

# QUESTIONING THE ROLE OF EMPIRICAL STUDIES IN COASE'S METHOD

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*In opposition to standard microeconomics, Coase grounds his theory in empirical studies. Examining the way he uses them contributes, on the one hand, to the analysis of the relationships between theory and empirics and, on the other, to a better understanding of the foundations of Coasean theory. We first distinguish three roles that Coase explicitly assigns to his empirical studies: establishing realistic assumptions, refuting standard theory, and designing economic policy recommendations. We then show that these studies are guided by two presuppositions. First, the efficiency of the price system without cost is a theoretical presupposition. Second, the efficiency of a costly price system relative to the government is an empirical presupposition in the sense that Coase infers it from, precisely, empirical studies. The empirical ground therefore becomes unsteady when observations are in fact presupposed.*

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## 1. INTRODUCTION

The urgent need for empirical studies is a constant in Coase's views about economics, and the empirical character of his works is striking. It was one of the more important issues he raised in his Alfred Nobel Memorial Prize Lecture: 'What we need is more empirical work' (1992, 718). This need is determined by the object that Coase assigns to economics: to explain the actual economic system, which leads to a realist orientation of his economics.<sup>2</sup>

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<sup>1</sup> This text is a short version of a communication presented at the HES 2007 Conference (Bertrand 2007) and has benefited from the comments made by participants, in particular Alain Marciano. Errors and omissions remain mine.

<sup>2</sup> See the several articles that Coase wrote on methodology (1975a; 1975b; 1977a; 1982; 1993a). For general studies on his views of the nature of economics, see Medema (1994, chapter 6); Medema and Zerbe (1998); Mäki (1998a); Bertrand (2003) and Wang (2003). Some particular issues have been raised: his realism and theoreticity (Posner 1993a, 1993c; Mäki 1998b, 1998c), his views of the roles of market and regulation

On the contrary, the definition of economics as the science of choice (Robbins 1932, 16) gave it a (formalised) technique, which has moved economists away from this object: ‘This disregard for what happens concretely in the real world is strengthened by the way economists think of their subject... economists think of themselves as having a box of tools but no subject matter’ (Coase 1998, 72-3).<sup>3</sup> This explains why Coase criticises the extreme formalisation of economics, which makes it likelier to stay away from the real world.<sup>4</sup> What differentiates conventional theory from Coase’s is that the first does not explain the actual economic system because it is not based on empirical studies. Coase’s method develops a back and forth movement between theory and empirics (Wang 2003, 814-5). In his most recent paper, Coase (2006, 276) wrote: ‘As I see it, progress in understanding the working of the economic system will come from an interplay between theory and empirical work. The theory suggests what empirical work might be fruitful, the subsequent empirical work suggests what modification in the theory or rethinking is needed, which in turn leads to new empirical work. If rightly done, scientific research is a never-ending process, but one that leads to greater understanding at each stage. In scientific research, we may win battles but not the war.’

It is thus absolutely clear from Coase’s works that not only should economic theory be based on empirical studies but also that these empirical studies have to lead to theorizing. This explains his criticism of what he perceives as exclusive description in old institutionalism: ‘the American institutionalists were not theoretical but anti-theoretical, particularly where classical economic theory was concerned. Without a theory they had nothing to pass on except a mass of descriptive material waiting for a theory, or a fire’ (1984, 230).<sup>5</sup> While theory, when not based on empirical studies, is irrelevant, the opposite is also true: empirical studies without theory are useless.<sup>6</sup>

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(Medema and Samuels 1997, 1998; Pratten 2001; Campbell and Klaes 2005), his tension between orthodoxy and heterodoxy (Foss 1994).

<sup>3</sup> Another consequence of this definition of economics as a technique is what is now known as economic imperialism, which Coase criticised on numerous occasions (e.g. 1977a, 42).

<sup>4</sup> Coase is certainly not against mathematisation per se (1992, 719). He even mentioned the possibility of mathematising his theory of the firm ‘only if this analytical power is used to enlighten us about the real rather than an imaginary world’ (1988d, 47). Consequently, in his view, a good mathematisation follows a good abstraction and observation of the real world (see Medema 1994, 172; Mäki 1998b, 593-4 and Wang 2003, 819).

<sup>5</sup> On Coase and old institutionalism, see Medema (1996). Of institutionalism and theoreticity, see Mäki (1993b) and Rutherford (1994).

<sup>6</sup> If there are complementarities between theory and observation, this is the actual state of our discipline that motivates Coase’s insistence on observation rather than on theory: ‘it is impossible to undertake good empirical work without a theory and difficult to formulate theories without good empirical work... It is my view that at

Since empirical studies are a specificity of Coase's method, we want here to study how he carries them out, how he uses them to criticise standard microeconomics and to support his theories. We identify three roles that Coase explicitly gave to *his* empirical studies: criticise conventional theory, elaborate new ones on the basis of more realistic assumptions, and design economic policies. Interestingly enough, in a lecture he gave in 1981 (1982), Coase argued about the role of the empirical studies in economists' theories in general and he rejected the idea that economists' empirical studies may play a role of tests. He stressed that they are always guided by a theory, and that they are simply used as convincing tools in a political debate. That Coase speaks here about the other economists' empirical studies without similarly evaluating his own studies raises some questions. Isn't he using some of them to refute some theories? Aren't they also guided by a theory? Don't they also serve as arguments in a political battle?

We shall therefore question the role played by empirical studies in Coase's theory, from his first econometric studies on the pig cycle (Coase and Fowler 1935a) to his last study on the acquisition of Fisher Body by General Motors (Coase 2006), through his empirical analysis of monopolies, broadcasting and lighthouses. In this questioning, we insist in particular on the very different kinds of materials they are based on.<sup>7</sup>

Section 2 examines the explicit roles of Coase's empirical studies (establish realistic assumptions, refute standard theory and design economic policy) and the criticisms that Coase addressed to other economist's empirical studies. Section 3 shows that Coase does not escape from these criticisms: his empirical studies are guided by theoretical presuppositions and political biases, both regarding the relative efficiency of the price system and of government.

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the present time we are so ignorant that it is difficult to formulate theories to explain the working of the economic system... The need at the present time... is for more empirical work' (1993b, 360-1).

<sup>7</sup> Before undertaking such a task, we have to make it clear that not all of Coase's works are based on empirical studies: we think of his theoretical criticisms of imperfect competition theories and marginalist theories of price formation which concern particularly duopoly (1935), monopoly (1937b; 1946b; 1972b) and the marginal cost controversy (1946a; 1947a). On these studies, see Medema (1994, chapter 3). Arena (1999) raised the importance of uncertainty and subjectivity in Coase's analysis.

## 2. THE THREE ROLES OF THE COASEAN EMPIRICAL STUDIES

### 2.1. ESTABLISHING REALISTIC ASSUMPTIONS

Coase regards economics as it is actually practised essentially as a price theory, and hence not studying the actual economic system: ‘The concentration on the determination of prices has led to a narrowing of focus which has had as a result the neglect of other aspects of the economic system’ (1992, 714). Not only did economic theory transform man into a rational utility maximizer<sup>8</sup>, but also it abstracted to the economic system its institutional structure, i.e. the firm, the market and the law; three institutions whose existence cannot be explained without the concept of transaction costs.<sup>9</sup> The abstraction of neoclassical assumptions is summarised with a concise sentence: ‘We have consumers without humanity, firms without organization, and even exchange without markets’ (1988a, 3). Therefore, ‘what is studied is a system which lives in the minds of economists but not on earth’ and Coase has called the result ‘blackboard economics’ (1992, 714). He criticises the remoteness of price theory from the real world, which obstructs any claim of explanation: ‘The objection essentially is that the theory floats in the air. It is as if one studied the circulation of the blood without having a body’ (1984, 230). On the contrary, since science aims at explaining rather than predicting<sup>10</sup>, assumptions have to be realistic: ‘Realism in our assumptions is needed if our theories are ever to help us understand why the system works in the way it does. Realism in assumptions forces us to analyse the world that exists, not some imaginary world that does not’ (Coase 1982, 17-8). Realistic here does not mean exact description or absence of theory in the sense of abstraction.<sup>11</sup> Rather, there is a ‘good’ abstraction which consists in abstracting from the real world some elements that are not relevant for the explanation.<sup>12</sup>

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<sup>8</sup> ‘There is no reason to suppose that most human beings are engaged in maximizing anything unless it be unhappiness, and even this with incomplete success’ (Coase 1988a, 4).

<sup>9</sup> ‘Without the concept of transaction costs, which is largely absent from current economic theory, it is my contention that it is impossible to understand the working of the economic system, to analyze many of its problems in a useful way, or to have a basis for determining policy’ (Coase 1988a, 6).

<sup>10</sup> Opposing Friedman’s methodology (1953), he writes: ‘a theory is not like an airline or bus timetable. We are not interested simply in the accuracy of its predictions. A theory also serves as a base for thinking. It helps us to understand what is going on by enabling us to organise our thoughts’ (Coase 1982, 16-7).

<sup>11</sup> See the debate between Posner (1993a; 1993b; 1993c), Coase (1993a) and Mäki (1998b).

<sup>12</sup> Here, abstraction refers to the omission of some elements from the real world; in Mäki’s typology (1998a; 1998c), it refers to ‘horizontal isolation’ that consists in selecting elements of the actual world. On the distinction between horizontal and vertical isolation in economics, see Mäki (1992; 1993a).

In Coase's view, empirical studies are used in the discovery phase of the research, and they provide the limits of the abstraction in the assumptions. The elements to be kept in the analysis are those which explain the economic system. As Mäki (1998b, 590) writes: 'In Coase's research strategy, the role of the case study is to serve as an indispensable element in the process of abstraction whereby adequate abstract notions are pursued.' The question, however, remains: how does Coase choose these relevant elements? The better way to answer to this question seems to be by observing how empirical studies led him to dismiss some neoclassical assumptions as too abstract, and choose other assumptions. Let us take three examples: the pig cycle, the nature of the firm, and the acquisition of Fisher Body.

### *The pig cycle*

Coase's first empirical studies were written in the 1930s with a LSE colleague, Ronald Fowler (Coase and Fowler 1935a; 1935b; 1937; 1940). Their starting point was the importance given to producers' expectations, compared to the few statistical studies on the subject (1937, 55). Their project 'aimed at discovering what producers' expectations of price actually were, in particular, did they think current prices would continue to apply into the future, as was assumed in many theoretical constructions used by economists?' This is why they 'decided to study the pig-cycle in Britain, in which this assumption was believed to hold' (Coase 1988c, 22). Therefore they studied the cycle of pork price, usually explained by the cobweb theorem.<sup>13</sup> If the assumption according to which the elasticity of pork demand is lower than the elasticity of output seems to them 'probable' (Coase and Fowler 1935a, 143), they immediately note the contradiction between two other assumptions of the theory: while the producer is assumed to be rational (he maximises his profits), his expectations are static, as if the prices did not change from one period to the other. They wrote: 'The conclusions reached by [the cobweb theorem] would follow only if farmers assumed that prices and costs would remain unchanged. This would appear to be a most unreasonable assumption, since farmers could not fail to realise that prices and costs vary widely. Statistical investigation suggests that farmers do not in fact make this assumption' (*id.*, 146). Assuming rationality of

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<sup>13</sup> Cobweb literature develops in the beginning of the 1930s (the word cobweb is used for the first time by Kaldor, 1934), and convergence conditions were detailed by Ezekiel (1938). It was sometimes named the hog-cycle after the phenomenon observed in American pork prices during the 1930s.

the producers, and using British statistics from 1921 to 1933, they proved that their anticipations were not in fact static.<sup>14</sup>

Statistics are used to not only criticise the usual assumption but also investigate the kind of expectations formed by the pork producers. Coase and Fowler (1937) calculated the expected sale price<sup>15</sup> and concluded that a definite relationship between expectations and past and present prices and costs, i.e. a mechanical explanation of an extrapolative kind (*id.*, 73), cannot be established. Attempting to explain the reduction of the cycle length from 5 years at the end of the 19<sup>th</sup> century to 4 years at the beginning of the 1930s, they give some indications on the formation of expectations and more precisely on the reduction of the error: ‘One factor is that farmers may learn from experience and thus correct errors more quickly and tend to be more accurate in their forecasting. The other is, of course, that farmers who persistently make bad forecasts will make losses and will tend to turn to alternative occupations’ (*id.*,79).<sup>16</sup> We see here that, lacking empirical elements, Coase did not try to provide definite assumptions on expectations, but provided realistic elements that would have to be taken into account in assumptions about expectations.

### *Vertical integration*

It is well known that ‘The Nature of the Firm’ begins by raising the contradiction between the neoclassical assumption according to which the price mechanism ensures the coordination and the actual world in which another coordination means exists: hierarchy.<sup>17</sup> This contradiction is linked to another: in the debate over planning, some economists criticise planned economies while there exists, inside market economies, these islands of planning

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<sup>14</sup> Coase and Fowler rationalize their method in their last article: ‘It is not possible to observe expectations; it is not even possible to infer their precise nature except on the assumption of rational behaviour. This is perhaps the best line of approach. We can study what producers actually do and then, assuming that they act rationally, we may be able to infer what their expectations must have been’ (1940, 280). In the 1935 paper, to prove their claim, they calculate for each month an expected profit that has to be constant if anticipations of sales prices and of costs are static and if market for young pigs is competitive. On the contrary, the expected profit fluctuates significantly (1935a, 155-7).

<sup>15</sup> This is the sum of the cost of a young pig, the breeding costs and the short term average profit. This methodology is detailed and discussed in their last article (Coase and Fowler 1940).

<sup>16</sup> Because this last article was quoted by Muth (1961), it was sometimes argued that Coase and Fowler were at the origin of the rational expectation concept (see, e.g., Pashigian 1987, 463). Nevertheless, Muth (1961, 334) only refers to their criticism of the cobweb theorem by the cycle length prediction.

<sup>17</sup> ‘Yet in the real world, we find that there are many areas where this [the allocation of factors of production by the price mechanism] does not apply. If a workman moves from department Y to department X, he does not go because of a change in relative prices, but because he is ordered to do so’ (Coase 1937a, 387).

which are firms.<sup>18</sup> ‘But in view of the fact that it is usually argued that co-ordination will be done by the price mechanism, why is such organization necessary?’ (Coase 1937a, 388). Coase criticises, on the one hand, the unrealism of the firm as a black box, the absence of definition and explanation of what a firm is, and, on the other hand, the unrealism of the assumption that market guarantees all the coordination that is necessary. Strictly speaking, there is no empirical study in this paper but Coase’s ideas became clear in his mind after having spent the 1931-32 year in the United States studying vertical and lateral integration in industry. On this occasion, he carried out interviews and empirical studies on costs, visited business and industrial plants, read trade periodicals and the reports of the Federal Trade Commission (Coase 1988b). These ideas were first a ‘realistic’ definition of the firm, through the notion of hierarchy, and, second, the ‘scientific meaning’ (Coase 1937a, 393) of firm size as determined by the trade-off between transaction costs and organizational costs.

#### *Fisher Body / General Motors*

Rather ironically, Coase’s last papers (2000; 2006) have detailed an intuition that he has already had when he was thinking about the nature of the firm as early as 1932. These papers criticise the explanation of integration as a solution to the hold-up problem (post-contractual opportunism in the presence of asset specificity). If Coase had in 1932 already ruled out this explanation, he wanted in these later papers to criticise an exemplary case study largely seen as an evidence of the hold-up explanation: the acquisition of Fisher Body by General Motors in 1926 in order to prevent a hold-up by the former (Klein, Crawford and Alchian 1978). As Coase explained as soon as 1988 (1988c, 42-6), he already had a glimpse of the idea of asset specificity and consequent opportunistic behaviour when he was looking for an explanation of integration, in 1932. But he rejected this idea since specific contracts actually solved this problem, as did informal arrangements in the long-term: ‘I ultimately came to reject the existence of this risk as an important reason for vertical integration as a result of discussions I had with businessmen’ (Coase 2006, 259). He had also visited A.O. Smith, another manufacturer of automobiles frames whose main client was GM and whose equipment was specific for GM’s automobiles: it had harmonious relations with GM and it was never acquired. Coase therefore considered the Fisher Body case as having no general value, and he

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<sup>18</sup> The fact that ‘The Nature of the Firm’ intended to contribute to this another debate on planning is clarified in Coase (1988b, 8): ‘What was essentially the same puzzle presented itself to me in another form which can be summed up in one word, Russia.’ See also Campbell and Klaes (2005, 266-7).

pursued his criticism, displaying the factual failures and inconsistencies of Klein's successive accounts of this case (Klein 1991; 2000).

## 2.2. REFUTING STANDARD THEORY

Coase's empirical studies first intend, as we have just argued, to display both what has to be explained and new assumptions and concepts. Coase (1972a, 71) writes: 'An inspired theoretician might do as well without such empirical work, but my own feeling is that the inspiration is most likely to come through the stimulus provided by the patterns, puzzles, and anomalies revealed by the systematic gathering of data, particularly when the prime need is to break our existing habits of thought.' Arguing that empirical studies are needed to change our view, Coase reveals a second role for empirical studies: breaking our habits of thought.<sup>19</sup> It is indeed well-known that a great part of Coase's empirical studies sounds like empirical refutations of the conventional theory.

For example, in 'The Nature of the Firm', Coase writes that neoclassical theory believes that market ensures all the cooperation that is required. The consequent prediction is that only the market exists. Coase observes that there is another means of coordination, and hence the prediction is refuted. In the pig cycle study, there is a criticism of not only the assumption of static anticipation but also of the prediction of the cobweb theorem according to which the cycle would have a length of two years (the double of the length of production): the observed cycle lasts four years (Coase and Fowler 1935a, 164). Finally, the observation of the non-integration of A.O. Smith by General Motors can also be viewed as a refutation of the prediction of a hold-up in the presence of asset specificity.<sup>20</sup> Klein's interpretation of the Fisher Body case is actually used by Coase as an example of the theory ladenness of case study in economics (to which we shall return): 'It is believed that certain contractual

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<sup>19</sup> The consistency of Coase's views on methodology is striking: see also Coase (1992, 718-9). And in 2002, Coase expressed the same kind of idea about the NBER studies, they are useful but they do not explain anything: 'I would cite the work of the National Bureau of Economic Research as extremely useful work, but it's not work which really changes one's vision. One doesn't think of the economic system in a different way. If for example, tax rates go up, what will happen to the tax receipts? Well, they might go up, they might go down, and in an extraordinary case they might even remain the same. What the National Bureau does is to tell one whether, when tax rates go up, the tax receipts go up or down. But one always knew they had to do one or the other, and it doesn't change one's view at all of how the system operates. It gives you useful information, but useful information within the existing scheme. Now, what we need if the subject is to proceed is not only that sort of empirical work. *We do need empirical work, but we need something additional: empirical work which actually changes the way we look at the problem.*' (emphasis added)

arrangements will lead to opportunistic behaviour, it is not surprising that economists misinterpret the evidence and find what they expect to find. That the belief in the truth of a theory leads to a lack of interest in what actually happens is not uncommon in economics is suggested by the work of... Paul Samuelson... Samuelson felt able to make statements about the finance and administration of lighthouses without having made any serious investigation of the subject' (2006, 275-6). And, of course, Coase's most famous empirical refutation concerns lighthouses.

### *Lighthouses*

In 'The lighthouse in Economics', Coase (1974b) observes that lighthouses are often used by 19<sup>th</sup> and 20<sup>th</sup> century economists as an example of services which has to be produced by the government. Yet, he points out that, until the early 19<sup>th</sup> century, some English lighthouses were built and maintained by private individuals.<sup>21</sup> More precisely, economists refer to the practical impossibility of getting payments from users, which discourages private entrepreneurs from providing this service, to justify the public production of lighthouses. Moreover, even if these payments could be enforced, a private enterprise could never fix an optimal price since the marginal cost of this service is equal to zero (Samuelson 1964).

'The Lighthouse' is mainly a study of the actual system of lighthouse financing and maintenance in England and Wales, from the 17<sup>th</sup> to the 19<sup>th</sup> century. According to Coase, the public type organisation in charge of lighthouses (Trinity House) did not build enough lighthouses and consequently some individuals, supported by petitions of ship owners and seamen, obtained authorization from the Crown to build lighthouses and to collect the corresponding dues. The lighthouses were then centralised by Trinity House in 1842. Coase concludes that: 'The early history shows that, contrary to the belief of many economists, a lighthouse service can be provided by private enterprise... The lighthouses were built, operated, financed, and owned by private individuals, who could sell a lighthouse or dispose of it by bequest. The role of government was limited to the establishment and enforcement of property rights in the lighthouse. The charges were collected at the ports by agents for the lighthouses' (1974b, 212). Five arguments are implicitly used in this refutation: (1) Trinity House, in charge of the public interest, built too few lighthouses; (2) private individuals could

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<sup>20</sup> 'All I could say was that I had seen a plant which, if Klein et al. (1978) were right, would have made opportunistic behavior a likely outcome but there had been none' (Coase, 2006, 262).

<sup>21</sup> For a detailed account of this article and of its links with 'The Problem of Social Cost', see Bertrand (2006).

obtain payments from users for a lighthouse service; (3) this activity must have been profitable for private individuals since many began building lighthouses; (4) this private financing system was efficient, i.e. adapted to needs; (5) the role of the government in the production of lighthouse services was similar to that of any other private good: it was limited to the definition and enforcement of property rights.

### 2.3. DESIGNING ECONOMIC POLICIES

This study on lighthouse is aimed not only at refuting Samuelson's theory, but also at suggesting the possibility of other institutional arrangements to provide monopoly: 'I think we should try to develop generalizations which would give us guidance as to how various activities should be best organized and financed. But such generalizations are not likely to be helpful unless they are derived from studies of how such activities are actually carried out within different institutional frameworks. Such studies would enable us to discover which factors are important and which are not in determining the outcome, and they would lead to generalizations which have a solid base. They are also likely to serve another purpose by showing us the richness of the social alternatives among which we can choose' (*id.*, 211-2). That is, 'The lighthouse' directly tackles the conventional elaboration of policy solutions by comparison to an ideal world.

The formalisation of standard microeconomics made likelier not only the remoteness from the real world but also the elaboration of policy solutions relative to an ideal world. According to Coase (1988a, 28), economists 'paint a picture of an ideal economic system, and then, comparing it with what they observe, (or think they observe), they prescribe what is necessary to reach this ideal state without much consideration for how this could be done. The analysis is carried out with great ingenuity but it floats in the air.' Conventional economics elaborates solutions on the blackboard, assuming a perfect government that plays the role of the professor: 'All the information needed is assumed to be available and the teacher plays all the parts. He fixes prices, imposes taxes, and distributes subsidies (on the blackboard) to promote the general welfare. But there is no counterpart to the teacher within the real economic system... In real life we have many different firms and governments agencies, each with its own interests, policies, and powers' (*id.*, 19). Let us take as an example 'The Marginal Cost Controversy' (1946a), in which Coase questions the rule of

equalization of price with marginal cost when average cost is decreasing.<sup>22</sup> One of his arguments is that this solution is only possible on the blackboard, since public authorities cannot know the consumers' indifference maps, or determine the goods that have to be produced (the one for which consumers are willing to pay the total cost of production).<sup>23</sup>

In opposition to the comparison with an ideal world, the Coasean method of elaborating policy solutions entails examining the initial actual situation and comparing the net values yielded by alternative arrangements.<sup>24</sup> 'A better approach would seem to be to start our analysis with a situation approximating that which actually exists, to examine the effects of a proposed policy change and to attempt to decide whether the new situation would be, in total, better or worse than the original one. In this way, conclusions for policy would have some relevance to the actual situation' (Coase 1960, 43). Empirical studies are necessary in all stages of this process from studying the specific initial circumstances to imagining, and then evaluating, the different possible arrangements. They are a constituent part of the comparative institutional method, since they help to imagine all the changes that would be induced by a move to another institutional arrangement: 'I believe that by a detailed study of an industry or organization it is possible to obtain sufficient understanding of how it operates to be able to say how its performance would be affected by changes in circumstances; for example, the introduction of a particular form of regulation... What is needed is an act of imaginative reconstruction. This must, however, be based on detailed knowledge' (Coase 1964, 195).

### *Monopolies*

In this line of thought, Coase made a series of empirical studies on monopolies, such as the UK Post Office (1939; 1955a; 1961a), the British Broadcasting Corporation (1947b; 1948; 1950; 1954), and the US broadcasting institutions (1959; 1961b; 1962; 1965; 1968; 1979).<sup>25</sup> Those studies question the traditional justifications of the monopoly: regulators do not really

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<sup>22</sup> This solution was advocated by Hotelling (1938), Lerner (1944) and Meade and Fleming (1944).

<sup>23</sup> This solution also redistributes revenues towards consumers of goods being produced with a decreasing average cost and has all the inherent problems of a taxation policy (Coase 1946a and 1947a).

<sup>24</sup> Medema and Samuels (1998, 163) emphasise four characteristics of this Coasean method for policy: '(i) it is a total approach, (ii) it emphasises realistic or practical analysis, (iii) it involves comparative institutional analysis, and (iv) benefit cost analysis plays a prominent role.'

<sup>25</sup> On these works, see Medema (1994, chapter 5) and Pratten (2001).

examine the theoretical basis for monopoly or the actual possibility of other arrangements.<sup>26</sup> They also suggest in some cases the use of the price system. What is important, however, is that Coase examines the actual result of public intervention and the actual possibility of the use of the price system.

#### 2.4. THE ROLE OF ECONOMISTS' EMPIRICAL STUDIES IN COASE'S VIEW

Contrary to what was suggested, Coase is not a refutationist. He clarified this point in his 1981 Warren Nutter lecture, titled 'How Should Economists Choose?' (1982).<sup>27</sup> After having explained his rejection of the idea that a theory can be judged solely on its predictions, he adds that this Friedmanian refutationist view is in fact normative (*id.*, 18). According to him, the criterion of economists' *actual* choices of theories would not be the test of predictions, but rather their ability to explain. He therefore suggests a positive methodology of economics, for which he draws on the empirical studies published in the *Journal of Law and Economics* when he was editor (1964-1982) (*id.*, 25).

At this point of his lecture, two questions arise. First, what role do empirical studies play? Adopting Kuhn's views on the theory ladenness of observations (Kuhn 1961), Coase asserts that the role of quantitative studies is to confirm a theory. He writes: 'if you torture the data enough nature will always confess' (1982, 27). Moreover, studies intending to test alternative theories are also full of theory: they 'are almost invariably guided by a theory and that they may most aptly be described as explorations with the aid of a theory. In almost all cases, the theory exists before the statistical investigation is made and is not derived from the investigation' (*id.*, 26) Empirical studies do not therefore play the role of tests because they are dependent on theories.

Rather, they play a role of persuasion in the 'market' for theories: 'The choice economists face is a choice between competing theories. These studies, whether quantitative or qualitative, perform a function similar to that of advertising and other promotional activities in the normal products market... What we are dealing with is a competitive process in which

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<sup>26</sup> Medema (1994, 103) writes about Coase's studies on the BBC: 'What seems most vexing to Coase about all this is not the monopoly *per se* – and, indeed, he never suggests that the monopoly should be retained or abolished – but rather the lack of any substantial effort by policy-makers to question the assumptions in favour of the monopoly or to conduct an examination of the desirability of alternative organizational structures.'

<sup>27</sup> An epistemological analysis of this lecture, and of its possible inconsistencies, is put forward in Bertrand (2007). See also Lagueux (1993) and Mäki (1998d).

purveyors of the various theories attempt to sell their wares' (*id.*, 28). Coase indeed introduces the idea of economics as rhetoric, and this even before Mc Closkey's essay (1983).

The second question is: how do economists actually choose their theories? Even if he said before that economists chose a theory according to its explanative power, Coase adds now that they choose a theory according to its political consequences, 'because it lends support to a particular policy' (*id.*, 30). In fact, empirical studies would serve as 'weapons in a propaganda battle' (*ibid.*).<sup>28</sup>

Finally Coase ends his lecture by describing the choice between alternative theories as a choice in the market and hence provides still another criterion of choice. Here, economists choose the theory that makes them gain respect and position; their choice is therefore influenced by the standards of the profession. In fact, Coase develops an institutional economics of economics<sup>29</sup>: he describes a market where institutions determine suggested and chosen theories. And he advocates for an institutional setting that would be 'relatively free', 'autonomous', and independent from political pressures so that 'economists [are] free to choose the theories that will be most helpful in guiding them in their work' (*id.*, 32).

It is quite surprising that in this lecture Coase does not question his own practice of empirical studies. Therefore the next section will now examine in which extent what he says about the other economists' empirical studies applies to its own.

### 3. THEORETICAL AND POLITICAL BIASES

We already saw that Coase sometimes uses his empirical studies as tests and we want here to consider two other features that they may have. First, are they influenced by theory? We shall show that the answer is positive: precisely by a theoretical presupposition of the efficiency of the price system. Second, are they guided by political views? The answer is also positive: by a preference for a costly price system over a defective government.

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<sup>28</sup> Coase adds that this political criterion is unimportant in the long period.

<sup>29</sup> The phrase 'economics of economics' is due to Mäki (1998d, 257). See also Mäki (1999).

### 3.1. THEORETICAL PRESUPPOSITION: THE EFFICIENCY OF THE PRICE SYSTEM

The first role of Coasean empirical studies identified here was establishing realistic assumptions, but the three examples we provided make also some assumptions that are not themselves based on empirical studies; rather they are borrowed from standard theory. For example, in the three studies, Coase assumes that the producer maximises his profit<sup>30</sup>, and in ‘The nature of the firm’, he accepts the neoclassical hypothesis of the efficiency of the pricing system (without cost).

These two assumptions do not come from empirical studies but are taken from neoclassical theory. It is not our ambition to review what is orthodox and what is heterodox in Coase’s theory (see Foss 1994); instead we simply want to raise and question one fundamental assumption on which it is based, and the relevance of which, using Coase’s criteria, is open to doubt. At the core of Coase’s analysis lies an assumption in that it is a presupposition of his theory: the alleged efficiency of the price system without cost, which is asserted, for example, by the ‘Coase theorem’.

In Coase’s arguments, the price system is the first institutional arrangement: the firm and the government are defined as alternatives to a too costly price system. In ‘The Nature of the Firm’ (1937a), the firm is an alternative means of coordination that is used only if it is less costly. If market transaction costs were zero, a highly unrealistic assumption in Coase’s view, there would have no place for the firm. Identically, ‘The Problem of Social Cost’ (1960) begins by examining the market solution to external effects. Then, if it is too costly, the firm solution should be envisioned (with the same argument as in 1937). Then, if this latter solution is still too costly, the governmental solution may be tried, if not itself too costly. These two papers display Coase’s assumption: a price system without cost is efficient. On several occasions, Coase reminds us that the institutional arrangement normally used is the price system.<sup>31</sup> It is only if and when it is costly or if there is evidence of a specificity of the

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<sup>30</sup> It is explicit in the pig-cycle. In the second and third studies, profit maximisation explains the choice of the producer between buying on the market and producing himself, between the modes of coordination. This assumption is not easy to reconcile with Coase’s search for realistic assumptions, see Bertrand (2007).

<sup>31</sup> ‘My basic position was (and is) the same as Plant’s, that our economic system is in the main competitive’ (Coase 1988c, 26).

good exchanged<sup>32</sup>, and if you can prove that another arrangement would lead to a greater net benefit that you are justified to suggest it as a solution.

The efficiency of the price system does not imply the absence of any regulation in order to operate. In Coase's view, if the price system is an institutional arrangement alternative to governmental intervention for the allocation of resources, the State is necessary to define and attribute rights to be exchanged, and to enforce them, as emphasised in 'The Problem of Social Cost'. Moreover, a system of prices needs some rules, whether they are private or public: 'It is evident that, for their operation, markets such as those that exist today require more than the provision of physical facilities in which buying and selling can take place. They also require the establishment of legal rules governing the rights and duties of those carrying out transactions in these facilities. Such legal rules may be made by those who organized the markets, as is the case with most commodity exchanges' (Coase 1988a, 10). Government has a role in regulating markets, in establishing their legal framework.<sup>33</sup>

Why is the price system efficient in Coase's view? He wrote: 'If rights to perform certain actions can be bought and sold, they will tend to be acquired by those for whom they are most valuable either for production or enjoyment. In this process, rights will be acquired, subdivided, and combined, so as to allow these actions to be carried out which bring about that outcome which has the greatest value on the market' (1988a, 12).<sup>34</sup> The implicit reasoning is the following: the price system allocates the good to the one who offers the most to obtain it. If the good is a factor of production, the acquirer is the producer who offers the highest price, therefore the rent obtained from this factor is maximised (with the profit maximisation assumption). If the good is aimed at consumption, the consumer who offers the most is the one who values it the most. These ideas underlie Coase's empirical studies about

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<sup>32</sup> We provide two examples. In the FCC paper (1959), the main justification of the use of prices to allocate radio frequencies was the absence of specificity of this good (and more generally of external effects). Second, Coase also questioned the specificity of the market for ideas in order to question the specificity of the absence of its regulation: 'I do not believe that this distinction between the market for goods and the market for ideas is valid. There is no fundamental difference between these two markets and, in deciding on public policy with regard to them, we need to take into account the same considerations' (1974a, 72).

<sup>33</sup> Indeed, regulation cannot be private in large markets: 'I've never felt that you could get a property rights system without the use of state powers. You can in narrow areas; trade associations and others can form organizations to set up what is in effect a private legal system. It's very hard to do that when you're dealing with people with very diverse interests' (Coase 1997b).

<sup>34</sup> This idea underlies of course the 'Coase theorem'. Remembering the opposition to the first formulation of this proposition in 1959, Coase (1997a) said: 'The law of property determines who owns something, but the market determines how it will be used. It's so obvious to me that I couldn't understand the fuss. All it says is that

the American and British institutions of television and radio broadcasting, as Pratten (2001) emphasised.

### *Broadcasting*

The argument concerning the production side appears explicitly in Coase's paper on IRAC (1962) in which he suggests the use of the price system to allocate frequencies to public stations as a solution to the drawbacks of the attribution by a public commission, IRAC, which gives them away. First, the frequencies would be acquired by the person who will use it in the way that maximises the value of production.<sup>35</sup> Second, prices would provide producers with a measure of costs and benefits and with incentives in minimising these costs.<sup>36</sup> Therefore, the price system 'would rule out inefficient use of frequencies by bringing any proposal for the use of such frequencies up against the test of the market, with its precise measure of cost and benefit' (Coase 1961b, 53, quoted *in* Pratten 2001, 626). On the consumption side, prices measure consumers' willingness to pay. Prices therefore convey information on preferences<sup>37</sup> that a central planner cannot afford: 'without a pricing system, a most useful guide to what consumers' preferences really are would be lacking' (Coase 1946a, 79).

According to Coase, the price system puts face-to-face the real cost implied by the production of a good and what the consumer is willing to pay for this good: this direct relationship between the consumer and the producer is efficient. As Pratten clarifies (2001, 625): in Coase's view, 'the market provides the means through which agents can compare a potentially infinite range of possible courses of action, and provides an information system

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the people will use resources in the way that produces the most value, that's all. I still think it's an obvious point. You wouldn't think there was a need for a Coase Theorem, really.'

<sup>35</sup> 'This [pricing] system, the one normally used to allocate resources to users in the United States, means that resources are obtained by those who will pay the most for them. Since the amount which a user will pay for a resource reflects the value of that resource in whatever employment he is contemplating using it, the pricing system tends to result in that allocation of resources between its various uses which maximizes the value of production' (Coase 1962, 40-1).

<sup>36</sup> 'The absence of a market price (which measures the value of a frequency to another user or in another use) means that a user has little idea of when he is using a frequency "wastefully" and no financial inducement to find out' (Coase 1962, 45). He also writes: 'It is one of the advantages of the pricing system that, for its efficient working, the only person who needs to know about how any given user would use radio frequencies is the user himself' (*id.*, 43). Of course there is a proximity with Hayek (1945), who is not mentioned here.

<sup>37</sup> Note that Coase makes here an error in believing that willingness to pay for a good just reflects the consumer's preference: it reflects also the initial endowment of the agent and a social norm of the value of this resource (see Bertrand 2003). Further, Coase's welfare criterion (maximisation of the value of production) implies a definition of welfare by the satisfaction of preferences, rather than needs (see Pratten 2001).

through which individual decisions are communicated to producers.’ This is the reason why Coase suggests making the consumers pay for the television programs they watch, in opposition to the actual system where the advertiser pays, which implies that ‘the market for broadcast programs is one from which the consumer is barred: what he would pay plays no part in the determination of programs’ (1966, 446). Along the same lines, the price system would be efficient for allocating radio frequencies because it confronts the costs of production with the willingness to pay: ‘What is important is that factors of production should be used where their output is most valuable, and this is most likely to happen if the use of factors of production is determined by what consumers are willing to pay’ (1961b, 57, quoted in Pratten, 2001, 628).

### **A theoretical presupposition**

The efficiency of the price system is a theoretical assumption in Coase’s thought, which came from Plant’s teaching and not from empirical studies: ‘In 1931... I attended Arnold Plant’s seminar at the London School of Economics (LSE). He introduced me to Adam Smith’s invisible hand and to the advantages of a competitive system’ (Coase 1996, 106). Coase went on giving credit of this idea to Smith who ‘shows that the pricing system is a self-adjusting mechanism which leads to resources being used in a way that maximizes the value of their contribution to production’ (1977b, 315). He added, while including himself in the community of economists (which for once doesn’t hurt): ‘Adam Smith’s analytical system may seem primitive to us but in fact he reaches results we accept as correct today’ (*ibid.*).

As Pratten (2001, 629) stressed, there is a possible inconsistency between Coase’s criticisms of standard microeconomics and this efficiency assumption, which he took from it without demonstration: ‘With regard to the characterisation of the market, while it may be the case that the competitive process has the features Coase suggests, it would seem that this needs to be argued for, not merely assumed or taken from authority... At times, Coase seems to imply that, as a result of essentially methodological limitations, contemporary mainstream theory misrepresents the nature of the market... Despite his reservations regarding important aspects of mainstream theory, Coase does not proceed to re-examine the competitive process but rather takes certain features of this process for granted when assessing policy. Thus an important aspect of Coase’s framework is left somewhat ungrounded.’

To summarise, the price system is, in the Coasean comparison of institutional arrangements, the first in that the necessity of other arrangements can be explained only by a specific deficiency of this system and if they prove their superiority. Indeed, the price system provides a clear evaluation of costs and preferences: if we assume that agents seek to use efficiently their resources, the agents who most value the goods buy them. Coase's analysis is therefore based on the theoretical presupposition that the price system (without cost) allows the maximisation of the value of production. Coase takes this assumption from standard theory while criticising its representation of the market. His empirical studies, at least these on broadcasting, are therefore influenced by the theory of the efficiency of the price system, but they may also be influenced by a political bias: a preference for the market, even if costly.

### 3.2. POLITICAL BIAS: THE RELATIVE EFFICIENCY OF THE COSTLY PRICE SYSTEM

That most Coase's empirical studies criticised public intervention and public regulation has led to the belief that there was a political bias in these studies. This idea can for example be found in Posner's criticism, but without clear justification: 'Hostility to public intervention in markets beyond what is defensible in strict wealth-maximization terms is thus a leitmotif of Coase's work' (1993c, 201). It is true that Coase displays government's failures, but when elaborating a policy solution, his method is to compare a defective market and a defective government. Let us clarify Coase's view of government and its failures.

In 'The Problem of Social Cost', public intervention appears as an alternative to the price system, as would the firm. The government and the firm may both substitute administrative decisions for market transactions.<sup>38</sup> Because the nature of public intervention is similar to the firm, it implies the same administrative or organizational costs (Coase 1946a, 79), but it also implies specific costs due to its differences with the firm. Principally, the State escapes from the competitive control of prices.<sup>39</sup> For example, this argument serves Coase's criticism of IRAC (1962): because the public commission cannot measure the value of frequencies, it attributes them inefficiently. The absence of prices also means a lack of information on

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<sup>38</sup> 'The government is, in a sense, a super-firm (but of a very special kind) since it is able to influence the use of factors of production by administrative decision' (Coase 1960, 17).

<sup>39</sup> 'The government is able, if it wishes, to avoid the market altogether, which a firm can never do' (Coase 1960, 17). The other difference with the firm is that the state possesses the violent means to enforce regulation: 'Furthermore, the government has at its disposal the police and the other law enforcement agencies to make sure that its regulations are carried out' (*ibid.*).

preferences, a point that is at the origin of his criticism of the FCC monopoly.<sup>40</sup> Moreover, the people who decide public intervention do not follow general interest and most notably apply some routines.<sup>41</sup> More important, human beings who are in public agencies act in their private interests and are fallible: ‘regulators commonly wish to do a good job but are often incompetent and subject to the influence of special interests, because, like all of us, they are human beings whose strongest motives are not the highest’ (Coase 1974a, 72). In Coase’s view, even more radically, general interest above the satisfaction of individual preference does not exist and individuals are better placed to know these preferences. This leads Pratten (2001, 624) to write: ‘In addition to his doubts regarding the existence of shared real interests, Coase is adamant that no public agency could identify any such shared real interests, if they existed’.

Consequently, as any other arrangement, public intervention implies benefits and costs. In fact, the main issue of Coase’s method for policy is to compare defective arrangements, government failures with market failures. He has a pragmatic view of policy. One of his great insights is precisely the definition of the political problem as an actual choice between institutional arrangements that all are defective: ‘What is wanted, if policy recommendations are to have a solid foundation, is to take into account both how a market actually operates and how a government organisation does in fact carry out the tasks entrusted to it’ (Coase 1975a, 61).<sup>42</sup> And we cannot formulate general economic propositions, because each specific case is

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<sup>40</sup> ‘Quite apart from the malallocations which are the result of political pressures, an administrative agency which attempts to perform the function normally carried out by the pricing mechanism operates under two handicaps. First of all, it lacks the precise monetary measure of benefit and cost provided by the market. Second, it cannot, by the nature of things, be in possession of all the relevant information possessed by the managers of every business which uses or might use radio frequencies, to say nothing of the preferences of consumers for the various goods and services in which the radio frequencies could be used’ (Coase 1959, 18).

<sup>41</sup> ‘We cannot expect a regulatory commission to act in the public interest, particularly if we have regard to its actions over the long period... However fluid an organization may be in its beginning, it must inevitably adopt certain policies and organizational forms which condition its thinking and limit the range of its policies’ (Coase 1966, 441-2). This impedes significant changes of these institutions, for example: ‘The FCC is rather like a whale stranded on the seashore, waiting while the local inhabitants, ignorant of whale anatomy, try to show it the direction in which it should swim’ (*id.*, 445).

<sup>42</sup> ‘Contemplation of an optimal system may suggest ways of improving the system, it may provide techniques of analysis that would otherwise have been missed, and, in certain special cases, it may go far to providing a solution. But in general its influence has been pernicious. It has directed economists’ attention away from the main question, which is how alternative arrangements will actually work in practice. It has led economists to derive conclusions for economic policy from a study of an abstract model of a market situation. It is no accident that in the literature... we find a category “market failure” but no category “government failure”. Until we realize that we are choosing between social arrangements which are all more or less failures, we are not likely to make much headway’ (Coase 1964, 195).

different.<sup>43</sup> This is the reason why ‘even-handedness in the comparison of governance structures is the core of Coase’s views on economic and legal policy formulation’ (Campbell and Klaes 2005, 283).

### **Coase’s political conversion**

Nonetheless, despite this constant pragmatism, it is easy to oppose, as Calabresi did (1991, 1211), with some exaggeration, the ‘young socialist’, who wrote ‘The Nature of the Firm’ and displayed the costs of the market, with the ‘middle-aged libertarian’ of ‘The Problem of Social Cost’, who displayed the costs of government. Considering that the criticisms of the first paper came from ‘free-market advocates’, who applauded the second, criticisms this time coming from the camp of the ‘leftists’ (Schwab, 1993, 360), Schwab asserts: ‘*The Firm* argues that planning (by firms) can be more efficient than the market, depending on the relative transaction costs. *Social Cost* shows that a market without transaction costs would equal the best possible planning (by government), and argues that real-world markets often exceed planning by real-world governments, again depending on the relative costs’ (*id.*, 369). Indeed, this last article is a general argument justifying the claim that radio frequencies could be bought and sold on a market. Based on this idea and on the fact that Coase ‘had left Britain for the USA in 1951 in part because of “a lack of faith in the future of socialist Britain”’ (Coase 1995, 239)’, Campbell and Klaes (2005, 264) characterize the Coase of the 1960s as a ‘neo-liberal’. On the contrary, the first article was written when Coase was a Socialist<sup>44</sup>, something that Coase recognised as having an influence on the content of the paper, on the introduction of the costs of the pricing system (Coase 1996, 106).<sup>45</sup>

As we saw, both these papers develop the comparative institutional method according to which ‘the key to the development of a sensible analysis is the comparison between the additional production resulting from the rearrangement of activities and the cost of the transactions needed to bring the rearrangement about’ (Coase 2002). There is a fundamental theoretical unity between ‘the Firm’ and ‘the Social Cost’: as soon as 1937, Coase ‘thought

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<sup>43</sup> ‘How can one say that a move from regulation to a private property rights system, the use of the market, will necessarily represent an improvement? If the question is put in such a general form, one cannot say that it will’ (Coase 1974c, 493).

<sup>44</sup> He was since at least the age of 16 (Coase 1988b, 5).

<sup>45</sup> Campbell and Klaes (2005, 268) claim ‘that “The Nature of the Firm” was intended to strengthen the socialist side in the planning debate, and this is in line with Coase’s self-expressed socialist sympathies at the time, with his explicit rebuttal of Hayek, with his open reference to the planning debate, with the subsequent neglect of his paper by both Robbins and Hayek..., and with the approving use in his paper of the writings of Maurice Dobb.’

about the firm in terms of a choice of contractual arrangements' (1988c, 29).<sup>46</sup> However, and despite this unity, there is a radical change in Coase's views on politics, from socialism to a criticism of public intervention. Interestingly enough given our interest here, Coase's change of political views comes from empirical studies.

In 'Economists and Public Policy', written in 1974, Coase argues about the empirical studies on the effects of public regulation of economic activities: 'The main lesson to be drawn from these studies is clear: they all tend to suggest that the regulation is either ineffective or that, when it has a noticeable impact, on balance the effect is bad, so that consumers obtain a worse product or a higher-priced product or both as a result of regulation' (1975a, 61).<sup>47</sup> Searching for an explanation of the fact that the net gain of intervention is never greater than those of the market, he explains that he has 'come to the conclusion that the most probable reason we obtain these results is that the government is attempting to do too much – that it operates on such a gigantic scale that it has reached the stage at which, for many of its activities, as economists would say, the marginal product is negative (*id.*, 62). There is a unique solution: 'the advice that has to be given is that all government activities should be curtailed' (*id.*, 63). Coase repeated this argument, for example, about Stigler's studies<sup>48</sup> on public regulation and the studies they have inspired: 'The results of these studies were uniformly depressing... With regulation, prices were higher, products were less well adapted to consumer demands, and competition was restrained' (1991, 205).

According to Coase, it is thanks to this kind of studies that economists broke with the interventionist Pigovian tradition.<sup>49</sup> Identically, it is because of some empirical studies, including his own on British monopolies, that Coase became pessimistic about the efficiency of public intervention. Discussing what Simpson (1996, 58) called his 'deep scepticism as to

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<sup>46</sup> But these papers raise two different and complementary aspects of the actual economic system: 'According to "The Nature of the Firm", effective planning must rely on competition. "The Problem of Social Cost", on the other hand, reveals that competition itself is unthinkable without planned decision-making – logically prior to the market – about the initial specification and distribution of rights (and without state enforcement in support of market choices)' (Campbell and Klaes 2005, 279).

<sup>47</sup> In this paper, Coase's assertions are based on Kitch's study on gas distribution (1968) and on some Stigler's works.

<sup>48</sup> Coase refers mainly to Stigler and Friedland (1962).

<sup>49</sup> 'About twenty years ago, most economists, under the influence of the writings of Pigou and others, thought of the government as standing ready to put things right whenever the results produced by the working of the market were in some respect defective. This led them to support extensive government regulation. The studies which have been made since then have shown how pernicious the results of regulation have commonly been. It has become difficult to argue with plausibility that the ills of society can be cured by government regulation, and the views of most economists have changed accordingly' (Coase 1991, 205-6).

the desirability of government intervention’, Coase (1996, 106-8) detailed his political route from the Socialism of his youth (see Appendix 1), identifying some steps in his gradual political evolution.<sup>50</sup> First, Plant’s teaching at the LSE introduced him to the ineffectiveness of the government. Then his empirical studies on British public utilities deepened this view. But finally it is the studies on the effects of regulation in the United States, done or edited by him, that definitely changed his political orientation:

*My views on government intervention in the economy have changed over my life but they have always been driven by factual investigations. My studies in Britain led me to be doubtful about the benefits of nationalisation. When I came to the United States, I was generally supportive of government regulation (of which I knew very little apart from what was said in the textbooks) but my views were changed (or formed) by the studies made since then, many published in the Journal of Law and Economics. My present position is that which I expressed in 1974. It has been factually driven. But that it is possible to have too much of a thing does not mean that it is not desirable to have any. Our problem is to find out when state action does improve the situation. It is inaccurate to say that I have a “general scepticism about state action”.’ (Coase, 1996, 108)*

We have therefore a better understanding of Coase’s evolution between ‘the Firm’ and ‘the Social Cost’.<sup>51</sup> Nonetheless, we now wonder whether these later political views, even if they come from empirical studies, did not guide Coase’s pragmatic evaluation of policy solutions.

### **Coase’s empirical presupposition of the relative inefficiency of public intervention**

Despite his pragmatism, Coase has included in his theory the results of the observations about the efficiency of nationalisation and regulation; he judges in general public intervention as less efficient than other solutions. This is the reason why Medema and Samuels (1998, 168) write: ‘In spite of this pragmatic view, there can be little question that Coase retains a preferential option for the market, or, perhaps better said, an anti-government animus... And while it may be tempting to attribute this attitude to purely ideological considerations, for Coase the attitude seems to be more derivative of an impression of the inability of government to actually improve on the workings of the market, even when the market is performing poorly... Thus, while formally Coase seeks to objectively reckon both the

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<sup>50</sup> The same account of his political evolution can be found in Coase (1988b and 1988c).

<sup>51</sup> Campbell and Klaes (2005, 265) write: ‘Coase’s later political views, though certainly neo-liberal, can be seen as a perfectly reasonable development of his earlier, socialist ones in the light of the experience of socialist economic and legal policies in the period between the two papers. Coase’s views changed as he grew disillusioned with the results of socialist interventions in the economy’. They interpret in the same way the evolution between the papers Coase wrote during the 1930s, more or less in favour of administrative prices (1935; 1937b; 1939; 46b, and Coase and Fowler papers), and those written in the 1940s that criticise the regulation of natural monopolies prices (1946a; 1947a) (*id.*, 271).

benefits and the costs of government policy, his belief that the former tend to be overstated and the latter understated give one a sense of his kinship with Chicago school ideology.’<sup>52</sup>

### *Harmful effects*

Let us take as an example Coase’s treatment of harmful effects. In the 1959 paper on the FCC, Coase’s so-called pragmatism is immediately questioned after being expressed: ‘This discussion should not be taken to imply that an administrative allocation of resources is inevitably worse than an allocation by means of the price mechanism. The operation of a market is not itself costless, and, if the costs of operating the market exceeded the costs of running the agency by a sufficiently large amount, we might be willing to acquiesce in the malallocation of resources resulting from the agency’s lack of knowledge, inflexibility, and exposure to political pressure. *But* in the United States few people think that this would be so in most industries, and there is nothing about the broadcasting industry which would lead us to believe that the allocation of frequencies constitutes an exceptional case’ (1959, 18-9, emphasis added).

In ‘The Problem of Social Cost’, Coase’s pragmatism is often expressed: ‘All solutions have costs... Satisfactory views on policy can only come from a patient study of how, in practice, the market, firms and governments handle the problem of harmful effects’ (1960, 18). However, he immediately adds: ‘It is my belief that economists, and policy-makers generally, have tended to over-estimate the advantages which come from governmental regulation’ (*ibid.*). If we accept the theoretical presupposition that the price system is the arrangement of reference, public intervention would be justified if its net benefit is positive and then greater than the net benefit of the market. According to Coase, the first condition is not even met. In the majority of cases, he evaluates that the costs of public intervention are greater than its benefits: ‘given that the costs involved in solving the problem by regulation issued by the governmental administrative machine will often be heavy..., *it will no doubt be commonly the case* that the gain which would come from regulating the actions which give rise to the harmful effects will be less than the costs involved in Government regulation’ (*ibid.*, our emphasis). The second condition cannot be met because the price system, even costly, leads to the best value of production. This claim can also be found in this article where the efficiency of the costly price system over all arrangements is asserted: ‘The main advantage

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<sup>52</sup> See also Medema (1994, 124 and 1996, 76).

of a pricing system is that it leads to the employment of factors in places where the value of the product yielded is greatest and does so *at less cost than alternative systems*' (id., 40, our emphasis). And, indeed, a great part of this article consists in tackling Pigovian interventionist solutions (Pigou 1932) that could be necessary if transaction costs were too high: Coase tackles not only taxation, liability of the harmful effect producer, but also regulation, the solution he himself considered (on p. 17).<sup>53</sup>

Coase's position in 1988 is even clearer. After having repeated that different solutions to external effects are possible he claims that: 'The fact that governmental intervention also has its costs makes it very likely that most "externalities" should be allowed to continue if the value of production is to be maximized. This conclusion is strengthened if we assume that the government is not like Pigou's ideal but is more like his normal public authority – ignorant, subject to pressure, and corrupt' (1988a, 26). He even concludes: 'The ubiquitous nature of "externalities" suggests to me that there is a *prima facie* case against intervention, and the studies on the effects of regulation which have been made in recent years in the United States, ranging from agriculture to zoning, which indicate that regulation has commonly made matters worse, lend support to this view' (*ibid.*).

Therefore, while the elements of the Coasean criticism to public intervention are relatively common, his *general* evaluation of a public intervention being inefficient relative to a costly pricing system is presupposed. This has to be distinguished from his theoretical presupposition according to which the pricing system without cost is efficient. Because the idea that public intervention is generally less efficient comes from empirical studies, we may call it as an empirical presupposition. There are therefore two complementary presuppositions in Coase's general evaluation of different arrangements.

This discussion has two consequences. First, it rejoins the commentators' different views about Coase's policy method. On the one hand, Coase is explicitly pragmatist. But, on the other hand, the way he evaluates different arrangements is biased, and this bias is said coming from some empirical studies.<sup>54</sup>

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<sup>53</sup> For an evaluation of Coase's criticism of Pigou, see Goldberg (1981), Demsetz (1996), Simpson (1996), Aslanbeigui and Medema (1998), and Bertrand (2003).

<sup>54</sup> 'Despite this openness about the possibility of legitimate intervention, Coase suggests that his own case studies (including those of broadcasting) indicate that, in fact, these occasions are rare' (Pratten 2001, 618).

Second, it would be naïve to believe that these empirical studies can be carried out without presuppositions; some of Coasean empirical studies themselves suggest that this presupposition of the relative inefficiency of government is not inferred from these studies but guide them. In other words, Coase's policy method seems circular: policy solutions come from case studies, but these empirical studies cannot be carried out without presuppositions on the efficiency of these policy solutions, whether they are theoretical or empirical. We now want to emphasise that the relative inefficiency of public intervention is as much an observation as a presupposition, at least in one case – the British lighthouse system.

*Lighthouses: bis*

We have shown elsewhere (Bertrand 2006) that Coase's account of the history of the English lighthouse system is biased, in two respects. First, as Van Zandt (1993) emphasised, the system was not really private: not only did property rights stipulate the price that could be charged, but also the private builders were granted a monopoly and the Crown itself helped them to collect their dues.<sup>55</sup> Consequently, 'the nature of these patents required some level of government support beyond simple property protection and contract enforcement in order to make the provision of lighthouse services viable' (Van Zandt 1993, 69). In other words, Coase diminishes the scope of the government's role in the private financing system. Conversely, and this is the second bias, he overestimates the efficiency of the direct relation between producer and consumer. The English lighthouse system, in the 17<sup>th</sup> and 18<sup>th</sup> centuries, operated with many problems indeed. Light dues were too high in comparison with what was sufficient to maintain lighthouses and even to build and maintain new ones. High tax levels damaged the competitiveness of British merchant shipping. Lights worked poorly. The levels of dues and their modes of collection showed lack of uniformity. It was also difficult to redistribute the dues to the different lighthouse owners. This confusion actually motivated the 19<sup>th</sup> century centralisation, which allowed for standardisation and the constant lowering of dues. Before that, the Monarch granted patents to those he favoured or to those who offered him the greatest amount of money. The fact that the Crown and the beneficiary negotiated the terms of the patent explains the high level of light dues, the source of a monopoly income, part of which the Monarch received. In the absence of general rules, certain favouritism prevailed, which did not always result in technical efficiency. Moreover,

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<sup>55</sup> The patent-holder's 'collection of revenues got a substantial subsidy from the state because of its readiness to use force to extract light dues from recalcitrant mariners' (Van Zandt 1993, 69).

Trinity House only obtained all the patents from 1679 onwards. Before 1679, the appropriation of a part of the monopoly income by the Monarch, when granting a patent to a private individual, explains the impossibility for Trinity House to obtain these building authorizations for itself.

In ‘The Lighthouse in Economics’, Coase attempted to show that the lighthouse service could have been private in England. He concluded that this traditional example of a service which must be produced by government was badly chosen. Applying his method, and examining what happens at the empirical level, has allowed us to qualify his conclusions: (1) Trinity House did not build lighthouses so long as the Monarch prevented it from doing so, privileging private individuals; (2) dues for private lighthouse services, collected by public officers, could only be obtained with State coercion; (3) the construction and maintenance of a lighthouse by a private individual were made profitable by fixing a high price, granting a monopoly, and guaranteeing the obligation of payment; (4) these private lighthouses ended in failure and required a centralisation, which favoured the uniformity of the dues system, their abatement, and the control of the buildings’ and lights’ quality; (5) the government’s role thus appears more clearly: it made the provision of this service *profitable*, but it did not make it *efficient*.<sup>56</sup>

Consequently, Coase’s empirical studies are informed by the theoretical assumption that we have raised earlier: the efficiency of the price system – see his studies on broadcasting (Pratten 2001). They are also informed by his political belief that public intervention makes things worse than the pricing system, even costly – see his study on lighthouse (Bertrand, 2006). In fact, all of Coase’s presuppositions come from Plant’s teaching: ‘Until I met Plant my economic views were extremely woolly. From him I learned that producers maximise profits, that producers compete, and therefore that prices tend to equal costs and the composition of output to be that which consumers value most highly. Plant also explained that governments often served special interests, promoted monopoly rather than competition, and commonly imposed regulations which made matters worse. He made me aware of the benefits which flow from an economy directed by the pricing system. Clearly, I did not need Chicago’<sup>57</sup> (Coase 1988b, 6-7). He says very well here that even the second and supposedly empirical presupposition did not come first from empirical studies but once again from Plant.

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<sup>56</sup> See Bertrand (2005) for a comparison with the centralised French system.

Moreover it has to be noted that one of the main Coasean arguments lies on the empirical studies made on regulation and published in the *Journal of Law and Economics* when he was editor, that is the same empirical studies on which the Nutter lecture is based, these very studies that, according to him, are guided by theory and political views and that play a rhetorical role.

#### 4. CONCLUDING REMARKS

Coase's empirical studies are first used in the discovery process: they raise new questions and guide the formulation of more realistic assumptions. Moreover, they offer the necessary knowledge of specific situations and of possible alternatives, so they are a constituent part of the elaboration of economic policies. Nevertheless they are also used as refutations of the conventional theory. In these roles, they are guided by some specific theories and political views. Coase applies a kind of pragmatism in policy: there is no general solution. However, he evaluates alternative arrangements with the presupposition that the costly pricing system is in general better than public intervention. And he explained that this view came from empirical studies (his and others'). That is why we call it an empirical presupposition, which we distinguish from the theoretical one according to which the pricing system without costs is efficient. We have shown that his empirical studies themselves are guided by these two presuppositions.

We can safely assume that these Coasean empirical studies play the role he attributed to other empirical tests: they may have a rhetorical function in the market for economic theories. If we accept the Campbell and Klaes' idea that, despite his pragmatism, Coase always chose to question the efficiency of public intervention rather than of the market because he wanted to question the then dominant interventionist theory<sup>58</sup>, we have to accept the idea that his own empirical studies serve as propaganda against neoclassical theory. Coase has been convinced by empirical studies (themselves politically oriented) and intends to convince and to transform the view of economics and economic policy. In other words, his empirical studies have a rhetorical role.

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<sup>57</sup> Coase wrote two articles on Plant (1986; 1987)

<sup>58</sup> 'Coase appears to have done most to break the former consensus in welfare economics by refuting the assumption that intervention will effect an improvement. It is in his development of this argument against interventionist blackboard economics that we find the strongest reasons for Coase's abandonment of his socialism. To assume that intervention will make things better is always wrong and often pernicious in much the way Coase claims' (Campbell and Klaes 2005, 282).

These considerations do not imply that Coase's empirical studies are necessarily erroneous or that they do not teach us anything about the economic system. No more do we mean that Coase is not sincerely searching for something like truth. In fact, Coase's methodology, between deduction and induction, even if difficult to uphold, has led him to a great renewal of economic theory.

Finally, we can analyse the Nutter lecture as any other Coasean empirical study: it refutes Friedman's standard instrumentalist and refutationist views; it supports more realistic assumptions about the choice of economists' theories; it helps designing an institutional solution for improving this choice; but it also appears as a plea for a freedom of choice in the market for theories. In other words, Coase's study of methodology as it appears in the Nutter lecture is itself guided by theoretical presuppositions and political views. And we can make the assumption that it has also a rhetorical role: convince the reader of the relevance of the Coasean approach of economics.

*Appendix 1: Coase's explanation of his political conversion (Coase, 1996, 106-7)*

*'As a young man I was a Socialist. The first challenge to this belief came when, in 1931... I attended Arnold Plant's seminar at the London School of Economics (LSE). He introduced me to Adam Smith's invisible hand and to the advantages of a competitive system. He also pointed out that government schemes in the economic sphere were often ill-conceived and were introduced to placate special interests. I adopted many of Plant's positions but continued to regard myself as a Socialist. That this meant holding what could be considered, and were, inconsistent positions was not unusual at that time ... My socialist sympathies gradually fell away and this process was accentuated as a result of being assigned in 1935 at LSE the course on the Economics of Public Utilities. I soon found that very little was known about British public utilities and I set about making a series of historical studies of the water, gas, and electricity supply industries and of the Post Office and broadcasting.*

*These researches taught me much about the public utility industries and they certainly made me aware of the defects of government operation of these industries, whether municipal or through nationalisation. These researches were interrupted by the war, when I joined the civil service, at first, for a short period, in the Forestry Commission, then responsible for timber production, and for the rest of the war, in the Central Statistical Office, one of the Offices of the War Cabinet. This war-time experience did not significantly influence my views but I could not help noticing that, with the country in mortal danger and despite of the leadership of Winston Churchill, government departments often seemed more concerned to defend their own interests than those of the country.*

*In 1951 I migrated to the United States... I decided to continue my research into the broadcasting industry... In 1964, I became editor of the Journal of Law and Economics. I used that position to encourage lawyers and economists to make these detailed investigations [of the actual results of handling the problem of harmful effects in different arrangements]... When I wrote my 1960 article... I knew next to nothing about regulation in the United States. I hoped as a result of these studies to learn the circumstances in which governmental regulation improved the situation and those in which it did not. As I explained in a paper in 1974 [1975a], this expectation was disappointed...*

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