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17 August 2003

Online at https://mpra.ub.uni-muenchen.de/80610/
MPRA Paper No. 80610, posted 05 Aug 2017 08:24 UTC

This is a draft English translation of the paper *The Firm as Transaction Cost Economics Concept/ Фирмата в Теорията на транзакционните разходи* which has been published in the "National Scientific Conference on Political Economy. Proceedings Volume", Ruse: Publishing Centre of the Ruse University, 2016

The Firm as Transaction Cost Economics Concept

Plamen Tchipev

Abstract: Within the framework of the mainstream neoclassical model, the *existence of the firm* creates serious theoretical difficulties. Major attempt to overcome them, leads to application of the *Transaction cost economics* developed by Coase, Williamson, etc. On its own turn, it creates new contradictions, part of which are treated by the present paper from the point of evolutionary political economy.

Keywords: Economic theory, Transaction cost economics, Theory of the Firm, Coase, Williamson.

INTRODUCTION - Problems with Defining the Firm in the Neoclassical Economics

The "paradox of the firm" is well-known in economics – on one hand, the firm practically exists (and some!), on the other – the theory ignores it. The paradox appears from a certain theoretical trap due to the simultaneous action of two assumptions in the neoclassical theory. First is the generalizing assumption that the economy is a process of market optimization, which includes also respective allocation of factors of production. *Ergo*, only the economic agents, which follow this process, i.e. have a rational behaviour, have a reason to exist.

Firms are such economic structures[1] that obviously do not use this mechanism in their *internal* relations, which places them automatically outside the neoclassical theoretical scheme. In best case, as far as the neoclassical economics deals with them, it deprives them of an *internal* structure, which practically ignores them.

Second assumption is about the *way* the mentioned concept is applied. The neoclassical economics requires ***alternative*** understanding of the optimizing action of the firm and the market.[2] Ronald Coase interprets them as *"what we find outside the firm is clearly alternative to what is in the firm"* (Coase, 1937, p. 388). There is a choice option of *"either-or"* type. In the conditions of the undoubted supremacy of the market, postulated by the neoclassical economics, its alternative – the firm – cannot substitute it, i.e. it (really) *is not* its alternative! Thus, its analysis already completely remains outside the theoretical field of application of the neoclassical analysis. We will get back in more details to the consequences of the application of these two principles in section 2.2. Here, however, we have to mention that the predeceasing classical political economy offers the opportunity of analysis of the firm.

Smith's concept of manufacture and labour distribution is exactly such case (Smith, 2016). *The manufacture is the first production form*, where the economic agent encompasses many persons, and has no legal regulation. The labour distribution is an ***intra*-structural** process in it, which makes it more competitive than the simple economic agents. This, in

[1] As mentioned, they are institutions, but we left the more neutral "structures" since the term is not axiomatically adopted in the standard neoclassical lexis.

[2] Coase calls the market - *price mechanism,* and Williamson identifies the firm and the market as *hierarchy and market.*

essence, is a beginning of a serious firm analysis. However, strangely enough, the neoclassical paradigm ignores it, emphasizing rather controversially on the egoistic nature and greediness of the human (Palmer, 2011). Similar is the fate of the thesis of the "invisible hand", which is separated of and opposed to the whole Smith's moral and economic system, as well as many other categories. Smith is alienated from his categorical system and dogmatized.

Of course, the reason for such "selective" reading of Smith lies in the deep disruption between the classical Smith's analysis and the neoclassical economics. The latter proudly proclaims this disruption with the labour theory of value. The disruption is presented as a revolution, the Marginalist one, which has to break up with the base theory of Smith-Ricardo political economy.

Things, however, are not so simple to the other categories of classical political economy. It turns out that some categories are quite valuable for the "revolutionised" political economy as well and should be kept. Above all is the *liberal credo*, which should be kept at all cost, and probably that is why, the new theory prefers to be called *neo*classical, though much later. During this "deep revolution" other odd things happen as well. Besides undervaluing, missing or preferring to neglect many of the classical threads of the analysis, the new theory encroaches some of its own – let's remember the fate of the *"marginal utility"*, the vanguard Austrian concept of alternative construction of value, which is later neglected by the neoclassical one.

Same happens also with the theory of the firm, which becomes a victim of the disruption between the two paradigms. Exactly this "unseen" disruption with all methodological principles and postulates of the classics is a proof for the inability of the neoclassical economics to consider the firm an ***uncompetitive*** mechanism of the market to solve the problem. This can be done only through the *evolutionary analysis*.

The Firm in the Transaction Costs Theory – Contributions

Coase and the "Nature of the Firm" (1937)

The critical view, which opens one of the heaviest questions in the micro analysis, is the one of *Ronald Coase*. He easily "sees" that the firm is not only left without attention but also without a reason. Coase postulates his ideas in the frames of the neoclassical paradigm and that is why he declares that he tries to "clarify assumptions on which a theory is based" (Coase, 1937, p. 386). Moreover, Coase insists that they should be both "manageable" and "realistic", since the micro analysis uses either "manageable" or "realistic" assumptions, which make its criticism and respectively its task much deeper, more essential than usually perceived!

Thus, to him the firm is omitted in the "manageable" assumptions, i.e. those included in the model of distribution of the factors of production according to the price market mechanism. The few attempts to define are based on such set of assumptions, which aim to reflect more realistically the picture of the live economy, but are not bound to the "manageable" axioms.

The solution, proposed by Coase, is based on the assumption that the market causes *transaction costs (TC)*[3], which, roughly said, make the deals more expensive. That is why he defines the firm through the *necessity to minimize the transaction costs*. Since this assumption would lead to the presumption of the unlimited scale of the firms, transaction costs are subordinate also to the requirement to grow in parallel with the growth of the firm. Thus, the

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[3] Coase calls them costs for "organization" or use of the price mechanism. Williamson is the one who codes the transaction costs as a term.

latter end the process by forming an optimal size of the firm. This is not a problem assumption, since it corresponds to the general idea of the behaviour of the costs in the neoclassical analysis.

According to Coase, his solution should necessarily use both basic "Marshall" marginal analysis concepts – marginal analysis and substitution.[4] It situates it inside the neoclassical paradigm. Coase wants *to add* missing link in these assumptions, in order to make the existence of the firm *possible*, and not to destroy the neoclassical paradigm! To some extent this explains why O. Williamson, though considered a neo-institutionalist, actually applies neoclassical approaches.

Oliver Williamson and Transaction Cost Economics

O. Williamson builds an entire theory from the assumptions of Coase. With the *Transaction Costs Economics (TCE)* Williamson reconfirms the theoretical existence of the firm, making contributions, with which actually he just further enriches the nomenclature of these costs and formalizes their analysis. He assumes that:

- *Many people have opportunistic behaviour, which, together with the transaction-specific investments in human and physical capital, creaetes a vertical integration (i.e. growth of the firm).*
- *Though it is necessary, information is rarely effectively processed.*
- *Assessment of Transaction Costs Economics is a problem of a comparative institutional analysis.*

Moreover, Williamson introduces also new reasons – if the transactions are non-specific, then the market can minimize the transaction costs directly, without a firm. Random and non-standard transactions would profit from some integration between the agents (Williamson, 1973).

Concerning the firm[5], it becomes completely economically justified, with repeating transactions, which include specific investment at high uncertainty. Thus, a situation arises, when the firm is not indifferent to the transactions it makes! The firm can have justified existence with one type of transactions and unjustified – with another activity. It means that *it can emerge independently from the requirement of effectiveness*. It just turns on and off certain transactions from its activity, unrelated to the optimization mechanism.

Williamson interprets this as an addition to the effective functioning of the market, but actually this denies the very idea of market optimization, since if we have many efficiencies (and corresponding structures in the economic space) in reality we deny the neoclassical paradigm about the market as an *ultimate* optimizing procedure. This means that the optimization (if one continues at all to observe such economic behaviour) will happen between better and more effectively organized hierarchies. This replaces the very nature of the market economies.

The opposite assumption – that optimization of economic agents of both market *and* hierarchy type is possible – would mean creation of a *principle* advantage for one side in the optimization process, where all resources will be collected in one agent and the system would block (Jensen, and Meckling, 1976).

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[4] The margin and the substitution – "the substitution at the margin" (Coase, 1937, p. 386).

[5] Determined by him as transaction-specific governance structure (Williamson, (1979).

Though with different logics, the criticism of Stanley Fischer is very close exactly on this point: "most of all it could be rationalized through adopting suitably specified transaction costs" (Fischer, 1977).

Institutional Criticism

Besides the main weakness, which we mentioned as "paradox of the firm" regarding the two assumptions in the neoclassical theory – market optimization and ***alternative*** treatment of the firm to the market, there is also a neglecting of the intra-structural analysis of the firm. It is not possible for the economic agent to have structure, internal organization, respective separation of the functions, of ownership from control, and eventually to be an object of *corporate governance*.

Evolutionary political economy would assume (if optimization really acts in the way predicted by the mainstream theory) that exactly the market could generate the firms. That they are just a juridical form (continuation) of the economic agent, represented by the physical person! Why at all the hierarchies (firms) are considered antipodes of the markets? The answer to these questions is a subject of another discussion, but the breaking up with the classics creates the principle inability for neoclassical economists to consider the firm a non-competitive mechanism of the market, which would solve the problem.

Another reason is that the ***internal structure cannot be modelled as a result of the market mechanism***. We have to note that the micro analysis postulates a competitive, oligopoly or monopoly structure, and then models different market answers, but does not produce *different* structures from the functioning of the price mechanism. This is impossible and that is why the used methodology is the second serious obstacle to the real analysis of the firm.

Formalizing some more or less reliable structures, Williamson, and later the whole school of his followers, opens an endless field for speculative analysis on which structure is "more effective" or not, what will happen if we change a small premise, etc. In reality the dynamics of the structures is as big as the dynamics of the price mechanism, and respectively the attempts to "reduce" it are also pointless. Thus, the method opposes the postulates that created it.

There is one more very serious contradiction to the transaction costs concept concerning the functioning of the market mechanism. Adopting these costs, as the work of the neo-institutional school shows, is an endless process of finding newer and newer ones. This means that there can always be a more specific one, and its introduction to a concrete market model could rearrange the whole model. This methodological loop clearly shows the presence of a contradictory assumption somewhere in the very subject. In our opinion, this contradiction is in the very nature of the transaction costs.

Contradictions of the Transaction Costs Concept

The assumption of the transaction costs is based on an internal contradiction with another founding principle of the economic system, which is an object of analysis here. First, let's look in detail at the nature of the concept.

The Nature of the Transaction Costs

Coase bases his concept on quite clear logics, unfortunately, however, too simplified. There are costs due to the necessity to find the "relevant prices". There are also costs for the very "contract". This means that he assumes an additional element to the normal production

costs (the latter include also a component for marketing, image presentation, etc.). This component emerges from the very action of the market, the “exchange mechanism”, as Coase calls it. This suggests that these are over-costs, imposed and adopted only because of the exchange process. Coase even analyses this case in a footnote (Coase, 1937, p. 394), where he mentions that turning the economy into one big firm is conceivable. If we give up on the “consumer choice”, we can completely eliminate the market costs.

We put aside that it is a direct opening of the door to arguments on the nature of the central planning, which even then is object of heavy debate. More importantly, Coase himself has no doubts that the transaction costs *are not production costs* but costs caused in the exchange phase, and that they can be *optimized* and realized in a normal (or if you prefer capitalist) economy.

We will leave for a moment this debate and will remind one of the biggest merits of the classical economics.

The Exchange in the Classical Economics

There are some important lines, where the classical economics breaks up with mercantilism. One of them is the relation between the creation of value and the exchange. According to this assumption, the exchange cannot create value. There are many producers; respectively they create goods with certain level of value according to some socially permissible logics in one way or another (the opportunities for Smith are several!). This logics excludes the possibility for creation of even a minimum value in the exchange process, since it would make the closing of the processes and their distinguishing from one another impossible.

If, despite all, the theoretical model allows creation of value *in* the exchange act, i.e. *non-equivalent exchange*, then some very heavy problems of backward loop appear.

- On one hand, there is no reason for the exchange acts to stop because of the possibility of making the goods more expensive due to their continuous circulation. This would lead to liquidation of the consumption, i.e. the product will not be consumed. We are not far from the monetary fetishism – the treasure in the hands of the Moliere’s miser Harpagon who only counts his coins without using them.
- On the other hand, soon the production costs share will become too small in the total volume of trade costs and the production phase of the economic process will *also* become pointless.

Such assumption is not just an abstract construction but suggests two quite specific cases of real economies for its realization.

The first real possibility for it to work is in a very early and primitive phase of market (capitalistic) economy, where the market sector is literary “sunk” in *non-market* ways of production (feudal or family-common) and whose agents function as ***net donors*** for the market system. Roughly, this is the whole period of the *pre-manufacture* economy, when traders, actively functioning on market principle, buy goods from different “suppliers”, who for many reasons cannot reach the market and get their evaluation. The whole British economy in the colonies has functioned on this principle, selling to the villagers via market the cheap textile produced from the cotton bought from the same villagers. This is the infinite power of such model, drawing from the uneven position of the participating agents. And this is also its absolute weakness – the moment the genius of Mahatma Gandhi finds a simple way to counteract it by encouraging his fellow-citizens non-cooperation, i.e. to not buy British goods but to

manufacture them themselves - the model stops functioning, leading eventually to independence of India.[6]

Second possibility for existence of economy, which derives (or adds, as is the modern term) value in the exchange process, is if it is realized in *non-equivalent foreign trade*. Actually, it is the base of the economic model of ***mercantilism***. It can and really has certain explanatory function, but only as far as it includes economic agents external to the system. This model, however, is also practically dying out, since the globalization of the world economy makes the non-equivalent trade, in the traditional sense of the term, harder. And yes, of course, at the end the second case of non-equivalent exchange is also reduced to the previous one, because it suggests that one agent in the exchange relation is traditional, or *non-capital* oriented in the mentioned sense.

As a whole, the *classical economic paradigm* solves the mentioned problem by postulating that the economic activity is derived into phases – production, exchange and consumption.[7] In the first phase goods are created (and value, since the classical model is based on the labour theory of the value). In the second phase the goods are exchanged, and in the third phase they are destroyed (consumed). A circle, circular model of the economy is formed. And with two sectors and a market, which binds them. It is the famous two-sector[8] economy model, conveniently placed in every textbook on microeconomics, suggesting that it is an achievement of the neoclassics. Actually, it is defined by the postulates formulated by the *classical political economy*.

If we go back to the opposite assumption that value is created also in the second phase, we see that it turns the model into a non-structured mass of economic acts, deprives it of cyclic recurrence and gives it a random and chaotic character.

Neoclassical Model and the Equivalent Exchange

The fact that the new (marginal) doctrine keeps this point, though it broke most of the elements of the replaced classical paradigm, shows the strength and significance of the postulate of the *equivalence* and *neutrality* of the exchange. However, in the neoclassic theory, this assumption is difficult to be found out because of the *implicit* way of defining the fundaments of this theory. That is why Weintraub determines it as “meta-theory”. “The neoclassical economy is meta-theory. I.e. a bouquet of unclear rules or assumptions for creating satisfactory economic theories. It is a research program, which generates economic theories. Its fundamental axioms are not open for discussion and thus they determine the shared views of those who call themselves neoclassical or just economists without any adjectives” (Weintraub, 1993).

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[6] The space here does not allow us to go into details, but the non-market “sunkness” suggests promising directions for analysis, raising interesting questions like is market economy functioning in pure form possible without the simultaneous presence of pre-market (non-market) forms such as the different feudal, traditional and other productions, which are more or less non-capital oriented, i.e. they are *more “oeconomicus” than “chrematistics”*, if we use Aristotle’s distinction.

[7] The radical political economy adds the distribution as well, but in the liberal economy it is given in the logics of the first two stages, and in my opinion its differentiation is not necessary.

[8] The third sector – the state – comes much later, and not always.

Still, the careful consideration of the nature of the neoclassical model gives enough reasons to state that it also keeps the requirement for the exchange acts (mostly barter) to not increase the value or utility of the exchanged goods.

Most of all, the mentioned circular model, on which this economics builds its logics, reveals this principle.

To the same conclusion leads the (barter) defining of the exchange in the neoclassical economics – equivalent process, which really starts with different evaluations of the two involved agents for the utility of "own" respectively "others'" exchanged good. The process continues till the two contractors equalize the marginal utility they derive from the exchange act. Then, the exchange is complete, the exchanged relation is objectified in a price, and the two agents are in their optimal state of maximum satisfaction. The neoclassical economics not only requires this but also proclaims it as a sublime goal and most significant achievement of the economy, namely the *optimal (optimised)* satisfaction of the needs of maximum economic agents.

In the exchange of *goods for money* the logical chain is complicated from the assumption that the money has no decreasing marginal utility (Austrian school). Generally, however, the process has no difference, since the Austrians simultaneously assume that the money reflects the marginal utility of previous (other) transactions.

The other big debate concerning the application of money (whether it is neutral or not to the market) also deserves attention. In our opinion, it has no relation to the discussed problem, since it concerns the question whether the relative prices of goods change or not with a change in the money supply, but it does not doubt the logics of each exchange act.

The additional argument, that the neoclassical model in its principles also includes the neutrality of the exchange, is in the analysis of the situation – exchange of labour for utility of goods or money. In this case, the pure microeconomic tracing of the process shows that the marginal utility of the refusal of freedom and control over time, which the workers do, equalize to the marginal utility of the goods received in the exchange (or purchasing power).

Moreover, it is added with the macroeconomic requirement of inviolability of the general contribution of each factor of production to the social product. The neoclassical economics breaks up with the logics of Ricardo and Marx that in the production process there is a redistribution of income and product between the owners of the different factors (from the labour to the capital) and insists that each factor receives exactly as much as its contributes to the manufactured product, which on the other hand is determined by its marginal productivity.

Thus, the assumption that in the exchange of labour for money the principle of equivalent is violated would renew in another form the problem, of which the neoclassical economics tries to set free. This argument has rather auxiliary significance, but also underlines the neutral character of the exchange, which in fact is the goal of this diversion in the history of the economic theories.

Transaction Costs and the Principle of Neutrality of the Exchange

If we return to the problem of the transaction costs, we will see some interesting facts. Most of all, there is no doubt that their adoption violates the principle of neutrality of the exchange phase concerning the total product. Roughly, adding the *market-derived costs*, the logics of Coase, Williamson and others actually ***adds value***, or if we keep to the subjective terms – utility to the created product. And on a completely standard principle, like any other cost. Hence, the agent (in this case the firm since it is the target of Coase) can form also profit, etc.

Now, having in mind that (1) the neo-institutional analysis literary swarms with different types of such costs, and (2) they have claims to approximate the model to the reality, and (3) these costs are made to reveal the whole information necessary for the deal, including all possible consequences from one or other outcome on the contract, with the uncertainty, etc., it becomes clear that this assumption is not just contradictory. It undermines the very logics of the market mechanism. The market starts to function as ***one of the sides in the deal***, it becomes an *economic agent*! And:

- It is clear in advance which side;
- Can change the side during the deal;
- Can even influence both sides simultaneously.

No wonder that the "features" of the concept have deserved the opinion that "(t)ransaction costs have well-deserved bad reputation as a theoretical instrument…" (Fischer, 1977).

This concept contradicts also to other initial premises for the market, like immediate action, free and equal access of all agents to information, etc. Each of them deserves own attention and interest. Unfortunately, the space in the current paper does not allow us to go into details.

As mentioned, it has the characteristics to be true only in the case of merger of the whole economy into one firm. It has extremely unsuitable side, besides the ideological implications, to lead to denial of the market in general, like mechanism for organizing the economy, which is the least contradiction to the practice.

Concluding remarks

The analysis here is rather limited - to examine whether the assumption of presence of transaction costs can solve the problem of the lack of logical determination for existence of the firm in the frames of the neoclassical paradigm.

Constructed as an optimization game between manufactures and consumers, the neoclassical mechanism practically expands its activity only between the different firms, implicitly reducing them to points, to simple variables in mathematical sense, or to black boxes in the systems theory.

The base of this paradigm error is, of course, the mechanical approach, which is dominant in the marginal revolution (and unfortunately till now!). It "atomizes" the economic subjects, on the example of the Newton physics, for which the objects are just "bodies", which move evenly, rectilinear and infinite (if some other power does not influence them), but for which we do not know (and do not care of) nothing more. Thus, the possibility for analysis of their internal structures not only disappears but there is also contradiction between firms and markets, which drags the necessity of *Transaction Costs Economics*.

The most interesting is that the criticism against the *"atomization"* is not at all new for the neoclassical economics. It practically accompanies its whole history – the problems with the firm are only another consequence of this methodological defect.

When the question of the nature, structure and functioning of the economic agent, its development, etc., arises, it becomes clear that they cannot be considered outside the principles, on which certain scientific paradigm is created. And that these concrete principles do not allow denial of the application of the transaction costs concept.

For our task it means that transaction costs theory cannot explain the question of the existence of the firm. The problem of whether and why the firm is more effective on the market is the next misinterpretation in the neoclassical economic theory.

As mentioned, the answer is somewhere else – in the institutional nature of the firm. When it is not just "addressed" but really studied, it will become clear that it is not alternatively opposed to the market but its product and continuation. This will open the way for searching for the answer to the question why it exists. This gives opportunity for further analysis of the firm.

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