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Ronald Coase article from 1937, The Nature of the Firm, meant a new way of thinking and conceiving of the world, especially of economic organisations. Coase argued that the firm and the market represent two alternative ways to organise the same transactions and he aimed to explain what exactly foregrounds the choice between the two alternatives. Basically, Coase starts from the hypothesis that markets do not operate without costs; their operation supposes a cost of the use of price mechanism, identified as transaction cost. The latter, in its turn, explains the emergence of the firm as an alternative form to coordinate transactions because, by internalising activities in its hierarchical structures, it can eliminate, partially or totally, costs associated with transactions. Beginning with the 1970s–1980s, neoinstitutionalist economists took over Coase's message, developed it and started to explain the emergence of firms and other business practices as reaction to the existence of these costs.

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JEL Classification: B52, D23, L22.

Introduction

Neoinstitutional Economics literature claims Ronald Coase as the groundbreaking initiator of what we call today transaction costs theory. Through *The Nature of the Firm*, his article from 1937, Coase aimed to develop a new theory of the firm, starting from the observation that most economists consider "the economic system as being co-ordinated by the price mechanism"[176]. He raises the issue of the existence of firms as "islands of conscious power in this ocean of unconscious co-operation"[177]. According to him, they emerge because "within a firm, the market transactions are eliminated and in place of the complicated market structure with exchange transactions is substituted the entrepreneur-co-ordinator, who directs production"[178]. This cost refers to "discovering what the relevant prices are" as well as to "costs of negotiating and concluding a separate contract for each exchange transaction which takes place on a market"[179], which Coase includes in the category of *transaction costs*.

Thus, resorting to the market supposes a process of information-gathering and procedures to coordinate transactions that can be very costly and complex. Under such circumstances, the firm emerges as a viable alternative supplying, through its hierarchical structures, market structures in resource allocation.

Coase did not intend to change the profile of economic theory. His self-declared goal was to introduce transaction costs to explain how firms came about. That was all. He did not mean to over-emphasise the concept.

Dimensions of the concept

As we have shown above, the origin of transaction costs lies in Ronald Coase's conceptual innovation, according to which market functioning implies certain specific costs called

176 R. Coase, "The Nature of the Firm", Economica, Vol.4, Issue 16, 1937, p. 387, published online 19 February 2007, http://www3.interscience.wiley.com/cgi-bin/fulltext/119896448/PDFSTART.
177 Ibidem, p. 388.
178 Idem.
179 Ibidem, pp. 390-391.

transaction costs. In a broad understanding of the term, they are considered "the costs of running the economic system[180].

However, in the specialty literature, there is no consensus over what transaction costs are. In general, specialised literature delimits them according to their components. Hence, a plethora of interpretations which share a common ground but have shades of meanings that differ from one author to another.

One of the existing classifications highlights two acceptations of transaction costs[181]. The **former** associates them with involvement in an exchange on the market, and it is indebted to Ronald Coase. The emphasis is on exchange activities and, especially, on gathering information about the exchange. This vision equates transaction costs and information-gathering costs. Yet, the two concepts are not identical. Information costs are only a component of transaction costs. Thrainn Eggertsson explains this aspect by the fact that "a lonely person on a desert island will encounter information costs as he goes about his «home production» but an isolated individual does not engage in exchange and therefore will have no transaction costs"[182].

In the **latter** acceptation, transaction costs emerge "whenever any property right is established or requires protection"[183]. In this vision, transaction costs correspond to contracting costs and they can be subdivided into *ex-ante* and *ex-post* costs, *vis à vis* contracts. The former category refers to activities associated with information and negotiation, whereas the latter results from monitoring and enforcing contracts.

Economic organisation seen as contracting problem is the theoretical contribution of Oliver Williamson. He acknowledged Ronald Coase's merits and made the concept of transaction costs operational, while transforming Coase's explanatory model into a genuine paradigm.

In Williamson' analysis emphasis is laid on the concepts of *bounded rationality*, *opportunism*, *asset specificity*, *transaction frequency*, *uncertainty*. Briefly, human and environmental factors determine the existence of transaction costs, and their variation is accounted for by the characteristic features of each transaction. For Williamson, transaction cost is the main reference point when looking for the best contractual arrangement, be it firm, market or hybrid. Within such a judgement register, the rationality of economic organisation and of the existence of various contractual arrangements is none other but economizing on transaction costs.

How high are transaction costs?

Although there have been numerous attempts to quantify transaction costs, they remain a category that is hard to identify and, consequently, much harder to measure.

A first attempt to quantify transaction costs at macroeconomic level was made by John Wallis and Douglass North in 1986 in the article *Measuring the transaction sector in the American Economy, 1870–1970*. In this study, the two economists measure the dimension of what they call *transaction sector*, starting from the division of the whole economy in two parts: transformation (or production) and transaction. By measuring the total value of the resources used in the sector of transactions, they obtained the aggregated value of transaction costs in the economy. Wallis and North showed that the whole sector of transactions represented 25% in 1870 and over 45% from the USA GDP in 1970. The methodology proposed by the two American economists has

180 Kenneth Arrow, The Organization of Economic Activity: Issues Pertinent to the Choice of Market versus Non Market Allocation, 91st Congress, Washington, 1969, p.48 quoted in P.K.Rao, The Economics of Transaction Costs, Palgrave MacMillan, 2003, p. 7.

181D.W. Allen, Transaction Costs, în Encyclopedia of Laws and Economics, section 0740, http://encyclo.findlaw.com/0740book.pdf , pp. 912–913.

182 Th. Eggertsson, Economic behaviour and institutions, Cambridge University Press, 1990, p. 15.

183 D.W. Allen, Op. Cit., p.913.

inspired many other attempts to measure the transaction costs[184]. For instance, from 1996 to 2002, transaction costs in Polish economy increased from 49.7% to 67.5% of the GDP[185].

At microeconomic level, transaction costs are considered a waste in economy. Transaction costs represent "the difference between what a consumer pays and what a seller gets"[186], a difference which is always positive. This is why, it is these costs should be as low as possible.

Hernando de Soto's pioneering study has led to the identification of some transaction costs that Wallis and North had overlooked. They are expenses caused by waiting in line, obtaining authorisations to set up and develop a business, bribes, etc. He exemplifies with the following fact: 289 days were needed in the bureaucratic process to obtain the necessary authorisations from the State in order to set up a clothing company in Peru, in the first half of the 20th century. The same study conducted by de Soto in Tampa, Florida, showed that only two hours are necessary there to receive the same type of authorisation[187].

We believe that the explanation lies in the quality of the institutions necessary for the enterpriser's unhindered activity and, ultimately, in economic development. Efficient institutions are the ones that diminish uncertainty in inter-human relations or, in the terms of neoinstitutional analysis, they diminish transaction costs. This is the reason why cost transaction theory at microeconomic level can be understood only in the context of the general theory of institutions at macroeconomic level.

Determinant factors

Bounded rationality and opportunism

The theory of transaction costs in neoinstitutionalism is built on two essential behavioural hypotheses: *bounded rationality* and *opportunism*.

Bounded rationality is a cognitive hypothesis according to which "human agents behaviour is intendedly rational, but only limitedly so"[188]. Neoinstitutionalists concerned with issues of transaction costs claim Herbert Simon as their mentor when they adopt the hypothesis of individuals' bounded rationality by explaining it through cognitive limits and incomplete information. Both with respect to information collection and information processing, man's cognitive capacities are limited. He is incapable to shape a complete and exact imagine of all possibilities of choice. Simon extended these principles to the level of decision mechanisms and he proposed the replacement of the model to maximise individual utility with the satisfaction model. In his conception, rational behaviour is *satisficing* but not maximizing. Man can have no claim to optimisation or maximisation; he can at the most *satisfy his expectations*. In Simon' vision, this type of economic behaviour excludes the possibility for individuals to make calculations.

Already inspired and influenced by Herbert Simon's ideas, what matters for Williamson and for the theoreticians of transaction costs, is behaviour in an exchange relation in which individuals pursue their own interest. In this case, the individual proves to have bounded rationality but not naiveté. Under the circumstances where *ex-ante* judgements become relative (being limited rationally, man cannot anticipate all that will happen in the future in a contractual relationship – the ontological perspective of bounded rationality), individuals however have at hand a solution to satisfy personal interests: they are "allowed" to behave opportunistically. Opportunism refers

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184 For a more detailed presentation, see Ning Wang, Measuring Transaction Costs: An Incomplete Survey, Ronald Coase Institute Working Papers No. 2, February 2003, p. 4.

185 Sulejewicz, A, Graca, P., Measuring the Transaction Sector in the Polish Economy, 1996-2002, ISNIE, Barcelona, 22–25 September 2005, http://www.isnie.org/ISNIE05/Papers05/Sulejewicz_Graca.pdf.

186 Ning Wang, Op. Cit., p.5.

187 Hernando de Soto, The Other Path: the Invisible Revolution in the Third World, Harper & Row, New York, 1989.

188 H. Simon, Administrative Behaviour, Macmillan, New York, 1957, p.xxiv quoted in O. Williamson, "The Theory of the Firm as Governance Structure: From Choice to Contract", Journal of Economic Perspectives, Vol. 16, No. 3, 2002, p.174.

to the “self-interest seeking with guile”, to the “incomplete or distorted disclosure of information, especially to calculated efforts to mislead, distort, disguise, obfuscate or otherwise confuse”[189].
Bounded rationality, opportunism and imperfect information find their solution in the *incomplete contract*, whose clauses are permanently adapted, depending on circumstances, on the succession of events that can unfold between the moment when he contract was signed and the moment when it is executed. Contracts are incomplete but, as Williamson mentions, they are also cautious in the sense that they must constitute *credible* e*ngagements* that should take into account issues that can emerge after the contract was signed. Thus, contract partners become aware of the risks that can emerge during the period covered by a contract and seek the best way to organise the transaction, by considering human and informational variables. And the best variant or, to put it differently, the best contractual arrangement is not an ideal one but one chosen in such a way that it allows “to economize on bounded rationality while simultaneously safeguarding the transactions in question against the hazards of opportunism”[190].
However, choice is not made solely on the basis of human nature factors. The latter do not fully explain the existence of transaction costs and the necessity to adapt contractual arrangements depending on the context of the transaction. For instance, the bounded rationality of economic agents is a problem only in the context of the uncertain environment in which they act. Thus, other variables are associated to behavioural factors, which concern the transaction as such. The interaction between the two categories of factors is the one underlying the comparative approach to economic organisation.

Transactions and their characteristics

Transaction costs economics place *transaction* in the centre of economic production and exchange activities. The idea is taken over from one of the representatives of the old institutionalism, namely John Commons, who argued that “the ultimate unit of activity (…) must contain in itself the three principles of conflict, mutuality and order. This unit is a transaction”[191].
Given the opportunism of the parties involved in the exchange, transactions do not automatically presuppose the harmonisation of interests. Most often conflicting situations occur. Consequently, transactions require the existence of an institutional framework. Williamson finds the solution in *governance* (through *governance structures)* seen as “the means by which to infuse order thereby to mitigate conflict and to realize (…) mutual gain from voluntary exchange”[192].
In the attempt to explain why there are transactions that are not carried out through the market but suppose other ways of organisation (such as the hierarchical organisation), the transaction costs theory brings as its main argument the fact that transactions cost. They cost not only because the individual behaves rationally in a limited and opportunistic way (as previously shown), but also because transactions possess certain characteristic features.
Oliver Williamson identifies three main dimensions to describe transactions[193]: *frequency* with which they recur; degree and type of *uncertainty* that they are subjected to; *assets specificity*. Each of these variables influences the level of transaction costs, which explains the preference for one particular modality of organisation or another.
Frequency, as an attribute of transaction, starts from the idea that certain transactions repeat themselves regularly. In Williamson’s initial conception, the higher the frequency, the more numerous are the possibilities that the contracting parties adopt an opportunistic behaviour. Thus,

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189 O. Williamson, The Economic Institutions of Capitalism, The Free Press, New York, 1985, p.47.
190 O. Williamson, The Logic of Economic Organization, in O. Williamson, S. Winter (eds.), The Nature of the Firm: Origins, Evolution, and Development, Oxford University Press, 1993, p.93.
191 J. Commons, “The Problems of Correlating Law, Economics and Ethics”, Wisconsin Law Review, 8:1, p. 4 quoted in O. Williamson “The New Institutional Economics: Taking Stock, Looking Ahead”, Journal of Economic Literature, Vol. XXXVIII, 2000, p. 599.
192 O. Williamson, “The Theory of the Firm…, p.180.
193 Ibidem, p. 175.

the frequency of carrying out a transaction is supposed to be directly proportional with the level of transaction costs. Subsequently, he nuances his explanations by admitting that the repetition of similar transactions can lead to the emergence of reputation effects and favours the development of certain routines in the contractual relation that reduce the need for formal coordination mechanisms and influence counter proportionally the level of transaction costs.

Uncertainty refers to the "disturbances to which transactions are subject"[194]. Given that economic agents have limited cognitive abilities and manifest opportunistic behaviour, they cannot anticipate all situations that will emerge in the future. Consequently, they will have to adapt *ex-post* to unforeseen events (by renegotiating contract terms, for instance), which amounts to an increase in costs.

If the transaction is uncertain, subject to frequent and ample perturbations that are hard to anticipate, contract parties cannot determine *ex-ante*, exhaustively, how the transaction must be organised. This aspect does not pose major problems if the parties involved are not dependent one on the other. If, on the contrary, the parties are in a relation of bilateral, mutual dependency, it is more complicated to govern the contractual relation, and it is very costly to give it up. This is where *asset specificity* becomes relevant.

The argument of *asset specificity,* developed by Williamson, constitutes the basic "ingredient" of transaction costs theory. It refers to the "problem that is created when a part of the participants in a transaction make an investment in the physical and human capital and this investment cannot be recovered if the transaction is interrupted"[195].

Specific investment is, thus, limited to the satisfaction of the needs of the parties involved. A certain bilateral dependence emerges: a *lock-in* situation determined by the costs that a potential break of the relation could cause. This option does not seem convenient to any party because in this case it would lose the economic value induced by specific investment. Yet, this does not mean that the parties will not seek to exploit their interdependence. Opportunistic behaviour forces them to adopt such an attitude. The party of bigger negotiation power will seek to speculate the situation via an *ex-post* opportunity cost determined as the value of the best alternative use of the respective investment. The partner whose negotiation power is smaller has to choose between supporting specificity cost and obtaining certain smaller benefits than those stipulated initially, or to interrupt the contractual relation without obtaining anything. Opportunistic behaviour leads to the emergence of *quasi-rents*. "As assets become more specific and more appropriable, *quasi-rents* are created (and therefore the possible gains from opportunistic behaviour increase), the costs of contracting will generally increase more than the costs of vertical integration. Hence, *ceteris paribus*, we are more likely to observe vertical integration"[196].

The solution that neoinstitutionalists find to the problem of asset specificity that generate opportunistic behaviour and high transaction costs is the organisation of activities inside the firm by adopting forms of vertical integration, with a view to save on transaction costs.

Conclusions

Transaction costs theory brings about a change of perspective in economy, and it has imposed itself as a reply to neoclassicism and its simplifying hypotheses. It has developed its own methodological apparatus, built on its own notions and categories, and integrating its own working hypotheses that offer a fertile ground to evince the meaning, the significance and the relevance of the analysed concepts.

194 Idem.
195 A. Iancu, Bazele teoriei politicii economice, Ed. IRLI & All Beck, București, 1998, p. 586.
196 B. Klein, R Crawford, A. Alchian, "Vertical Integration, Appropriable Rents and Competitive Contracting Process", Journal of Law and Economics, vol. 21, no. 2, October 1978, p. 298.

All in all, we agree with Williamson's opinion which says that "its best days lie ahead". And one major concern for whoever invests his or her energy in the field of new institutional economics remains to identify transaction costs in various contexts and resource allocation systems.

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