An old topic in a modern world:

A comparative law and economics analysis of
bona fide acquisition of movables

Master Thesis by

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AUTHORSHIP DECLARATION

"I hereby declare and confirm that this thesis is entirely the result of my own work except where otherwise indicated. I acknowledge the supervision and guidance I have received from Dr. Martin Gelter. This thesis is not used as part of any other examination and has not yet been published."

August 15, 2011

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"Far better an approximate answer to the right question, which is often vague, than an exact answer to the wrong question, which can always be made precise."

John Tukey

1

1 INTRODUCTION

1.1 A classical topic in our modern world

The roots of the rules relating to the bona fide acquisition of movables go back to ancient times. Even if the topic is old, the problem of bona fide acquisition of movables is perpetual and new aspects can always come to light with the development. On the one hand, new forms of transactions may come into existence (e.g. e-commerce) and new types of goods can be created (e.g. immaterial goods as trade secrets, securities etc.). On the other hand, there are new scientific methodologies that can contribute to the analysis of certain legal problems. Law and economics showed that by applying the tools of economics to law, we can understand the functioning of legal rules much better and such insights can improve the effectiveness of laws. However, economics itself and the tools of economics are also subject to development and new methods and approaches can always come into being. Game theory, for instance, provided a useful methodology that helps to simplify complex situations and understand them through this modeling. Psychological findings can also assist economists to create better models and give more convincing explanations on economical phenomena. Such new approaches find their way to law and economics and go further in deepening our understanding of the operation of legal rules. Bona fide acquisition of movables is a classical but still a current topic, which is several thousand years old; consequently there is an extensive literature that covers this field of research. Despite the huge amount of the relevant literature, the new forms of transactions and the new types of properties set up new challenges, which must be answered by the regulations, if possible in an economically efficient manner. This need may justify new researches in this field.

which focus on the main question whether these challenges of our modern world require changes in the regulation of bona fide acquisition of movables or not.

In this thesis, I scrutinize this classical topic by applying approaches, which are not widely or expressly used in the literature and by considering some of the new challenges. The approaches that I offer in my paper are as follows: (i) examination of the information asymmetry in the course of the transactions; (ii) game theoretical approach; and (iii) some aspects of behavioral law and economics.

In the economic analysis, I place emphasis on the basic types of legal rules. These rules are the "original ownership rule"\(^3\) (in the legal literature it is often described as the "nemo plus iuris" principle\(^4\), which means that the purchaser must return the good to the original owner if the owner can prove that he lost the good wrongfully (e.g. it was stolen from him)\(^5\) and the "bona fide purchase rule"\(^6\), which is a rule favoring the purchaser if, at the time of the transaction, he believed on a solid basis that he acquires title from a person who is entitled to sell\(^7\). In some cases I make reference to a third type of rule, the "negligence rule", which was recently proposed by Schwartz and Scott\(^8\) and such rule permits the owner "to recover the goods only if she invested efficiently in care"\(^9\). Actually, this is a rule existing regarding the bona fide acquisition of movables only in theory but its theoretical curiosity and its "radical" nature justifies some attention to this third type of rule as well.

\(^3\) Shavell (2004), p.52. In the thesis, I use this term to describe this type of rule.

\(^4\) "Nemo plus iuris ad alium transferre potest, quam ipse haberet." (Ulpianus - D.50.17.54, In: Hamza-Kállay (1995), p.12) ["No one can transfer to another more rights than he himself has." The English translation is from Berger (1953), p.740]. A similar principle in Roman law was as follows: "Id, quod nostrum est, sine facto nostro ad alium transferri non potest." (Paulus - D.50.17.11, In: Hamza-Kállay (1995), p.6) ["What belongs to us cannot be transferred to another without an action of ours." The English translation is from Berger (1953), p.740]. In common law countries (especially in the UK), the same principle is often referred to as the "nemo dat rule" ("Nemo dat quod non habet.").

\(^5\) Shavell (2004), p.52

\(^6\) Shavell (2004), p.52. In the thesis, I use this term to describe this type of rule.

\(^7\) Cf. Shavell (2004), p.52. I use this rule in a stricter sense than Shavell does since his definition requires only a superficial investigation from the purchaser. My definition requires the fulfillment of a more objective good faith standard. Regarding the definition of good faith, see also Section 1.3.

\(^8\) Schwartz-Scott (2011)

The structure of my thesis is as follows. The thesis is divided into five sections: This Section 1 gives a short introduction to the topic and defines the limits of my work. In Section 2, I compare the applicable legal rules in some jurisdictions to have an overview about the different legal attitudes towards the bona fide acquisition of movables. Section 3 sets out the economic background and discusses some new approaches to the classical problem. In Section 4, I focus on some modern world phenomena in the light of the bona fide acquisition of movables. Finally, Section 5 draws the conclusion.

1.2 Path dependence of the bona fide acquisition of movables

Property rules are traditionally in the heart of civil law. This entails that property rules are important building blocks of private law systems, which developed step by step throughout history. This organic development may have two important implications: (i) history matters a lot in such a traditional area, and (ii) any reform or even slight modification may have (undesirable) side effects.

To assert that history matters seems trivial but if we further refine this assertion, we can see the path dependence of the bona fide acquisition rules. Path dependence is a very important notion in the law and economics literature. According to Hathaway, "path dependence means that an outcome or decision is shaped in specific and systematic ways by the historical path leading to it. It entails, in other words, a causal relationship between stages in a temporal sequence, with each stage strongly influencing the direction of the following stage." We must not overlook the importance of the historical path of development when we analyze the rules, even if we conclude that the applicable rules show inefficiencies in some respects. Therefore, changing the property rule for the "negligence rule" may seem to be more efficient but the realization of this proposal would be problematic in the organically developed legal environment.

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10 Cf. Liebowitz-Margolis (1999)
11 Hathaway (2001)
12 The legal origins literature gives also relevant arguments to this debate. See e.g. Garoupa-Gómez Ligüerre (2010).
1.3 Limitations

I do not cover the transfer of registered properties in this paper since if there is a publicly available official register of a given good (e.g. generally, this applies to real properties, cars, airplanes etc.), the acquirer has much easier task to collect information about the origin of the property from a reliable source and as a result, to prove that he/she acted in good faith (in such cases buyers can be regarded as the "least cost avoiders"\(^{13}\)). Consequently, I will focus on goods that are not recorded in public or private records\(^{14}\) (e.g. jewelry, bicycles etc.).

The assay of the meaning, development and economic efficiency of the concept of good faith (\textit{bona fide}) is also out of the scope of this thesis since this could be a separate topic. Good faith has different meaning in different jurisdictions and often, even within jurisdictions, the interpretation of the term "good faith" can vary from legal area to legal area (e.g. good faith may be used with diverse meanings in contract law and in property law).\(^{15}\) I use the term "good faith" (\textit{bona fide}) many times in my thesis in a general meaning where it covers the honesty of the buyer who acquires a good and believes on a solid basis that the good was transferred to him by its owner (i.e. he does not know and under the given circumstances, he should not know that the seller was not the owner).

I primarily scrutinize cases where the property is stolen and sold by the thief and I do not cover those cases where the seller gets the property from the owner but later he betrays the owner and sells the good (\textit{embezzlement}). The reason of this limitation is dual: (i) embezzlement requires a different perspective due to the fact that the control of the owner in choosing the person to be in possession of his property is much higher (some elements of the principal-agent relationship could be examined in this context); and (ii) there is almost a concordance in the literature that the "\textit{good faith purchase rule}" is more efficient in this case.\(^{16}\)

\(^{13}\) See e.g. Salomons (2009), p.16.
\(^{16}\) See e.g. Salomons (2009), pp.16-17.
A well-discussed area with special regulations and international treaties\textsuperscript{17} is the conflict of interests of original owners and good faith purchasers of art works and cultural heritage. Due to this, I do not give special attention to this issue.\textsuperscript{18}

The analysis does not embrace criminal law in this thesis, however, in reality criminal law has a lot to do with theft and consequently, the topic has aspects that are in strong connection with criminal law issues. For instance, the construction of rules relating to the bona fide acquisition of movables may depend on the magnitude of crimes against private property in a society (i.e. whether the rate of theft is low or high).

\textsuperscript{17} E.g. UNESCO Convention of 1970 and Directive 93/7/EEC
2 LEGAL BACKGROUND

Before discussing some aspects of the economics of bona fide acquisition of movables, I introduce some important jurisdictions to show real world examples of regulating this issue.

2.1 The role of law relating to the bona fide acquisition of movables

The main function of legal rules concerning the bona fide acquisition of movables is to allocate risk between two innocent parties since there is an owner whose chattels were stolen and there is a buyer who bought these chattels with good faith. In the course of risk allocation, legal rules should serve efficiency as far as possible.

2.2 Comparative legal analysis

2.2.1 Common law countries

2.2.1.1 English law

The development of English law in relation to the good faith acquisition of movables can be described by the often cited opinion of Lord Denning: "In the development of our law, two principles have striven for mastery. The first is the protection of property; no one can give a better title than he himself possesses. The second is for the protection of commercial transactions; the person who takes in good faith and for value without notice should get a better title. The first principles had held sway for a long time but it has been modified by the common law itself and by statute so as to meet the needs of our times."\(^{19}\)

The main source of the rules relating to the bona fide acquisition of movables can be found in the Sale of Goods Act 1979 (SGA). Section 21(1) of the SGA sets out relating to the sale by a person not the owner as the general rule that "[s]ubject to this Act, where goods are sold by a person who is not their owner, and who does not sell them under the authority or with the consent of the owner, the buyer acquires no better title to the goods than the seller had, unless the owner of the goods is by his conduct precluded from denying the seller’s authority to sell."

\(^{19}\) Bishopsgate Motor Finance Corporation vs. Transport Brakes Limited [1949] 1 KB 332
This general rule shows that the rules are based on the protection of original owners in English law (*nemo dat rule*) but the picture as the above quote from Lord Denning shows not so simple since English law contains numerous traditional exceptions under the general rule, which makes the regulation much balanced. The exceptions to the general *nemo dat rule* can arise both from statutory laws (from the SGA or from other statutory legislation) or from the common law.\(^{20}\)

The common law exception is the doctrine of estoppel, which is actually repeated in the second part of Section 21(1) of the SGA ("[...] unless the owner of the goods is by his conduct precluded from denying the seller’s authority to sell").\(^{21}\) This doctrine of estoppel means that if the owner assured the buyer that the seller has the right to transfer the title, the buyer can acquire the title despite of the fact that the seller was not the owner.

In addition to the estoppel exception, there are statutory exceptions to the *nemo dat rule*. The main statutory exceptions are as follows:

(i) *sale under voidable title*\(^{22}\): This means that the purchaser may acquire a good title if he acted in good faith and he did not know about the seller's defect of title. This exception applies only if the seller's title has not been avoided at the time when he sells the good to the buyer.

(ii) *seller in possession after sale*\(^{23}\): This exception applies if the owner sells the good two times. In this case the second buyer can also acquire the title if he acts with good faith and has no knowledge about the first sale.

(iii) *buyer in possession after sale*\(^{24}\): If the seller, who is in the possession of the good, has bought the good from the original owner or agreed to buy it but he has not become the owner yet (e.g. due to the retention of title by the original owner) and he sells it to a

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\(^{21}\) Atiyah-Adams-McQueen (2010), p.364

\(^{22}\) §23 of the SGA

\(^{23}\) §24 of the SGA

\(^{24}\) §25 of the SGA
good faith purchaser ("second buyer"), the good faith purchaser acquires the title of the
good if he has no notice of the rights of the original owner.

The SGA contained also the market-overt exception to the nemo dat rule but this
was repealed in 1994. In addition to the above exceptions enumerated in the SGA, there
are some other statutory exceptions like the purchase from a mercantile agent in Section
2(1) of the Factors Act.

2.2.1.2 U.S.

UCC §2-403(1) sets out that "[a] purchaser of goods acquires all title which his
transferor had or had power to transfer except that a purchaser of a limited interest
acquires rights only to the extent of the interest purchased. [...]". This is again an
appearance of the nemo dat rule, of course, UCC also contains exceptions to the general
rule. Such exceptions include the "voidable title rule"25 and the "entrustment rule"26.
The UCC never contained a market-overt exception27 but Gilmore, who was one of the
draftsmen of the UCC, argues that the definition of entrustment is very broad (it even
contains larceny), therefore buyers can acquire title in the ordinary course of business in
(maybe too) many cases.28

The US law does not apply the rules of adverse possession29 to movables but
there is a statute of limitations for filing an action to reclaim the property. The length of
this limitation period varies between jurisdictions within the US: "Every U.S. state has a
statute of limitations that is intended to cut off stale claims. Typically, the statutory
period for bringing such a claim is only two to six years."30

25 Cf. Second part of §2-403(1) of the UCC and e.g. Schwartz-Scott (2011), p.5
26 Cf. §2-403( 2)-(3) of the UCC and Schwartz-Scott (2011), pp.5-6
29 Prescription is also used in legal texts to describe this institution.
in the different states, visit http://www.nolo.com/legal-encyclopedia/statute-of-limitations-state-laws-
chart-29941.html[18-07-2011].
2.2.2 Civil law countries

2.2.2.1 Germany

Section 932(1) of the German Civil Code regulates the bona fide acquisition of chattels from a person not entitled to sell. This Section provides that the purchaser acted in good faith can acquire the title form a seller who did not have the right to transfer but had the good in his possession due to a delivery from the owner.\(^\text{31}\) Section 932(2) defines good faith (in German: "guter Glaube") when it sets out that the "purchaser is not in good faith if he is aware, or as a result of gross negligence he is not aware, that the thing does not belong to the seller". However, under German law, stolen goods cannot be acquired by the good faith purchaser unless if the purchase is effectuated at public auctions.\(^\text{32}\) Exceptions also include money and bearer instruments.\(^\text{33}\)

The minimum time period for adverse possession by good faith possessors is 10 years,\(^\text{34}\) which can be regarded as a relatively long period.

2.2.2.2 Austria

The respective Austrian rules favor the good faith purchaser if he acquired the good for counter value at a public auction or from merchant within the merchant’s ordinary course of business or in case of entrustment.\(^\text{35}\) This means that the most important element is the "source" of goods since if the good faith purchaser bought the good from a reliable source, he can remain the owner. It is also remarkable that there is no exception for stolen movables. Both Salomons and Huang categorize Austrian law as one of the most protective towards good faith purchasers.\(^\text{36}\)

\(^{31}\) This means that the seller shall acquire the good under §929 of the German Civil Code ("[…] the owner delivers the thing to the acquirer and both agree that ownership is to pass").

\(^{32}\) §935 of the German Civil Code. See also Schäfer-Ott (2004), pp.419 and 421.

\(^{33}\) §935(2) of the German Civil Code

\(^{34}\) §937 of the German Civil Code

\(^{35}\) §367 of the Austrian Civil Code. See also Salomons (2007), p.3.

\(^{36}\) Both authors regard Italian law as the most favorable to good faith purchasers and Austria is ranked as second in both comparisons. The respective laws of Portugal are deemed as the closest to the \textit{nemo plus iuris} principle among the examined European countries. See Salomons (2007), p.3 and Huang (2010), p.31.
As far as the time period necessary for adverse possession is concerned, Austrian law contains rules more favorable to good faith purchasers than German law does. The general time limit of adverse possession is 3 years.\(^{37}\)

2.2.2.3 Switzerland

Swiss law is worth mentioning shortly since in the Swiss Civil Code, there is a quite long period (5 years) until original owners have a right to reclaim goods. If the good was bought at a public auction or otherwise at the market or from a merchant who deals with such a good in his ordinary course of business, the purchase price shall be reimbursed to the good faith purchaser.\(^{38}\) This rule, which is not unique (there are similar rules in France, in Spain\(^{39}\) and in Hungary\(^{40}\) etc.), but the period seems to be one of the longest.

The necessary time limit for adverse possession of chattels is also 5 years in Switzerland.\(^{41}\)

2.2.2.4 Hungary

Hungarian rules relating to the bona fide acquisition of movables are close to the rules of the Austrian Civil Code but with the option of owners to reclaim their property under certain circumstances.

Section 117 of the Hungarian Civil Code declares that with exceptions stipulated by statutory laws, the ownership can be acquired only from the owner of the good. Section 118 creates the exception under the *nemo plus iuris* rule when it sets forth that a bona fide purchaser acquires ownership of a chattel, which has been sold in the course of commercial activity, even if the merchant was not the owner of the good. In addition to this, if the purchaser acquired the good for counter value from a person who possessed the good under entrustment but out of commercial circulation acquires also

\(^{37}\) §1466 of the Austrian Civil Code. There are some exceptions under this rule, e.g. if the original owner is the state (the time period is 6 years etc., see §1472 of the Austrian Civil Code).

\(^{38}\) §934 of the Swiss Civil Code. This period is maximum 30 years with respect to art works (§934(2)).


\(^{40}\) §118(2) of the Hungarian Civil Code

\(^{41}\) §728 of the Swiss Civil Code. The period is much longer (30 years) in case of objects of cultural heritage (§728(3) of the Swiss Civil Code).
the ownership but the owner may reclaim the good within one year of the initial acquisition by reimbursing the consideration. According to Section 120, good faith purchasers acquire ownership at public auctions as well. In case of cash or bearer securities, the good faith acquirer becomes the owner, even if the transferor was not the owner. Adverse possession of movables generally takes 10 years in Hungary.

There is an ongoing reform of the Hungarian Civil Code, which also affects the rules concerning the bona fide acquisition of movables. A new civil code was adopted by the Parliament in 2009 (Act CXX of 2009), which was later, without entering into force, repealed in 2010. Act CXX of 2009 did not change essentially the above rules. The Codification Committee is still working on a new draft of the civil code. The new draft has not published yet but the unofficial publication of the proposal prepared by the Codification Committee had been published in 2008\[42\], which contains a different concept on the regulation compared to the effective rules and to the rules of Act CXX of 2009. According to the Codification Committee's proposal, the good faith purchaser would acquire the ownership title over the property if the seller was not the owner except if the owner lost the possession of the good due to a criminal act. This means that a good faith purchaser would lose the ownership of the property bought within the commercial circulation (i.e. purchased from a dealer or at an auction) if the good had been stolen. If such proposal will be incorporated into the new civil code, this would go toward a laxity in protecting good faith purchasers.

### 2.2.3 Good faith acquisition of ownership in the DCFR

The Draft Common Frame of Reference (DCFR) is prepared by the Study Group on a European Civil Code. The Study Group involves scholars from several jurisdictions from the EU and it tries to give principles, which can serve as a common denominator in the approximation of laws within the Member States.\[43\] The differences and divergences in the rules relating to the bona fide acquisition of movables cause serious difficulties in legal enforcement if more jurisdictions are concerned.\[44\] Therefore, initiatives like the DCFR can provide a solid basis for legal harmonization among jurisdictions, which may help in solving cross-border cases more efficiently.

\[42\] Vékás (2008)


\[44\] Regarding this topic, see e.g. Reyhan (2001).
The DCFR contains a set of rules regarding the good faith acquisition through a person without right or authority to transfer ownership. According to such rules the good faith purchaser may acquire ownership from the seller who has no authority to transfer the title if certain conditions are fulfilled (e.g. the purchaser acquires the goods for value; he/she acts in good faith etc.). However, stolen goods cannot be acquired by the good faith purchaser, unless the purchaser acquired the goods from a transferor acting in the ordinary course of business. Good faith acquisition of stolen cultural objects is fully excluded.

The reference to stolen cultural objects is an important element in the legislation, which is not common in the main jurisdictions. This proposal is remarkable since the uniqueness of stolen cultural objects may justify their special treatment separated from other goods (mass products). However, the impossibility of acquiring stolen cultural objects may be regarded as a too rigid rule since acquisition at an auction organized by a professional auction hall could be an exception to the ban on transferring title. In such cases, the auction hall could investigate the origin of the art work before the auction takes place and the owner can suit the auction hall if it sold stolen art works.

2.3 Summary on the comparative legal analysis

The short presentation of the main rules concerning the bona fide acquisition of movables in some jurisdictions shows that legislators try to find the balance between the interests of original owners and good faith purchasers. In the majority of the cases, the reference point is the nemo plus iuris rule and different exceptions are applied in favor of good faith purchasers. Generally, good faith purchasers of stolen chattels are protected less compared to buyers of goods sold by a person who received it under embezzlement and in some cases, original owners have the right of reclaim, together with the reimbursement of the purchase price.

In the comparative legal analysis, I collected the terms of adverse possession or statute of limitations from some of the respective jurisdictions since the laxity in protecting good faith purchasers in the regulations relating to the good faith acquisition

45 Chapter 3: Good faith acquisition of ownership: VIII. – 3:101: Good faith acquisition through a person without right or authority to transfer ownership. For an economic analysis, see Salomons (2008). For a critical and comparative analysis of the respective rules of the DCFR, see van Vliet (2011).

46 Switzerland is an exception (see Section 2.2.2.3).
of movables may be compensated (mitigated) by shorter adverse possession or statute of limitations periods. In ancient Roman law, the \textit{nemo plus iuris} rule was applied together with a relatively short adverse possession period of one year.\textsuperscript{47} We cannot see such a strong connection between the two sets of rules today.\textsuperscript{48} This may show that these two problems are not handled together when legislation takes place. However, this may underline the importance of taking the internal connections of law into account in the course of making any amendment to the rules even if the amendment seems to be efficient at the first sight.

\textsuperscript{47} Földi-Hamza (1996), pp.324-326. See also the Institutes of Gaius, Book II, 42 (Gai.2, 42) available in English at \url{http://faculty.cua.edu/pennaoning/law508/roman%20law/GaiusInstitutesEnglish.htm#SECOND BOOK} [21-07-2011]. It is important that according to Gaius, the condition of usucaption (adverse possession/prescription) was that a buyer was in good faith and "believed that he who delivered it was the owner" (Gai.2, 43), i.e. there was a direct link between the \textit{nemo plus iuris} rule and the adverse possession of goods.

\textsuperscript{48} Cf. Salomons (2007), Figure on p.3, Salomons (2011)
3 ECONOMIC APPROACHES

In Section 2 above, I presented some jurisdictions to show some possible regulations of the bona fide acquisition of movables. In this Section, I turn to the economic analysis of the rules. My focus is on the basic types of rules ("original ownership rule", "bona fide purchase rule", "negligence rule")\(^49\) but in some cases I extend the explanations to some details of the existing regulations to provide a deeper analysis.

3.1 Summary of the related law and economics literature

In the related law and economics literature, the effects of the rules on purchasers' and owners' level of care are discussed from different perspectives. With respect to stolen goods, generally the rules protecting original owners are favored since higher deterrence effect is presumed.\(^50\) Certain types of transactions (e.g. sales at public auctions or at the market) are regarded as delicate since the security of trade can be ensured only if good faith purchasers are protected.

In the past few years, there are an increasing number of works that apply new models and offer much deeper analysis of the problem of bona fide acquisition of movables or, at least, in respect of some well-defined part of it. Due to the limitations in the length of the thesis, I cannot give a full introduction to the literature, but I feature some of the most important works of the recent years below.

Cooter and Ulen\(^51\) compare the costs of original owners to take precaution against theft and good faith purchasers in checking the title of the good to be purchased. If the costs of original owners are less, good faith purchasers shall be protected and vice versa. However, in the lack of empirical data, they do not commit themselves to any rule.\(^52\) Schäfer and Ott\(^53\) also focus on costs (information costs and monitoring costs)

\(^49\) See the definitions in Section 1.1.
\(^50\) See Shavell (2004), p.54. However, Shavell also emphasizes the limited effect of the choice of rule on the deterrence of theft. For examples in practice, see e.g. Section 21 of the SGA and Section 117 of the Hungarian Civil Code.
\(^51\) Cooter-Ulen (2007)
\(^52\) Cooter-Ulen (2007), p.160
\(^53\) Schäfer-Ott (2004)
and they find the ultimate goal in legal regulation of good faith acquisition of movables to find "the optimal use of resources". Salomons approaches to the problem from a comparative point of view and he tries to find a way to set a common denominator in regulating the bona fide acquisition of movables in Europe. He offers different approaches, among others, he uses the law and economics approach to analyze the problem. He concludes that in case of stolen goods, the optimal rule has not been found yet. Rose compares the "American rule" (this is actually the same as the "original ownership rule") and the "European rule" (equal to the "bona fide purchase rule") by applying game theoretical tools. He concludes that "an American rule of law Pareto dominates a European rule of law, as a potential buyer spends wasteful resources trying to verify the ownership and owners of goods incur higher costs in order to deter burglars from stealing their property." Schwartz and Scott attempt to rethink the laws of good faith purchase. The main novelty in their paper is the introduction of a "negligence rule", which according to their arguments, could produce a more efficient solution to the problem. Huang offers a new methodology in evaluating the efficiency of the rules and he also considers the social welfare effects of the different rules. Huang focuses "on the endogenous factors within a country" and the key elements in his paper are "the incentive of the thief (in this paper, it is called intermediary), the market power and the moral sentiments". Medina's article should also be mentioned since he made a very deep analysis of the market-overt rule, which is one of the most important exception under the nemo plus iuris principle and it is widely applied in different jurisdictions.

54 Schäfer-Ott (2004), p.419
55 Salomons (2007) and Salomons (2009)
56 Salomons (2009), pp.13-17
57 Salomons (2009), pp.17-18
58 Rose (2005)
59 Rose (2005), p.20
60 Schwartz-Scott (2011)
61 Schwartz-Scott (2011), Section III, from p.26
62 Huang (2010)
63 Huang (2010), p.6. Huang’s research on the endogenous factors may be linked to the path dependence of the rules (see Section 1.2).
64 Huang (2010), p.6
These findings are very valuable and help a lot to understand many aspects of the topic at hand but below I turn to approaches that may illuminate other (sometimes partial) aspects of the problem.

3.2 Information asymmetry

According to Akerlof, "[a]symmetric information occurs where buyers and sellers have different information. It has been present since the dawn of trade."\(^{66}\)

Asymmetric information is a topic, which at least as old as the bona fide acquisition of movables since both of them strongly connected to the existence of trade. It is astonishing that the theoretical analysis of the economic problems behind information asymmetry has only been started in the second half of the twentieth century.\(^{67}\)

The bona fide acquisition of movables can be examined on the basis of Akerlof’s lemon market theory\(^{68}\) since one party (the seller) always has superior information compared to the other party (the buyer). In this case, the seller (who can be a thief or a person who received the good lawfully from the owner but who is not entitled to sell the good, e.g. lessee) always knows whether he can give a good title or not (i.e. whether he is entitled to sell the good).

Akerlof demonstrates his theory with the example of the automobile market. At this market, the quality of cars is the distinctive factor where the problem of the existence of asymmetric information arises. In case of the bona fide acquisition of movables, the title to the respective goods can be regarded as the quality of such goods. In this sense, there are goods with "good title" (i.e. offered for sale by a person who is authorized to sell) and goods with "bad title" (i.e. offered for sale by a person who is not authorized to sell). If we stick to Akerlof’s example, we can say that there are cars to be

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\(^{67}\) “I wrote "The Market for 'Lemons,'" (a 13-page paper for which I was awarded the Prize in Economics) during my first year as assistant professor at Berkeley, in 1966-67. "Lemons" deals with a problem as old as markets themselves. It concerns how horse traders respond to the natural question: "if he wants to sell that horse, do I really want to buy it?" Such questioning is fundamental to the market for horses and used cars, but it is also at least minimally present in every market transaction. This is a personal story. I happened to be in the right place at the right time, and therefore was extraordinarily lucky to have been able to write the first theoretical paper on this topic.” Akerlof (2001), para.1-2

\(^{68}\) Akerlof (1970). This point is also made by Öhvall (2004), p.41.
offered for sale by their owners and there are cars marketed by non-owners. In this case, we should assume that buyers are not able to distinguish between these two types of cars. This is not a realistic assumption in case of the automobile market\textsuperscript{69} but at other markets where movables without registration system are traded (e.g. bicycles), the theory can be easily applied without unrealistic assumptions or limitations.

In many cases, buyers cannot really check the origin of goods and therefore they can only rely on "market statistic to judge the quality of prospective purchases"\textsuperscript{70} or other methods of appraising the quality of goods or the reliability of sellers\textsuperscript{71}. The "lemon market" mechanism start to work: sellers will market goods with "bad title" (i.e. stolen goods) since they can expect that buyers will decide on the purchase of goods and on the acceptable price on the basis of the available statistics and not on the basis of the characteristics of the given goods. "As a result there tends to be a reduction in the average quality of goods and also in the size of the market."\textsuperscript{72} The reduction in the average quality means that there will be more and more goods with "bad title" at the market. The owners who can transfer "good title" will stay away from the market. The goods with "bad title" can drive out the goods with "good title" from the market.\textsuperscript{73}

The application of Akerlof's theory seems to be a very good theoretical framework to the problem of information asymmetry in the bona fide purchase transactions. The collapse of markets may be rare (I think this result is also very exceptional even at the markets where Akerlof originally described his theory) but partial market failures can occur more often. For instance, in case of e-commerce, it is possible that if there is a high number of stolen goods at the e-market and it will be discovered sooner or later, a lot of potential buyer may leave the e-market to avoid the potential risk and use the regular markets instead of e-markets since at such markets may be easier to check the origin of goods.

\textsuperscript{69} The automobile market is not a perfect example in our case since generally, there is a registration system of cars where the buyers can check the title to cars before the transaction is concluded.

\textsuperscript{70} Akerlof (1970), p.488

\textsuperscript{71} The different types of evaluation and categorization of sellers at the e-market is a very good example. See Section 4.1.4.

\textsuperscript{72} Akerlof (1970), p.488

\textsuperscript{73} Akerlof (1970), p.489-490
3.3 Game theoretical approach

When we examine the possible actions of owners and buyers in the framework of the bona fide acquisition of movables, we can regard this situation as a game. Of course, this approach may have serious limitations in the sense that the players (owners and buyers) may ignore the effects of their steps on the other party (and on the society as a whole). In such cases, this approach cannot be applied.\(^{74}\) However, we can assume that in many cases (especially if the chattels concerned have significant value), the parties take each others' steps and the incentives laid down in the legal rules into account. This means that owners make their precautions with respect to the fact whether the buyers' willingness to buy stolen goods at the respective market is high or low. If there is a market where a high number of buyers do not care about the title of goods, owners will take this into consideration and they must take the necessary steps to protect their chattels since there is an incentive for thieves to market stolen goods. Owners shall also take more precautions if the legal rules favor buyers (e.g. if there is a market-overt rule, which protects good faith purchasers). On the other side, buyers will take owners' steps into consideration (i.e. whether owners search extensively for stolen goods or not, e.g. in case of valuable pieces of art, owners will probably spend more on search) when they decide on the efforts to acquire information about the origin of goods to be purchased (i.e. whether the title is "bad" or "good").

If we accept that owners and buyers are the players in a game and we can examine the situation with game theoretical tools, this game theoretical approach can help us to "simplify situations enough to show the key forces at work".\(^{75}\) I focus only on the key factors here with strong (implied) assumptions and with relaxing some of these assumptions, a more complex model can be created.\(^{76}\)

3.3.1 About the game - the rules of the game

The "bona fide acquisition of movables game" can be demonstrated as a non-cooperative and non-zero-sum game. It is non-cooperative since the players are not in

\(^{74}\) Cf. Rasmusen (2005), p.9

\(^{75}\) Rasmusen (2006), p.3

\(^{76}\) For a complex and more abstract game theoretical analysis, see Huang (2010). See also Rose (2005).
touch with each other and they cannot conclude binding agreements. They must decide on their actions independently from each other.

To use a standard terminology, I take the elements of the game (the rules of the game) in accordance with Rasmusen's description. The main elements are: "players, actions, payoffs, and information". The players are, as mentioned above, owners and buyers. Owners' action set include the possibility of the owner to decide whether to take precaution (e.g. to install an alarm system or a special lock, to hire guards or to buy a watchdog etc.) or not (or take low or high level of precaution). Buyers' action set covers the possibilities to collect information about the origin of the respective goods (i.e. to check the title in order to be a good faith purchaser) or not.

The payoffs of the players reflect to the utility that the players can get from the game. In the "bona fide acquisition of movables game", the payoffs depend on the value of the good, the costs of precaution on the owners' side and the cost of gathering information on the buyers' side. I categorized the game as a non-zero-sum game. "A zero-sum game is a game in which the sum of the payoffs of all the players is zero whatever strategies they choose. A game which is not zero-sum is nonzero-sum game or...

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77 Rasmusen defines cooperative and non-cooperative games as follows: "A cooperative game is a game in which the players can make binding commitments, as opposed to a non-cooperative game, in which they cannot." (Rasmusen (2005), p.21)
78 Rasmusen (2005), p.10
79 Rasmusen (2005), p.10
80 Actually, games may also exist between owners and sellers and between sellers and buyers. However, as the laws regarding the bona fide acquisition of movables focus on owners and buyers and such laws provide incentives to these parties, I also focus on them in the course of describing the possible games.
81 To keep the analysis simple, I handle this as a binary choice (i.e. precaution "yes" or "no" or low level of precaution vs. high level of precaution). Of course, in reality, the choice is continuous in the sense that owners can choose a given level of precaution between no precaution and "full" precaution. This can be a critical aspect of game theoretical approach. Ayres describes this as follows: "[...] the discontinuous nature of game theory models might signal that the models offer weak predictions of human behavior." (Ayres (1990), p.1314)
82 I also handle this as a binary choice (i.e. collecting (enough) information "yes" or "no"). See also supra note 81.
83 Rasmusen (2005), p.11
84 The value of the good means a market value here since the subjective value cannot be verified objectively. Cf. Section 3.4.2
In this game, one player can keep the title to the good (either the owner or the buyer depending on the applicable laws). In this sense, we could say that the sum of the loss on the one side and the gain on the other side is zero. However, if we take the costs of precaution and the costs of information into account, the payoffs for the different players will not be identical. To have a more realistic picture, we must also include such costs into the payoffs of the game since the parties make their decisions on the basis of this information as well.

As regards the information, players must be informed on the applicable legal rules. This assumption about well-informed parties is essential in a law and economics analysis, otherwise the incentives cannot work. We must assume that the players react also to the legal rules by choosing their actions. In addition, it is also possible that the players have some information about other market conditions (e.g. the percentage of stolen goods at the market or the willingness of buyers to buy goods with "bad title" etc.), which are probably in connection with the legal environment. Therefore, we can regard such information as part of the parties' knowledge about the legal environment.

### 3.3.2 Strategies

Depending on the nature of the laws on good faith purchase (i.e. whether owners or good faith purchasers are favored by the rules), parties may be induced to follow different strategies. Strategies of the players "are unobservable" but legal rules relating to the bona fide acquisition of movables have an effect on the strategies of the parties and they will decide on their actions on the basis of the strategies induced by the prevailing laws.

The possible strategies may vary from applicable law to applicable law. It is not possible to examine all possible rules here that can govern the bona fide acquisition of movables but we can shortly discuss the basic types of rules and this can give us the model how the analysis can be conducted with respect to other type of rules,

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85 Rasmusen (2005), p.25
86 In Section 3.3.3, I demonstrate this with a numerical example.
87 “Player i’s strategy is a rule that tells him which action to choose at each instant of the game, given his information set.” (Rasmusen (2005), p.16)
88 Rasmusen (2005), p.16
One of the basic regulations regarding the bona fide acquisition of movables is the "original ownership rule". If the "original ownership rule" applies, the dominant strategy of owners can be to show less precaution (or in the extreme, no precaution) since they cannot lose the title (i.e. irrespectively to the fact that the good was transferred to a third party by a seller, who had no entitlement to transfer the good, the third party could not acquire the ownership title to the good). In such case, buyers' best response can be to collect more information before purchasing the good because they have to bear the costs of "bad title". This means that if they buy stolen goods, they will lose the purchase price and the good itself as well. They can only avoid such consequences if they are more cautious. Shavell argues that the "original ownership rule" can be superior compared to the "bona fide purchase rule" since it can reduce theft and he does not really accept the argument that the "original ownership rule" hampers trade. However, as we can see from the game theoretical model, under this rule, buyers can waste a lot of resources on checking the title to protect themselves even if it is cheaper for owners to protect their property.

In case of the application of the "bona fide purchase rule", buyers' dominant strategy is to collect information on the origin of goods since this is necessary for them to acquire the ownership over the good (if they act with good faith, they always acquire the title). The best response of owners is to take precaution because if the good is stolen from them, they will lose their title and they as rational players will know this. This rule can incite both parties to take more care. The concept of good faith can reduce the waste of resources on the level of society since resources may be moved from socially unproductive actions (theft) to productive actions.

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89 See the definition in Section 1.1. See also Rose (2005), pp.12-15.
90 This implies the assumption that owners have real chance to get their property back (i.e. the property can be found). This assumption may be a critical element of this model (see Section 3.3.3 below). In addition to this, the possibility of acquiring title through adverse possession is put aside here.
91 Shavell (2004), p.52
92 Shavell (2004), p.54
93 Actually, this argument is even amplified by Shavell's comment that both rules have limited effects on reducing theft (see Shavell (2004), p.54).
94 See the definition in Section 1.1. See also Rose (2005), pp.15-20.
The third type of the rules is the "negligence rule"\textsuperscript{95}, which provides incentives to owners to take care since otherwise they will lose the title. Owners' dominant strategy is to take care and buyers can assume that owners are non-negligent and their best response is to gather more information on the title to avoid situations where they lose the goods towards diligent (non-negligent) original owners.\textsuperscript{96}

### 3.3.3 A numerical example

I illustrate the parties' possible actions under different types of rules with a numerical example. As in case of such examples, the values used are arbitrary, however, they represent proportions, which can appear also in real life. The numerical example is based on Shavell's example used to demonstrate the mechanism of different types of rules in the bilateral accidents model.\textsuperscript{97} This example can serve as a very good basis for my numerical example since as in Shavell's bilateral accident model, both parties can have influence on the probability of theft (owners can decrease this probability by taking more precaution and buyers can reduce the incentives for thieves if they act more carefully and try to check the title before purchasing goods) and the effective legal rules shall give incentives to both parties to achieve the best outcome, which corresponds to the less social cost.

\textsuperscript{95} See the definition in Section 1.1.

\textsuperscript{96} Schwartz and Scott argue that buyers "invest too little in checking title because the owner may not find him" (Schwartz-Scott (2011), pp.28-29). In my model, this aspect is not scrutinized but it is assumed that there is a high level of discovery of stolen goods. See below in this Section. This assumption can become realistic with technical development (see e.g. Section 4.1.3).

\textsuperscript{97} Shavell (2004), Chapter 8, p.183
Below, I apply the above numerical example to (i) the "original ownership rule", (ii) the "bona fide purchase rule", and (iii) the "negligence rule".

In this numerical example, for the sake of simplicity, I use the assumption that there is a 100% discovery level of stolen goods, which may be regarded as fully unrealistic. However, such an assumption can be justified, on the one side, by the fact that the discovery rate is a given fact and it is not really affected by the type of the bona fide acquisition of movables rule102 (i.e. other factors as the effectiveness of public enforcement are much more important in this respect) and on the other side, by the argument that a low rate of discovery probably destroys purchasers' incentives to take care (i.e. to collect information about the origin of goods) since they cannot lose the possession and in many cases, they do not care about the factual ownership.103 By assuming a high rate of discovery (in this example, it is 100%), we can focus on the effects of the regulation on the bona fide acquisition of movables and we can put the

<table>
<thead>
<tr>
<th>Level of care</th>
<th>Cost of care</th>
<th>Theft probability</th>
<th>Value of the good</th>
<th>Expected theft cost</th>
<th>Social cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner</td>
<td>Buyer</td>
<td>Owner</td>
<td>Buyer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>None</td>
<td>0</td>
<td>0</td>
<td>0.15</td>
<td>100</td>
</tr>
<tr>
<td>None</td>
<td>Care</td>
<td>0</td>
<td>2</td>
<td>0.12</td>
<td>100</td>
</tr>
<tr>
<td>Care</td>
<td>None</td>
<td>3</td>
<td>0</td>
<td>0.10</td>
<td>100</td>
</tr>
<tr>
<td>Care</td>
<td>Care</td>
<td>3</td>
<td>2</td>
<td>0.06</td>
<td>100</td>
</tr>
</tbody>
</table>

98 In this example, I handle the level of care as a binary choice: care "yes" or "no" (see supra notes 81 and 82). In case of owners, care means precaution and with respect to buyers, it means that buyers collect sufficient information about the title or not.

99 Cost of care means the amounts that a respective party spends to take precaution or to gather information. This amount is zero if there is no care (see supra note 98). I assume here that the costs of precaution are higher than the costs of collecting information. If we slightly change the numbers (e.g. the costs of care for owners is 2 and the cost of care for buyers is 3), the outcome will be the same. The ratio between the costs of care and the value of the movable seems to be the essential element in this case.

100 The numbers are arbitrary again but it is important to note that the probability of theft is in line with the parties' level of care (i.e. no care means higher probability of theft, care by both parties means the lowest probability of theft), which can be regarded as a realistic assumption.

101 Social cost = Costs of care + expected theft cost

102 Cf. Shavell's argument on the limited deterrence effects of both types of rules (see supra note 93).

103 Cf. Section 3.4.2
effectiveness of criminal law, public enforcement and any other factors (e.g. moral standards in a community etc.) aside.

(i) "Original ownership rule"

I start the analysis with the classical rule where owners have a very strong position. The matrix of the game looks like as follows:  

<table>
<thead>
<tr>
<th></th>
<th>Buyer (information)</th>
<th>Buyer (no information)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Care (precaution)</td>
<td>-3, -8</td>
<td>-3, -10</td>
</tr>
<tr>
<td>No care (no precaution)</td>
<td>0, -14</td>
<td>0, -15</td>
</tr>
</tbody>
</table>

As I discussed in Section 3.3.2, owners' dominant strategy is to take "no care" since they do not want to spend on precaution under a legal regime where they can keep the title without any care. The best response of buyers is "care" because they can reduce their loss by purchasing as few stolen goods as possible. We end up in \{No care, Care\}={0,-14}, which is socially inefficient.

104 The payoffs are calculated from the table above as follows: if owners take precaution they can keep the title and they spend the costs of care (-3). If owners take no care, they have no cost of care but they also can keep the title to the good. At the same time, buyers lose the goods (i.e. they bear the expected theft cost: -6, -10, -12, -15 respectively, provided that the discovery rate is 100%) and if they collect information, they also spend the cost of care (-2). This means that buyers' loss is equal to the expected theft cost in case of no care and the sum of the expected theft cost plus the cost of care if they spend on collecting information. Similar calculation method applies to the matrixes of the "bona fide purchase rule" and to the "negligence rule" as well.

105 In Rose's model, under an "original ownership rule" ("American rule" in his paper), buyers avoid to incur costs to check the origin of the good (Rose (2005), p.15). However, one can argue that this model does not sufficiently take the discovery of stolen goods into account. This proposition of Rose (Rose (2005), p.15) regarding the "American rule" (i.e. that buyers do not spend resources to check the title) is also in contrary with Shavell's reasoning where the same rule is deemed as a rule, which gives incentives to buyers to discover if the goods are stolen (Shavell (2004), p.54).
(ii) "Bona fide purchase rule"

<table>
<thead>
<tr>
<th>Buyer</th>
<th>Care (information)</th>
<th>No care (no information)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Care (precaution)</td>
<td>-9, -2</td>
<td>-3, -10</td>
</tr>
<tr>
<td>No care (no precaution)</td>
<td>-12, -2</td>
<td>0, -15</td>
</tr>
</tbody>
</table>

The situation changed here since buyers are always incited to collect information (because without this, they cannot prove that they acted in good faith). As there is a high risk for owners to lose title, they will respond to buyers' dominant "care" strategy also with "care" strategy. The outcome is \{Care, Care\}=\{-9,-2\}, which is socially efficient.

(iii) "Negligence rule"

This third type of rule represents a new concept in regulating the bona fide acquisition of movables. This type of rule focuses on owners.

<table>
<thead>
<tr>
<th>Buyer</th>
<th>Care (information)</th>
<th>No care (no information)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Care (precaution)</td>
<td>-3, -8</td>
<td>-3, -10</td>
</tr>
<tr>
<td>No care (no precaution)</td>
<td>-12, -2</td>
<td>-15, 0</td>
</tr>
</tbody>
</table>

Owners' dominant strategy is "care" since otherwise they are deemed as negligent and they will lose the title. On the other side, buyers can respond with "care" in order to avoid the purchase of stolen goods, the title of which cannot be acquired because of the fact that the owner was not negligent. The outcome is also \{Care, Care\}=\{-3,-8\}, which is efficient as well.
(iv) Summary

On the basis of the numerical example, we can see that both the "bona fide purchase rule" and the "negligence rule" can lead to socially efficient outcomes and they can be superior to the "original ownership rule" at least under the strong assumption of a very high rate of discovery. This result is conflicting with the reasoning of Shavell\textsuperscript{106}, however, as I argued above, strong arguments are in favor of the "bona fide purchase rule" compared to the "original ownership rule"\textsuperscript{107}. It must be noted that if the discovery rate of stolen goods is very low, such incentives cannot work with full force in reality.\textsuperscript{108} However, we must not forget about Shavell's remark on the limited deterrence effects of the different rules.\textsuperscript{109}

I must add that Rose draws partly different conclusions in his paper\textsuperscript{110} and he argues that the "original ownership rule" ("American rule" in his terminology) is superior to the "bona fide purchase rule" ("European rule" in his paper) since the latter leads to the waste of resources.\textsuperscript{111} However, he concludes without placing the issue into a wider context (e.g. the issues relating to the protection of trade etc.) and hence, a simplified game theoretical model can be misleading.

As far as the "negligence rule" is concerned, the game theoretical model can be interpreted that it supports the arguments of Schwartz and Scott. However, we must keep the path dependence\textsuperscript{112} of the rules in mind and my main argument against the "negligence rule" is that its practical applicability is lower than the applicability of the "bona fide purchase rule" since it lacks clarity and predictability. If the "negligence rule" is too general, it goes without predictability.\textsuperscript{113} If it is detailed enough, it dispenses

\textsuperscript{106} Shavell (2004), p.54
\textsuperscript{107} See Section 3.3.2.
\textsuperscript{108} Criminal law and public enforcement play important roles since these can have more suitable means to achieve a higher rate of discovery than the "private" efforts of original owners.
\textsuperscript{109} See supra note 93.
\textsuperscript{110} Rose (2005), p.15 and p.20. See supra note 105.
\textsuperscript{111} Rose (2005), p.20
\textsuperscript{112} See Section 1.2.
\textsuperscript{113} Predictability is very important since if there is uncertainty regarding the applicable standards, it may cause information problem and increase the costs of the owner to have reliable information on the standards that he must meet. We can refer to Ogus' argument concerning "the implications of a regulatory standard with zero-sum consequences" (Ogus (1998), p.60), which can be applied as an analogue here
with clarity. In case of the "bona fide purchase rule", if purchasers fulfill the requirements of good faith (i.e. they meet the standards), they can be certain about their ownership, while in case of the "negligence rule", purchasers are not aware of the fact whether owners were negligent or not. This may cause additional uncertainty and goes against predictability.

3.3.4 Conclusions of the game theoretical modeling

Game theoretical modeling can be useful to give us a clearer picture on the most essential elements of the respective laws but we must be careful about the conclusions since the assumptions may have significant effects on the outcomes.

An interesting point can be that players can learn from their previous games. The nature of the "bona fide acquisition of movables game" is that given players do not play repeated games with each other. Nevertheless, players can use their experience in their next games with another players and this learning process may lead to better outcomes.

3.4 Behavioral law and economics aspects

3.4.1 Introductory remarks to behavioral economics

In the past few decades, behavioral economics developed into a well-discussed field of economics where a lot of results from psychology were used in order to explain since the owner can keep the title if he complies with the required level of care but he loses the title if he is below this level. An "uncertainty as to the standard creates and incentive for excessive care" (Ogus (1998), p.60 refers to Craswell-Calfee (1986)).

Another contra argument against the "negligence rule" is that the regulation regarding the acquisition of ownership is in the heart of civil law and this change of the whole concept does not take into account that this rule has strong connections with other property rules (e.g. rules relating to adverse possession).

It is very unlikely under normal circumstances that a buyer repeatedly purchases goods stolen from the same owner. "Repeatedly" is an important element here since it is possible that a buyer purchases several goods, which were stolen from the same owner but if it is done at one time, this shall be regarded as the same "game". Of course, examples can be found to the contrary but from some extent such examples become unrealistic.

For example, the owners, who lost their goods because of theft, will probably be more cautious in the future and those buyers, who bought stolen goods and must have returned them, will investigate the origin of goods in the course of their later purchases much more carefully.
human behavior more precisely. Rationality, which is the basic assumption of classical economics, is often criticized as unrealistic. As Korobkin and Ulen describe, "[t]here is simply too much credible experimental evidence that individuals frequently act in ways that are incompatible with the assumptions of rational choice theory."\textsuperscript{117} Behavioral economics can help to relax this assumption and to achieve more reliable results. Posner, in his article commenting on Jolls, Sunstein and Thaler's paper\textsuperscript{118}, uses a negative definition of behavioral economics: "It is economics minus the assumption that people are rational maximizers of their satisfactions."\textsuperscript{119} These developments in behavioral economics can be used in law and economics as well to reach better understanding on the operation of legal rules.

From the results of behavioral economics, the concepts of loss aversion and endowment effect may have relevance in respect of the bona fide acquisition of movables.

3.4.2 Endowment effect and loss aversion

Kahneman, Knetsch and Thaler define endowment effect as "the fact that people often demand much more to give up an object than they would be willing to pay to acquire it."\textsuperscript{120} Experiments showed significant difference between the willingness-to-pay (WTP) and the willingness-to-accept (WTA). According to the results, the WTP is much greater than the WTA.\textsuperscript{121} The endowment effect is generally explained as the appearance of loss aversion, which occurs when "the disutility of giving up an object is greater that the utility associated with acquiring it,"\textsuperscript{122} i.e. "losses loom larger than corresponding gains."\textsuperscript{123}

Reference dependence is an important basis of loss aversion and endowment effect. Reference dependence means that "the carriers of value are gains and losses

\textsuperscript{117} Korobkin-Ulen (2000), p.1055
\textsuperscript{118} Jolls-Sunstein-Thaler (1998)
\textsuperscript{119} Posner (1998), p.1951
\textsuperscript{120} Kahneman-Knetsch-Thaler (1991), p.194
\textsuperscript{121} For a summary of such result, see e.g. Curran (1999), p.820, Kahneman-Knetsch-Thaler (1990) and Kahneman-Knetsch-Thaler (1991), pp.194-197.
\textsuperscript{122} Kahneman-Knetsch-Thaler (1991), p.194
\textsuperscript{123} Tversky-Kahneman (1991), p.1039
defined relative to a reference point\textsuperscript{124}. This suggests a starting point, which is contrary to the classical economic theory's assumption that preferences are not dependent on the characteristics of the given situation.\textsuperscript{125}

Relating to the bona fide acquisition of movables, the reference dependence of the situation may have importance in assessing the respective rules. The owner is out of possession, he lost his chattel and in many cases, he has no real chance to get it back. At the same time, the buyer just bought a good from a seller who was supposed to be the true owner of the purchased good and the buyer can reasonably think that he acquired good title to the chattel. In such a situation, legal rules that try to restore the status quo may cause gains to owners and losses to buyers. On the other hand, laws that favor buyers who can keep the good and preserve the changed situation do not cause further losses and gains compared to the reference levels of the parties. Such outcomes of the different legal rules can be evaluated with the application of the concepts of loss aversion and endowment effect.

If we apply the experimental results on endowment effect to the bona fide acquisition of movables, there can be a significant difference between the WTP and the WTA on buyers' side. In this case, the WTP can be the market value, i.e. the value of the good that the buyer has paid at the time of the transaction. However, the WTA is a subjective value, which contains the additional value, which comes from the psychological aspect of being in possession. The experiments have not clarified the exact mechanism behind endowment effect yet but some recent studies showed that the actual ownership matters and not the expectations.\textsuperscript{126} Reb and Connolly concluded that feelings of ownership generated by actual possession of the good (instead of the factual ownership) matters a lot.\textsuperscript{127} These results can also support the protection of the good faith purchasers' position since it is illuminated that the monetary value attached to the good is increased by the possession and in case of the bona fide acquisition of movables, the possessors are the buyers.

\begin{itemize}
\item \textsuperscript{124} Tversky-Kahneman (1991), p.1039
\item \textsuperscript{126} Heffetz-List (2011), p.6
\item \textsuperscript{127} Reb-Connolly (2007), pp.109-110 and p.112
\end{itemize}
If endowment effect comes into play, the WTA is higher than the WTP.\textsuperscript{128} As soon as the buyer is in possession, he will "increase" the value of the good, which means that his subjective value attached to the good will be above the market value.\textsuperscript{129} We could argue that as the original owner is out of possession, psychological mechanisms (e.g. adaptation) may help him to mitigate his loss\textsuperscript{130} (of course, there may exist exceptions, especially if the owner has a special affection for the good, i.e. "pretium affectionis") but the buyer, who is in possession, is endowed by the good and due to the loss aversion, he suffers a higher loss than the gain of the owner who gets the good back. Such argumentation can be proved realistic in the majority of the cases since the owner, who lost the chattel, probably replaced it or found a substitute for it and in his valuation it is closer to the market value than in the valuation of the buyer, which contains the endowment element. This is even supported by the fact that the experiments relating to the endowment effect are done with coffee mugs, chocolate bars, and pens etc.,\textsuperscript{131} which are among those types of goods that are subject to the rules of bona fide acquisition of movables.

In some legal systems, original owners have the right to repurchase the stolen goods from good faith purchasers within a certain period of time,\textsuperscript{132} generally with the reimbursement of the purchase price.\textsuperscript{133} Theoretically, such rules protect good faith purchasers since they get the purchase price back and this should mean that there is no loss on their side while the owners shall pay the purchase price to the purchasers to get their property back.\textsuperscript{134} However, if we take endowment effect into consideration, the WTA of buyers is higher than the WTP (i.e. the price formerly paid for the good) and

\textsuperscript{128} Curran (1999), p.819

\textsuperscript{129} Öhvall applies the distinction between subjective and objective values and makes a cut between homogeneous and heterogeneous goods saying that the difference between these values is relevant mainly in case of heterogeneous goods. On the basis of the empirical evidences presented here (e.g. experiments with mugs), the boundary may be blurred between the two categories. (Öhvall (2004), pp.38-40)

\textsuperscript{130} For example, if a bicycle is stolen from the owner, he may mitigate his losses to collect the negative attributions of his bike in mind (e.g. that it was old and its painting was frayed etc.).

\textsuperscript{131} See e.g. Kahneman-Knetsch-Thaler (1991).

\textsuperscript{132} In Switzerland: 5 years (§934 of the Swiss Civil Code), in Hungary: 1 year (§118 of the Hungarian Civil Code).

\textsuperscript{133} See e.g. §118(2) of the Hungarian Civil Code.

\textsuperscript{134} He can claim this amount from the seller but in reality there is very little chance for him to get this amount back.
hence, they can suffer a significant loss since they are only compensated for the WTP and not for the WTA (i.e. buyer's subjective value attached to the good after a period of possession). This shows that such kind of rule may have double inefficiency since both parties suffer losses even if such loss in case of buyers is partly psychological. If we apply the basic argument in law and economics that property should end up with the party who values it more, we can see that in many cases the possibility of repurchase may be contrary to this principle, however, it can serve fairness in the sense that it divides the losses between two innocent parties.

It could be a solution if the right of repurchase by owners would be excluded since the owner should buy the good at the market for the market price and in this case we can avoid the difference between the buyers' WTA and WTP (i.e. the subjective value and the market value). It is important to note that the application of the WTA instead of the WTP in case of repurchase would trigger extreme burden of proof since the WTA is a subjective value, which is known only by buyers and consequently, the practical applicability of such a system would be very low. If the right of repurchase is not excluded, it should be limited to a short period of time since experiments also showed that loss aversion develops over time, i.e. within a shorter period of time the (psychological) loss of buyers would be smaller.

Hanemann's neoclassical explanation for endowment effect, as referred to by Curran, can also be very interesting for us in relation to the bona fide acquisition of movables, and especially relating to the right of repurchase: "[...] the size of this difference depends on the elasticity of substitution of the indifference curves - the more inelastic the indifference curves are, the larger is the spread between the WTA and the WTP. Put another way, the less substitutable a good is with money, the larger will be

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135 According to the experiments, the selling prices can be twice the buying prices (see e.g. Kahneman-Knetch-Thaler (1991), p.196).
136 "[...] law should allocate property rights to the party who values them the most" (Normative Hobbes Theorem, Cooter-Ulen (2007), p.98).
137 A contra argument could be that the market value for the owner can be higher than the repurchase amount if the buyer bought the good for a very low price (since it was a stolen good) but in this case, the buyer's good faith can be queried and as a consequence, the owner would not lose his title.
139 See e.g. Novemsky-Kahneman (2005), p.120.
the endowment effect"\textsuperscript{140}. This explanation indicates that buyers probably suffer the larger (psychological) loss in case of special goods that are not available at all or are available in limited quantity at the market since these are less substitutable for money. The exclusion of repurchase seems unfair towards owners since they cannot replace the good at the market and in such cases, the owners’ subjective value is probably over the market value as well. Nevertheless, in cases of transactions relating to special goods (e.g. pieces of art or jewelry), the good faith of buyers may be queried. We must also note that the law shall allocate the risk of the lost of the good between two "innocent" parties, i.e. between an owner, whose property was stolen and a good faith purchaser. An alternative possibility could be that the owners' right of repurchase is strictly limited to those chattels that are not available at the market (i.e. there is no market at all). In this case, the loss of buyers due to the endowment effect would be at least limited to a narrower bundle of goods.

3.4.3 Conclusions from the behavioral law and economics analysis

Some empirical results in the field of behavioral economics related to reference dependence, loss aversion and endowment effect can be interpreted that laws favoring good faith purchasers may be superior to regulations that are for the benefit of original owners. As the actual possession of a good can increase its monetary valuation and hence, it causes a significant difference between the WTA and the WTP, this aspect may be useful for policy- or lawmakers in the course of fine tuning of legal rules relating to the bona fide acquisition of movables (e.g. regulating the right of repurchase).

The literature relating to loss aversion and endowment effect suggests that although these phenomena were proved in many different experiments and the findings can be regarded as robust but there are also some limitations. I must also add that some aspects that may also be relevant for this topic is still not surveyed fully: for example, the role of owners' bad feeling about being stolen or robbed can be interesting to see whether it affects the evaluation of the good by the owner or not and if yes, what is the relation between the valuation of the owner and the valuation of the purchaser.\textsuperscript{141} Some

\textsuperscript{140} Curran (1999), p.823

\textsuperscript{141} The directions of research in e.g. Reb-Connolly (2007) and Novemsky-Kahneman (2005) show that we may have a better understanding relating to these aspects in the near future as well.
researches in the application of the endowment effect may also bring fresh air to the analysis of the bona fide acquisition of movables. The endowment effect related to information can have important impact on the protection of trade secrets, know-how and any other type of valuable information.\textsuperscript{142} Information is very special "asset" since not the carrier (paper, disk, pen drive etc.) is valuable but the content. Another important problem relating to information is that the status quo cannot be restituted.

\textsuperscript{142} See e.g. Raban-Rafaeli (2003).
4 BONA FIDE ACQUISITION OF MOVABLES IN OUR MODERN WORLD

The list of modern world phenomena that could vindicate our attention is quite long, therefore I put emphasis on one eminent example, which is e-commerce and I also draw attention to some basic aspects of the trade of securities.

4.1 E-commerce

4.1.1 Definition and categories of e-commerce

Electronic commerce (e-commerce) is "[a] type of business model, or segment of a larger business model, that enables a firm or individual to conduct business over an electronic network, typically the internet." With simplified terms, e-commerce means "the business of buying and selling goods and services on the Internet".

Four main categories of e-commerce are distinguished: business to business (B2B), business to consumer (B2C), consumer to consumer (C2C) and consumer to business (C2B). In this paper, B2C and C2C forms of e-commerce are examined in details since the main characteristics of bona fide acquisition of movables appear in these contexts.

4.1.2 What is at stake?

Internet has become not only the main information source in the past few years but it embraces a high portion from the retail market as well. An important new feature of e-commerce compared to the traditional channels of commerce that the direct relationship between consumers (C2C) is much easier and they can conclude transactions on a relatively low costs since there are practically no intermediaries between them.

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143 http://www.investopedia.com/terms/e/ecommerce.asp[01-07-2011].
144 http://dictionary.cambridge.org/dictionary/british/e-commerce[01-07-2011]
146 They only need a platform where they can virtually meet. Ebay.com is probably the biggest among such platforms.
According to available statistics, the number of individuals who purchased on the internet in the last three months has grown rapidly in the last few years and it reached 31% of the individuals in the EU (27 countries) in 2010.\(^{147}\) The numbers vary in a broad interval among the Members States:\(^{148}\)

**Internet purchase by individuals in the last 3 months in some EU Member States**

<table>
<thead>
<tr>
<th>Members State</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hungary</td>
<td>10</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Austria</td>
<td>20</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>Germany</td>
<td>30</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>UK</td>
<td>40</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>France</td>
<td>50</td>
<td>60</td>
<td>70</td>
</tr>
</tbody>
</table>

UK was on the top of the list within the EU with 60% in 2010, which is a really impressive number. However, geographical differences are huge: in the northern and western part of Europe, a lot of people use the internet to do shopping but in the southern and eastern part only a much smaller percentage of individuals spend their money at the e-market. Unfortunately, the above data do not make difference between B2C and C2C forms of e-commerce but they make clear that e-commerce must be taken into account even in the course of deciding on certain regulatory issues.

Below, I present some data relating to B2C and C2C business.

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It is difficult to have a clear picture on the statistics of online retail sales since in many cases, the available data are not consistent with each other and the forecasts are not fully reliable. Despite these uncertainties, it is clear that e-commerce claims a bigger share in retail sales every year almost all over the world. Goldman Sachs predicts that online retail sales almost reach $1 trillion (!) until 2013 worldwide.\textsuperscript{149} Forrester, a market research company, presents impressive soaring trends of e-commerce as well:

"\textit{Forrester projects that online retail sales in the U.S. will increase 11.98\% this year compared with 2010, to $197.3 billion from $176.2 billion. The annual rate of increase will decline slightly each of the next several years, with online retail sales in 2015 rising 7.81\% over 2014, to $278.9 billion from $258.7 billion, Forrester projects. […]}\textsuperscript{149}

\textit{In Western Europe, Forrester projects online retail sales will rise 13.10\% this year over 2010, to €91.90 billion ($125.57 billion) from €81.25 billion ($111.02 billion). […]}, Forrester projects the annual rate of increase will decline slightly in each of the next several years, with online retail sales in 2015 rising 7.84\% over 2014, to 133.64 billion euros (US$182.53 billion) from 123.92 billion euros (US$169.31 billion). […]\textsuperscript{150}\n
\textsuperscript{149} Source: http://www.internetretailer.com/trends/sales/[19-07-2011]
\textsuperscript{150} Source: Online sales will average 10\% growth over next five years (Posted 26.01.2011 by Demery, Paul) at http://www.internetretailer.com/2011/01/26/online-sales-will-average-10-growth-over-next-five-years/[19-07-2011]. Western Europe includes 17 EU countries. See http://www.internetretailer.com/trends/sales/[19-07-2011] for charts.
Besides the data from the US and the EU, we cannot forget about China since, as the second largest economy in the world, its impact is decisive on the long run. The trends show a huge increase in e-commerce in China: "The China Internet Network Information Center said the number of internet users in the world’s most populous country jumped 28.9% in 2009 to 384 million, which is more than the entire population of the U.S. [...] China’s online shopping sales rose to $36.6 billion last year [...]".\textsuperscript{151}

4.1.2.1 C2C

C2C (alternatively, people to people or P2P) e-commerce is another important branch of e-commerce with high expectations of growth. It is difficult to find reliable data on the size of the C2C e-market. Indirectly, however, we can see that it is an enormous market with huge potential. If we check the basic financial data of eBay, the giant among the C2C e-market platforms, we can see that the market capitalization of the company is very high (about $42 billion), the revenue and the profit of the company is also impressive.\textsuperscript{152} These data (indirectly) indicates that the C2C e-market is really relevant.


\textsuperscript{152} See e.g. http://finance.yahoo.com/q/ks?s=EBAY[20-07-2011].
C2C e-commerce may be a platform for non-owners to try to sell goods to purchasers. C2C e-commerce has shown a soaring trend in the last few years. The potential of C2C that a lot of stolen goods can be marketed (and other types of fraud can be quite frequent there) may suggest a change in the trends where buyers will choose more reliable electronic sources like B2C e-commerce sites. For instance, according to a research conducted by the China Electronic Commerce Research Center, most of the CEOs at the market think that "B2C will replace C2C in the future"\textsuperscript{153}.

4.1.3 E-commerce in the context of the bona fide acquisition of movables

E-commerce is a relatively new form of transactions and as we saw from the available statistics, it has a growing stake in the total sales. E-commerce makes it more comfortable and easier to purchase goods but especially in case of C2C transactions, the risk of buying goods from a non-owner (and of course, to be exposed to other types of frauds) can be even higher than in case of transactions where the parties personally meet each other. The vulnerability of purchasers is growing. On the other side, especially in case of thieves who are not accustomed to the technical details of e-commerce (e.g. that the IP addresses are recorded etc.), there is a higher chance that thieves and stolen goods can be found and punished.\textsuperscript{154}

From a regulatory perspective, C2C seems to raise bigger challenges since this type of the e-market cannot be controlled as easily as the B2C market where sellers are available after the sale and if there is any claim from the original owner or from the good faith purchaser, they can generally find the seller. This indicates that merchants have the incentives to check the goods that are offered through their platforms to sell. In case of C2C, it seems more difficult to find the seller and to raise claims against him. In this letter case, the intermediaries (like eBay) should be also forced to fight against the


commerce of stolen goods (and of course, also against any other types of fraud).\textsuperscript{155} It is an interesting question whether platforms where only B2C sales are possible and platforms where consumers can directly deal with each other shall be distinguished in a manner that B2C platforms are regarded as public markets and C2C platform are not. The implication of such distinction can be that good faith purchasers can acquire ownership title easier on stolen goods if they purchase it in B2C relation. I think this can be reasonable since buying goods from an official retail site (e.g. to purchase an e-book on Amazon.com) or buying it from a torrent site gives very good signals on the diligence of purchasers, which is important in respect of their good faith.

It must be noted, however, that e-markets may have advantages compared to regular markets as well since they have the potential that stolen goods are more "visible" here and sellers may leave traces, which can help to find thieves and stolen goods before the sale.

4.1.4 Implications of the economic analysis of the respective rules to e-commerce

Akerlof's lemon theory may suggest that if there are too many stolen goods at the market (i.e. goods with bad quality), such goods can drive the high quality goods out of the market. In case of e-commerce, the high risk of fraud and the high percentage of stolen goods at the market may lead to (partial) market failures.\textsuperscript{156} Signaling has a very important role in such situations. E-commerce sites apply different methods of evaluating sellers and adjudicate their reliability. Surveys show that reputation is a significant element in successful e-commerce activity: "The introduction of a reputation management system increases both the level of trust (investment) and the level of trustworthiness (returns), and thus the overall efficiency."\textsuperscript{157} However, evaluation systems are not always reliable. For instance, Alibaba, China’s leading e-commerce platform had serious problems because of frauds. "On February 21st, in a filing with the Hong Kong Stock Exchange, Alibaba admitted that it had granted “gold” status (a mark of supposed integrity) to 2,236 dealers who it says subsequently defrauded buyers.

\textsuperscript{155} The importance of the issue is realized by the lawmakers as well: \url{http://bits.blogs.nytimes.com/2008/09/22/battle-over-stolen-goods-sold-online-goes-to-washington/}[19-07-2011].
\textsuperscript{156} Cf. Section 3.2
\textsuperscript{157} Keser (2002), p.19
The company set up a compensation fund, which has so far paid out $1.7m to 2,249 buyers. More claims are inevitable, and Alibaba has not yet offered an estimate as to how much it will have to pay out. Whatever the number, it will be dwarfed by the damage to Alibaba's reputation as a place to find reliable Chinese suppliers and buyers.\textsuperscript{158}

Game theoretical approach may have a significant role in respect of e-commerce since the purchases at an online auction site can be regarded as repeated games where the parties in the different rounds may change. Experiences and learning may play an important role in such situations.

Behavioral aspects can explain the behavior of individuals at a "virtual" market where purchasers make decisions without getting the physical possession of goods immediately and this may even have influence on the subjective value of the chattels.\textsuperscript{159} However, in this respect, further research is needed.

### 4.2 Securities

Another highly relevant modern world problem of the bona fide acquisition of movables relates to the commerce of securities including shares. This issue is so complex that cannot be discussed in details here but I draw the attention to some fundamental issues involved.

Securities form an important category of intangible assets with a very high value of trade. Bloomberg's World Exchange Capitalization Index shows a value of $51,988,324 million (i.e. almost $52 trillion) as of December 31, 2010.\textsuperscript{160} It was almost as big as the total world GDP ($63 trillion) in 2010.\textsuperscript{161}

The above data suggest that a special attention shall be paid to securities. Actually, it can be true and in the majority of jurisdictions there are special rules applicable to the transfer of securities including the rules of acquiring securities from a


\textsuperscript{159} Cf. Reb-Connolly (2007).


\textsuperscript{161} http://siteresources.worldbank.org/DATASTATISTICS/Resources/GDP.pdf[20-07-2011]
non-owner. Until recently, securities existed in material (printed) form and it was a much higher risk of purchasing lost or stolen securities from non-owners. With respect to these instruments, legal systems generally accepted the importance of trade protection and as a natural consequence of this, bearer securities and instruments (just like cash) are almost always exceptions to the nemo plus iuris principle.

Nowadays, the significance of materialized securities decreases and dematerialized securities dominate the market and the electronic systems behind the transactions can help to significantly reduce such risks (practically it is impossible to lose a dematerialized security and it is much more difficult to steal them). However, it is still possible to purchase securities (e.g. shares in a company) from a non-owner. This can happen especially as a result of fraud or forgery of documents.

The specialties of securities (and especially stocks in companies) and the parties active at the market (i.e. owners and purchasers are also professionals) dictate that the security of commerce must be protected. A "good faith purchase rule" can be suitable for this combined with the possibility of reclaiming the stolen (fraudulently sold) shares by the original owners within a reasonably short period of time, which cannot be longer than maximum a few months.

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162 See e.g. UCC, Article 8 on Investment Securities, especially §8-303 on protected purchasers. See also Yadley-Ilkson (1982). With respect to Germany, see e.g. Altgen (2008).

163 The Lost and Stolen Securities Program Report dated March 31, 2004 shows this trend with the decline in the number of requests for information into their database. They also note that such decline will probably continue due to the decreasing significance of physical securities. See http://www.sec-oig.gov/Reports/AuditsInspections/2004/377fin.pdf [20-07-2011], p.4.

164 A good example could be the transfer of 100% quotas in a Hungarian gas distribution company by its managing director on the basis of a power of attorney, which was used according to the original owners, fraudulently. See http://www.ft.com/intl/cms/s/0/8d06e2ce-d31b-11de-af63-00144feabdc0.html#axzz1SfmXSGaX [20-07-2011] and http://www.neurope.eu/articles/98624.php [20-07-2011].

165 Purchasers can protect themselves, for instance, with payments in installments synchronized with the limitation periods.
4.3 Other modern world phenomena

The good faith acquisition of intellectual property rights (patents, copyrights\textsuperscript{166}, trade secrets and know-how\textsuperscript{167}), transfer of claims, transfer of rights (e.g. transfer of lease, sublease of a movable) can be other exciting fields for research; however, these interesting topics cannot be analyzed in this thesis in details.

\textsuperscript{166} See e.g. Saunders (1988).

\textsuperscript{167} Relating to the psychological aspects of information, see Raban-Rafaeli (2003). Cooter and Ulen also give a good summary of special features of information from a law and economics perspective (see Cooter-Ulen (2007), pp.120-123). They refer to the weakness of trade secrets law where the owner of the trade secret and the third party who receives the trade secret under an agreement from an intermediary person (who can be, for example, an (former) employee of the owner of the trade secret) are not in direct connection. This can be regarded as very similar to the weakness of laws on bona fide acquisition of movables (see Cooter-Ulen (2007), pp.122-123).
5 CONCLUSION

5.1 General findings

The argumentation built up in this paper suggests that rules favoring good faith purchasers with certain limitations may be proved as more efficient than the "original ownership rule" and even compared to the "negligence rule". Especially, the behavioral law and economics aspects showed that due to loss aversion and endowment effect, good faith purchasers may need stronger protection by the law. It is important to keep in mind that the roles for owners and purchasers are interchangeable and they can be in both roles from time to time. Therefore, from a social point of view, it is highly important to find those rules that can contribute to social welfare. In addition, it must be noted that laws must be construed in a way where they can really function under real world challenges. This means that applicability has an utmost importance.

The texture of law is always very complex and sometimes, there are connections that are not obvious at the first glance. If such (hidden) links within the laws are overlooked in the analysis, the results cannot be reliable and applicable in full force. An example regarding my topic can be the close but not trivial connection between the rules of bona fide acquisition of movables and the rules concerning adverse possession.\textsuperscript{168} Therefore, the results of any law and economics analysis of the bona fide acquisition rules must be interpreted in the context of the connected legal rules. For example, it must be considered whether a form of the "original ownership rule" combined with well-suited adverse possession rules where the purchaser (possessor) has to prove his good faith may be as (or more) efficient as (than) the "bona fide purchase rule" since it may unite the advantages of the two types of rules and can give proper incentives to both parties (owners and buyers).

Clarity and predictability proved to be important elements of a legal system, which intends to send unambiguous incentives to the parties involved. If the rules are clear enough and consequently, the parties act in a predictable way, the rules can reach much better results.

\textsuperscript{168} See e.g. Thomas (1996) and Salomons (2011).
5.2 How to achieve state-of-the-art regulations relating to the bona fide acquisition of movables?

The findings of the thesis suggest that our modern world calls for new attitude towards, at least, some segments of this classical problem. Contours of new rules may be drawn, on the basis of the literature on the bona fide acquisition of movables and this thesis, as follows:

(i) *Nemo plus iuris rule* can be a declared reference point of the legislation. In our days, this rule cannot work in its pure form but it is a perfect benchmark. It would be desirable to reach a status where nobody transfers more rights than he or she has.

(ii) Besides the above declaration, good faith purchasers must be protected but the concept of good faith shall be pushed toward an objective meaning,\(^{169}\) which means that it provides a clear standard for everybody and serves the requirement of predictability as well. This can help to confute the arguments that "bona fide purchase rules" encourage theft since a high and objective standard of good faith can motivate purchasers to investigate title diligently.

(iii) Some special types of goods should be handled separately due to their uniqueness or other particular characteristics. For instance, pieces of cultural heritage may be separated from goods of mass production.\(^{170}\) The same can apply to information where it is impossible to go back to the status quo.

(iv) Goods (especially goods of mass production) acquired by a good faith purchaser at a public market or from a merchant etc. (i.e. within the commercial circle) shall not be returned to the original owner, even not for reimbursement of the purchase price. This rule should be applied also to stolen goods since this can promote the reliable forms of trade. The choice of a reliable source of goods by purchasers can also serve as an indicator of good faith.

\(^{169}\) Cf. Salomons (2009), p.15. Good faith purchase rule with an objective concept of good faith may be regarded as similar to Öhvall’s "non-negligent purchaser rule" (Öhvall (2004), pp.26, 28-29 and 45-47) or the protection of "innocent purchasers" according to Weinberg’s categorization (see (Weinberg (1980) pp.575-576 and especially note 69 on pp.586-587). Actually, the change from subjective to objective concept may be regarded as a significant change in some jurisdictions. Cf. Mackaay (2009), pp.12-15 and Hesselink (2004)

\(^{170}\) See e.g. Section 2.2.3 and supra note 17.
(v) If the right of repurchase is possible under certain circumstances (e.g. in respect of certain categories of movables like in Slovenia\textsuperscript{171}), the time period shall be relatively short.

(vi) The rules of adverse possession shall be synchronized with the regulation concerning the bona fide acquisition of movables.\textsuperscript{172} This means that if the protection of the original owners is stronger (i.e. we are closer to the \textit{nemo plus iuris} rule), the length of adverse possession period should be decreased and vice versa.

(vii) B2C and C2C e-commerce may be handled separately since the probability of purchasing stolen goods can be much higher in C2C relations. B2C platforms may be regarded as public markets, i.e. Point (iv) above should be applied to them. In case of C2C, the investigation of purchasers' good faith can be very important.

The bona fide acquisition of movables sometimes looks like as the \textit{Catch-22}\textsuperscript{173}, an exquisite pitfall for legislators to decide between two innocents who both have reasonable interests to the property. It is difficult to find a perfect solution, which really works in real life and not only in theory but the above may be regarded as propositions to a beautiful complex problem, which can remain in the cross-fire of different standpoints since it can be renewed with development and can still challenge us.

\textsuperscript{171} Salomons (2007), p.3
\textsuperscript{172} Cf. Salomons (2011)
\textsuperscript{173} Heller, Joseph: Catch-22, Simon&Schuster, 2004, p.46
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