

## **The approach of the School of Austrian Economics to external effects**

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## Contents

1	Introduction	3
2	Preliminary assumptions and definitions	3
3	The approach of the School of Austrian Economics to external effects	4
3.1	Austrian Methodology: Praxeology	4
3.2	Externalities as interpersonal conflicts.	4
3.3	Defining property rights	6
3.4	The Austrian approach to externalities in practice	9
4	Conclusion	10
5	References	12

## 1. Introduction

The Austrian school of economics describes itself as non mainstream approach to economics and law<sup>1</sup> and is sometimes seen to be at the “margins”<sup>2</sup> of economics. The Austrian school goes back to a group of scholars from Vienna, among them Carl Menger, who contributed to economic theory in the late-19th and early-20th century. It should be noted that there is a split among today's Austrian economists: One the one side are those that follow the works of Hayek and on the other side are those following the works of Rothbard. The latter approach is in more stark contrast to mainstream economics in that it, in contrast to the Hayekian side, does not value economic modeling based on general equilibria. This paper will examine the Rothbard based approach and will be mainly based on Rothbard's works.

In this paper I want to explore perspectives and solution proposed by the Austrian school of economics to problems or more specifically conflicts caused by externalities that arise from the conflicting use of resources. After a chapter on own assumptions and the use of terms (chapter 2) I will outline the foundational principles and assumption of the Austrian approach, including its methodology (chapter 3.1), the nature of the problem at hand and a basic outline of the solution (chapter 3.2) and the central issue of defining property rights (chapter 3.3). Finally I will look at the Austrian perspective on Law and practical implications of what was discussed above (chapter 3.4).

## 2. Preliminary assumptions and definitions:

*The tragedy of the commons, free rider problem and externalities (also external effects)* are often used synonymously. Going forward I will use the term *externalities* because it is most neutral and does not already imply much theory. The term *externality* should be defined as follows: An *externality* is the negative effect on others parties that can arise from an individual's productive of a resource.

I will describe resources that are prone to create free rider problems for the parties using them as "common pool resources" (CPR), also "common goods".

I propose and assume that there is no resource that is per se a "common pool resource", also "common good". I will therefore speak of “resources” and define the respective resource if necessary. A wide range of resources and the vast majority of non-man-made resources can be

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1 See Cordato, Roy E., 2004: The quarterly journal of Austrian economics: the official journal of the Ludwig von Mises Institute, Vol. 7 (1), p. 3-16. Also available online, URL: [http://mises.org/sites/default/files/qjae7\\_1\\_1.pdf](http://mises.org/sites/default/files/qjae7_1_1.pdf) [09.03.2015]

2 The Economist, 31.12.2011, URL: <http://www.economist.com/node/21542174> [09.03.2015]

treated as private, toll, common or public goods. It depends on the physical nature of the resource and on the cultural habit / social agreement what commonly shared rules regarding resource usage are formed among participants of a resource pool. Roadways have been treated as a private good (any road on private ground), as a toll good (as with many roads all over the world), as a common good (any public street) and as a public good (rarely used trails). Besides the physical nature of the resource (including the environment the resource is embedded in) it is the culture shared by individuals demanding the resource that determines what rules are formed among those that depend on the resource. *Culture* here means norms, role expectations, the degree of individualism, whether conflicts are solved by reputation and interpersonal relations or by bureaucratic institutions. The Austrian philosophy, which has a normative foundation, is one possible set of such cultural rules.

### **3. The Austrian economics' solution to externalities**

#### **3.1 Austrian Methodology: Praxeology**

Praxeology is a set of assumptions about human action and human interaction. Praxeology rests fundamentally on the assumption that *individuals' actions* are driven by conscious decisions to achieve certain ends – in contrast to purely reflexive behavior.<sup>3</sup> Such goals are based on values that are entirely subjective and therefore can not be quantified.<sup>4</sup> Therefore math as a means of describing human action and theories thereof is inappropriate.<sup>5</sup> Since all actions are means to reach certain ends all actions are necessarily rational, whereas the choice between ends is a value judgment and entirely subjective. While it is not possible to say whether a certain end is more or less valuable to someone than to someone else (no global quantifiability of value judgments among multiple individuals), any individual ranks his ends and associates psychics profits and losses with reaching or not reaching those ends.<sup>6</sup>

#### **3.2 Externalities as interpersonal conflicts**

This section will make use of *pollution* as a prominent example of externalities.

Cordato describes the Austrian approach in contrast to proposed solutions to the pollution problem by Pigou and Coase. According to Cordato the Pigouvian approach to environmental economics aims to incorporate the *social costs* – a term used used within the Pigouvian approach –

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3 See Rothbard, Murray, 1976: Praxeology: The Methodology of Austrian Economics, in: Edwin G. Dolan, The Foundations of modern Austrian economics, Sheed and Ward, Kansas City, also available online: URL: [http://if-oll.s3.amazonaws.com/titles/104/0724\\_Bk.pdf](http://if-oll.s3.amazonaws.com/titles/104/0724_Bk.pdf) [09.03.2015], p. 19.

4 See Rothbard, Murray, 1976, p. 33.

5 See Rothbard, Murray, 1976, p. 21 ff.

6 See Rothbard, Murray, 1976, p. 21 ff.

associated with external effects into the cost of producing the pollution generating product<sup>7</sup> Hereby a state, or some other authority, assesses the social cost per unit of pollution generating output and declares a tax per unit that equals or exceeds the social cost per unit.<sup>8</sup> This would ensure that the overall benefit to society is greater than the overall cost with respect to all production, which is described as a state of Pareto efficiency<sup>9</sup>

The concept of Pareto efficiency itself is criticized by Cordato: “*Because human action takes place through time, with knowledge and therefore supply and demand for inputs and outputs constantly changing, the particular Pareto optimum for any point in time is irrelevant.*”<sup>10</sup> In other words: Pareto efficiency is an invalid oversimplification in that all costs and gains are assumed to be the same for everyone. According to the author the term “social costs” consequently is methodologically invalid too for the same reason.<sup>11</sup> Additionally Cardato points out that the individuals that are harmed in the process are not compensated by a Pigouvian tax<sup>12</sup> – an argument I will outline further below.

Carado quotes Pearce and Turner<sup>13</sup>: “*the size of the levy needs to be related directly to the environmental damage done by the production and consumption of the packaging, or to the costs of restoration to the environment*”<sup>14</sup> and disagrees with the concept of *environmental damage* as it does not refer to “*actual people*”<sup>15</sup>. Cordato continuous: “*In its more extreme form this has led to a separation of the concepts of costs and harm from human beings completely, substituting notions such as 'costs to the environment' and damage to the ecosystem.*”<sup>16</sup> Cordato does not make explicit what interpretation of “environmental damage” he specifically disagrees with. For the term “environmental damage” to be a meaningful category would require 1) the value judgment that the environment itself has value that is worth protecting or that 2) the environment as a source of inspiration (non-rival consumption of the environment by experiencing it) is valuable when it serves humans in that sense and it is not desirable to limit individuals from consuming it this way. One might argue that argument (1) is epistemologically not valid and argument (2) is impossible to solve in practice. Cordato proposes instead that pollution problems are interpersonal conflicts without

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7 See Cordato, Roy E., 2004, p. 4.

8 See Scott Callan, Janet Thomas, 2009: Environmental Economics and Management: Theory, Policy and Applications, Cengage Learning, p. 88.

9 See Cordato, Roy E., 2004, p. 4.

10 Cordato, Roy E., 2004, p. 5.

11 See Cordato, Roy E., 2004, p. 6.

12 See Cordato, Roy E., 2004, p. 10

13 See Pearce, David, Kerry Turner, 1992: Packaging Waste and the Polluter Pays Principle: A Taxation Solution, in: Journal of Environmental Management and Planning, 35 (1), p. 6.

14 Cordato, Roy E., 2004, p. 7.

15 Cordato, Roy E., 2004, p. 7.

16 Cordato, Roy E., 2004, p. 7.

addressing the public good character described in argument (2) above.<sup>17</sup> Consequently the stated goal is to avoid respectively solve interpersonal conflicts.<sup>18</sup> The solution to such human conflict would be “clearly defined and enforced property rights”<sup>19</sup>. What we are dealing with would therefore be not market failure but legal failure in so far either property rights are not sufficiently defined or not strictly enough enforced.<sup>20</sup>

Cordato is suspicious of any approach that tries to maximize *system wide economic efficiency* for one because this takes the individual and the violation of it's property rights out of the equation and because *system wide economic efficiency* doesn't exist, according to Cordato, because costs and gains are entirely subjective and can not be measured. Solutions to externalities that follow this efficiency approach, like Coase' approach or the Pigouvian tax, might incentivize individuals to adapt their actions but do not resolve the conflict over the use of property between the polluter and the victim – non of the costs imposed on the polluter rectify the harm done to the victim of the pollution.<sup>21</sup>

The Austrian approach as Cordato describes it is to make the polluter fully accountable for all harm done to the victim of the pollution. “*This might be done by eliminating the emissions, confining them to his own property, or by compensating the victims of the polluting activity by an amount that fully addresses the grievance.*”<sup>22</sup>

As we have seen, at the center of the Austrian solution to pollution are clearly defined private property rights. The next chapter will investigate the principle and limitations of establishing private property rights.

### 3.3 Defining property rights

In case property rights are not defined sufficiently enough and there is a conflict over the use of a resource, Cordato follows Rothbard<sup>23</sup> and suggests a “first come first served”<sup>24</sup> (called homesteading by Rothbard)<sup>25</sup> solution to define property rights.

Ideally the *first come first served principle* can be formulated as follows: Whoever discovers a before not valued resource may claim it to be his/her private property. Rothbard goes into further

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17 See Cordato, Roy E., 2004, p. 7.

18 See Cordato, Roy E., 2004, p. 8.

19 Cordato, Roy E., 2004, p. 9.

20 See Cordato, Roy E., 2004, p. 10.

21 See Rothbard, Murray, 1982: The Cato journal: an interdisciplinary journal of public policy analysis. 2 (1). Reprinted by Ludwig von Mises Institute (2002), URL: [http://mises.org/sites/default/files/Law%2C%20Property%20Rights%2C%20and%20Air%20Pollution\\_2.pdf](http://mises.org/sites/default/files/Law%2C%20Property%20Rights%2C%20and%20Air%20Pollution_2.pdf) [08.03.2015], p. 142.

22 Cordato, Roy E., 2004, p. 12.

23 See Rothbard, Murray, 1982, p. 145.

24 Cordato, Roy E., 2004, p. 13.

25 See Rothbard, Murray, 1982, p. 145.

detail here: Rothbard argues in accordance with Locke that private property emerges when mixing human labor and the resources provided by nature.<sup>26</sup> This can be interpreted as a creative and artistic process where the respective individual makes sense of the otherwise unordered nature by giving the piece of nature a purpose that is shaped by the character and the needs of the creator. An example mentioned by Rothbard is a sculpture that is formed from clay. Rothbard states that there are three basic principles by which the property of the sculpture can be determined. The sculpture belongs to either: 1) The creator, 2) “another man or a set of men”<sup>27</sup>, or 3) “every individual in the world has an equal, quotal share in the ownership of the sculpture—the 'communal' solution”<sup>28</sup>. The process of acquiring and transforming nature, per Rothbard, is the same for resources that are not transformed through an artistic process – for example the clay that has been bought by the sculpture creator or an apple that is picked from a wild tree. The process is equally the same for land: The same three options for establishing *ownership* are given for ownership of land and the conclusion is the same.

With regard to the distinction of goods through the criteria excludeability and rivalry the resource type *land* can be described as follows: The use of land is rival like the apple and the sculpture – to be more precise, all of these goods have the inherent potential of rivalry among humans since humans tend to value them and there can be conditions where these goods are scarce. I'd like to propose the following interpretation of the criterion *excludability* with respect to land: It is harder to exclude others from land than from clay or apples. It is harder to keep control over the land and the land can less easily be separated from the outside world. In other words: The borders of the land-ownership are less clearly defined, which makes it harder to clearly define property rights for it.

Rothbard writes: “*Just as the man who makes steel out of iron ore transforms that ore out of his know-how and with his energy, and just as the man who takes the iron out of the ground does the same, so does the homesteader who clears, fences, cultivates, or builds upon the land.*”<sup>29</sup> There is an important distinction to make which Rothbard does not make here – the following paragraph will be a normative conclusion that is derived from the normative argumentation of Locke and Rothbard: There is a structural difference between fencing and cultivating/building upon. Whereas the latter makes actual use of the land as a resource that meets a demand (either the owner's own or the demand of someone else), pure fencing of a certain area restricts other individuals from

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26 See Rothbard, Murray, 1978: For a new liberty. The libertarian manifesto, Collier Books. Reprinted by Ludwig von Mises Institute (2006), URL: [http://mises.org/sites/default/files/For%20a%20New%20Liberty%20The%20Libertarian%20Manifesto\\_3.pdf](http://mises.org/sites/default/files/For%20a%20New%20Liberty%20The%20Libertarian%20Manifesto_3.pdf) [06.03.2015], p. 37.

27 Rothbard, Murray, 1978, p. 38.

28 Rothbard, Murray, 1978, p. 38.

29 Rothbard, Murray, 1978, p. 41.

cultivating the land in the present based on the speculation that the demand will be there at some point in the future. One would need to justify future profits at the expense of another one's relative loss without any work put into obtaining the property. Rothbard, in a latter essay,<sup>30</sup> argues the same by introducing the term technological unit. An owner, as per Rothbard, always own the technological unit, that is whatever the owner needs for the purpose he/she wants to use the resource for.

Bringing the two arguments about excludability and the unjustifiability of acquiring unused property together: There is a contradiction inherent in these two principles: The solution to pollution and extinction of renewable but limited resources like fish are clearly defined property rights. With resources like fish that don't have clear borders and are normally too much to meet the demand of one person/family or match the production capacity of one company (in oceans, most not too small lakes and rivers) property rights can not be established on the basis of the demand-meeting-property-acquisition principle: In a lake that is too big to meet the demands of one individual, family or company fishermen who discover the lake for fishing purposes would all begin to fish as much as their demand requires until the fishermen become too many to not make the fish stock decrease. At this point where the fish resource has become rival no one may establish property rights over the whole lake since non was first to use all of the resource to meet actual demand.

A slightly different case is this: The establishment of private property rights is problematic if a resource has been valued before by many individuals without becoming scarce. If the resource is non excludable in the sense described above and becomes rival at some point there through making use of the resource in a new way there it is in question whether the users that never had to claim their property rights can be considered first users under Rothbard's homesteading paradigm.

Let's recapitulate the Coase theorem: In case of a conflict caused by externalities a set of private parties will always be able to negotiate the agreement that has the highest *social benefit* (or expressed in line with the Austrian perspective: ...negotiate the agreement that allows all individuals to profit compared to the situation before the negotiations) given that the negotiation costs are low enough.<sup>31</sup> The demand-meeting-property-acquisition principle described above resembles the Coase theorem if applied to the homesteading principle (assumption: establishing property rights without the influence of a state) with respect to it's result that individuals or companies only own resources that they actually use (not with respect to any other part of the result or the process): We can argue that the amount of resource (say land) any party can acquire is restricted by one's negotiation power that is derived from the profit one can make from the resource.

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30 See Rothbard, Murray, 1982, p. 153.

31 See Coase, Ronald H., 1960. The Problem of Social Cost, Journal of Law and Economics 3 (1), p. 1–44.

In order to avoid a violent conflict a second party may compensate the first party (the party that was first to discover the resource) through the (expected) profit that results from extracting the resource. The first party to have discovered the resource has to evaluate whether more can be gained (1) from the costly protection of the resource (respectively a costly arrangement with rival parties) until either future demand is sufficient or extraction / production capacity is sufficient to meet the current demand or (2) from being compensated by a competitor.

Coase states that emission or pollution rights respectively rights that protect individuals from such emissions, for example the right to emit noise or the right to quietness, are either assigned by the state or obtained through barter.<sup>32</sup> Rothbard on the contrary applies the same principle, the homesteading principle, to the acquisition of emission rights as he did to the acquisition of property rights. He gives the example of an airport that is surrounded by unused land. The airport has this way rightfully claimed the right to emit a certain level of noise – the level that is emitted while the land around the airport remains unused – onto the land surrounding the airport. Newly build homes around the airport would have to tolerate the level of noise prior to their construction.

Like with the assignment of physical property rights described above, the argument can be made that Rothbard dismisses cases where certain resources, for example the quietness of a forest that is used by many for recreational purposes, are used as a public good. If an airport is built in this area that is not the property of any one person, the airport company does not violate anyone's property – the claiming of property was not necessary because the resource was not used in a rival way – but interferes with the pleasures people have had and expected to have in the future. Rothbard's guiding principle that nothing should be forbidden but the “aggression *against, the person or just property of another*”<sup>33</sup> and *just property* being defined as any good where an individual has been “mixing his labor with the land”<sup>34</sup> the forest in the example above can not be a *public good*, in the sense that many could use it without it becoming rival through the new use case.

### **3.4 The Austrian approach to externalities in practice**

The perspective on property rights described above is closely linked to the Austrian perspective on law. Rothbard assumes that law is a set of normative commands that implies a certain theory about the *just* allocation of property rights.<sup>35</sup> The normative principle Rothbard suggests is this: “*No action should be considered illicit or illegal unless it invades, or aggresses against, the person or just property of another*”<sup>36</sup> *Just* here is defined as outlined in chapter 3.3. Further Rothbard points

32 See Coase, Ronald H., 1960, p. 1–44.

33 Rothbard, Murray, 1982, p. 127.

34 Rothbard, Murray, 1982, p. 145.

35 See Rothbard, Murray, 1982, p. 122.

36 Rothbard, Murray, 1982, p. 127.

out that a free society that does not allow a Hobbes like Leviathan to coerce the lives and property of people must accept a certain amount of risk. Also the non aggression principle requires absolute proof and strict causality between the action of the aggressor and the harm done in order to convict a defendant.

Rothbard clearly states that the difficulty of proofing a strict causality between the plaintiff's harm and the actions of a defendant do not justify a violation of the non aggression principle and therefore do not allow for government regulations to limit pollution. Rothbard writes: "*The prevalence of multiple sources of pollution emissions is a problem. How are we to blame emitter A if there are other emitters or if there are natural sources of emission? Whatever the answer, it must not come at the expense of throwing out proper standards of proof, and conferring unjust special privileges on plaintiffs and special burdens on defendants.*"<sup>37</sup> and admits that "*situation for plaintiffs against auto emissions might seem hopeless under libertarian law*"<sup>38</sup>. According to Rothbard there would be a way out though: "*[.] there is a partial way out. In a libertarian society, the roads would be privately owned. This means that the auto emissions would be emanating from the road of the road owner into the lungs or airspace of other citizens, so that the road owner would be liable for pollution damage to the surrounding inhabitants. Suing the road owner is much more feasible than suing each individual car owner[.]*" It is easy to see that in this respect Rothbard compromises the privity rule suggested a few sentences earlier: Rothbard writes: "*In the same way, the privity role should be applied to auto emissions. The guilty polluter should be each individual car owner and not the automobile manufacturer, who is not responsible for the actual tort and the actual emission.*"<sup>39</sup> Following Rothbard's logic of action driven liability, the actual act of harm is done by the individual that turns the key and hits the gas pedal.

#### **4. Conclusion**

Given that the Austrian approach to externalities has limitations with certain resource types, as shown above, does it have merit for externality issues at all? The reason it does have value is that certain conflicts associated with externalities which are commonly referred to as common good problems are not seen as such within the Austrian approach. One example is air pollution: The air is seen by many commentators implicitly as a common good, Hardin writes: "But the air and waters surrounding us cannot readily be fenced, and so the tragedy of the commons as a cesspool must be prevented by different means"<sup>40</sup>. Since Rothbard and Cordato abstain from a) the notion that the

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37 Rothbard, Murray, 1982, p. 158.

38 Rothbard, Murray, 1982, p. 161.

39 Rothbard, Murray, 1982, p. 161.

40 Garrett Hardin, The Tragedy of the Commons, Science, New Series, 162 (3859), Dec. 13, 1968, p. 1246.

environment has value in itself and b) the idea of social cost (see chapter 3.2 for a detailed outline of these two arguments), air pollution is reduced to property tort.<sup>41</sup>

The conclusion about the potential of the approach provided by Austrian economics is divided: On the one hand the homesteading principle leaves a few cases – anywhere a rival resource is mobile by nature, i.e. fish, (drinking) water and wild animals – where externalities imply a conflict that is not solvable through the enforcement of property rights at least if Rothbard's technological unit principle is followed. On the other side the Austrian approach provides a solution for the management of conflicts that are associated with the use of air or noise emission that are commonly perceived as common pool resource problems.

Overall the controversial libertarian approach presented in this paper offers a perspective that is particularly valuable in that it challenges implicit assumptions about the nature of conflicts caused by external effects. Sometimes it seems though as if Rothbard mostly staying true to his principle of non aggression ignores a few very evident real world problems.

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41 See Rothbard, Murray, 1982, p. 162.

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