Int Rev Econ (2012) 59:111–120
DOI 10.1007/s12232-012-0163-z

Exploring Coase's world: an introduction

A. Nicita · M. Rizzolli · H. Smith

Received: 15 April 2012 / Accepted: 25 April 2012 / Published online: 1 July 2012

Abstract The Nobel Laureate Ronald H. Coase has occupied a central place in the law and economics approach to the analysis of institutions. Many Coasean topics have been discussed and debated over almost a century. Yet, 'deconstructing' Professor Coase's contributions leaves a legacy of further refining the economic meaning of property rights, the predictive role of transaction costs for institutional dynamics, and the nature of governance in the modern firm.

Keywords Coase · Property rights · Theory of the firm · In rem · Transaction costs

JEL Classification L14 · L50 · K11 · K12 · K23

1 Introduction

As Landes and Pastor (2011) have recently noted, "that Ronald Coase is among the most influential and best-cited economists in the past fifty years is not debatable. Two of his articles […] are among the most cited articles in both economics and law and continue to be widely cited."

Two main alternative approaches have emerged over time: one attempting to reconcile the Coasean insights within the standard mainstream economic framework

A. Nicita
Faculty of Economics, University of Siena, Piazza San Francesco 7, Siena 53100, Italy

M. Rizzolli (✉)
School of Economics and Management, Free University of Bozen, Universitatsplatz 1, Bolzano 39100, Italy
e-mail: matteo.rizzolli@unibz.it

H. Smith
Harvard Law School, 1563 Massachusetts Avenue, Cambridge, MA 02138, USA

(Stigler 1989); the other, recurring to Coase's argument to show the weaknesses of 'blackboard economics' and the need for a new 'realist' paradigm (Mäki 1998). Another dichotomy that has been remarked, over time: the one between a 'free-market Coase' versus 'Coase, the socialist' (Calabresi 1991).

However, the Coasean lessons are much more complex than any of the 'reconstructions', though prestigious, that have been proposed so far. Remarkably, their influence on policy making has grown over time, not only in common law countries but also in Europe. As Garoupa (2012) pointed out, "the reading of Coase's views on the future of legal scholarship in the United States certainly provides for further reflection on the potential role of legal economists in Europe. These are insights that are important to an understanding of the future of law and economics in Europe and beyond. These insights also provide for new ways to expand the discussion of the potential for success or failure of law and economics in Europe." The 'second-wave neoliberalism' that has characterized many civil law countries over the last twenty years, especially in Europe,[1] is the result of an enduring cultural and political process that reshaped the boundaries between the Market and the State. And, certainly, this is somewhat also the result of the Coasean seeds.

The articles collected in this special issue[2] attempt to provide new insights on three interdependent domains of the Coasean 'cathedral': the economic meaning of property rights; the predictive role of transaction costs for institutional dynamics; and the nature of governance in the modern firm.

2 Coasean property and property rights

As Cole and Grossman (2002) recently outlined, despite the fact that "property rights are fundamental to economic analysis," there is, however, little consensus in the economic literature about what property rights are: "economists define them variously and inconsistently, sometimes in ways that deviate from the conventional understandings of legal scholars and judges."

Ronald Coase has had a profound impact on the study of property rights, and as Merrill and Smith (2012) pointed out, "there is an irony and a paradox in this. The irony is that Coase never intended to have such an impact. […] The paradox concerns the role of Coase's presuppositions about property. In his seminal writings, Coase assumes a picture of property as ad hoc bundles of government-prescribed use rights. […] Yet not only is Coase's picture of property not essential to what Coase was trying to do, its limitations emerge when we apply Coase's central insights to analyze the structure of property itself."

To put it in another way, when we apply the Coasean paradigm to investigate that particular institution which is property, we cannot refer anymore to 'property rights'

[1] Simmons and Elkins (2004), Armstrong and Sappington (2005); Belloc and Nicita (2011, 2012).

[2] The articles here collected have been presented at the special session on "Deconstructing Coase," celebrating Professor Coase's 100th birthday at the 2010 Italian Society of Law and Economics held in Bozen.

as an exogenous and well-defined object, traded in the market as any other economic good. Indeed, the structure of property affects the nature of property rights and their role in market transactions.

Three articles in this special issue (Arruñada 2012; Lee and Smith 2012; Nicita and Rizzolli 2012) deal with this complex issue. While each article tackles the economic analysis of property rights under a distinct perspective, what these articles have in common is on the one side, the investigation into the relationship between property and contracts and, on the other side, the relevance of transaction costs needed to set up a property rights system that facilitates market exchange.

In his article *Property as an economic concept: Reconciling legal and economic conceptions of property rights*, Benito Arruñada argues that most economic analyses of property rights hold a simplified view of rights enforcement. In particular, they tend to neglect the fundamental distinction between *in personam* and *in rem* rights. Trading rights in personam requires purchasers to rely on personal exchange. However, this might preclude profitable exchanges between 'strangers', as the transactions costs needed to overcome uncertainty could be unsurmountable. In turn, the high level of transaction costs may limit specialization opportunities and efficient reallocation of resources, reducing economic growth, especially in those countries lacking sophisticated assurance intermediaries. For this reason, according to Arruñada, rights in rem instead of in personam have evolved in common law as in civil law jurisdictions. Rights in rem grant acquirers rights directly against the acquired assets instead of against the personal characteristics of the sellers. Arruñada shows thus that this distinction, between in personam and in rem rights, which has been neglected also by Coase (1960), is nonetheless a crucial one, as it affects the economic value of property rights, and thus their central role in facilitating efficient market transactions. As a consequence, a right in rem is more valuable than a corresponding right in personam. While both rights allocate to the holder the same set of asset uses, rights in rem are easier to enforce, in terms of the transaction costs to be incurred to exclude nonholders from access. Surprisingly, these key advantages of "legal property rights" (that is, in *rem* rights) have been traditionally disregarded in the economic analysis of property rights.

However, as Arruñada outlines, in rem rights also generate the need to build institutions aimed at overcoming the information asymmetry about legal titles. Thus, if on the one side, in rem rights reduce the transactions costs associated with trading rights in personam; on the other side, they generate new transaction costs aimed at creating the institutional solutions needed to properly define property rights. Indeed, the separation between *res* and *persona* may generate a fundamental dilemma between trade and ownership.

An interesting point raised by Arruñada is that enforcing rights in rem is not neutral for existing owners and acquirers of assets, as the way in which we define protection may endanger either trade or ownership, depending on the identity of the agent to whom is given full protection. If the protected agent is the owner, then aspiring acquirers may suffer an informational disadvantage and may be subject to the risk of acquiring less than they pay for. This is the case when the acquirer pays the seller for purchasing an asset but eventually obtains only a claim against the seller, while the asset remains in the hand of the 'existing' owner. On the other hand, if the protected agent is the acquirer, she is receiving control over the asset even when the seller was not the owner and lacked authority to sell. In this case, the 'existing' owner will suffer the risk of being dispossessed.

This fundamental trade-off embedded in rem rights is hardly escapable and it raises the dilemma of whether to facilitate trade or (original) ownership. As Arruñada outlines, "given a certain set of information, if the law were to decide in favor of owners, it would endanger trade, as buyers would be reluctant to buy. Conversely, if it decided in favor of acquirers, it would endanger property security, and owners would be reluctant to invest and specialize."

One way to attempt to overcome the above trade-off is to build, at a cost, legal institutions aimed at avoiding such conflict by producing verifiable information, "so that the law can attain both strong enforcement and low transaction costs, benefitting both owners and acquirers." In this respect, contractual registries have evolved as the institutional response to the above trade-off, capable of making truly impersonal (that is, asset-based) trade viable when previous relevant transactions on the same assets are not verifiable by judges. When contractual registries are available, acquirers are still protected, but their 'title' is subject to the crucial element of owners' consent. This consent is exercised by rightholders "either at the time of contracting, by choosing if they want the law to protect property or trade or by following a course of action that implies one of these two types of protection. Preserving this element of consent is essential to protect property rights and to allow them to be diluted only when owners judge that protecting trade is more valuable than protecting property." The important contribution given by Arruñada is thus showing how, for a Coasean market to reach its desired outcomes, independent contract registration is essential, to make judges verify the consent and to ensure that "rightholders remain irrefutably committed to their choices."

This is to say that the assumptions of well-defined property rights and zero transaction costs in Stigler's *Coase Theorem* would hardly hold jointly. For well-defined rights in rem to be enforced, a costly institutional system relying on judges and contractual registers needs to be built up. And the virtues of free market exchange strictly depend on the institutional framework that characterizes trading opportunities and choices.

The two other articles dealing with property rights, in this special issue (by Lee and Smith, and by Nicita and Rizzolli), investigate the consequences of property 'incompleteness' within the Coasean framework.

In their article on *The Nature of Coasean Property*, Lee and Smith outline a paradox underlying the literature on the *Coase Theorem*. Since *The Problem of Social Cost* (Coase 1960), it has become widely known that positive transaction costs are important for the analysis of economic institutions. However, in Lee and Smith's view, the abstract nature of the Coasean hypothetical tended to promote an abstract notion of property as a thin entitlement, available in the market at negligible transaction costs. The main consequence is that of implicitly defining property as collection of tiny contracts. However, for many real world transactions, property rights delineated by actual property law are much more coarse grained than the Coasean hypothetical. Property is correspondingly rather "incomplete" precisely because of transaction costs reasons. As with incomplete contracts (Williamson

1985; Grossman and Hart 1986; Hart and Moore 1990; Hart 1995), since the property system cannot be fully tailored to every contingency, property is necessarily "incomplete"—a point which is also underlined by Nicita and Rizzolli (2012).

When property is incomplete, further transaction costs will emerge in order to reduce the degree of uncertainty attached to incompleteness and to facilitate market transactions. The 'incompleteness' of property raises then several interesting issues, so far disregarded by the law and economics literature on property rights and transaction costs: what is the nature of the relationship between property and contract? Are they substitutes or complements? What is the relationship between contractual holdup and externality over the joint use of incomplete property rights?

Lee and Smith analyze the relationship between property and contract and argue that it relies precisely on the dimension of transaction costs: in some situations, property and contract are substitutes, but because of Coasean transaction costs, they often are not interchangeable. While in a zero transaction cost world, any initial assignment would ultimately produce the optimal set of assignments, when transaction costs do exist, the way in which property and contract are combined defines their degree of substitutability. According to Lee and Smith, the right mix of exclusion and governance is an empirical matter, depending on which combination of contract and property is best. In particular, property is an alternative to contracting when vast numbers of potential counterparties make bargaining impossible. Thus, property's essential economic role is that of an 'institution' that minimizes the cost of contracting, when transaction costs are positive. This implies revisiting the Coase Theorem by saying that "the presence of transaction costs in the real world makes property a sometimes essential shortcut over full contracting." However, even if property and contract might be substitutes, Lee and Smith conclude that one cannot simply be reduced to the other.

In their article on *Hold Up and Externality: the firm as a nexus of incomplete rights?* Nicita and Rizzolli argue that a tension, if not a contradiction, is to be outlined in the post-Coasean theories of economic institutions. While the economic theories on contracts are now largely based on the notion of incomplete contracts—based on unverifiable terms of contracts—scant attention has generally been paid to the circumstance that even property rights may not be fully definable ex-ante (Nicita 2006). On the contrary, property is often interpreted as a fully defined object whose primary characteristic is that of securing full control over resources, thus promoting stability of expectations and the alignment of incentives. Paradoxically—as in the GHM approach—it is precisely the completeness of property rights, which allows the use of control rights' assignment as a second-best solution against incomplete contract inefficiencies. Nicita and Rizzolli analyze thus a framework where incompleteness may affect both property and contractual rights. They show how introducing the notion of incomplete property in the *Coase Theorem* has important consequences for the theory of the firm, as it combines the risk of holdup in contracts with the risk of externality in property rights. This highlights the complementarity relationship between the process of 'public' definition of rights and duties and the role of the market in promoting efficient allocation of rights.

According to Nicita and Rizzolli, when both contracts and property are incomplete, decisions to vertically integrate may derive not only from the analysis of compared transaction costs of *make versus buy*, as in Coase (1937), but also on the dimension and on the direction of ex-post transaction costs to be incurred in order to properly define a right over a rival uses between ‘neighboring’ property rights. In some circumstances, the owner of the firm can be induced to ‘buy’ all the assets over which someone else’s use may produce an externality, when those rights are weakly defined or undefined. They conclude that in a world of both incomplete contracts and incomplete property, the nature of the firm thus is also affected by the fact that integrating rival uses under the same ownership minimizes the potential for externalities. As a consequence, “the optimal dimension of property may depend, not only on the ex-post transaction costs of enforcement as in the Williamsonian framework, but also on the ex-ante and the ex-post transaction costs of definition of rights.”

In conclusion, the articles by Arruñada, Lee and Smith, and Nicita and Rizzolli all outline, each under a different perspective, the complexity behind the notion of Coasean property. Property is, indeed, an institution that does emerge and evolve in order to minimize transaction costs. However, this institution has a cost in itself and the governance modes designed to manage property rights dramatically affect market outcomes.

3 Transaction costs, institutional dynamics and methodology

Every Coasean topic inevitably leads to an analysis of transaction costs. In the previous section, we have outlined how the articles by Arruñada, Lee and Smith, and Nicita and Rizzolli, even if focused on Coasean property, have elaborated at length on the transaction costs behind the emergence of property rights.

The literature on the origin, meaning and extent of transaction costs is wide enough to deter law and economics scholars from providing any further discussion on the issue. However, two articles in this special issue tackle the question of Coasean transaction costs from a different perspective. They focus on the impact of transaction costs on institutional dynamics, with reference to political institutions (Luppi and Parisi 2012) and to the methodology through which we approach the analysis of institutions (Pagano 2012).

In their article titled *Politics with(out) Coase*, Luppi and Parisi study the extent to which the choice of voting dimensions may affect the viability of Coasean bargaining in a political context. This is an interesting application of the Coase Theorem to political markets. The question analyzed by Luppi and Parisi is whether having political markets solves political externalities, showing the crucial role played, in this context, by bargaining externalities.

The main issue explored by Luppi and Parisi is the trade-off between reducing direct decision costs, through ‘bundling policy issues’ and allowing voters to reveal their preferences on each policy issue. In particular, Luppi and Parisi stress the trade-off between transaction costs and strategic costs: “from an efficiency perspective, bundling is a double-edged sword, because it would reduce direct transaction costs, but it might exacerbate bargaining externalities. In the real world of politics with positive transaction costs, political deals are characterized by the bundling of different issues. This introduces a multi-dimensional choice problem, which may exacerbate the effect of bargaining externalities." Consequently, the institutional design of political decision-making should be informed by the trade-offs identified in the paper and should attempt to minimize the sum of direct and indirect costs of decision-making, identifying an optimal aggregation of voting dimensions. In an ideal world with zero transaction costs, 'efficient' political bargaining should occur in a multi-dimensional policy space. However, Luppi and Parisi show how in a world with bargaining externalities the "political Coase theorem" may encounter several difficulties, when the policy space is multi-dimensional. To avoid this inefficient result, disaggregating the policy choices and voting in a one-dimensional policy space can reduce bargaining externalities and lead to median-voter outcomes. The important result reached by Luppi and Parisi is that bargaining by a limited number of players in a median-voter situation can achieve a social first-best.

The general message coming from Luppi and Parisi is that the reduction in transaction costs in a political context may generate bargaining externalities and problems of collective action, traditionally disregarded in the standard Coasean analysis.

In his article *No institution is a free lunch: a re-construction of Ronald Coase*, Ugo Pagano generalizes the above arguments on Coasean transaction costs to outline how the Coasean approach challenges standard neo-classical production theory and opens new analytical tools to understand and to compare the institutions of production. As Lee and Smith, on the one side, and Nicita and Rizzolli, on the other, in this special issue, also Pagano argues that the two major contributions of Ronald Coase (1937, 1960), which have been often interpreted as different and, somehow, contradicting views of the merits of the market mechanism (Calabresi 1991), are complementary parts of a unique theory of institutions and transaction costs. In Pagano's view, the underlying point of the two articles is the same, and it can be summarized by the statement that "no institution is free lunch." Through a very detailed investigation into several Coasean contributions—including *The Marginal Cost Controversy* (Coase 1946)—Pagano shows convincingly that the emergence of transaction costs is the constant pillar of the Coasean framework, and it explains why perfectly competitive markets with atomistic firms are virtually nonexistent in real-world economies. These transaction costs on the one hand do emerge because of institutional failures, which, in turn, generate market failures. A brilliant passage of Pagano's article argues that even the emergence of economies of scale—typically managed in the economic literature as a technological condition that gives rise to market power—could be interpreted as an institutional failure due to the high transaction costs associated with decentralized bargaining over positive externalities. On the other hand, institutions that do evolve to solve these failures may generate, in turn, extra costs of governance. As a consequence, the (compared) efficiency of a given institutional solution to a market failure needs to be assessed with reference to the minimization of transaction costs. In this respect, a Coasean world is always a second-best world, when compared to the ideal-type of mainstream neoclassical economics. But this comparison is without economic significance, because that ideal-type will never be a ‘natural’ outcome of real-world markets. No institution is a free lunch, and the efficiency of institutional arrangements should be assessed on the relative dimension rather than on the mere existence of transaction costs. The re-construction of Ronald Coase’s view, proposed by Pagano, suggests that “all institutions have to be analyzed and assessed in a comparative perspective” and that “even the least costly mix is still costly and the advantages of the mix have to be compared with its costs.” Moreover, “while there will be a tendency to move to less costly institutional mixes, one should not forget that changing mix is itself costly.” As a consequence, according to Pagano, “path dependency and importance of past history are a necessary consequence of the Coasean approach.”

4 The nature of governance in the modern firm

The articles by Nicita and Rizzolli and by Zanarone in this special issue elaborate on the Coasean determinants of *make or buy* decisions. As outlined above, Nicita and Rizzolli argue that a determinant that has been almost disregarded in the previous literature on the Coasean firm is the degree of incompleteness of property rights over the assets owned by the firm. When property is incomplete, it may affect the dimensions of the firm and even the *make or buy* decisions. According to Nicita and Rizzolli, when both contracts and property rights are incomplete to some extent, the ‘centralization’ of assets within the firm should be coupled with the ‘aggregation’ of all the relevant assets needed in order to prevent externalities. This outcome may reveal a neglected function of the firm, under incomplete property rights: that of acting as an ‘aggregator’ of property rights in order to centralize under a unified ownership all the potential rival uses that may interfere with firm’s activities. As a consequence, make or buy decisions are also affected by the degree of completeness of property rights.

From a different perspective, Zanarone’s article focuses on “endogenous fiat” in the Coasean firm. This contribution further elaborates on the original Coasean intuition (Coase 1937) about the nature of the firm as an authority relationship, relative to spot market contracts. Indeed, while the main message of Coase (1937) was to provide an explanation of the co-existence of both firms and markets based on the comparison of relevant types of transaction costs, the distinctive role of hierarchy within firms—which later flourished with the New Institutional Economics School—was just mentioned in Coase (1937). In particular, Coase noticed that, within the firm, there was a ‘command’ between the employer and the employee, but he did not interpret this ‘authority’ profile as the enforcement mechanism that allowed firms to reduce transaction costs relative to spot market contracts (apart from simply saving on the costs of getting relevant information). Coase just outlined that often “the operation of a market costs something and by forming an organization and allowing some authority (an “entrepreneur”) to direct the resources, certain marketing costs are saved. The entrepreneur has to carry out his function at less cost, taking into account the fact that he may get factors of production at a lower price than the market transactions which he supersedes, because it is always possible to revert to the open market if he fails to do this" (Coase 1937). Coase also formulated an ante-litteram theory of the efficiency of 'incomplete contracts,' which was based on the efficiency of ex-post adaptation of contractual provisions to market changes. Thus, the organizations as an alternative to markets play a twofold role: they reduce market (actual) transaction costs and they create flexible forms of adaptation to (potential) transaction costs. As Zanarone argues, this Coasean message implies a co-monotonicity between firm (integration) and command (fiat). In other words, according to Coase (1937), we should expect to have 'fiat' communications only within hierarchical organizations and not among contractual parties. As Zanarone shows, this Coasean conclusion contrasts with a growing empirical literature, reporting several 'fiat' communications even among 'contractual'/independent parties. This means that if 'fiat' is not unique to hierarchies, there must be some other neglected explanation for a 'fiat' relationship to emerge. In Zanarone's view, the value of owned assets is crucial for the agent to obey the principal. Thus, 'fiat' works also for contractors when the nature of the order is consistent with the maximization of the assets owned by the agent. When this is not the case, the 'fiat' will not be able to align agents' incentives to those of the principals and then it would be better to hire the contractor as an employee.

The main conclusion reached by Zanarone is thus that 'fiat' is not relative to the nature of the organization but rather to the nature of the action delegated to the agent and to the ability of that action to affect the value of assets owned by the agent. This is an important conclusion as it 'endogenizes' fiat communications to the nature of actions rather than to the nature of the organization and this contributes to our understanding of the boundaries between hierarchies and markets.

5 Conclusions

Professor Ronald H. Coase's first publication on the nature of the firm is dated 1937. The latest, on China and capitalism, has been announced and will be released in the next months. Over almost a century, his brilliant theories have strongly influenced the law and economics approach to institutions.

However, with reference to his most cited article, Coase (1988) himself repeatedly complained that his point of view "has not in general commanded assent," nor has his argument, "for the most part, been understood." There are a number of reasons (Coase 1988; Ellickson 1989; Medema 1996), the most important of which is Coase's reconstruction of the fundamental pillars of microeconomic theory along new lines, based on bounded rationality and transaction costs.

For sure, the complexity revealed by Coase on the relationships between economic choice and institutions raises far more questions than it solves. Yet, 'exploring the world' of Professor Coase's contributions, as we attempted in this special issue, leaves a legacy of further deepening our understanding of economic institutions.

Of course, the articles here collected do not aim at delivering a final word on each issue. Rather they aim to explore new directions for further research on Coasean lessons and puzzles.

References

Armstrong M, Sappington DEM (2005) Regulation, competition, and liberalization. J Econ Lit XLIV:325–366

Arruñada B (2012) Property as an economic concept: reconciling legal and economic conceptions of property rights in a Coasean framework. Int Rev Econ 2(59). doi:10.1007/s12232-012-0150-4

Belloc F, Nicita A (2011) The political determinants of liberalization: do ideological cleavages still matter? Int Rev Econ 58(2):121–145

Belloc F, Nicita A (2012) Neo-liberalism, partisanship, and public policies society (forthcoming)

Calabresi G (1991) The pointlessness of Pareto: carrying Coase further. Yale Law J 100(5):1211–1237

Cole DH, Grossman PZ (2002) The meaning of property rights: law versus economics. Land Econ 78(3):317–330

Coase RH (1937) The nature of the firm. Economica 4(16):386–405

Coase RH (1946) The marginal cost controversy. Economica 13:169–189

Coase RH (1960) The problem of social cost. J Law Econ 3(1):1–44

Coase RH (1988) The firm, the market, and the law. University of Chicago Press, Chicago

Ellickson RC (1989) The case for Coase and against Coaseanism. Yale Law J 99:611–30

Garoupa N (2012) Ronald Coase and law and economics in Europe. Int Rev Econ 2(59). doi 10.1007/s12232-012-0151-3

Grossman S, Hart O (1986) The costs and benefits of ownership: a theory of vertical and lateral integration. J Polit Econ 94:691–719

Hart O, Moore J (1990) Property rights and the nature of the firm. J Polit Econ 98:1119–1158

Hart O (1995) Firms, contracts, and financial structure. Clarendon Press, Oxford

Landes WM, Lahr-Pastor S (2012) Measuring Coase's influence. J Law Econ (forthcoming special issue)

Lee BA, Smith HE (2012) The nature of Coasean property. Int Rev Econ 2(59). doi10.1007/s12232-012-0152-2

Luppi B, Parisi F (2012) Politics with(out) Coase. Int Rev Econ 2(59). doi10.1007/s12232-012-0153-1

Mäki U (1998) Is Coase a realist? Philos Soc Sci 28(1):5–31

Medema SG (1996) Ronald Coase on economics and economic method. History of economics review 24(Summer):1–22

Merrill TW, Smith HE (2012) Making Coasean property more Coasean. J Law Econ (forthcoming special issue)

Nicita A (1991) On incomplete property. In: Porrini D, Ramello G (eds) Property rights dynamics, Routledge, London

Nicita A, Rizzolli M (2012) Hold-up and externality: the firm as a nexus of incomplete rights?. Int Rev Econ 2(59). doi10.1007/s12232-012-0158-9

Pagano U (2012) No institution is a free lunch: a reconstruction of Ronald Coase. Int Rev Econ 2(59). doi 10.1007/s12232-012-0154-0

Simmons BA, Elkins Z (2004) The globalization of liberalization: policy diffusion in the international political economy. Am Polit Sci Rev 98(1):171–189

Stigler G (1989) Two notes on the Coase Theorem. Yale Law J 99(3):631–633

Williamson OE (1985) The economic institutions of capitalism: firms, markets, relational contracting. Free Press, New York

Zanarone G (2012) Coase (1937) revisited: Endogenous fiat in firms and markets. Int Rev Econ 2(59). doi 10.1007/s12232-012-0155-z