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IN MEMORIAM OF PROFESSOR RONALD COASE

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In memoriam of Professor Ronald Coase

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ABSTRACT

This article was written as a tribute to Professor Ronald Coase. It acknowledges his scholarly contributions to understanding the existence and boundaries of the firm, and the role of legal rules in organizing economic activity. It also recognizes the reflexivity, realism, simplicity and wit inherent to the work of Professor Ronald Coase.

1. INTRODUCTION

As students, researchers and lecturers, we often have our favourite authors, those whose work we follow, share, discuss and treasure. Ronald Coase, whom I never met in person, is definitely one of my preferred scholars. Coase, who was awarded in 1991 the prize in economic sciences in memory of Alfred Nobel, is known for revealing the importance of transaction costs for the organization of economic activity: transaction costs explain the existence and scope of different modes of organization (Coase 1993 [1937]), and play a crucial role in determining the allocation of rights over the use of resources (Coase 1959; 1960). Coase also uncovered the role played by social norms and laws in reducing transaction costs, and his account of the role of regulation in the economy has been of major influence in "new institutional economics" and in the emergence of "law and economics" as a field of study. However, the emphasis on his pioneering role in "law and economics" and on his inputs to a renewed interest in economic institutionalism often obscures the importance of Coase for management studies and actual organizations. One of the purposes of this paper is indeed to highlight this contribution. But there is another aim to this paper, which is that of acknowledging Coase for his defence of realism in economic analysis, for the simplicity of his writings and for the wit of his discourse. Together with seminal scholarly contributions, these features have definitely built my esteem for the outstanding work of Ronald Coase. I hope the following paragraphs are able to pay him tribute.

2. TRANSACTION COSTS AND THE THEORY(IES) OF THE FIRM

The concept of transaction costs was developed by Coase as he reflected on the reasons for the existence of firms: "*the main reason why it is profitable to establish a firm would seem to be that there is a cost of using the price mechanism*" (Coase 1993 [1937], p. 21) – so simply stated, by the way. In a context of specialization of labour, economic agents must balance the costs of acquiring in the market the goods and services needed, with the costs of producing them internally. Therefore, a firm will emerge when the costs of discovering the relevant price - that is, the costs of acquiring and processing information and of negotiating and concluding a separate contract for each exchange transaction which takes place on a market - exceed the costs of hierarchy, namely the cost of increased bureaucracy associated with vertical integration. The

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limit to the size of the firm is set where the costs of organizing a transaction internally equal those of organizing it through the market.

The idea that transactions involve costs which vary with alternative structures of governance was unorthodox in mainstream economics. At the time, the dominant view was that of goods and services being traded through the use of prices that incorporated all the relevant information, which rational individuals were perfectly capable of acquiring and processing in their self-interest seeking. Within this framework, the firm was reduced to a production function, a "black box" where inputs were transformed into outputs, and there was scarce interest in studying its nature and size. How was it, then, that Coase came to realize the importance of transaction costs in the choice of mode of organization?

According to Coase, "*[I]t came about as the result of a series of accidents*" (Coase 1993, p. 36), meaning that there was not a planned route leading to his interest for industrial economics and organizations. Instead, it was the fact that he did not study Latin and had not a taste for mathematics that lead him to enrol at the London School of Economics and Political Science (LSE), where he took a variety of courses (such as law, industrial psychology, French and accounting), met Arnold Plant – whose teaching had the greatest influence on Coase – and learned economics from discussions with fellow students such as Ronald Fowler. It was also while at the LSE that Coase earned a travelling scholarship that allowed him to spend a year in the United States studying the different ways in which industries were organized. This visit seems to have made a significant imprint on Coase's approach to the organization of economic activity, as well as on his views regarding research methods in economics and management:

> "*During my time in the United States I attended very few classes and although I visited a number of universities, most of my time was spent in visiting businesses and industrial plants. Before I went to America, Ernest Bevin, the secretary of the biggest trade union in Britain, the Transport and General Workers Union, had approached Bruce Gardner of the Bank of England on my behalf. Gardner gave me letters of introduction to various businessmen in the United States, and as a result I had little difficulty in meeting them. I still remember one most instructive day I spent in the office of a purchasing agent, I think at Union Carbide, listening to his telephone conversations, a visit which gave me a lively sense of the possibilities of substitution. While in the United States I read reports of the Federal Trade Commission and books describing the organization of different industries, such as Copeland's study of the cotton textile industry. I also read trade periodicals and used more unusual sources (for an economist), such as the yellow pages of the telephone directory, where I was fascinated to find so many specialist firms operating within what we thought of as a single industry as well as such interesting combinations of activities as those represented by coal and ice companies. What I was in fact doing in America was looking for clues which would enable me to solve the puzzles that I took there with me. The extraordinary thing is that I think I succeeded*." (Coase 1993, p. 39)

While in the United States, Coase maintained correspondence with his fellow Ronald Fowler. In his letters he assessed the discussions had with some of the academics he met (such as Wassily Leontief, Frank Knight and Jacob Viner), described his visits to industrial plants and their suppliers and, most importantly, raised questions that were argued with Fowler in their exchanges. This correspondence seems to have worked as a kind of maieutic, allowing Coase to develop his arguments around the questions asked, and succeed "*in linking up organization with cost*" (Coase 1993, p. 47). One should note here how Coase's inquisitive mind certainly played an important role in his work: his curiosity for knowledge is evident in his method of learning from inquiring others, exchanging views, dwelling into the reality of business and finally reflexively integrating it all.

The argument made by Coase regarding the importance of realism in economic analysis must indeed be noted. As he assertively wrote:

> *"My article [on The Nature of the Firm] starts by making a methodological point: it is desirable that the assumptions we make in economics should be realistic. Most readers will pass over the opening sentences (Putterman omits them when reprinting my article), and others will excuse what they read as a youthful mistake, believing, as so many modern economists do, that we should choose our theories on the basis of the accuracy of their predictions, the realism of their assumptions being utterly irrelevant. I did not believe this in the 1930s and, as it happens, I still do not."* (Coase 1993, p. 52)

At the time when Coase published "The Nature of the Firm", researchers were dedicated to the study of how supply and demand determined prices. The sum of exchanges between large numbers of faceless buyers and sellers constituted the competitive market, which should be safeguarded and fostered as the most efficient governance structure. Non-market forms of organization were regarded with suspicion and the firm, whose existence was taken for granted, was reduced to a production function. The focus of economists, as above mentioned, was on accurate prediction, not on real understanding. The work of Coase was marginalised[2] and his insight that the market is not always the most efficient way of organizing a transaction remained in the shadow of economic thinking until it was recovered by Oliver Williamson (1975; 1985), who in 2009 was also granted a prize in economic sciences in memory of Alfred Nobel, "*for his analysis of economic governance, especially the boundaries of the firm*" (Nobelprize.org 2013).

Williamson was directly inspired by the Coasean argument that firms and markets are alternative means of organization whose adoption depends on the respective transaction costs. However, he added that "*unless the factors responsible for transaction cost differences could be identified, the reasons for organizing some transactions one way and other transactions another would necessarily remain obscure*" (Williamson 1985, p. 4). Hence, he set out to identify the factors responsible for transaction costs, arguing in favour of a discriminating alignment between transactions and organizations that takes into consideration human aspects (bounded rationality and opportunism) and objective factors of the transaction (especially asset specificity). Building on Coase's insights, Williamson developed a theory that not only addresses the problem of boundaries of the firm – by analysing make-or-buy decisions as a choice between alternative modes of organization - but also helps in dealing with aspects of internal organization such as those regarding structure and the use of formalization as a means for dealing with opportunism. Despite critiques regarding the methodology (e.g. Hodgson 1989; Pratten 1997) and the static nature of a theory that cannot account for inter-temporal inseparability of the mechanisms of governance (Argyres and Liebeskind 1999) nor for institutional change (Robins 1987; North 1990; Dacin, Goodstein et al. 2002), Williamson's transaction cost economics has flourished: it has been used to address issues of contracts in several industries in the private and public sectors, such as, for example, electricity generation (Joskow 1985), automobile (Monteverde and Teece 1982), pharmaceutical (Pisano 1990), aerospace (Masten 1984) and health (Montgomery 1997); it has been employed to explain the existence of multinational enterprises (Hennart 2001); and in reviews on empirical work using transaction cost economics, both Shelanski and Klein (1995) and Macher and Richman (2005) found considerable support of transaction cost economics predictions, in particular in cases concerning the boundaries of the firm.

3. TRANSACTION COSTS, PROPERTY RIGHTS, AND ECONOMIC POLICY

In 1960 Coase published "The Problem of Social Cost", in which he claimed that production factors should be thought of as rights over the use of resources, and not as physical units. This claim originated in the study of the bidding process of the radio frequency spectrum, where Coase asserts that "*a private-enterprise system cannot function properly unless property rights are created in resources, and, when this is done, someone wishing to use a resource has to pay*

[2] For a personal reflection about the influence of his work see Coase (1988; 1993).

the owner to obtain it. Chaos disappears; and so does the government except that a legal system to define property rights and to arbitrate disputes is, of course, necessary" (Coase 1959, p. 14). Since a radio frequency is intangible, and its utility depends on its use and that of the adjacent frequencies, Coase thought of it as the bundle of rights linked to the emission of electrical radiations (Coase 1988). Coase viewed exchange as the buying and selling of rights to perform certain actions, and showed that in a world where transactions are costless, the legal rights will be rearranged through exchange to those who value them the most. In such a zero transaction costs world, Coase argues that "*it does not matter what the law is, since people can always negotiate without cost to acquire, subdivide, and combine rights whenever this would increase the value of production. In such a world the institutions which make up the economic system have neither substance nor purpose*" (Coase 1988, p. 14). This assertion came to be known as "the Coase Theorem", a term given by Stigler in 1966 (Medema 2011) that Coase did not like. But why was it that Coase disliked "the Coase theorem"?

In a nutshell, what was later labelled as "the Coase theorem" was merely an intellectual exercise on the (ir)relevance of the law in a virtual world of costless transactions. Coase's purpose in "The Problem of Social Cost" was not to study an imaginary system of zero transaction costs, but to explain how transaction costs can affect the working of the economic system: "*In order to carry out a market transaction it is necessary to discover who it is that one wishes to deal with, to inform people that one wishes to deal and on what terms, to conduct negotiations leading up to a bargain, to draw up the contract, to undertake the inspection needed to make sure that the terms of the contract are being observed, and so on. These operations are often extremely costly, sufficiently costly at any rate to prevent many transactions that would be carried out in a world in which the pricing system worked without cost*" (Coase 1960, p. 15).

Coase was concerned with organizational and institutional responses to the existence of transaction costs. His aim was that of developing a framework for analysing the organization of economic activity that accounted for the existence and varying intensity of transaction costs. Thus, he regretted that further discussions of his work concentrated on "the Coase theorem" and on discovering its limitations: "*It would not seem worthwhile to spend much time investigating the properties of such a world [of costless transactions]. What my argument does suggest is the need to introduce positive transaction costs explicitly into economic analysis so that we can study the world that exists. This has not been the effect of my article*" (Coase 1988, p. 15) (parentheses added). In a recent EconTalk interview hosted by Russ Roberts, when asked about his memories of the dinner at Aaron Director's house at the University of Chicago[3] (where his views on the role of transaction costs in economic activity were discussed with a number of distinguished economists such as Aaron Director, George Stigler, Reuben Kessel and Milton Friedman), Coase restated this view:

> *"It [the discussion had during dinner] changed their views. It changed their views in a very sensible way, because they went on to talk about something called the Coase Theorem, and I never liked 'the Coase Theorem' […] I don't like it because it's a proposition about a system in which there were no transaction costs. It's a system which couldn't exist. And therefore it's quite unimaginable. […]Well, in a way, it's unfortunate that I did that [departed from a zero transaction cost world to explore his argument] . I only did this in order to explain my views. I thought, let's talk about a system where there were no transaction costs. But it's an imaginary system. There always are transactions costs. […]It took a whole evening of all these economists to get it right. But then in the end they didn't get it right, because they amended something called the Coase Theorem, which I don't like."* (Coase 2012) (parentheses added).

From a legal scholar perspective, it is interesting to note the fundamental insight of "The Problem of Social Cost": if the rearrangement of property rights through exchange involves

[3] For descriptions of this famous dinner see Cheung (1991) and Medema (2011).

costs, the initial distribution of property rights (which include liability) established by the law is not irrelevant: *law matters*. The law ought to be examined so as to anticipate the economic consequences of the distribution of rights it establishes, and it should be altered whenever it is shown that an alternative distribution of rights is more efficient. Coase (1988) explicitly referred to the importance of private legal systems and of formal state laws as means through which transaction costs can be reduced. Nevertheless, he seemed to view state laws as a second-best, since he wrote that they should be used in situations in which the establishment and enforcement of a private legal system is difficult: "*When the physical facilities are scattered and owned by a vast number of people with very different interests, as is the case with retailing and wholesaling, the establishment and administration of a private legal system would be very difficult. Those operating in these markets have to depend, therefore, on the legal system of the State*" (Coase 1988, p. 10)[4].

Coase blamed the misunderstanding of his point on the "blackboard economics" approach of neoclassical economic analysis: economists felt more at ease at dealing with abstractions than with the problems of the real world. As he recently recalled, "*blackboard economics is economics which you can put on the blackboard, in which you study an imaginary system. It's not empirically based at all. It's not concerned with what really happens. It's what you imagine could happen and what you imagined didn't happen. So, I've been very critical of modern economics, which is too abstract. That's called blackboard economics. It's something you can put on the blackboard but that doesn't exist*" (Coase 2012). This rejection of formalism in favour of a more realistic account of economic activity grounded in empirical work was of great importance for Coase. He appreciated the fact that Joan Robinson said that his concept of the firm was both "*realistic and manageable*" (Coase 1993, p. 52), he wrote that "*the degree to which economics is isolated from the ordinary business of life is extraordinary and unfortunate*" (Coase 2012), and he argued that he would "*like to see people go study how things actually work*", and "*not all this abstract theorizing, all this mathematics*" (Coase 2012). This is hardly surprising for someone whose insights on the nature of the firm are so strongly linked to personal experiences of visiting factories and speaking to managers, and whose thoughts on the regulation of externalities departed from a real need to solve the problem of allocating radio frequencies[5].

It may be argued that the misunderstanding of Coasean contributions that lead to a focus on "the Coase theorem" was due to Coase himself. To begin with, although he highlighted the need to understand economic activity in its social context, he built his arguments from a general-equilibrium framework based on the model of exchange (Deakin and Michie 1997; Campbell and Picciotto 1998): in "The Nature of the Firm", the point of departure is the market - firms exist because there is a cost in using the price mechanism; and in "The Problem of Social Cost", the first part of the paper is dedicated to exchange in a world of zero transaction costs. Coase's view of economic activity is not one which is based in relations of production-reproduction, but one based on trading goods or services (or, more precisely, the property rights over goods and services) for a price (Campbell and Picciotto 1998). Consequently, it is not surprising that further developments of Coasean arguments focused on the process of exchange and its conditions of efficiency. Since exchange is based on the principle of freedom of contract, and regulation is viewed as constraining it, a minimal role for state law was advocated. Legal regulation was thus viewed as a corrective mechanism: "*the law intervenes to correct market outcomes which are the result of imperfections in the process of exchange, either by allocating property rights ex ante, or through ex post redistribution based on liability rules and/or*

[4] It is possibly this view of state law as a second-best to private ordering that justified the (mis)use of Coase's work by free-market advocates…

[5] Coase was such a strong supporter of empirically grounded work that he publicly said that "*my difficulty in discussing these things* [the dislike of 'blackboard economics'] *is how to say it without being offensive*" (Coase 2003) (parentheses added).

regulation…This gives rise to a view that legal regulation can be used to adjust economic outcomes in a way which is consonant with the goal of allocative efficiency" (Deakin and Pratten 1999, p. 5). Furthermore, such developments suited well the political context of the 1960s and 1970s, when the role of the state in relation to economic activity was under a re-evaluation (e.g. Montgomery 1997; Campbell and Picciotto 1998). In addition, although Coase pleaded for more realistic and empirically grounded analyses of economic activity, he did not clearly detach himself from the neo-classical economics method. Actually, he endorsed the work developed by researchers engaged in "law and economics", which he thought to be making progress in discovering the effects of varying the law in the working of the economic system (Coase 1988).

It seems to me, though, that this retrospective exercise on how far is Coase responsible for the misunderstanding of his arguments is not of much use, especially since Coase extensively wrote and spoke - and in a quite self-critical manner - on the origin, meaning and influence of his work. Besides, it must be noted that the departure from unrealistic assumptions allowed Coase to attract his audience – most of them economists used to simplifications for reasoning purposes – while having pedagogical value.

4. CONCLUSIONS

Looking at his original contributions, what is to be emphasized is how Coase brought forward the need to consider the costs of transacting in the organization and definition of the boundaries of the firm, as well as the need to account for the role of regulation in reducing those costs; and how he championed for a realist turn in economics, one that may allow the discipline to be relevant for managers and entrepreneurs. His insights are at the origin of "new institutional economics" and its preoccupation for the role of institutions in the organization of economic activity, and are also a pillar of "law and economics" and its concern with the economic analysis of legal rules (be it for explanatory and predictive purposes, or be it for recommending what rules should be used to achieve specific public policy aims). But, as it was put forth right at the start of this paper, the work on transaction costs and their role in the organization of economic activity is not the only reason why Coase is one of my favourite authors. To be true, it was the simplicity - and reflexivity - of his writings and the inherent humour of his discourse that captivated me.

As a trained lawyer with scarce knowledge of mathematics and statistics (and actually no knowledge of econometrics), I often struggle with economic texts. My main research interest is regulation, particularly media regulation, but very frequently I feel unable to assess the quality of arguments presented in papers on the subject, given their high level of formalization. I must say I never felt this while reading Coase[6]. Take, for instance, the paper on "Durability and Monopoly", where Coase (1972) explores at what price a monopolist supplier should sell his stock of a completely durable good: the paper has seven pages of text and uses two very simple charts to support the reasoning made; no mathematics is used, but the argument - known as "the Coase conjecture" - is clearly apprehensible. The same may be said about the "Federal Communications Commission" paper (Coase 1959), where the extensive use of documentary data such as letters, speeches in public hearings and official reports helps build a clear and vivid argument. Coase's papers are written in a captivating manner, through the frequent use of examples, the advancing of rhetorical questions to call the reader's attention, and the initial setting of unrealistic assumptions from which the complexity of real world conditions is then

[6] Coase's work on the broadcasting industry had a significant impact - see, for example, the Peacock report on financing the BBC (Peacock 1986)- though he made no use of mathematics in them. His view that the radio frequency spectrum is not different in nature from other scarce resources that are normally allocated by means of the pricing mechanism led him to argue for of a pay-per- view system based on consumer wants (Coase 1965; 1966) that is at the heart of current media industries. For a review of Coase's work on the broadcasting industry see Pratten (2001).

developed. This approach makes Coase's work accessible beyond the realm of orthodox mainstream economics.

The simplicity of Coase is also evident in his reflexive stances. As a young student I was quite surprised by the spirited tone that infused the trilogy of his lectures on the origin, meaning and influence of "The Nature of the Firm" (Coase 1993; Coase 1993; Coase 1993). Indeed this is the start of this trilogy:

> *"'It is difficult for a man to speak long of himself without vanity'. So said David Hume at the beginning of his autobiography. If David Hume felt such a warning to be necessary, a man who, according to Adam Smith, approached 'as nearly to the idea of a perfectly wise and virtuous man, as perhaps the nature of human frailty will permit', it is hardly to be expected that my lectures will be free from vanity. However, a natural tendency to be overindulgent in dealing with my own work will be somewhat curbed by a real desire on my part to understand why 'The Nature of the Firm' has been treated by the economics profession in the way it has."* (Coase 1993, p. 34)

Coase continued in these lectures as if they were a kind of exercise in self-awareness. When reflecting on the influence of "The Nature of the Firm" he pointed to a number of weaknesses he identified in his paper, and this paragraph is quite illustrative:

> *"But leaving aside the inherent difficulties of the subject, it now seems to me that there was a weakness in my exposition in 'The Nature of the Firm' that hampered further development. I was aware of this weakness at the time the article was published, but it was not until I came to prepare this lecture that I realized how serious this may have been for the development of the subject. […] I consider that one of the main weaknesses of my article stems from the use of the employer-employee relationship as the archetype of the firm. It gives an incomplete picture of the nature of the firm. But more important, I believe it misdirects our attention."* (Coase 1993, p. 64)

This reflexive stance is evident throughout Coase's endeavours: from his correspondence with Ronald Fowler to his request of a meeting with Chicago economists to debate his argument on the FCC paper, from his discussions with fellow lecturers and student to the above mentioned trilogy. But what also strikes one while reading or hearing to Coase is the wit and humour of his discourse. So I end this paper with two of these instances:

To celebrate the centennial of the University of Chicago Law School, Coase was invited to give the annual Coase lecture; and the audience laughed out loud as he said, right at the beginning: "*It's a somewhat strange experience for me to be giving a Coase lecture. After all, any lecture I give is a Coase lecture*"! It is actually a delight for a reader to see how such an influent economist maintains his wittiness and ability to not taking himself too seriously. In 2012, during his EconTalk interview, when asked by Russ Roberts if he knew Keynes, Coase replied:

> **"***I can tell you: I was helping when Britain was trying to get a loan from the United States immediately after the war, and I was talking to one of Keynes's assistants. And Keynes came in the room and walked over to us and the man I was talking to us said, 'This is Coase, who is helping us with the statistics. I don't think you know him.' And Keynes said, 'No, I don't.' And walked off. And that's my life with Keynes."*

Russ Roberts laughed when Coase said this, and to be true I also laughed alone in my office when I heard the podcast. Coase is no longer with us and he will be missed.

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