How does a transaction work?

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ABSTRACT

Using the idea of transaction as originally introduced by John Commons and very often advocated by Oliver Williamson, this paper argues that, albeit the literature focuses on the legal dimension, the functioning of a transaction can be fully understood by taking seriously into account also its competitive and political dimensions. The competitive dimension regards the bidirectional relationship between a trans-actor and her competitors, while the political dimension addresses the bidirectional relationship between a trans-actor and the rule-maker. In the paper I show, in particular, the role played by the competitive and political dimensions of a transaction in the case of trans-actor's opportunistic behaviors and their remedies.

Keywords: Transaction, Transaction Cost Economics.

1. Introduction

Despite a voluminous literature on the argument, Oliver Williamson (1979) writes that a theoretical consensus on the definition of transaction costs is still out of sight (see also Veljanovski 1982, Demsetz 1988, Allen 1991, 2000, Klaes 2000a, 2000b).[1] One could advance a similar account for the definition of transaction and argue that the lack of a clear-cut definition of costs of transaction (i.e. transaction costs) can be attributed to the lack of a clear-cut definition of transaction. The purpose of this paper is to provide in a somewhat original way a picture of the notion of the transaction—its definition, functioning, and implications.

According to Merriam-Webster, transaction means "something transacted; esp.: an exchange or transfer of goods." A trans-action stands for an *action* that *trans*-fers something from one party to another. How does it work? The main novelty of institutional economics (both the Old and the New stream) is to show that there is a legal background in each transaction.[2] In Coase (1960), a market transaction is a voluntary action that transfers/allocates *something* utilizing legal means as property rights, while in Coase (1937) this transfer within a firm comes from entrepreneur's orders that are, however, legally permitted by the rule-maker. Similarly, John Commons, one of most important exponents of Old Institutionalism, defined transaction as a *legal* delivery of the control or ownership over a resource (e.g., Commons 1932, 1934). According to the institutional economics approach, the legal dimension plays a pivotal role in each transaction.[3]

This paper shows that there are two other dimensions, often underestimated, which contribute to explain how a transaction works: the competitive and political dimensions. The competitive dimension concerns the bidirectional relationship between a trans-actor and her competitors, and how this interaction impacts on the transaction. The political dimension regards the bidirectional relationship between a trans-actor and the rule-maker, and how this interaction affects the transaction. To better illustrate these two relationships is helpful to use the idea of transaction as originally described by John Commons (1924): In the most general formulation, each transaction involves at least five parties, i.e., the buyer and the seller who are engaged in the transaction, the next best alternatives for each party,[4] and the State or its representatives (Commons 1924). Therefore, a transaction does not depend only on the trading between two actual trans-actors. Indeed, each trans-actor affects and/or is affected by market alternatives and rule-maker, as well. Developing this Commonsian idea of transaction, which is very often promoted by Oliver Williamson as the basic unit of transaction cost economics (e.g., Williamson 1981a: 549-550, 1981b:1538, 1985: 3, 6, 1993b, 1996a: 12, 45, 234-235, 1996b: 50, 1998a: 76, 1998b:36, 1999: 5, 2000:599) but poorly applied by both Williamson himself and other transaction cost economists, this paper investigates the role played by competitive and political processes in a transaction.

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[1] Indeed, there are different, and sometimes conflicting, interpretations of the concept of transaction costs (e.g., Calabresi 1968, Macneil 1978, Dahlman 1979, Allen 2015). Coase contributed to this vagueness: In some passages, he expressed transaction costs in terms of the costs of organizing transaction within the market or price mechanism, while in others, he used examples that suggested that more than just market price mechanisms are involved in transaction costs, namely that transaction costs are across markets *and* internal to alternative-to-market institutions, such as firms (cf. in particular, Coase 1937, 1960, 1972, see also Demsetz 1988: 144-151, Williamson 1981a:558, 1993a:10, and Allen 2000, 2015).

[2] However, the law is quite conceptually downgraded in the New Institutional Economics view: on the one hand, the conception of property in the Coasian literature is in sharp contrast to the concept of property and the role of property law in legal scholarship (Merrill and Smith 2001a, 2001b, Hansmann and Kraakman 2002, Arruñada 2003, 2017, Ayotte and Bolton 2011, Smith 2017); on the other hand, New Institutional Economists, such as Oliver Williamson, emphasizing private ordering and custom over state legal institutions, have downplayed the market and the firm as legal constructs (cf. Deakin et al. 2017).

[3] As a result, transaction costs may be defined as the costs of this legal delivery (cf. also Demsetz 1968:35).

[4] An uncompetitive market configuration as a bilateral monopoly (namely, without alternatives for both actual trans-actors) is a particular case which can be derived from the formulation of John Commons. For an instance, see *infra* the process of Fundamental Transformation as developed by Williamson.

This paper presents the following results. First, the competitive dimension—each trans-actor affects each other trans-actor—contributes to explain causes and remedies of the hold-up risk. Indeed, the hold-up risk stems from an asymmetry of market alternatives between the investor in asset specificity (who is locked in the specific relationship) and the non-investor (who is able, on the contrary, to credibly threat to switch on market alternatives); it is not surprising, therefore, that remedies, as suggested by the literature on specific investments, aims at alleviating this asymmetry. Disregarding the competitive dimension of a transaction means do not comprehensively understand why a transaction faces well (or bad) with trans-actors' opportunistic behaviors. Second, the political dimension of a transaction—each trans-actor is a political actor—may contribute to explain the demand, emergence and evolution of legal structures which shape each transaction. In particular, the political economy of a transaction should be an important piece of transaction costs analysis—one could add that the transaction cost theory should include a political theory. The rise and the decline of certain institutional arrangements (rather than others), on which a transaction in the market or in the firm bases, have political determinants and follow political channels (e.g., Acemoglu 2003, Roe 2003). Third, there is a mutual dependence among the legal, competitive and political dimensions of a transaction: Competitive and political dimensions of a transaction have a prominent role in determining legal structures of a transaction; and, the legal dimension has, circularly, a significant impact on competitive and political processes. The idea of transaction proposed here provides (transaction cost) analysis with a unit of investigation that is able to reconcile and combine different but related factors which affect a transaction and trans-actors' choices.

The paper is structured as follows. It begins with a sketch of the novelty of the Coasean idea of transaction. Section 3 addresses contributions from Oliver Hart and Oliver Williamson. I outline that they develop the competitive dimension of transactions, i.e., the interactions between one agent and her alternatives or outside options. Section 4 deals with the political dimension of transactions: As institutions and rules evolve along with citizens' political preferences, politics inevitably shape transactions; for instance, trans-actors in a democratic context vote for rules, even those that concern their transactions. The Section 5 is dedicated to show the mutual dependence among legal, competitive and political dimensions of a transaction. Moreover, in Section 5, I provide two examples that show why a broader idea of transaction that includes also the competitive and political dimension is central for a more comprehensive transaction (cost) analysis. Concluding remarks follow in Section 6.

2. The Coasean transaction

In his paper, Coase (1960) shows the reciprocal nature of the problem of externality. As one agent does inflict harm on a second agent, so avoiding the harm to the latter does inflict harm on the former. By this token, the definition of property rights stimulates both parties to transfer (i.e. to transact) resources towards an efficient outcome (if this transaction is costless).

Consider the famous Rancher and Farmer example. The straying cattle of a Rancher destroys crops growing on neighboring land of a Farmer. Coase theorem suggests that, once property rights are defined, the Farmer and the Rancher will transfer resources with respect to *all* consequent benefits and detriments (assuming that this transfer/transaction is costless). In other terms, the pricing system will lead to the efficient result in terms of size of the herd and cultivated land both in the case of liability for damage and in the case of no liability for damage: With liability for damage, the Rancher would (not) be willing to pay to increase the size of the herd if the value of the additional meat produced (assuming that the cattle-raiser slaughters the cattle) is greater (lower) than the value of the additional costs destroyed; with no liability for damage, the Farmer would (not) be willing to pay the Rancher to diminish the size of the herd if the value of the reduced crops destroyed is greater (lower) than the value of the reduced meat produced. In both cases, given market prices of meat and crop (by which depend costs of marginally greater or lower amounts of meat and crop), the final allocation of resources will be the same.

In this respect, Coase argument extends the First Theorem of Welfare Economics, including the legal dimension of transactions: price-mechanism needs of an initial definition of property rights. In Coase's words:

> "It is necessary to know whether the damaging business is liable or not for damage caused since without the establishment of this initial delimitation of rights there can be no market transactions to transfer and recombine them. But the ultimate result (which maximizes the value of production) is independent of the legal position if the pricing system is assumed to work without cost."
>
> Coase (1960:8)

However, in his argument, Coase assumes that prices are given as in a perfect competition context.[5] Namely, the externality and its solution do not impact on prices of crop (1$ per ton (Coase 1960:3)), meat and land. It means that these prices (on which is based the Farmer-Rancher transaction) are defined by the market, namely by alternative Farmers and Ranchers. Hence, while alternative parties affect actual parties, the latters are price-takers and, therefore, their choices do not impact on market prices and alternative transactions.

Accordingly, a market transaction, namely an exchange, is the voluntary transfer of control over a resource from one party to another using legal and institutional means as property rights (but also money, contracts, etc.) as enforced by a third party (the rule-maker) and according to prices as defined by market. Stylizing this transaction, there is one trans-actor A1 who owns/controls the resource, a counterparty A2 who could be interested in owning/controlling the resource, and the rule-maker (or Enforcer). This transaction includes also market alternative trans-actors (Alternatives to A1 and Alternatives to A2) from which derive market prices. In Coasean idea, the transaction between A1 and A2 is affected by the Enforcer and alternative parties, but not vice versa, as shown in Figure 1.

Figure 1 HERE

In 1937, Coase noted that the delivery of control over resources can also occur within a hierarchical structure, such as a firm. In the case of a firm, the resource is transferred for an order from the entrepreneur. The ownership transfer is through a command and vests a legal supervisory figure with the ability to order a legal subordinate person to do the former's bidding. However, the entrepreneur's authority is conditioned by legal confines, as defined by the rule-maker.[6]

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[5] Coase writes, *inter alia*:

> "It might be thought the fact that the cattle-raiser would pay for all crops damaged would lead the farmer to increase his planting if a cattle-raiser came to occupy the neighbouring property. But this is not so. If the crop was previously sold in conditions of *perfect competition*, marginal cost was equal to price for the amount of planting undertaken and any expansion would have reduced the profits of the farmer […] Of course, if cattle-raising commonly involved the destruction of crops, the coming into existence of a cattle-raising industry might raise the price of the crops involved and farmers would then extend their planting. But I wish to confine my attention to the individual farmer."
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> (Coase 1960:3-4, emphasis added)

> I think it is clear that if the cattle-raiser is liable for damage caused and the pricing system works smoothly, the reduction in the value of production elsewhere will be taken into account in computing additional cost involved in increasing the size of the herd. This cost will be weighed against the value of the additional meat production and, given *perfect competition* in the cattle industry, the allocation of resources in cattle-raising will be optimal.
>
> (Coase 1960:5, emphasis added)

The assumption of perfect competition is permanent throughout the entire Coase theorem. In the first version of the theorem, Stigler clarifies this assumption: "The Coase theorem thus asserts that under perfect competition, private and social costs will be equal" (Stigler 1966: 113). However, the perfect competition model casts little light on legal, competitive and political dimensions of a transaction (cf. Demsetz 1982, 1988).

[6] Finally, a legislature that passes a law or a Court issues an edict that in some respect transfers property from one person to another, represent another type of transaction. In this case, the delivery of the resource follows commands of the rule-maker. Market, firm and the State are the institutions in which transactions operate according to Coase (1960). A quite similar distinction is in Commons (1934) among bargaining, managerial and rationing transactions.

In addition, Coase (1937) consider the fact that alternative parties may impact on transaction, albeit in an unidirectional way. Quoting Maurice Dobb on Adam Smith's conception of the capitalist, he writes:

> "[I]t began to be seen that there was something more important than the relations inside each factory or unit captained by an undertaker; there were the relations of the undertaker with the rest of the economic world *outside* his immediate sphere...the undertaker busies himself with the division of labour inside each firm and he plans and organises consciously […but…] he is related to the much larger economic specialisation, of which he himself is merely one specialised unit. Here, he plays his part as a single cell in a larger organism, mainly unconscious of the wider role he fills."
>
> Coase (1937:389, emphasis added)

This implies that the entrepreneur, in her choices (e.g., transferring resources by within a firm), must consider not only the relationships internal to the firm, but also the outside world, e.g., the internal organization of other firms, the labor market, the product market. Hence, the outside world affects choices within the firm, but not vice versa.

The idea of transaction in both Coase (1937) and Coase (1960) has the merit to stress the role played by the legal dimension. However, it has two limits: First, the rule-maker can and does affect trans-actors (typically because she defines and enforces rules behind each transaction), but not vice-versa (cf. Figure 2). Hence, there is no room for a political dimension of the transaction. On the contrary, in the real world, trans-actors can and do affect institutions and rules by political channels and according to their political preferences (e.g., Acemoglu 2003). In other terms, the relationship between a trans-actors and the rule-maker should take place in two directions. For instance, because of the trans-actors' political preferences, the rule-maker may prohibit excessive or predatory pricing, or force "fair" prices in market transactions. Furthermore, the rules that limit entrepreneurs within a firm in their role to allocate resources among workers may be the result of political pressures from workers or their unions. This political dimension of the transaction is the focus of Section 4.

Figure 2 HERE

Second, in a real exchange, the transaction between a seller and a buyer may have an impact on potential trans-actors. For instance, the solution of an externality may change the prices of resources, with which other trans-actors deal. Instead, Coase (1960) limited his attention to two trans-actors, e.g., a farmer and a rancher, a railroad and a farmer, a noisy confectioner and a quiet doctor (cf., *inter alia*, Merrill and Smith 2001a, Arruñada 2017, Smith 2017), assuming conditions of the perfect competition. Therefore, he neglected the bi-directionality of competitive dimension of transactions, namely that not only potential trans-actors affect the actual parties, but also that actual trans-actors (A1 and A2) could affect other potential trans-actors (cf. Figure 2). In other terms, the relationship between a trans-actors and other potential trans-actors takes place in two directions. In the next section, I demonstrate how this competitive dimension of a transaction causes the hold-up risk and how its bi-directionality explains its remedies, as developed by two prominent Coasians—Oliver Hart and Oliver Williamson—in their theories on incomplete contracts and specific investments.

Hence, in the Coasean idea of transaction, the trans-actor is both rule-taker, namely she takes rules defined by a rule-maker but does not affect these rules, and price-taker, namely she bases her choice on given prices but does not affect market conditions and configuration. In the next sections this paper will relax both these assumptions. However, it is worth to underline that the fact that Coase does not provide all the tools to 'capture' competitive and political dimensions of a transaction does not mean that his approach is irrelevant. Coase opened an entire domain of research without pretending to explore it fully or to deliver the final word on the complex issue of transactions and their

embeddedness in the legal, economic and political systems. Therefore, I consider Coase argument as a consistent starting point of this paper.

3. The competitive dimension of a transaction

The competitive dimension concerns the interactions between an actual trans-actors and potential trans-actors. This section shows the prominent role played by this dimension in the emergence and remedies of hold-up problem.[7] Consider a typical setting, where A1 makes a specific investment to improve an asset that is sold to A2. Due to the specificity of the investment, it is very costly for the Investor (A1) to switch on outside options (e.g., on alternative buyers of the specific assets), while the Non-Investor (A2) can threaten to switch on the spot market (i.e., on alternative sellers of general-purpose resources). In incomplete contracts, the Investor is locked in a relationship and potentially exposed to adverse negotiations (i.e., hold-up) of the original agreed upon terms—in this framework, contractual parties have reasons to underinvest in asset specificity. In other words, while the Investor has no credible alternatives for the nature of the specific investments, the other party has some alternatives and, therefore, may opportunistically threaten to switch on the spot market. As in Coasean idea of transaction, alternative parties affect actual parties, but not vice versa. But there is an asymmetry between trans-actors for the fact that there are high costs for the Investor in the case she wants to abandon the specific relationship in order to switch on alternatives. In Figure 3, the dotted arrow indicates these high costs. The hold-up rests on this asymmetry in the competitive dimension of a transaction, i.e., in market alternatives of parties.

Figure 3 HERE

As the competitive dimension has a prominent role in the emergence of the hold-up problem, so the competitive dimension has a similar key role in remedies to the problem of hold-ups. First, the Property Rights Theory by Grossman and Hart (1986), Hart and Moore (1990), and Hart (1995) (hereinafter GHM) argues that allocations of property rights can be valuable in alleviating hold-up problems. The second-best solution advanced by this theory is a vertical integration (i.e., the Investor acquires the Non-Investor's physical assets); after the integration, Non-Investor has no or costly modes to switch on the outside market because her physical assets are under the control of the Investor.[8] As the allocation of residual control rights reduces the asymmetries in the competitive dimension,[9] so it diminishes the risk of hold-ups. Figure 4 shows the GHM's solution: an ex-ante competitive configuration, in which the Non-Investor has available, credible alternatives to the specific relationship, is modified due to the assignment of residual control rights in an ex-post configuration (typically, characterized by a vertical integration) in which the Non-Investor's renegotiation is very costly. As a result, the allocation of residual control rights impacts on market alternatives.

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[7] The idea of transaction here relates with the literature which focuses on the critical distinction between rights in rem, i.e., rights to assets that are good against third parties, and contractual rights as rights in personam, i.e. good only against the contracting parties themselves (see Merrill and Smith 2001a, 2001b, Arruñada 2003, 2017, Hansmann and Kraakman 2002, Ayotte and Bolton 2011). For instance, considering potential trans-actors as future trans-actors, the transaction as proposed here includes the case of sequential interactions as developed, in particular, by Benito Arruñada (2003, 2017): Because a previous transaction may affect future transactions, each past transaction (and trans-actor) potentially interacts with forthcoming transactions (and trans-actors). Instead, "Coase (1960) and most of his followers consider only single independent transactions" (Arruñada 2017:5).

[8] Using Hart's formulation, the assignment of residual control rights (namely, the assignment of assets $a1$ and $a2$) impacts on outside revenues as follows: $r'(i; a1, a2) \geq r'(i; a1) \geq r'(i; \emptyset)$ (cf. Hart 1995:37). It means that the control of a lower number of assets decreases the revenues of market alternatives.

[9] These effects over the market of residual control rights are well described in the notable case of Fisher Body and General Motors. The acquisition of Fisher Body by General Motors transformed not only the relationship between General Motors and Fisher Body (which became a General Motors branch), but it also dramatically changed the conditions of competition in the market, raising General Motors's rival costs (cf. Freeland 2000).

Figure 4 HERE

Williamson, basing on an insight by Schelling (1960), proposes a quite different perspective to remedies to the risk of hold-up.[10] He states that owning specific investments may have a commitment role that makes it very costly for the counterparty to switch on outside options. Namely, specific investments impact on the competitive dimension of a transaction. Specific investments may reduce the field of available alternatives from a large number, i.e., the ex-ante bargaining situation, to a small number, i.e., the ex-post bidding bilateral monopoly. Therefore, such a transformation of competitive dimension should decrease the risks of opportunistic behaviors. Oliver Williamson describes this process using the notion of Fundamental Transformation (e.g., Williamson 1975, 1979, 1981a, 1981b, 1983, 1985, 1993b, 1998a, 2005, 2010): a process through which a competitive configuration characterized by many competitors is transformed, due to the parties' durable investments in transaction-specific assets, into an ex-post competitive configuration of bilateral monopoly.[11] In this case, actual trans-actors with their investments affect market alternatives (see green arrow in Figure 5). In particular, in the case of bilateral monopoly, the Non-Investor's opportunistic behavior is extremely costly because there are no market alternatives to the specific relationships (see dotted arrows in Figure 5).[12]

Figure 5 HERE

As a result, considering GHM's and Williamson's arguments, the competitive dimension of the transaction determines both the origins of opportunistic behavior and its remedies.

4. The political dimension of a transaction

Because the rules can affect the interests of individuals, individuals may have an interest in having institutions and rules that are more consistent with their interests. For instance, in Demsetz's (1967) example on the introduction of property rights in Native American tribes inhabiting Canada's Labrador Peninsula, because commercial fur trade with European settlers developed in the early 1700s changed the demand for furs and the rewards from hunting, these communities called for a system of private hunting territories. For a scarcity problem of resources, individuals demanded to the "rule-maker" a definition of property rights (Demsetz 1967, and Alchian and Demsetz 1973).

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[10] Williamson (1983) developed this insight as follows: Assume that efficiency requires that a supplier invests in specific investments, but that the incompleteness of contracts undermines the credibility of the buyer's promises to maintain purchase volume as a way of compensating the supplier for its investment. According to the hold-up theory, the supplier is likely to underinvest in specific assets. However, efficient levels of investments, in a context with incomplete contracts, can be sustained if the buyer posts/pledges a "hostage," namely, something that is sacrificed in the event of premature termination of the contract. By posting a hostage, an actor incurs a commitment that serves as a safeguard for the partner to cooperate. Since the hostage is sacrificed in the case of termination of the relationship, this hostage has no value outside the relationship; therefore, the hostage is, substantially, a specific investment. In other words, the hostage model states that, in order to foster specific investments of one party, the other party should invest in a specific relationship. A form of hostage model has been applied to a variety of settings, such as retail estate (Raub and Keren 1993), automobile trade (Anderson and Bensaou 1999), fisheries (Koss 1999), and other domains (cf. Raub and Keren 1993, Anderson and Bensaou 1999). Nicita and Vatiero (2014) developed Williamsonian idea that asset specificity may constitute an endogenous enforcement device for incomplete contracts and illustrated how, reconciling Williamson's contributions with Dixitian literature on investments in entry deterrence, parties may even over-invest to safeguard their investments from the risk of hold-ups.

[11] Similarly, as noted by Posner, "in some primitive societies if you trade repeatedly with the same man he becomes your blood brother and you owe him the same duty of generous and fair dealing that you would owe a kinsoman […] It is a way of bringing reciprocity into the exchange process and thereby increasing the likelihood that promises will be honored despite the absence of a public enforcement authority" (Posner 1980:26).

[12] In this respect, the competitive dimension of a transaction defines whether the threat of opportunistic behavior is credible, as well as whether the commitment is credible. Using a quote from Williamson (1985:167):"[C]redible commitments and credible threats share this common attribute: Both appear in conjunction with irreversible, specialized investments. But whereas credible commitments are undertaken in support of alliance and to promote exchange, credible threats appear in the context of conflict and rivalry."

On the other hand, rule-makers (typically, politics) introduce or maintain certain rules to remain in power, or to enrich themselves. Douglass North (1990:16) captures this idea: "institutions are not necessarily or even usually created to be socially efficient, rather they […] are created to serve interests of those with the bargaining power to devise new rule." Rules and institutions emerge as a result of competition in the political arena. In this respect, as explicated by Benson and Engen (1988), interest groups 'pay' legislators for laws as 'products'. Mancur Olson's early contribution 'The Rise and the Decline of Nations' and Daron Acemoglu's recent book (with J.A. Robinson) 'Why Nations Fail' consider numerous historical examples of how the logic of groups' collective behavior may favor or damage the growth of nations by changing the institutions of society. Similarly, interest groups of litigants could "capture" the enforcer, especially when judges are initially appointed or retained on the basis of some form of election (see Landes and Posner 1975). For instance, in the US, there is some concern that interest group pressures have led to an overly pro-patentee orientation of specialized Courts in intellectual property rights cases (Hadfield 2008).

It means that institutional change is often the outcome of strategies aimed at improving the situation of some or all components of the dominant political elite. Political elites will choose the institutions that maximize their own rents, and the institutions that result may not coincide with those that maximize total surplus.[13] However, Culpepper (2011), concentrating on legislations on corporations and securities market, argues that political elites matter if the issue (e.g., a reform) has low salience to the median voter. Namely, when the median voter is quite indifferent on the issue, then lobbying activities are much more able to determine the direction of legal reform. In contrast, where political salience is high, elites instead seek to rely more directly on partisan political protection, and try to counter or change public opinion. In both cases (namely, in both low and high salience cases), trans-actors or coalitions of trans-actors may constitute an elite, participate in political parties, contribute to public opinion and/or compose the median voter. In all these roles, they can affect rules via politics.

Hence, trans-actors that interact in the transaction may also contend or coalesce in the political arena. There is, then, a bi-directional influence between each trans-actor and the rule-maker, as in Figure 6. The rule-maker impacts on trans-actors' behavior (as in the Coasean transaction), but trans-actors may also affect rule-making process via political channels. It implies that to fully understand transactions, one must attend to politics. Without a political economy analysis, the shape, structure, and extent of a transaction and its place in the economy cannot be understood.

Figure 6 HERE

The main messages of this section are two: First, politics can and do determine the core structure of transactions. Second, since they are also political actors (e.g., voters, interest groups), trans-actors may affect the rules that govern the transaction via politics. Therefore, to understand a transaction (i.e. the legal transferring of control over resources) and its costs, one must also analyze the political aspects involved in each transaction.

5. Why a broader notion of transaction? Two examples

The functioning of a transaction relies on legal, competitive and political dimensions. What is more, these dimensions are in a mutual dependence ration: one dimensions affects and is affected by each other. This is the reason for which is essential to have an idea of transaction which combines all three dimensions. Considering only one dimension may lead to a partial (and sometimes wrong) analysis. Two examples may show this mutual dependence among legal, competitive and political dimensions

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[13] In this respect, there is a second type of hold-up risk, as noted by Acemoglu (2003), for why the Coase theorem may not apply in politics. Consider an investor who is not part of the "political elite"; she will only undertake the productive investments if she expects to receive the benefits from her investments. The problem is that the political elite cannot commit to respect the property rights of the investor once the investment is undertaken.

of a transaction: one concerns the Fundamental Transformation, while the other one GHM's residual control rights.

The bilateral monopoly, as coming from the Fundamental Transformation, represents an institutional arrangement that alleviates problems coming from the competitive dimension of a transaction (e.g. the hold-up risk). However this solution may produce effects also on the political and legal dimensions of a transaction. For instance, an inter-class coalition between trans-actors, say a buyer and a seller involved in the Fundamental Transformation, may make political pressures to create or maintain legal barriers in order to exclude other buyers and other sellers, and split the rents coming from transactions between them. One example is the well-known *United Mine Workers* v. *Pennington* (1965) case, in which the Supreme Court stated that the union had conspired with one group of employers to impose wage rates that disadvantaged a second group of employers. As Williamson (1968) points out in his comment about this Supreme Court decision, wage agreements between workers' unions and employers may be used to erect barriers to entry and represent a device by which monopolistic rents are secured. In other terms, though a collective bargaining between workers' unions and employers may alleviate conflicts within the firm and increase the efficiency of productive process (for instance, for encouraging workers' investments in human capital), workers and employers may constitute a "distributional coalition"—an Olsonian locution that means that group interests are interested and involved in the distribution of political rents (Olson 1982)—which is able to create or maintain quasi rents and/or disadvantages for economic rivals. Hence, the process of Fundamental Transformation, on the one hand, mitigates problems in competitive dimension of transaction, on the other hand, may have some impact on politics and, therefore, on legal structures.

A second example relates with GHM's residual control rights. The allocation of residual control rights is a legal arrangement aimed at mitigating the hold-up risk. But, because this allocation shapes the governance of the firm (e.g. Shleifer and Vishny 1997, Zingales 1998, 2000), it can produce effects also on the political arena—a wide literature concerns the political economy of corporate governance structures (see surveys by, among others, Roe and Vatiero 2015, and Vatiero 2017). The governance of corporations may affect the political orientation of the government of a nation through party systems, ideologies, and interest groups (Olson 1982, Roe 1994, 2003, Acemoglu 2003). Corporate trans-actors (e.g., shareholders, managers, workers) who have their own, and often contrasting, private interests (for instance, shareholders are interested in protecting their revenues, managers benefiting of autonomy and prestige, and workers defending job stability and good wages) may seek via politics rules that favor themselves and their interests within and outside corporate transactions. Hence, while transactions within the firm depend on the legal framework, corporate actors can and do affect this legal framework using two political channels, at least: On the one hand, because politicians seek out median, pivotal voters, who determine elections in a democracy, corporate trans-actors as voters may impact on politicians' choices (e.g., Perotti and von Thadden 2006); on the other hand, coalitions of corporate trans-actors as group interests or elites may seek to obtain, via politics, both immediate results and enduring institutions that promote their own current interests and preferences (e.g., March 1962, Gourevitch and Shinn 2005). Hence, the allocation of residual control rights, which alleviates problems due to the competitive dimension of a transaction and shapes the control structure in a corporation, may impact on political and legal dimensions of a transaction.

Summing up, an idea of transaction which neglects competitive and political dimensions and considers only the legal dimension would be unable to fully explain trans-actors' behaviors and transactions' effects. Certain phenomena and outcomes can be understood only using a unit of analysis that takes into account all dimensions of a transaction and their mutual dependence. This supports our broader idea of transaction as proposed here.

6. Concluding remarks

A transactions is a legal construct for transferring the control over a resource. It has to manage complexity stemming from many kinds of interactions as the ones between each trans-actor and her potential market alternatives (which define the competitive dimension of a transaction), and the ones between each trans-actor and the rule-maker (which compose the political dimension of a transaction). Both kinds of interactions take place in two directions. This paper shows how a transaction works in contributions of Ronald Coase, Coasians like Oliver Hart and Oliver Williamson, and a "pre-Coasian" as John R. Commons.

In the Coasean idea of transaction, trans-actors are both rule-taker and price-taker. Oliver Hart, with his theory of residual control rights, and Williamson, with his notion of Fundamental Transformation, relax the assumption that market configuration is given and develop the competitive dimension of a transaction. Finally, this paper relaxes the assumption that trans-actors are rule-takers. It means that an analysis of transactions must involve the political dimension of transactions and a political economy argument. A (more) comprehensive transaction (cost) analysis should include and reconcile these different dimensions of transactions. This paper provides a contribution in this direction.

Lugano,
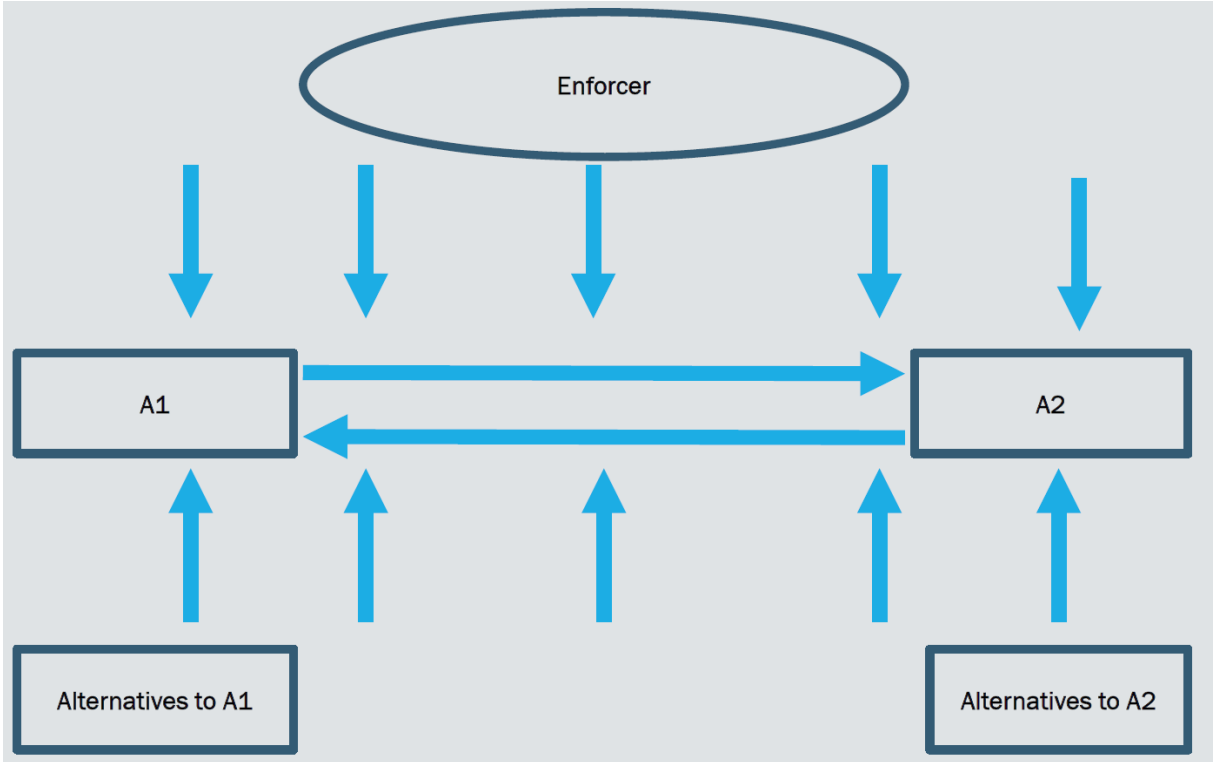*Università della Svizzera italiana*

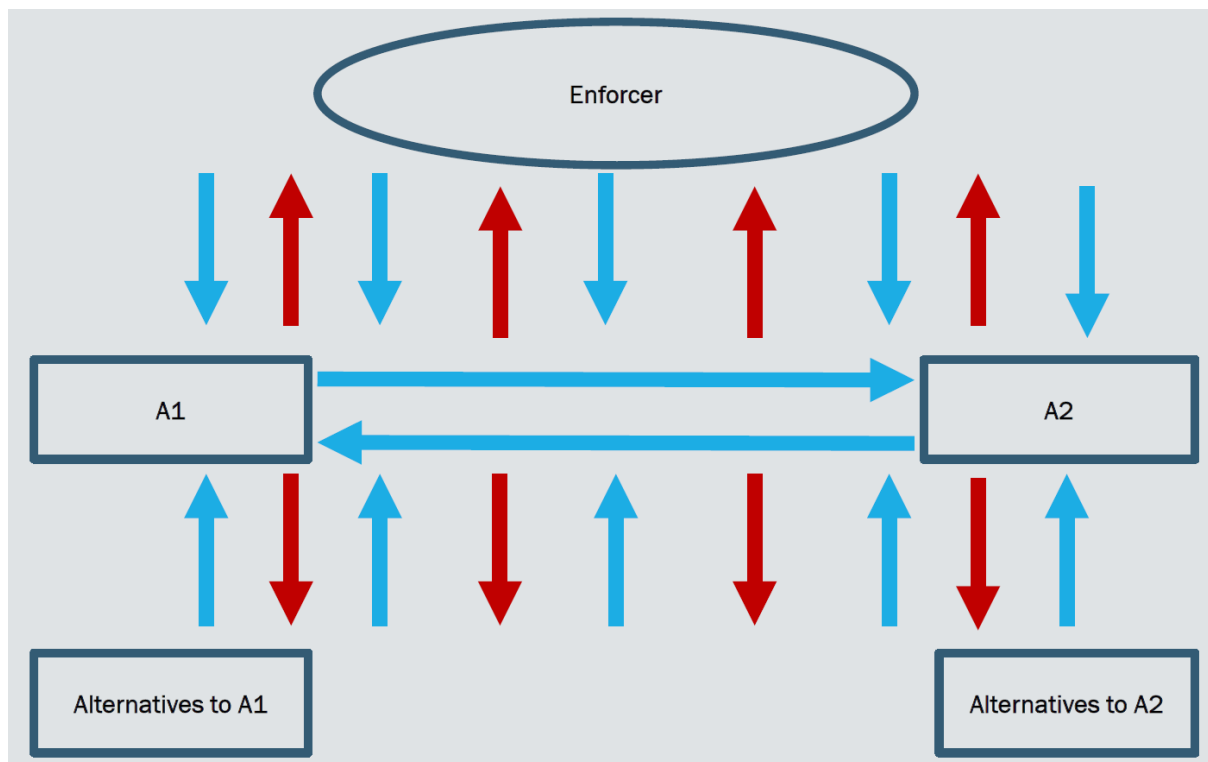**Figures**

Figure 1: The transaction by Coase (1960)

Figure 2: Limits of the idea of transaction in Coase (1960)
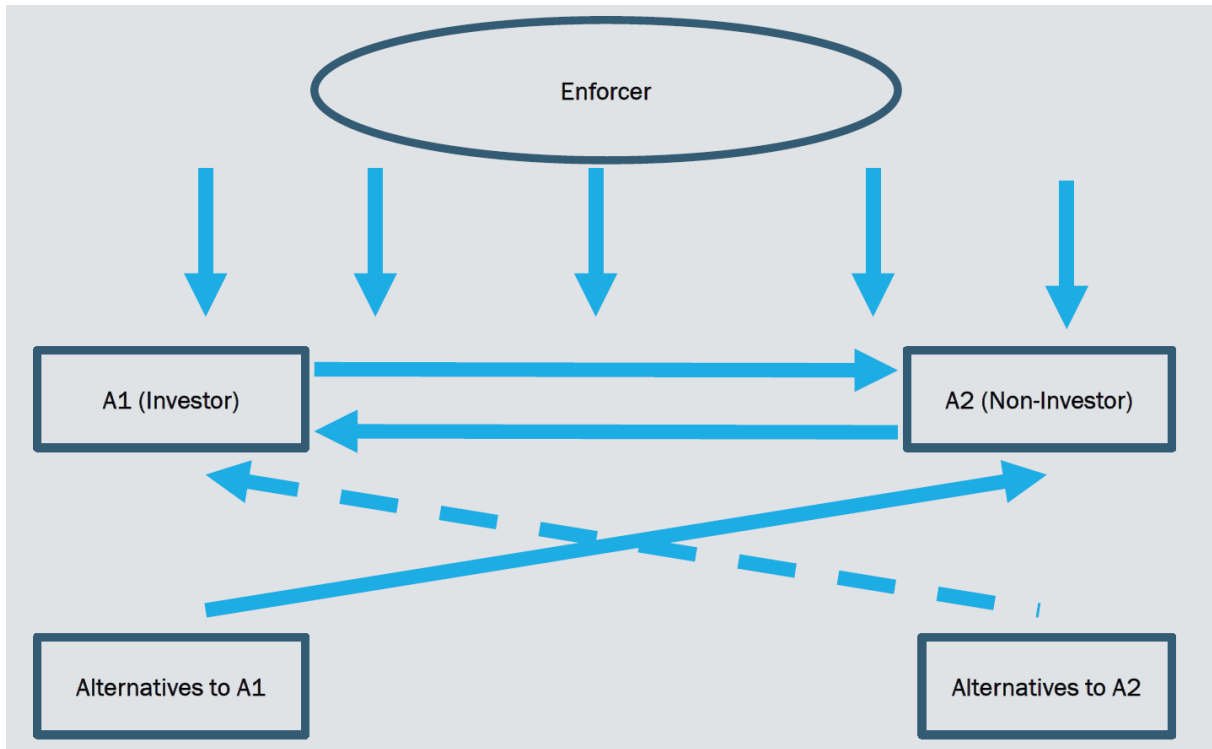
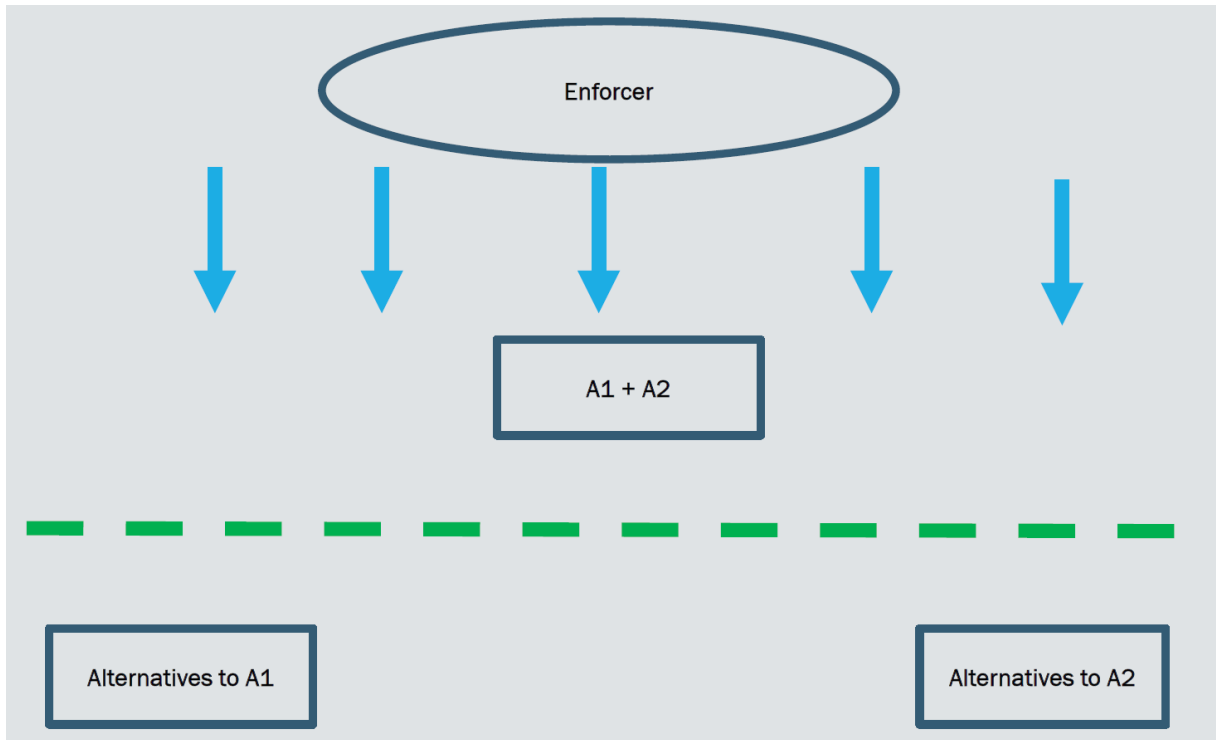Figure 3: The threat of a hold-up in a transaction

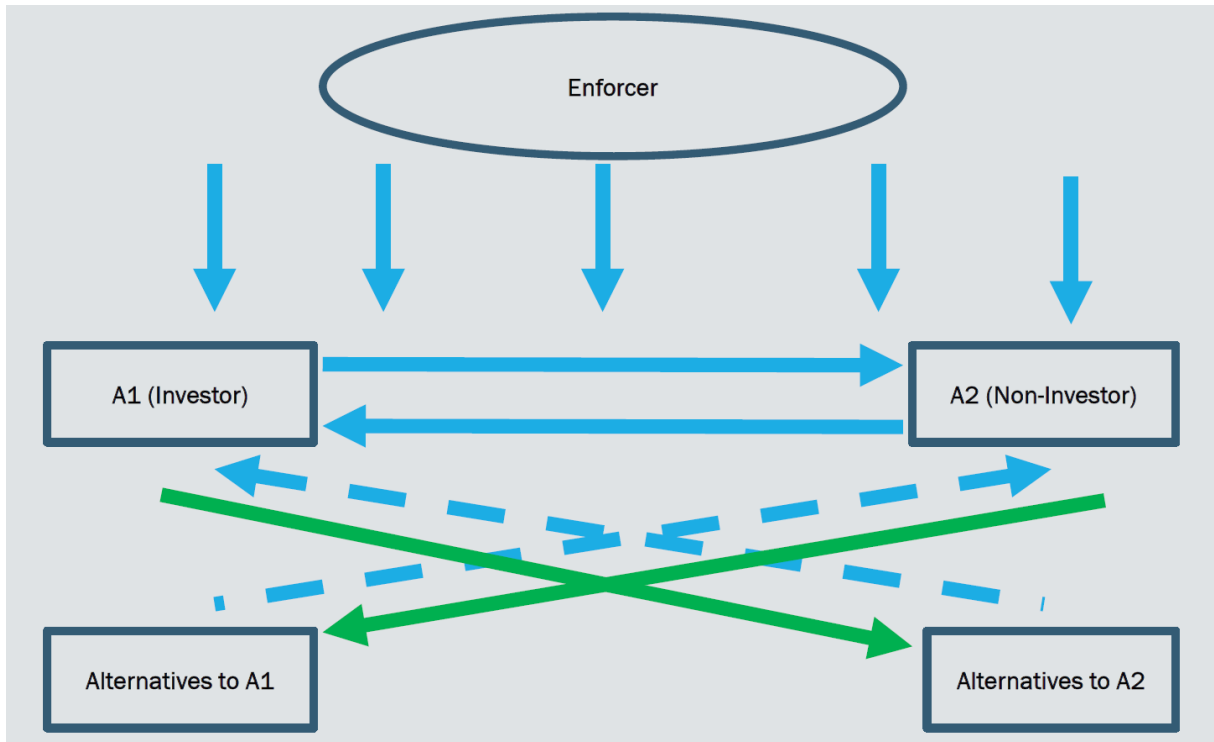Figure 4: The transaction in the case of allocation of residual control rights

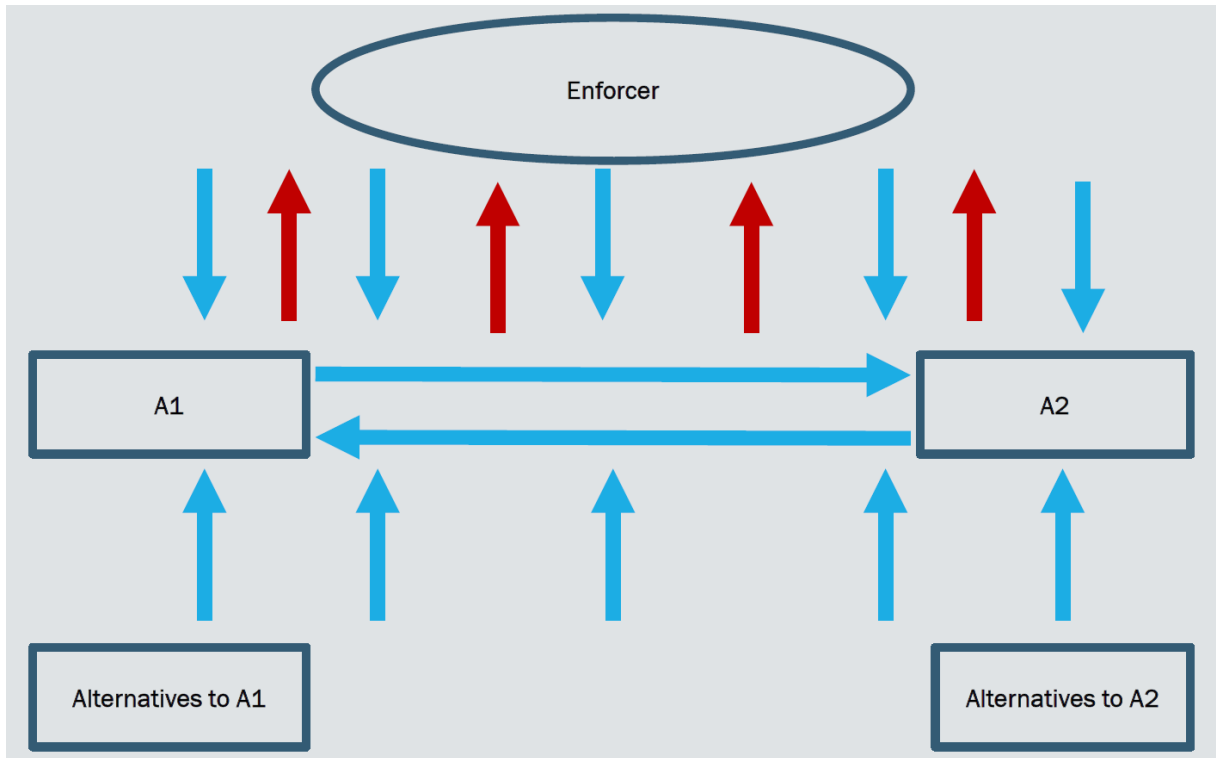Figure 5: The transaction as the result of Fundamental Transformation

Figure 6: The political dimension of a transaction

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