come to that the following points are relevant: the severity of the defect and the direct financial consequences the defect has to the different parties, as well as the loss in value the

[14] Which are, as in 8 Ob 108/06z in subsection 3.1.2 on page 80, larger than the value of the defectless flooring.

[15] As each and every car of the same series has this defect.

[16] Because information about the hypothetical will of the parties were missing so it could not reconstruct the contract to decide what the parties (subjective!) would have agreed upon in case they would have known about the defect.

parties would face and the costs of the redhibition. The Supreme Court, therefore, considered that the loss in value of new cars is very large especially throughout the first thousands of kilometers, and therefore, the resale price for the seller is much lower. The buyer however will only face the reduction in the resale price if he is going to get rid of the car, which in general will not be as tempting as if the car salesman has to hand over the car. As a result, the future reduction in the resale price will be much lower. In addition to that, the disturbance caused by the noise the buyer faces is only minor, especially because it vanishes if the engine is hot. Furthermore the Supreme Court considered that granting the buyer a right to redhibit in such cases would open the door to subsequent exercise of errors in motivation, especially if one tries to reconstruct the subjective will of the parties because the buyer has any interest in exaggerating his *ex ante* interest in noiseless gear changing. In fact, the objective party would have to be reconstructed and so the Supreme Court concluded that in such a case, the parties would have to offset the buyers future resale price losses and the losses caused by the noise disturbance through a reduction in price.

3.2.1.2 Economic Analysis

The Supreme Court in this case examined exactly the factors we worked out in section 2.5 on page 27. First of all, even though not considered by the Supreme Court we should briefly talk about the partial rectification. Obviously a replacement of the whole car would be impossible, because it was senseless. The only primary remedy left was the replacement of the gear shift. To make a complete analysis of the problem one would have to consider $\ell_t^s(t)$ and $\ell_t^b(t)$ before and after this rectification and consider the costs of the rectification. As the data on this question is very small, one is only able to guess whether the combination of the rectification and the reduction in price is the optimal remedy compared explicitly with the redhibition or total reduction in price. So let $\ell_t^s(t)_1$ be the reduction in resale price without rectification and $\ell_t^s(t)_2$ the one with the rectification. Same for $\ell_t^b(t)$. To find out the optimal remedy one would have had to compare $v_t^b(t) - \ell_t^b(t)_2 - c_r^s - c_r^b$, $v_t^b(t) - \ell_t^b(t)_1$ and $v_t^s(t) - \ell_t^s(t)_1 - c_h^s - c_h^b$ as well as $v_t^s(t) - \ell_t^s(t)_2 - c_r^s - c_h^s - c_h^b$.[17] Without further information we cannot assess the optimal remedy, which in this case is only of academic value because the rectification was already executed. The court had only to compare $v_t^b(t) - \ell_t^b(t)_2$ to $v_t^s(t) - \ell_t^s(t)_2 - c_h^s - c_h^b$. The court did not really consider the cost of the redhibition. It did, however, derive the following. The value of the car even without defect obviously dropped sharply in the first period of usage so $v_t^b(t) >> v_t^s(t)$. Furthermore, the losses caused by the defect were at most equal, because the seller today faces a higher loss in the resale value than the buyer at some future time plus his discomfort. Again the court of first instance did not collect much data, but the assumption by the Supreme Court seems reasonable: The seller will immediately try to sell the car to a new buyer, so he faces the reduction in resale price very soon. The buyer faces this lost only at some future time, so without the discomfort it holds that $\ell_t^s(t) \geq \ell_t^b(t)$.[18] In addition, the discomfort of the driver is very small and mainly the noises only occur if the engine is cold, so even though we cannot really say if $\ell_t^s(t) \lesseqgtr \ell_t^b(t)$[19] we can, for good reasons, assume that $v_t^b(t) - \ell_t^b(t) > v_t^s(t) - \ell_t^s(t)$. That is valid without even considering the costs of redhibiting. As a result, the argument of the Supreme Court is sound.[20]

[17] Please note that these are already the net positions of the different remedies, so the sum of wealth under the different possibilities.

[18] Of course this to some extant depends on the discounting rate by the parties.

[19] In comparison to the below case where the buyer revealed information about his valuation in this case no such information is available after all.

[20] Unfortunately the Supreme Court did not reason about the value of the reduction in price.

3.2.2 8 Ob 63/05f

3.2.2.1 Merits of the Case and Legal Reasoning

As in the previous case, the parties agreed upon the purchase of a brand new car, which turned out to have only reduced heating power, which made it impossible to sustain a temperature of 20 degrees or more. After one hour of driving the medium temperature dropped to between 16 and 18 degrees. The buyer ordered a special automatic heating system because she did not want a manual one, which she told the seller. After some rectification attempts the seller informed her that a higher temperature could not be sustained in (all) cars of the same type and buyers, in general, purchase an extra heating system. He argued that the heating system has no defect.[21] The buyer claimed redhibition or alternatively a reduction in price, the seller asked for rejection of both claims, or alternatively a much lower reduction in price. The court of first instance rejected the claim and omitted to assess the relevant facts, so every "fact" was only based on the claims of the parties. The argument was that the defect was not one in the sense of Art. 922. The Appeal Court referred the case back, stating that the reduced heating power was indeed a defect, as the car did not fulfill generally presumed features. Even in the instruction manual of the car a heating power of up to 22 to 28 degrees was promised. In this case the defect is significant.

The Supreme Court followed the argumentation of the Appeal Court. First of all, it argued that a heating power of 20 degrees (upwards) is generally presumed in an alpine region, as (nearly) every car can sustain such a temperature. In general buyers purchase such an extra heating may not be able to destroy the presumption because the seller did not point out this possibility at the closure of the contract, so he did not destroy the presumption. Furthermore the court argued that the defect is significant especially because the buyer pointed out that she wanted an automatic heating system so that she could temper the inside of the car more precisely. She revealed a special valuation of the heating system and even purchased the whole luxury package because of this heating system! The lack of facts caused the decision to be based on the claims of the parties and therefore for the final judgment referred back to the court of first instance.

3.2.2.2 Economic Analysis

See the previous case about the general situation. Again the court had to decide whether $v_t^b(t)$, $v_t^s(t)$, $\ell_t^b(t)$ and $\ell_t^s(t)$ differ.[22] That the defect at hand is one in the sense of Art. 922 needs no further argumentation, beyond that provided by the courts. It has been precisely assessed that for the buyer the heating system had a special value, larger than the market value of such a heating system, so even without taking into account any discomfort $\ell_t^b(t) >> \ell_t^s(t)$. One will even have to argue that $\ell_t^s(t)$ is 0 as the heating system functions, but not according to the whishes of the buyer. From an objective point of view it is without failure. One must presume that $v_t^b(t) < v_t^s(t)$, as cars tend to lose market value very fast, but in this case it is very likely that $v_t^b(t) - \ell_t^b(t) < v_t^s(t) - \ell_t^s(t)$ as obviously the buyer revealed the information that a car without the desired heating capability has only minor value for her. The argument of the court is reasonable. The fact that the costs of carrying out the redhibition are never assessed is a bit disturbing, however, even though it seems doubtful that in this case they could outweigh the losses of the buyer.

[21] That fact had to do something with the engine. So in fact a replacement was not possible.
[22] Again the direct costs of the redhibition were not taken into account by the court.

Chapter 4

Enhancements

Before the actual analysis within this chapter is begun the reader should once more be reminded that all of the assumptions made in chapter 1 and 2 are still valid.[1] The main assumptions will be highlighted in the following:

1. There is no fraudulent/strategic behavior. The, in the following, examined alternative remedies are only considered with respect to the Defects Liability Law. The purpose of the Defects Liability Law is not to prevent such strategic or fraudulent behavior it has been presumed that no such behavior exists within the framework of the thesis. Even though the remedies that are presented in the following, especially the law of damages, might be capable of preventing such behavior, the assumption is, also for consistency reasons, not relaxed.
2. There are no externalities.
3. There are no insolvencies.
4. The costs of the seller/producer can be verified.
5. Only the seller/producer can influence the product before the time of transfer.
6. The producer has perfect information about his products.
7. In case the complete contract is examined: complete information and absence of transaction costs are presumed.

4.1 (Producer-) Warranties and the Defects Liability Law

4.1.1 Legal Basics

Warranties are contracts in which the guarantor promises a liability for a particularly uncertain performance (or for an arising damage).[2] Relevant is the case in which the producer or another party guarantees the end-user that a product/performance is defectless for a certain period or that a certain defect does not occur and furthermore that he will provide a remedy.[3,4] If the seller and the guarantor

[1] See therefore subsection 1.3.1 on page 5 and subsection 2.5.2 on page 29.

[2] For a more detailed distinction see section 1.2 on page 4.

[3] Indeed also the expansion of the legal limitation period of the Liability Rules is called a (not-genuine) warranty contract. A genuine warranty contract would include the promise that a certain event takes place or the coverage of a certain damage. (See Dullinger [2008] recital 3/142-144).

[4] Note furthermore that this section only deals with warranty contracts that expand the coverage of the Liability Rules and are (in general) granted by the producer. The contracts that expand the limitation periods of the Liability

are different parties, i.e. if the seller is not the producer, there is in general no relationship between the buyer and the guarantor. This relationship is created by the warranty.[5]

Partially unsolved, is how to interpret the warranty contracts. As warranty contracts are assumed to be in return for payment[6] the doubt rule of Art. 915 can be used. This rules implies that if the party that writes a contract used unclear formulation the, for the contracting partner, preferable argument applies. This regulation is overruled by Art. 6/3 CPA, iff the buyer is a consumer and the guarantor is a business man, which terminates formulations which are unclear or unintelligibly written.[7] A regulation that is directly addressed to warranties is the Art. 9b CPA, which regulates that the guarantor has to inform the buyer that the Defects Liability Rules are not affected by the warranty.[8] Furthermore, the guarantor is bound to promises within the contract and promises he made within advertisement.[9] Paragraph 2 *leg. cit.* regulates that the warranty contract has to be written in clear and understandable language and that if the guarantor did not mentioned which features are covered, the generally presumed features are covered.[10] In paragraph 4 liability for damages is regulated. Again also Art. 864a applies,[11] however the application of Art. 879/3 or a general review of the content of the contract is controversial. Bydlinski [2008] refuses such a review with the argument that the guarantor offers a more too the buyer and therefore can restrict also his coverage. He argues that the other control mechanisms presented above are sufficient to protect the buyer. A different view was advocated by the German Supreme Court (VIII ZR 251/06), which denied the right of the guarantor to restrict his liability by cases in which the buyer did not (let) carry out a producer-designated inspection (independent from the causality of this omittance).[12]

Another issue is the legal consequence of not fulfilling the warranty contract. Kriegner [2008] argues that in general, the Law of Delay (Art. 928-921) should apply. So if the producer delays the execution of the remedy designated in the contract the buyer can claim full compensation if the producer acted in a negligent way. The same holds true if the execution is faulty. If, however, the buyer accepts the execution of the remedy as fulfillment, the Liability Rules should apply for this rectification as an execution of a remedy within the Liability Rules leads to a new start of the limitation period.[13] If however the guarantor did not act negligently, the solution is only partly different. The legal base is

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Rules or that change the application procedure of the remedies provided are not considered. This problem has already been (slightly) touched in section 2.4 on page 23 and is not of very high importance as it is simply a contractual alteration of the Liability Rules. By expanding the coverage however it is meant that the guarantor is also liable for defects not existent at the time of transfer. These are therefore genuine warranty contracts.

[5]The warranty contract is closed by will manifestation (Art. 864) as a declaration of will by the buyer does not take place. He takes the warranty contract that is attached to the product and stores it at home, so at no time does he declare his will to accept the offer of the producer about the warranty contract. The opposite is true if the end-user buys a warranty (which is rarely the case, sometimes there is a possibility to buy a contract that extends the duration of the initial warranty contract.)

[6]The argument is that the buyer receives another remedy for coping with defects and in return the producer/seller can increase his sales (influence the buyers in their buying decisions), so he gets something in return. (Bydlinski [2008] page 249, Kriegner [2008] page 130) This is indeed similar to the economic "Signal Theory" by Spence. See Priest [1981] pages 1303-1307.

[7]Bydlinski [2008] argues that this may cause the failure of an essential regulation within the contract and may lead to the absurdity of other terms which in the end would cause an overwhelming and unexpected liability by the guarantee. He therefore prefers the application of Art. 915.

[8]The argument therefore is that the consumer is otherwise mislead by the warranty (whatever that means!?). (See e.g. Dullinger [2008] recital 3/144)

[9]About the fact that this is a reasonable regulation, only compare the argumentation about Art. 922/2 in section 2.2 on page 15.

[10]That leads to a consonance of Liability Rules and consumer directed warranties.

[11]See therefore section 2.4 on page 23.

[12]The guarantor was not the producer, and on the other hand the very same senate (VIII ZR 187/06) came to the conclusion that such a restriction is not discriminatory if the guarantor is the producer.

[13]See therefore section 2.8 on page 58.

now the Art. 880a (analogous application)[14] which would also lead to full compensation, if one sees the warranty contract as the promise that no defect occurs (or alternatively that all defects are rectified). As this article is only a rule of interpretation, the general solution will be according to the will of the parties. Here one would have to argue that in the case that the parties would have known that the rectification is impossible or not executable in a certain period,[15] they would have agreed upon a compensatory of positive damage at most because the guarantor would have not been willing to fully insure the buyer against lost earnings in such a case.[16] Positive damage is either the refund of the price paid,[17] or the refund of the costs for replacement,[18] or, if the guarantor is in delay through no fault of his own, they would have agreed upon an compensation for third party rectification.[19]

At the end of this introduction the very special problem of taking redress will be highlighted. If the seller and the guarantor are different parties and the buyer can choose between the Liability Rules and the warranty, a non-genuine joint obligation arises because the two parties have no internal legal relationship. The question is then who in the end has to bear the costs. Reidinger [2003] (page 181) argues that in this case the guarantor should have no redress, the seller instead full redress. The seller can then choose either to redress against his seller, based on the Liability Rules, or to take recourse against the guarantor directly.

4.1.2 Economic Analysis[20]

At first the main differences between the Liability Rules and the warranties are worked out. The warranty provides coverage beyond the defects existent at the time of transfer, often for all defects revealing until a certain time point, very well limited to defects which are not caused by the buyer. Furthermore the guarantor is not willing to cover a full reverse transaction as provided by the redhibition, but is willing to provide the buyer with a complete fulfillment of the contract, that means offer replacement or rectification.[21] One, therefore, has to be aware of the fact that warranties are not "all-inclusive" insurances, but only an expansion of the Liability Rules. So the design of warranties can be as manifold as every other contractual agreement. Beside that warranty contracts are in general written by the guarantor and the buyer has nearly no possibility to alter their content or to even get rid of them. Proving a non-liability because of any reason is the task of the guarantor once a defect in the sense of the warranty is present.

The idea of the expanded coverage can either be explained by the "Signal Theory"[22] or by the effects of the Liability Rules. As we have seen in section 2.8 on page 58 and section 2.9 on page 62

[14] This regulation rules that a party that promises a certain success owes full compensation.

[15] So the guarantor did not act negligently.

[16] The author argues that would have been the contract *bonafide* parties close, but indeed he only asks what the complete contract would have been and the solution he came up with is identical to what an economist would have argued.

[17] With a retransfer of the product - so in the end this is identical to a redhibition.

[18] Again with a retransfer of the defective product, so the consequence is a replacement.

[19] So the solution is again similar to the Liability Rules, see section 2.6 on page 50.

[20] Allow me to point out that I do not intend to provide an economic analysis of warranties. For a general overview of the literature the reader is referred to Wehrt in Bouckaert and De Geest (eds.) Encyclopedia of Law & Economics - The Regulation of Contracts [2000]. For information about the different theories to explain the existence of warranties see Priest [1981]. About the duration problem of warranties (different from the limitation period problem of the Liability Law, see section 2.8 on page 58) see the interesting work by Balachander [2001], who showed that an entrant in a market is willing to offer a longer warranty duration than the incumbent, or to Emons [1989], who showed why the duration of warranties tends to be smaller than the life expectancy of the products. The same problem is treated by the already mentioned article by Cooper and Ross [1988]. About the discussion of the different remedies used in a warranty contract, see Jack and Murthy [2001], who treated the rectification and the replacement as the main remedies used in warranties.

[21] However as shown by Moorthy and Srinivasan [1995] a money back guarantee can be used to signal quality, but that fact has nothing to do with a liability or coverage of defects.

[22] Priest [1981] pages 130-1307.

one problem within the Liability Law is the one of determining whether a defect existed at the time of transfer.[23] By covering defects up to a certain point in time, independent of their existence at the time of transfer, the producer reduces his own costs of litigation as well as the buyers costs (and the intermediate sellers costs), so he reduces social costs. This is because a proof is no longer needed as to whether the defect existed at the time of transfer and therefore litigations only dealing with this problem can be avoided. The only thing that has to be verified within the trial is if the defect is one covered by the warranty. Within the Liability Rules one would have to prove the time of existence and whether the defect was actually one in the sense of Art. 922.

As we have already argued in subsection 1.3.1 on page 5 the legislator could not provide such a rule as the knowledge that is needed to sustain this regulation is not present and therefore any ascription of a liability beyond the one undertaken by the Liability Law can have severely negative effects.[24] If the producer, however, voluntarily bears the risk of this defect, this can be seen as an improvement. The only consequence is that now the buyer will pay a larger insurance premium than under the Liability Law but will therefore have larger coverage and a smaller risk of being forced into a complicated litigation.[25] Furthermore the warranty contract also abandons all costs of seller-sided compensation estimation and especially avoids the problem with the current right to take recourse in the Liability Rules.[26]

The third point is the only limited possibility to alter the contract by the buyer. Without going into more detail than above in the legal section, it seems that the legal possibilities to control the warranty contract are sufficient, as Art. 915 allows for a reduction in transaction costs as non-understandable terms are used to the charge of the guarantor, so he is forced to keep a clear language. Other discriminatory regulations are excluded by Art. 864. Any further restriction is not necessary as Bydlinski [2008] has correctly stated. There is neither room for Art. 879/3 nor for Art. 6/3 CPA. The reason is, as correctly mentioned by the author, that the buyer receives more through the warranty so there is no need to protect him against a restriction of this "more".[27] Other than the legal regulations the warranty contract can be avoided by the buyer through refraining from contracting with the seller after all.[28]

The second difference presented was the one in the choice of possible remedies. First of all it should be pointed out that the warranty fits the argument made in subsection 2.5.2 on page 29. The producer

[23]Especially the Art. 924 sentence 2 may include a quasi-warranty by the producer as he will often fail to prove that the defect did not exist a the time of transfer, so indeed contracting upon a warranty does not (really) alter his position but has a positive signaling effect.

[24]To bring this to the reader's mind again: the problem was that any rule covering defects also not existing at the time of transfer leads to the consequence that we cannot say that at most one party, namely the producer, could influence the defect. But as we do not know what which party influences we cannot set up a strict liability. A strict liability, however, was needed to sustain the (presumable) positive effects of a Liability Rule as the user and the producer are often not direct contracting partners, so the Law of Damages cannot be used!

[25]That in the case the buyer only has access to the primary remedies in the Liability Law he will claim the remedy because of the warranty contract needs no further explanation as it spares him the proof about the existence of the defect at the time of transfer. If, however, the buyer can claim the secondary remedies, the claim because of the Liability Rules overrides the one because of the warranty. So the buyer is able to choose whom to hold liable as long as the Liability Rules are not excluded.

[26]As the possibility to avoid such warranty contracts for the buyer is limited (often he can only refrain from buying the product at all), one cannot argue that such a warranty withstands an economic efficiency argument. If however the guarantor (=producer) offers his products with and without warranty coverage the warranty for sure leads to a *pareto improvement*, as the producer would not offer it if he is not better off and the buyer would not choose it (especially if he has the alternative to buy the same product without coverage). The intermediate seller, even though not part in the process of contracting, faces no negative external effects, I would rather argue that he faces positive external effects, so he is at least not worse off.

[27]A different conclusion, of course, has to be drawn, if the warranty contract imposes payments on the buyer, but this will very well be against *bona-fide* or ruled out by Art. 864.

[28]In the situation that the producer is monopolist it is justified to treat the problem differently, but an abuse of monopolies always requires special treatment.

is the one to choose the remedy, however it remains that there is no possibility for the buyer to alter this decision, so even though it seems to be an improvement in the first place a warranty cannot solve the problem of the optimal choice of the remedy. As pointed out by Kriegner [2008] the contracts often do not cover the case in which the "primary" remedies are impossible. His analysis about the consequences is economically reasonable and so it should only be referred back to the previous presentation of his arguments. This to some extent also coincides with the discussion of Art. 932 with the main difference that it has been supposed that there is no negligence as the Liability Rules are (somewhat) a strict liability, so there was no space to talk about negligence.

The right to take redress is used in case a party other than the guarantor executes the remedy (because of a legal duty). There is nothing more to say than to refer to Reidinger [2003] who correctly argued that the executer should be granted full compensation by the guarantor as the Liability Rules should not circumvent the guarantor's liability because of the contract he himself wrote.

Questionable is if within the warranties there is a space for self-rectification. The economic argument at first hand seems to be the same: again the party able to influence the defect, which will in general be the guarantor, should also bear the costs it would have had to bear if it had executed the remedy. There is, however, a difference to the previous analysis. The liability exceeding the coverage of Liability Rules is voluntarily accepted, so one has to consider the contract written by the two parties. If there is a clause in the contract, similar to that in the warranty treated by the German Supreme Court, one will have to argue that the seller indeed did not want to be held liable for defects which he could not treat on his own. So such an expansion of the contract cannot be justified as it contradicts the will of the contracting party.

To summarize this, the possibility to write warranties is a reasonable and, sometimes, also efficient alternative/extension to the Liability Rules. The Liability Rules themselves may even be an incentive to contract upon a warranty as such a contract may reduce the costs of litigation compared to the regime under the Liability Law, also for the producer. Despite the fact that warranties tend not to cover rules about what should happen if the remedies included were to fail the Austrian law provides sufficient aid to derive a regulation which seems to be close to the complete contract as seen by the arguments of Kriegner [2008].

4.2 Alternative Legal Remedies

In this section we will examine three alternative legal ways to cope with a defect. The first will be the compensation claim based on the law of damages (Art. 933a in conjunction with Art. 1295 *et seqq.*), the second is the *Laesio Enormis* (Art. 934) and the third is the law of error (Art. 871 *et seqq.*). For all three legal remedies we will examine their relationship to the Defects Liability Rules and the economic consequences of their application.

4.2.1 Compensation Claims

Art. 933a is somewhat an expansion of the Liability Rules, through the addition of the tort while the main features of the Liability Law are retained.[29] Art. 933a regulates a primacy of rectification and replacement as does Art. 932. If these two cause disproportional costs or are impossible the buyer can claim a monetary compensation, which includes the reduction in value, the reduction in a resale price and so on. He can very well also claim a redhibition. However he can only claim the costs of

[29] For further information see Reischauer [2002] as well as Ofner in Schwimann (ed.) ABGB Praxiskommentar^3 [2005] and Bydlinski in KBB (eds.) Kurzkommentar zum ABGB^3 [2010] about Art. 933a.

rectification he faces if he rectifies, the seller refuses rectification and the costs are not disproportional. There are two major differences between the Art. 933a and the Liability Rules: Art. 933a can capture consequential damages[30] and the buyer has more possibilities to react on a seller that refuses the execution of the primary remedies.[31] The reversal of the burden of proof that the defect existed at the time of transfer is again covered by Art. 924 sentence 2.[32] However, once it is shown that the defect existed at the time of transfer, negligence by the seller is presumed by Art. 1298. The period of the presumption, however, is restricted to 10 years by Art. 933a/3. Besides that Art. 933a is not covered by Art. 9 CPA. It can then be excluded also in the relation to a buying consumer. At last the limitation period for compensation claims based on the tort is 3 years and starts with the knowledge of the damage and the injuring party.[33] A restriction compared to the Liability Rules is that the seller is only liable if he caused the defect by negligence.

So the buyer has to prove causality of the sellers action or omission of the defect and that the defect is one in the sense of Art. 922. The proof of the existence at the time of transfer is, again, covered by the rules of the Liability Law.[34] The seller has to prove that he did not act negligently.

The economic implications of these regulations are the following: the seller is only liable for defects which occur because he acted negligently. So if he did not exert the optimal effort he has to bear the losses caused by the defect. As we argued in subsection 1.3.1 on page 5, such a regulation would be preferable as then the seller does not have to act as an insurer for non-influenceable defects. We also argued that the problem with such a regulation is that it is only of use if the seller is the producer, as the non-producing seller will, in general, be able to prove that he did not cause the defect. So the main application area of the Art. 933a are contracts for services and work and partially contracts for works, labor and materials.[35,36] The seller should execute optimal care in all areas which he can influence and exactly this is reached by this regulation. Furthermore similar to the idea presented in section 2.9 on page 62, the seller bears the burden of proof that he did not act negligently as he in this case is the producer and should therefore reveal his knowledge about his work effort. In general the reversal by the Art. 1298 is not limited by any period. As we have, however, argued that there may be a point in time when the probability that the seller acted negligently becomes so low that the buyer is the optimal party to prove negligence. Again, whether 10 years are reasonable or not is impossible to say. However the risk for the seller also increases that in a *non-liquet* situation he is held liable, for non-influenceable or worse for buyer caused defects. That the Art. 924 sentence 2 period is not expanded, leads to a similarity in the rules, such that the fact that the defect existed at the time of transfer is treated as equal within the Liability Law and the Law of Damages. One change to the Liability Rules is that now the buyer has to prove that the seller's action was causal for the defect. This is not very hard, as the causality is a weak criterion.

[30]Note that we have not relaxed the assumption of absent externalities, so even though the Art. 933a is capable of capturing consequential damages caused by a defect we will not examine this.

[31]We have already considered the article in the discussion about self-rectification if the seller refuses to execute a remedy. See section 2.6 on page 50.

[32]See Reischauer [2010] page 228.

[33]Note that there is an absolute limitation period of 30 years (Art. 1489) that starts at the time of the damaging event, which indeed has to have happened before the transfer. So according to Ofner [2005] (Art. 933a recital 25) it is sufficient to base the start of the period on the date of transfer.

[34]See therefore section 2.9 on page 62.

[35]Ditto Reischauer [2002].

[36]Note that the difference between a contract for work and a contract for works, labor and materials is that in the first one the purchaser provides the material whereas in the latter one the seller provides the material. If the seller acts only as merchant for part of this material he of course will be likely able to prove that he did not act negligently, so the buyer is referred to the Liability Rules. This does make sense as it leads to a consonance of purchase contracts and those that expand the purchase part by some further performances, as installation.

The limitation period is preferable for the buyer with a total limitation of 30 years and the relative of 3 years after the damage and the injuring party is known are far longer than the 2 or 3 years regulated by Art. 933. We argued in section 2.8 on page 58 that we cannot say which limitation period is optimal, however the relative limitation period is somehow similar to the very useful exceptions of the general rule in Art. 933 which we examined. In total, the limitation regime of the tort is able to hold the seller liable for at least as many of the caused defects as the Liability Rules.[37] That the preference of rectification and replacement is preferable if the buyer chooses has already been argued in section 2.5 on page 27. The tort, however, would have been the best place to implement a right of choice for the seller, as the choice of the monetary compensation in the tort leads to at least the same payment as in the Liability Rules. It might even (very likely) be a higher one as also immaterial damages can be claimed. Knowing this, there is no harm in letting the seller choose. However, as a refusal by the seller is possible and has exactly the consequence that the buyer can claim full monetary compensation, the difference is not grave, more likely tending to be zero, to the contrary of the differences within the Art. 932.

One problem is, however, that the liability of the seller in this context is not reduced to the optimal level, namely to defects which are due to negligence on the sellers side. The liability is, therefore, expanded, as the Liability Law exists besides these rules. On the other hand a restriction of the Liability Law in cases in which the seller is the producer would lead to a discrimination of buyers contracting with producers, so the general Liability Law has to be sustained.

To summarize this, one can say that the application of the tort is the preferable way to handle defects that existed at the time of transfer, as it leads to optimal behavior by the seller, as well as to the fact that the seller is not obliged to assure the buyer against non-influenceable defects. One can see the longer periods within the tort as an emanation of exactly this effect. The application, however, of the Art. 933a is limited to contracts where the seller acts at least partially as producer. So Art. 933a is a logical and reasonable expansion (or better: replacement) of the Liability Rules, but cannot replace them totally because of the many contracts closed between the user and the non-producing seller.

4.2.2 Challenge due to *Laesio Enormis*

The *Laesio Enormis* is a very special legal institution that allows the termination of a contract because of an inadequacy between performance and counter-performance without requiring further presuppositions to terminate the contract as the offence of usury requires.[38,39] If a party received less than half of the value, it itself gave as performance, it is allowed to terminate the contract. The relevant point in time is the time at which the contract is closed. Only the objective value ratio is of importance. An increase in value after the closure of the contract is not considered, as then the contract partner could avoid the negative consequences of Art. 934 by raising the value above the half of his own performance. The consequences of Art. 934 is either a termination of the contract or that the opponent pays the total difference in value to sustain the contract.[40] Art. 935 now excludes the Leasio Enormis

[37] It is a step toward a complete liability of the seller for his negligence.

[38] In Austria the usury act consists mainly of one article: Art. 879/2 subpara. 4. This article requires subjective elements as the presence of e.g. inexperience, carelessness or an exigency. As these prerequisites have to do nothing with the liability because of defects we will not cover this possibility to terminate contracts.

[39] About the *Leasio Enormis* see Bydlinski [2007a] recital 8/43-48 and the same in KBB (eds.) Kurzkommentar zum ABGB^3 [2010], Art. 934.

[40] That is a *facultas alternativa*, so the opponent may choose the consequences of a challenge because of *Laesio Enormis*.

under some circumstances, but note that the *Laesio Enormis* is in general a mandatory rule.[41] Art. 934 therefore does not apply if the shortened party mentioned that it has purchased the performance because of special affection, or the party knew the real value, if the contract was a partial donation, if the value can no longer be verified and if the product was acquired through a judicial sale.

The relationship between the *Laesio Enormis* and the Defects Liability Law is the following: if the defect performance was defectless worth less than half of the given counter-performance (the price paid) an alternative application of the *Laesio Enormis* is undisputed. If, however, the defectless performance is worth more than the half, but the defective performance less, what should happen is controversial. The Supreme Court[42] and the prevailing doctrine[43] argue that a challenge based on Art. 934 should be possible if the defect already existed at the time the contract was closed. Bydlinski [2007b] argues that in this case one should base the argument on the value of the owed performance (that is the defectless one) if the defect could be rectified, and argues this by assuming that a rectification of the defective performance is no subsequent increase in value used in avoiding the negative consequences of Art. 934.

From an economic point of view the *Laesio Enormis* reduces incentives to invest in information search. The Art. 934 allows the, of the real value unaware, seller to terminate a contract which is unfavorable for him, even though the buyer invested in the informational advantage, and therefore after the termination of the contract faces losses, so the Art. 934 leads to an underinvestment in information search.[44] Despite the fact that the *Laesio Enormis* should therefore be abolished completely, our task here is to examine the relationship to the Liability Rules. If the value of the defectless performance is less than half the price a *Laesio Enormis* is always possible.[45] So the buyer can avoid the application of Art. 932 and immediately redhibit. That this is inefficient, as the buyer is able to roll over the risk of an error in motivation, was already argued in subsection 2.5.3 on page 38. Unfortunately there is no way that one is able to do to prevent this result, despite getting rid of Art. 934. Whether, however, the defectless performance is worth half or more of the paid price, is dependent on whether the defect existed at the time of the closure of the contract or not. If this was the case the prevailing opinion argues that the Liability Rules can be circumvented. This however is an inconsistency to the general rule of the Liability Law. There the relevant date was the time of transfer, as it was argued in subsection 1.3.1 on page 5 the seller should be held liable for all defects that came into existence while the performance was under his control (to impose optimal effort by the producer). If one however follows the argumentation of the prevailing opinion the seller faces two different risks: first of all if he does not know about the existence of the defect himself (only about his chance), he faces an unpredictable risk of contract termination even if the defect was rectifiable and he made a deal according to the law (concerning the value ratio). The consideration of the time the contract is closed is a gamble for the seller. Either he invests in a defect search at the time the contract is closed to assess this risk (if this is possible anyway) or he risks to be held liable for false valuations by the buyer. The first leads to the effect that the seller invests in unnecessary information as it is his duty to transfer a defectless performance. As a consequence he would have to search for failures before the transfer (if it is reasonable for him) so his search costs would double, but the economy did not gain anything by that. The second has the consequence that he has to calculate an insurance premium to

[41] Art. 351 Austrian Commercial Code regulates that the *Laesio Enormis* is non-mandatory if both parties are business men. The argument is that also business men should be protected against a miscalculation/unawareness of the real value. As a determination can be more likely expected by a business man the regulation is only non-mandatory. (See Grechenig [2006])

[42] E.g. Ob 21/07x.

[43] Compare only Riedler [2008].

[44] Descriptive Grechenig [2006].

[45] Note that the values are objective (=market) values.

offset the risk. If he, on the other side, knows about the defect and repairs it by the time of transfer, this does not matter as in the time point that is relevant the value ratio was against the law. So he fulfilled his duty, but, nevertheless, risks the termination of the contract. That is unbearable for every seller. Here the opinion of Bydlinski [2007b] should be preferred as it prevents both negative situations as the seller is allowed to first rectify the product and only the owed values are compared.

If the defect is non-rectifiable but the product can be replaced in general a *Laesio Enormis* will be eliminated as the value ratio is not offended if the performance is one in kind.[46] If, however, both primary remedies are impossible or too expensive the only difference between Art. 932 and Art. 934 is the reduction in price. If the seller pays the missing value he will in general have to pay more than under the absolute price reduction, not necessarily under the relative method. He has to pay $\ell_t^s(t)$, $\frac{p}{v^s(t_0)}\ell^s(t_0)$ or $\frac{p}{v^s(t_0)}\ell_t^s(t)$[47] under Art. 932 but $p - v^s(t_0) - \ell^s(t_0)$[48] under Art. 934. If $\ell^s(t_0) \geq \ell_t^s(t)$ the absolute method, the optimal one, is cheaper for the seller. This is usually the case, as $\ell_t^s(t)$ is a discounted value that only discounts losses from a later point on then $\ell^s(t_0)$. As Art. 934 only applies if $v^s(t_0) + \ell^s(t_0) < \frac{p}{2}$ it holds that $\frac{p}{v^s(t_0)}\ell^s(t_0) < p - v^s(t_0) - \ell^s(t_0)$ iff $\ell^s(t_0) \geq \frac{v^s(t_0)}{2}$. So the *Laesio Enormis* also in this context worsens the seller's problem as he has to overinsure the buyer. The only advantage is that the seller can avoid a termination of the contract if he wishes to do so.

So to summarize: The *Laesio Enormis* is an economically inefficient regulation, which might even prevent *pareto improvements*[49] and lead to a dilution of the Liability Rules, as the buyer can roll over losses caused by errors in motivations, which are, in general, not protected by the Law for good reasons. In this context the minority opinion by Bydlinski [2007b] is to be preferred to as he rules out the application of the Art. 934 in a not-insignificant portion of cases, especially those in which the defectless product is valuable but the rectifiable defect destroys a major part of the value. Nevertheless there are also negative consequences of the *Laesio Enormis* if the defect cannot be dissolved by the primary remedies.

4.2.3 Challenge due to Error

The Art. 871 *et seqq.* regulates that a party can refrain from the contract (or the contract can be adapted) iff the party is in error concerning the essential parts of a contract.[50] Only business errors are covered, not errors in motivation.[51] Furthermore a challenge of the contract is only impossible if the other part caused the error, the error should have occurred to the other part or the error was clarified timely. The third alternative means that the party in error informs the opponent before he undertakes any disposal. Controversial is if the party in error can reintegrate the opponent by compensating him for the losses he had because of the liquidation of the contract. The second alternative implies that the opponent acted at least negligent by not recognizing the error. The first alternative means that

[46] Think of the contract: car type x against p. If the kind "car type x" is worth (more than) $\frac{p}{2}$ at the time the contract is closed it does not matter if the afterwards delivered car has a defect and is only worth less than $\frac{p}{2}$ as the time of transfer is irrelevant.

[47] See therefore subsection 2.5.3 on page 38.

[48] If we for the moment assume that time of transfer and time of contract closure coincide. Otherwise the discounting period would differ.

[49] See again Grechenig [2006].

[50] About the law of error see Bydlinski [2007a] recitals 8/6-31.

[51] See also subsection 2.5.3 on page 38. However the definition of a business error in the legal context is a bit different: in general only mistakes in the utterance (so the message one party sent has a different content compared to the message that the other party received) or more important errors concerning the content of the deal (errors concerning features of the product, characteristics of the contracting partner [e.g. the contracting partner made himself look like a specialist, but was only an amateur] and the nature of the deal [a party believes that it lends a car, however the deal is about a car-rental]).

the opponent adequately caused the error.[52] Controversial is also if there is a fourth alternative, the so called common mistake.[53] That is: both parties are in error about the characteristic in question.[54]

Besides these three (four) alternatives, the error must have been causal for the disposition undertaken, so if the error would have been dissolved before the closure of the contract the party in error would have either not closed the contract (Art. 871, termination of the contract) or closed the contract under different conditions (Art. 872, adaptation of the contract). The first is called essential error, the latter non-essential error. If none of both is true, the error is negligible, so no challenge is possible.

The limitation period is 3 years, from the date of contractual closure onwards.[55]

According to Reischauer [2002] the interference of the Liability Rules and the challenge due to error is only small. First of all the Liability Rules refer to the date of transfer, whereas the law of errors refers to the date the contract is closed. So if the product in question had the characteristic about which a party is in error at the time the contract is closed, but lost it until the date of transfer, the challenge due to an error is excluded. Furthermore no one can err about a kind[56] so the performances in question are special obligations. If the defect cannot be treated by the primary remedies the difference between the Liability Rules and the law of error is minor as both either sustain the contract, and grant a reduction in price or an adpation of the contract, or lead to a termination of the contract. Note, however, that the non-essential error and the insignificant defect do not necessarily coincide. If the defect can be resolved by the primary remedies it would seem that the challenge due to an error gives the buyer an alternative to avoid this execution and immediately claim the "secondary remedies".[57] If the defect (that is also an error) is detected before transfer only the law of error is concerned (together with the Art. 918 *et seqq.*), as the Liability Rules do not apply before the transfer. If the defect occurs after transfer one has to ask if it is essential. That it in general will not be essential is argued by Reischauer [2002]. If the buyer would have known about the defect at the time the contract was closed he would have agreed upon a rectification.[58,59] He argues that it is unlikely that the parties would have agreed upon a lower price in awareness of the defect so the adaptation of the contract due to the challenge leads to rectification duty for the seller.[60] So he argues that the law of errors and the Liability Rules are in accordance.

In subsection 2.5.3 on page 38 we have seen that there is an economic explanation for the law of errors if it concerns only business errors as it helps in decreasing transaction costs. That is very well true for the first alternative. If the seller causes the error he is also the one resolving it and therefore is cheapest cost avoider. The same holds true if the first and the controversial fourth alternatives coincide, as then no party is cheapest cost avoider. To put up a consistent system one cannot take

[52] It does not matter if the opponent acted negligently.

[53] *"Gemeinsamer Irrtum"*.

[54] The tendency is to drop this alternative, Bydlinski [2007a] recital 8/20.

[55] Note that in contrast to the Liability Rules the challenge has an *ex tunc* effect (Liability Rules: *ex nunc*). The difference is that *ex tunc* means that the contract is treated as if it had never existed, so e.g. there is no legal basis for a contractual property transfer. The Liability Rules in case of the redhibition on the contrary terminate the contract but let shifts in property and assets persist. The parties only have claims on account of unjust enrichment. So there is a difference in the effects, however we do not examine it closer. The reader should only be aware of this fact.

[56] Only if the whole kind does not have a special characteristic an err is possible. Think of a party that believes that a video recorder can also display DVDs. A challenge based on such an error, will generally fail because none of the three alternatives will be fulfilled.

[57] Note that this is exactly the point why Art. 933a is designed such that first of all the seller should get the chance to execute the primary remedies.

[58] For replacement there is no application area because the obligation is, in general, a special one.

[59] Note that we are not talking about contracts that should be fulfilled at a certain time point as then the rectification is senseless and therefore can be assumed to be impossible.

[60] In this generality the argument is questionable.

into account the knowledge of the seller about the caused error as then one introduces a rule similar to the negligence rule and imposes high costs on the buyer by proving that. This is unnecessary and inefficient as then it may happen that the cheapest cost avoider does not bear the costs.

The other alternatives are of only minor importance for us. Nevertheless there will be a short discussion: The second alternative is very similar to the first one. In this case the seller is cheapest cost avoider as he could have resolved the error at low costs and therefore prevented the losses. However in this case it is unreasonable to impose a strict liability as the seller did not cause the error he only (should have) detected it. As it is hard to prove such a situation this is a rare alternative. The third alternative is an interesting one. The buyer is supposed to be cheapest cost avoider and is able to resolve his own error and inform the seller about it so that future losses can be prevented. Suppose g_e^s *are the possible gains the seller would have because of the transfer and* e_e^s *are his already undertaken expenditures. Suppose furthermore* ℓ_e^b *are the losses the transfer causes the buyer in error. The transfer should not be executed if* $\ell_e^b > g_e^s + e_e^s$*. Neither of the two legal solutions can assure this outcome. The part of the doctrine that advocates only a dissolution of the contract if* $e_e^s = 0$*, neglects the possibility that the buyer faces such high losses that it would be preferable for him to fully compensate the seller. Furthermore the permission to terminate the contract if the buyer is cheapest cost avoider and* $e_e^s \neq 0$ *is also a waste as it may very well be that* $\ell_e^b < g_e^s$*. The seller then loses his gain because of the buyers own fault and furthermore a social lost is caused. This problem can also not be resolved by the part of the doctrine that wants the buyer to replace the losses because of a breach of faith, so the losses caused by the fact that the buyer did not at time resolve the error. The seller is not fully compensated because if the buyer would have told the seller about his error in advance no contract would have been closed, so the seller would have never received* g_e^s*. This opinion fits better into the general differentiation between damages caused by breach of trust and damages caused by non-fulfillment of the contract. Though one can criticize this differentiation, it can be explained by using the causality criteria, as the action of the buyer was not causal for the damage, so it follows general tort rules. So the second opinion should be preferred even though it is still not optimal.*

Taking a closer look on the interference of the two legal areas, we have to suppose first of all, that the obligation is a special one (so we either talk about used or unique performances)[61] so the defect can be rectified and that the defect coincides with a business error. If one follows the argument of Reischauer [2002] the adaptation of the contract by Art. 872 would lead to a rectification duty as the parties would have agreed upon a defect-less performance. It is doubtful that this argument holds true in general as if the buyer is able to prove that he would have accepted the defective performance at a lower price we would have the problem that either this was also in the sellers interest then the adaptation would lead to a reduction in price, or if not, the contract would be terminated. Neither leads to a rectification. However if this really matches the buyer's and seller's interests there is no need to avoid such an outcome. It is nothing else than a derivation of the complete contract. So in this case the law of error leads to a result that is preferable compared to the one derived by the Liability Law, as it allows the parties to adapt the contract according to their original interests.[62]

[61] Contracts of works/services are in general obligations in kind, therefore we also have a slight synchronization with Art. 933a.

[62] One may not forget, however, that it is hard to prove that the buyer really would have preferred a reduction in price, but may follow from the course of the negotiations. Take as example that the buyer wants a product with certain features at a price of p_1, the seller makes a counter offer with a product that has more features at price p_2, with $p_2 > p_1$. If now these additional features are either defect or not present (which coincides with a defect) the buyer will be able to argue that he would have bought it a price of p_1. So he would receive $p_2 - p_1$ as compensation, if the seller also accepts this payment, otherwise the contract is terminated. This result cannot be reached through the Liability Rules, as there the seller has the right to first rectify (which of course is only possible if the performance originally had the feature).

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Abstract

This thesis is focused on an economic analysis of the Austrian Defects Liability Law, which provides (non-mandatory) regulations about how to deal with defects of performances once they are transferred from the seller to the buyer. From an economic point of view the main task of such regulations must be to increase social welfare and thereby induce optimal incentives for contracting parties. The aim of the thesis at hand is to examine whether the regulation is able to fulfill the economic requirements. The economic benchmark therefore, is the complete contract provided by the interacting parties, given perfect information and absent transaction costs. The work is thus divided into four main parts.

Within the introduction it is shown that a state of nature in which defects liability rules exists, is consequently to be preferred over a state in which no such rules are provided by the legislator, even though both parties may be risk neutral, as the investment in quality and in search costs at the time of transfer would be inefficient. In addition, it is also shown that a regime under which the coverage of such liability rules, that is the coverage of defects which existed at the time of transfer, is expanded cannot be sustained because of the lack of information the legislator encounters.

The emphasize of the thesis is put on the second chapter. The rules, of the Defects Liability Law, are examined step by step to reveal possible economic distortions. At the end of this chapter a compilation of these different problems is provided and the main conclusion is that the current regulation is not sufficient to fulfill any of these two economic goals. Indeed the regulation is very likely to cause negative economic effects. It is, however, shown that this result can be avoided by changing two core rules of the Defects Liability Law: the system of the legal remedies, provided by Art. 932, and the right to take recourse. The failure of the primary regulation is that the buyer is granted the choice of the remedy, even though it can be shown that the seller, assumed that his costs are verifiable, is the superior party in choosing the remedies. It is sufficient to grant the buyer a right to alter the seller's decision against a compensation payment. It is however shown that the current legal situation, also because of the design of the Art. 932, does not imply as critical distortions as the second regulation. The current right to take recourse is the severest defect of the Liability Law itself, assessed from an economic point. It is not able to shift the costs to the party that initially caused them or could have influenced their occurrence. This party will, in general, be the producer. It in addition to that, business men who sell to consumers are forced to insure their buyers against the defects covered by the law, without adequate possibility to influence the probability and consequences of the defects if the seller is not the producer. So the law imposes an inefficient statutory insurance with the seller as insurer. This increases price but has no allocative impact. The solution to this problem would be to grant the seller full compensation against his predecessors until the party, which either caused our could have at least influenced the defects, is charged with all costs.

The third chapter is a review of interesting Supreme Court decisions and an economic analysis of the decisions made by the court. The conclusion is that the Austrian Supreme Court, even though presumably not for economical reasons, tends to find economically reasonable allocations and is indeed able to dampen some of the negative effects the law itself causes.

Chapter four of the thesis expands the focus beyond the Defects Liability Rules and therefore the interaction of warranty contracts and other legal remedies with the Liability Law is examined. The deduction is that the contractual expansion of the Liability Rules is desirable and indeed may lead to *pareto improvements* under certain circumstances. Furthermore, the law of damages and the challenge due to an error also have positive economic implications. Only the *Laesio Enormis*, in the prevailing interpretation, is capable of interfering with positive economic effects the Liability Rules might have.

Zusammenfassung

Die vorliegende Arbeit befasst sich mit einer ökonomischen Analyse des österreichischen Gewährleistungsrechts. Das (nicht zwingende) Gewährleistungsrecht regelt die Abhandlung von Mängeln einer Leistung zum Zeitpunkt der Übergabe. Die Hauptaufgabe einer solchen Regelung, von einem ökonomischen Standpunkt aus, wäre die Erhöhung der sozialen Wohlfahrt sowie die optimale Anreizgestaltung für die vertragsschließenden Parteien. Schwerpunkt der Arbeit ist es, das Gewährleistungsrecht genau auf diese zwei Ziele hin zu untersuchen. Die zur Gegenüberstellung verwendete ökonomische Zielgröße ist dabei der vollständige Vertrag, welchen die Parteien, gegeben vollständige Information und vernachlässigbare Transaktionskosten, geschlossen hätten. Die weitere Arbeit ist in 4 Teile untergliedert.

In der Einleitung wird gezeigt, dass ein Zustand mit einer Regelung, ähnlich dem Gewährleistungsrecht, dem Zustand ohne einer solchen Regelung vorzuziehen ist. Dies selbst unter der Annahme, dass beide Parteien risikoneutral sind, da die Qualität im Vergleich zum optimalen Level zu gering und die Suchkosten zum Zeitpunkt der Übergabe zu hoch sind. Es wird weiters gezeigt, dass eine Erweiterung der Gewährleistung über jene Mängel, welche zum Zeitpunkt der Übergabe zumindest angelegt waren, hinaus, aufgrund des Informationsproblems, welchem sich der Gesetzgeber gegenübersieht, ökonomisch nicht sinnvoll ist.

Im zweiten Kapitel, auf welchem der Fokus dieser Arbeit liegt, werden die Normen des Gewährleistungsrechts Stück für Stück untersucht, um mögliche negative oder unerwünschte ökonomische Effekte auszumachen. Am Ende des Kapitels wird versucht aus diesen Teilstücken eine allgemeine Schlussfolgerung abzuleiten, welche lautet, dass die derzeitige Regelung des Gewährleistungsrecht nicht in der Lage ist, die an sie gestellten ökonomischen Anforderungen zu erfüllen. Es ist sogar wahrscheinlich, dass das Gesetz negative ökonomische Konsequenzen hat. Dieses Ergebnis kann jedoch durch zwei Modifikationen im Gewährleistungsrecht vermieden werden. Einerseits ist das derzeitige System der Rechtsbehelfe, geregelt in § 932, anderseits das System des Rückgriffs zu ändern. Der Mangel der ersten Regelung liegt darin, dass der Käufer das Recht zur Wahl der Rechtsbehelfe hat. Es kann gezeigt werden, dass der Verkäufer der überlegene Entscheidungsträger ist, gegeben seine Kosten lassen sich verifizieren. Es ist ausreichend dem Käufer in diesem Fall ein Recht zur Abänderung des Rechtsbehelfs, gegen eine Ausgleichszahlung an den Verkäufer, zuzugestehen. Jedoch sind die negativen Konsequenzen des § 932, auch aufgrund seines speziellen Aufbaus begrenzt, im Gegensatz zu jenen des Rückgriffsrechts, welches wohl den schwerwiegendsten Mangel des geltenden Gewährleistungsrechts darstellt. Das Problem der geltenden Rechtslage ist, dass es nicht möglich ist, auf die verursachende bzw. die beeinflussende Partei – den Produzenten – die Kosten überzuwälzen. Darüber hinaus verfügt das geltende Konsumentenschutzrecht eine Zwangsversicherung des Konsumenten gegen Mängel, welche vom verkaufenden Unternehmer getragen werden muss. Diese erhöht zwar den Preis der Waren, kann aber keine positive allokative Wirkung entfalten, da es dem Verkäufer an den Möglichkeiten zur Beeinflussung der Mängel fehlt. Die einfache Lösung dieses Problems wäre eine vollständige Entschädigung des Verkäufers durch seinen Vormann, bis am Ende den Produzenten alle Kosten, verursacht durch jene Mängel welche er verursacht hat oder zumindest beeinflussen hätte können, treffen.

Das dritte Kapitel der Arbeit betrachtet einige interessante Fälle des Obersten Gerichtshof und unterzieht seine Entscheidungen einer ökonomischen Analyse. Die Schlussfolgerung ist, dass das Gericht, wenn auch nicht aufgrund ökonomischer Überlegungen, dazu tendiert, ökonomisch sinnvolle Lösungen zu finden, welche einige negative Konsequenzen des Gewährleistungsrechts zumindest abschwächen.

Das vierte und letzte Kapitel der Arbeit erweitert den Fokus über das Gewährleistungsrecht hinaus und untersucht das Zusammenspiel mit sowohl vertraglichen Garantien, als auch alternativen Rechtsbehelfen. Das Fazit ist, dass Garantien durchaus unter bestimmten Voraussetzungen im Zusammenspiel

mit dem Gewährleistungsrecht zu *Pareto Verbesserungen* führen können. Darüber hinaus haben auch das geltende Irrtumsrecht, sowie die schadenersatzrechtliche Erweiterung der Gewährleistungsnormen, § 933a, positive Auswirkungen. Jedoch ist auf der anderen Seite die *Laesio Enormis*, in ihrer herrschenden Auslegung, durchaus dazu in der Lage, die möglichen positiven Effekte der Gewährleistung zu stören.

Curriculum Vitae

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Name:	Josef Müllner, Bakk.
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Education

1994 – 1998	Volksschule Königstetten
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Since 2010	University of Vienna
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Professional Experience

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