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THE NATURE OF FIRMS AND MARKETS: DO TRANSACTION APPROACHES HELP?

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Economics, it is sometimes surprising to realise, has no unified conception of the firm. The conventional, neo-classical theory of the firm does not even have a conception of the firm, and is not really concerned with the firm at all, but rather with predicting price changes in perfectly competitive markets. This theoretical "firm" is nothing but a black box (Cyert & Hedrick, 1972, p. 398: Morgenstern, 1972, p. 1184) or an artificial mental construct to be used in "as if" analysis of market disturbances (Machlup, 1967, pp. 14-15).

Two relatively recent approaches contrast with the conventional theory in that they attempt to address the internal nature of the firm as such. The one is the so-called managerial theories of the firm, which has focused on the behaviour of firms as real organizations with managers, shareholders and rivals in situations of "imperfect" competition (cf. Marris & Mueller, 1980; Baumol, 1967; Williamson, 1963; 1964; Cyert & March, 1963; Marris, 1964). The other is the so-called transaction or internal organization approach, of which Ronald Coase is generally regarded as the father.

Prominent aims of the transaction approach have been to determine the reasons for the existence and growth of firms as well as the nature of the firm as opposed to the market, including the distinctions - if any - between, for example, employment, subcontracting and integration. Some of the most pertinent contributions are the work of Williamson on markets and hierarchies, and of Alchian, Demsetz, Jensen and Meckling on the role of inter-individual contracts (cf. Putterman, 1986; Cohen, 1979; Cheung, 1983; Fama, 1980).

This paper considers a number of pivotal aspects on which viable definitions and distinctions concerning the firm and its market environment rest. How and why these elements feature are established by way of critical analysis of the internal logic of selected seminal transaction and contract contributions, showing their shortcomings in certain crucial respects.[2] Whilst one conclusion is that they do not provide the desired distinctions in a consistent and generally valid way, the particular shortcomings provide the key to important results and suggest a consistent amended approach.

1. THE NATURE AND EMERGENCE OF THE FIRM

A first question is whether the transaction approach provides a clear indication of the distinctive nature of the firm - not so much of specific, existing firms, but of the firm as a distinctive societal institution, the firm as such. The starting point for this issue is Coase's paper (1937), which also provides the first indications of problems with the transaction approach.

Coase uses an internalization-of-external-transactions argument to explain the nature, existence and growth of firms. Noting the distinction between the allocation of resources in the economic system as

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[2] The contributions analysed below are regularly cited as "classic", for instance by Putterman (1986, p.1). However, this paper does not pretend to present a thorough evaluation or criticism of the transaction approach in general. It is selected criticism to make certain analytical points.

a whole (i.e. by the price mechanism) and within the firm (by a manager), he observes that "outside the firm, price movements direct production, which is co-ordinated through a series of exchange transactions on the market. Within a firm, these transactions are eliminated and in place of the complicated market structure with exchange transactions is substituted the entrepreneur-co-ordinator, who directs production" (1937, p. 388).

But, asks Coase, if the market can coordinate production, why do firms exist or emerge in the first place? Arguing that exchanges will be brought under the coordination of the firm whenever the cost of using markets exceeds that of using authority and direction, Coase concludes that firms exist because there are costs of using the market mechanism.[3] Accordingly "the distinguishing mark of the firm is the supersession of the price mechanism" (Coase, 1937, p. 389). Correspondingly the expansion of the firm is defined as the internalization of additional external transactions. The equilibrium boundary of the firm is determined by marginal transaction cost calculations. (The larger part of Coase's paper is in fact devoted to the growth and boundary issue).

In spite of its popularity and richness of insight, this basic Coasean scenario - presented and interpreted, as it is, as a general definition and existential explanation of the firm - harbours difficulties which have not been noted before. These difficulties surface when one considers the implications of the existence of one-person firms. If the firm emerges, as Coase argues, because it is a less costly way of handling the exchanges and transactions necessary to direct and coordinate production, then the existence of such production must logically precede the emergence and existence of the firm. If one argues that even the smallest production unit, a producing individual or artisan, is in principle a firm, then such production can only take place if firms already exist.[4] Then the firm cannot emerge as a market-replacing institution to begin with. In this case Coase's definition and explanation of the firm in terms of market transactions is logically untenable.

If one argues that any producing individual cannot be regarded, without further ado, as a firm, that still leaves the one-person firm as conceptual possibility and empirical reality. Such a firm cannot in all circumstances be conceptualised as coming into being to supersede transactions between persons or firms, or as existing because of the costs of using the market mechanism. The one-person firm cannot in general have the supersession of the price mechanism as *distinguishing* characteristic.

This illustrates a more general point, i.e. that firms can exist without markets, i.e. without barter or trade. Barring the theoretically moot possibility of producing individuals that are not firms, market relations are nothing but relations between *already existing* firms (or between such firms and customers). Without firms that produce, there are no products to be transferred and allocated by market transactions. Therefore, although many firms may in practice emerge in order to substitute for, or avoid, market transactions, *the emergence and existence of the firm as such - of all firms - cannot be explained by transaction cost considerations*. Accordingly the supersession of the price mechanism cannot be the distinguishing mark of the firm. That has to be sought elsewhere (see Fourie, 1981).

Thus Coase's analysis, intuitively appealing as it is, does not provide the distinctive characteristics of the firm as opposed to the market. This does not, of course, render his analysis powerless. What can be explained, and most effectively, is the existence of, and particular characteristics of, more

[3] Williamson (1975; 1985) provides an exposition of the transactional factors underlying the costs of markets. Klein, Crawford & Alchian (1978) provide additional insights.

[4] The management of some production (and/or distribution) process appears - both intuitively and in most textbook definitions of the firm - to be central to the firm. That leaves as moot the question whether an individual producer or artisan is to be regarded merely as a "producing person" or as a firm, albeit a seminal one; alternatively, when such a "producing unit" becomes a (one-person) firm.

developed *forms* of the firm, for example those which have already internalized formerly external relations or production units, or those that came about in order to economize on transaction costs. Such firms and markets may perhaps be viewed as different modes of internally and externally coordinating relations between producing (sub-)units. For these forms of the firm Coase's characterization is an apt (albeit partial) description. However, as a general definition of the typical nature of the firm as such - of all firms - it does not hold.

What is the source of this limitation of Coase's analysis? Superficially it is his failure to consider the entire spectrum of positive forms of the firm, and the one-person firm in particular. Although today the one-person firm may be a relatively unimportant empirical phenomenon, there can be no arguing that one definitive logical and empirical test for a general conceptualisation or definition is its ability to accommodate all positive forms of the firm that occur and have occurred historically.

More fundamentally Coase's analysis raises a question which has become critical in the debate (Putterman, 1986, p. 18), and which will be pursued throughout this paper. That is the question whether it is methodologically legitimate and constructive to attempt to explain the typical and distinguishing inner nature of the firm exclusively in terms of another, *typically different* relation, the market. Remarkable as Coase's insight may be, pursuing it as a general way of understanding the inner nature of the firm may stretch the analytical content and applicability of that insight to such an extent that eventually the exercise may obfuscate rather than clarify, may hide that which is unique behind the less-distinctive.

Although there is no consensus on exactly what a firm is, the management of some *production* (and/or distribution) process appears to be central to the firm. Consider, however, that a market, unlike a firm, cannot produce. Therefore market relations can only link firms (producing units). If this is true, markets and firms are not alternative modes of production, but are inherently and essentially dissimilar.[5] On the other hand both firms and markets appear to have some co-ordinating function - Coase's basic insight. But can the nature of the firm really be uniquely described as market-replacing or market-simulating? Considering that markets cannot produce, can one say that the firm, where production plays such an essential and typifying role, only exists because of market failure?

The key question is the following. If the nature of the firm is not to be explained exclusively in terms of the market, what exactly is its relation to the market? The challenge is to discover the dissimilarity between firm and market amidst the apparent similarity in terms of coordinating functions. To achieve this,the difference between within-firm and between-firm (i.e. market) relations must be analysed.[6]

2. DISTINGUISHING EMPLOYMENT, SUBCONTRACTING AND INTEGRATION

If markets can only link firms, market relations are necessarily external to any firm (whose production is internal to that firm). That a clear conceptualization of internal and external relations is important becomes apparent when one considers the differences between the following: the employment relation (the employer-employee relationship), the act of subcontracting, and the act of vertical or horizontal integration (internalization).

[5] Although Coase himself does not put it this way, Marris & Mueller (1980) have characterized Coasean approaches as viewing markets and firms as alternative modes of production.

[6] While Coase does not incorporate all consequences of the difference between within-firm and between-firm relations (see below), he does suggest that they differ in that internalized transactions are carried out using the direction and authority of an entrepreneur-coordinator, while in external (market) transactions coordination is by the price mechanism. The role of authority is discussed below.

Employment versus integration

One fundamental step towards delineating the bounds of the firm as well as the difference between firm and market, is a clear definition of employment and employeeship. An indication of problems that can arise in this context is provided by the critical analysis of contributions of Oliver E. Williamson.

In his pioneering focus on hierarchies Williamson (1973; 1975) expands on the internalization argument of Coase. He begins by noting that "the transaction is the ultimate unit of microeconomic analysis" (1975, pp. xi; 20). Assuming that "in the beginning there were markets" with ubiquitous contracting, he explores how the choice between handling a transaction in a market vis-á-vis within a firm (a hierarchy) hinges on transactional factors. He discusses three contexts:

(a) The labour market: Given "autonomous contracting between individuals", these are impeded by transactional factors (bounded rationality paired with uncertainty, opportunism paired with small numbers, and information compactedness). This is the reason "for *workers* to be joined in simple hierarchies" (1975, p. 56; emphasis added). Hierarchy, which embodies authority and subordination, can overcome transactional impediments. Therefore "simple hierarchy ... can be regarded as substitutions of internal organization for failures in the *labour* ... markets" (1975, p. xvi; emphasis added).
(b) The employment relation: Four alternative modes of "labour contracting" between employer and employee are considered: contingent claims contracting, recurrent spot contracts, the Simon authority relation (Simon, 1957, pp. 184-85) and the internal labour market (Williamson, 1975, pp. 72-81). Of these only the latter, being within a hierarchy, is free from transactional difficulties.
(c) Intermediate product markets: Given technologically separable production units and the exchange of components between them (under contingent claims or recurrent spot contracts), the same transactional factors impede these alternative types of sales contracts. This induces the merger of the production units into a hierarchy. Thus vertical integration "can be regarded as (the) substitution of internal organization for failures in the ... intermediate product markets" (1975, p. xvi; also pp. 56; 82 et seq.) and moreover as the extension of the employment relation to include department managers (for example a former inside contractor) (1975, p. 4).

The question is whether Williamson actually succeeds in providing a consistent and clear distinction between (i) employing an individual within a firm, (ii) subcontracting and (iii) integrating a production unit on the opposite side of a market relation. First of all, Williamson appears to use the term *employee* to encompass both internal workers (members) of a firm and external subcontractor-individuals.[7] This is untenable, especially because he sees relations with the latter as labour contracting. Nor does it provide a distinction between what is inside and what is outside the firm.

Secondly, situation (a) describes workers joining in a hierarchy to overcome transactional failures in the *labour* market. If Williamson is describing the emergence of a firm along Coasean lines, his analysis suffers from the same flaws. Furthermore, here the firm (hierarchy) replaces *labour* markets (defined as transactions between *workers*). If he is describing the merger or integration of one-person firms, it is difficult to see why do he treats it separately from (c), and why he calls it a labour market situation. If he is describing an employment process, why treat it separately from situation (b)?

One must conclude that here Williamson fails to provide the necessary distinction between employment, subcontracting and integration. This evidently is because he, ironically, does not clearly distinguish markets and firms (hierarchies). In his analysis these are simply different degrees or classes of coherence between workers in the labour market, and this clouds his distinctions. (He also fails to distinguish workers/individuals and one-person firms.)

[7] He also describes the employment agreement as the substitution of a single incomplete contract for many complete ones with suppliers (1975, p. 4).

Employment vs. subcontracting: the contract approaches

A question that is beginning to surface is whether one should at all try to distinguish firms and markets, whether they are not so similar that firms really should be regarded as quasi-markets. Indeed, it has been argued that the entire exercise of drawing firm-market contrasts is misplaced (cf. Putterman, 1986, p. 18; Klein, 1983, p. 373). To consider this question is is useful to contrast employment proper (i.e. of a worker within a firm) with subcontracting (in the market).

The seminal contribution in this regard is Alchian & Demsetz (1972), who compare the relation between a grocer and his employee with that between a client and his grocer:

> "The firm does not own all its inputs. It has no power of fiat, no authority, no disciplinary action any different in the slightest degree from ordinary market contracting between any two people. I can `punish' you only by withholding future business or by seeking redress in the courts for any failure to honour our exchange agreement. That is exactly all any employer can do. He can fire or sue, just as I can fire my grocer by stopping purchases from him or sue him for delivering faulty products. What then is the content of the presumed power to manage and assign workers to various tasks? Exactly the same as one little consumer's power to manage and assign his grocer to various tasks. ...
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> To speak of managing, directing, or assigning workers to various tasks is a deceptive way of noting that the employer continually is involved in renegotiation of contracts on terms that must be acceptable to both parties. Telling an employee to type this letter rather than to file that document is like telling a grocer to sell me this brand of tuna rather than that brand of bread ...
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> I have no contract to continue to purchase from the grocer and neither the employer nor the employee is bound by any contractual obligations to continue their relationship. Long-term contracts between employer and employee are not the essence of the organization we call a firm" (1972, p. 777).
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> "The employee can terminate the contract as readily as the employer, and long-term contracts, therefore, are not an essential attribute of the firm" (1972, p. 783).
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> "My grocer can count on my returning day after day and purchasing his services and goods ... and he adapts his activity to conform to my directions to him as to what I want each day ... he is not my employee (1972, p. 777).

In essence Alchian and Demsetz argue that there is no fundamental difference between these two relations on the following points: the role and presence (rather absence) of authority and punishment, the voluntary and contractual nature of the relations, the equivalence of assigning tasks and continuously renegotiating contracts, and the relevance of the term of the contract (long versus short). The only substantial difference is that, with respect to employment relations, one party, the employer, is in a centralized position in the contractual arrangements with other "inputs" (employees), and that there is team use of inputs in the (by assumption) joint-input production process. Indeed, they argue that firms exist in order to exploit the advantages of such team work: the "team process" induces "the contractual form called the firm".

Although the paper of Alchian & Demsetz is one of the most quoted in the transaction literature, their analysis is not without considerable defects, as internal criticism readily shows. Firstly, it is clear that their definition of the firm as a contractual team of inputs can only be valid, if at all, for developed firms, and not for one-person firms. On the other hand it has been pointed out in the literature that their definition cannot explain large complex hierarchical firms either (Williamson, 1981, p. 1565). Therefore it cannot serve a a general definition of the firm.[8] Secondly, the centralized position of one

[8] For related points of criticism, see Jensen & Meckling (1976, p. 310) and Williamson (1975, pp. 49-50).

party in internal contracts fails to distinguish intra-firm from extra-firm relationships at all. For it is just as true for the contractual relationships between their illustrative grocer and all his customers and suppliers.[9] *This leaves the relationship between grocer and employee indistinguishable from that between grocer and customer or supplier.* Everything is reduced to market relations.

This places these authors in a dilemma. Given their viewpoint, on what grounds can they themselves call one person *employee* and another *supplier* or (inside or outside) *contractor* (or customer), i.e. how can they distinguish between employment and subcontracting? In the absence of a clear distinction between internal and external relations such terms cease to have legitimacy.

These problems are most apparent in an equally seminal paper by Jensen and Meckling (1976). They treat the firm under the theory of principal-agent relationships and the associated agency costs. Like Alchian and Demsetz they emphasize the contractual nature of firm relationships: "contractual relations are the essence of the firm, not only with employees but with suppliers, customers, creditors, etc." (1976, p. 370). They do so, however, in a stricter way which concentrates exclusively on the contractual aspect. The firm is viewed, as are organizations in general, simply as a *legal fiction* which serves "as a nexus for a set of contracting relationships among individuals"[10]; it is an "artificial construct under the law" which allows the organization to be treated as an individual (1976, pp. 310-11). For them there is only a multitude of inter-individual contractual relationships. All structures or organizations are artificial. Accordingly "the behaviour of the firm is like the behaviour of the market, i.e. the outcome of a complex equilibrium process" (1976, p. 311).

This view implies truly no difference or distinction between internal and external relations of the firm, as the authors readily admit (claim?): "Viewed this way, it makes little or no sense to try to distinguish those things which are `inside' the firm (or any other organization) from those things that are `outside' of it (1976, p. 311).[11] However, a denial of any difference cannot be made as easily as that. The inevitable consequence of dissolving everything into a series of inter-personal transactions is to eradicate any distinction between institution and non-institution, between firm and market. Although Jensen & Meckling may, for their purposes, not find this an impediment - they are fully aware of this consequence - as a general theory of the distinctive nature of firms and markets this approach must fail. If everything is reduced to inter-individual market relations, if all there is is an ocean of inter-personal relations, one cannot legitimately talk about the firm nor about the market, cannot distinguish managers, employees or outsiders, cannot talk of owning a firm, residual claims on a firm, the inside or outside equity of a firm, factors exogenous to an organization, etc. - terms Jensen & Meckling use all the time. Therefore their view is inconsistent with concepts they themselves use and cannot avoid using.

The untenability of this approach is borne out by the fact that it is inconsistent with the historical order of events. Legal contracts became possible only after the dissolution of primitive undifferentiated society into a differentiated society with different institutions - and notably the State whose public legal order makes such contracts possible and enforceable. However one wishes to interpret history, the existence of meaningful contracts requires the existence of a public legal order which in turn presupposes the emergence and existence of at least the State (and by implication other institutions). But this is contrary to Jensen & Meckling's own view that all structures, including the State, are actually

[9] They moreover fail to consider inter-employee and inter-subunit relations and transactions, internal to the firm, where there need be no centralized party.

[10] The firm in particular is also characterized by the existence of divisible residual claims on the assets and cash flows of the organization which can generally be sold without permission of the other contracting individuals (Jensen & Meckling, 1976, pp. 310-11).

[11] In similar vein Klein (1983, p. 373) has stated that the question concerning the essential characteristic of the firm appears to be unimportant, that it is a fundamental advance to think of all organizations as groups of explicit and implicit contracts.

non-existent and but a legal fiction masking a multitude of purely inter-individual contractual relationships. Their denial of the real existence of structures like the State thus precludes the very contracts which are at the core of their argument.

3. INTERNAL AND EXTERNAL RELATIONS: AN ALTERNATIVE VIEW

Sources of failure: the market and individualism

The four contributions discussed above share a key feature which simultaneously is a common source of problems. What it amounts to, albeit in varying degrees, is the theoretical hegemony of the market concept - a tendency to define everything in terms of, or reduce everything to, market transactions. Starting with Coase they progressively posit an increasing extent of similarity between market relations and within-firm relations. Coase finds a common element in a process of resource allocation, but falters when attempting to explain the nature of the firm entirely in terms of the market - the firm is reduced to a proxy for, or a simulation of, the market.[12] Williamson places even less emphasis than Coase on the difference between markets and hierarchies. In his "employment relation" both categories are seen as forms of employment in the labour market - any difference is only a matter of degree. Therefore any distinctiveness between firms and markets is blurred. Alchian & Demsetz as well as Jensen & Meckling find the common element in the contractual nature of inter-individual market relations. However, this correspondence between firm and market is so absolute that any real difference is denied: inter-individual markets (contracts) become the only relevant economic entities.

More specifically these approaches cannot explain or consistently accommodate a number of elements which appear to be essential in the determination of the distinctive nature of firms and markets. These elements, the importance of which will be discussed below, are:

(a) *All the kinds and forms of firms and markets*. All these authors have a problem with this: some, for example Coase, cannot accommodate the one-person firm, while others acknowledge only "producing individuals", i.e. one-person firms, and nothing more.

(b) *What is inside versus what is outside the firm*. This is the critical question that Coase, Williamson and the other authors are attempting to face up to. The former two do acknowledge some distinction, although their analysis is not entirely successful. The other authors deny the importance of and need for this distinction. This causes their predicament, as shown above.

(c) *The relation between individuals and structures (institutions, organizations).* Both Coase and Williamson seem to accept the real existence of organizations or hierarchies. While Coase does not focus on individuals as such, Williamson has trouble distinguishing a one-person firm and an individual. The other authors cannot, given their premises, do anything else but deny the real existence of organizations to a lesser or greater extent; hence they cannot clarify the relation between individuals and such organizations.

(d) *The unity and durability of firms vis-á-vis the absence of any durable unity in inter-individual or market relationships*. Especially Alchian & Demsetz and Jensen & Meckling fail to explain and take this into account when they reduce all organizations to a series of market transactions.

On the whole the result of conceptualising the firm exclusively in terms of the market - i.e. as an analogous institution, as a market substitute or market simulator - is that in the end no uniquely different attributes if the firm can be pinpointed. If the firm is nothing but another variant of the market, if it is but a quasi-market, *the firm as societal institution has not been and cannot be uniquely typified.* The distinctiveness of the firm is obscured behind certain apparent similarities with the market. In addition severe logical and historical inconsistencies are encountered. (These problems are

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[12] Coase does preserve some difference since authority is present in the case of within-firm allocation; see footnote 9.

less apparent in Coase's analysis, but their seriousness in the more extreme versions of Alchian & Demsetz and Jensen & Meckling alerts one to the presence of similar problems in Coase's analysis.)

The tendency to reduce everything to market relations is closely linked to a highly individualistic approach to the theoretical analysis of society - a sign of the dominance in economics of "methodological individualism" (Boland, 1982). Especially Alchian & Demsetz and Jensen & Meckling adopt a strictly and rigorously individualistic explanation of all "structures". They attempt to analyze exclusively in terms of simplest elements, the elementary interactions between autonomous individuals (atoms), without regard for any structure or "societal form" within which individuals may operate. Hence they effectively deny the existence of societal structures like firms. In a sense they only acknowledge one-person firms or, actually, producing individuals, the existence of multi-individual firms to the contrary. This leads them straight into dilemmas and inconsistencies.

The alternative: the firm as a durable, cohesive structure

The identification of the sources of failure of the transaction approaches simultaneously indicates where to search for an amended approach. The results above lead one to shy away from efforts to consider firm and market as mere alternatives, as birds-of-a-feather equivalent ways of organizing economic activity, and to argue for the acceptance of the reality of firms as separately recognizable, cohesive societal structures and as something quite different from market relations. Without in any way denying the pivotal role of individuals and inter-individual interaction within these structures, such a view *recognizes firms as cohesive, durable institutions with members (individuals) who are bound together in a solidary whole which has a durability of existence amidst changes in membership*. It implies that in their capacity as members of such a whole, individuals do not have a detached, linked-only-by-market-transactions existence.

This is accepted for at least three reasons. Firstly, its intuitive appeal: if such institutions did not really exist, if they were fictitious, if there were only a multitude of individuals, why is it that one can observe and immediately recognize them *as firms*? Obviously there are people (individuals) everywhere, but why are one and all intuitively aware of these and other institutions *as institutions*? And let it not be argued that the real existence of institutions is not at issue here.[13] The ultra-individualistic views of Alchian, Demsetz, Jensen and Meckling deny exactly that. As shown below, had they in fact accepted such existence and its consequences, their analyses would be rid of much weakness.

A second reason for adopting this stand is the dilemmas and inconsistencies revealed by internal criticism of views that do deny the real existence of any structure. This strongly suggests that there is a reality that cannot be disregarded at will or forced into a favoured intellectual framework - in this case extreme individualism. Thirdly and conclusively, the simple step of accepting the existence of the firm as a cohesive institution at once suggests a way out of most of the difficulties highlighted before. The basic points, which are to be elaborated below, are these:[14]

(a) It enables one to define the firm's internal relations as those between members (including managers) and/or sub-units within the firm. This allows one to distinguish, as a correlate of these internal relations, market relations as an external exchange relation between firms (or firm and customer/supplier).
(b) The main distinction of the market relation can be seen to be that it does not unite the participants into a cohesive whole, but leaves them to interact independently in cooperation, neutrality or

[13] Putterman (1986, p. 24) refers to analysts who indeed are embarrassed by the existence of real institutions and therefore attempt to develop new institutional analyses of highly neoclassical flavour where "markets are found to surface at every pass and markets work" (italics original).

[14] It is not necessarily implied here that all the approaches discussed fail to achieve all these ends. In particular, Coase's analysis, being less extreme, is less vulnerable.

antagonism. This interaction - or "co-ordination by the market" - remains external to any institutional whole such as the firm. Also, such a two-participant non-cohesive relationship guarantees no continuity amidst changes in participants. Any change in participant implies a new relationship, implying recurring formation and disintegration of such relationships.

(c) When such an external, market relationship is internalized by a firm (as in Coase's analysis) its character changes to a within-firm, i.e. an intra-whole relation, with the initially separate firms or units becoming bound together and co-ordinated within one institutional whole. Such co-ordination as exists is distinctively characterised by the cohesiveness and durability of the firm as institution (see below).

Without any pretence of providing insight into all aspects of the distinctive nature of the firm, these results enable important first steps: they preserve a clear difference and distinction between internal and external units/ individuals/relations, and paves the way for legitimate and meaningful distinctions between firm and market, inside and outside, employee and supplier, and so forth.

Employment: authority, voluntarism and the durability of contracts

An important reference in the employment context is the view of Alchian & Demsetz (1972), so forcefully expressed in the quotation above, on the role of contracts, voluntarism and authority.

At this point it is useful to introduce the concept of a *voluntary association*. Such an organization contrasts with, for example, the family - into which one is born and thus becomes and remains a member independently of one's will - and the State, where citizenship automatically derives from birth and normally cannot be changed arbitrarily, and if at all, only subject to restrictions imposed unilaterally by the government of that State. Membership of a voluntary association always originates from an implicit or explicit, and voluntary, contract of membership.

Once the firm is conceived of as a durable, cohesive structure encompassing individuals, it becomes possible to recognise that the firm in fact is a voluntary association. In addition one can then apply the concept of membership to it, and see that in the case of the firm the contract of membership is a contract of *employeeship*. This provides a clear and distinctive definition of an employment or labour contract proper: an employee is internal to the firm, and is a person who has voluntarily entered into a *contract of membership* with the employer, thereby becoming one of the members of this institution. (He is, of course, simultaneously member of other structures and institutions such as the church, State and family).

This is why, as observed by Alchian & Demsetz, the employment relation typically displays a voluntary and contractual nature, similar to the market relation. However, a crucial insight is that each actualization of tasks in the continuing employer-employee relationship itself is not, *ab initio*, per contract. Only the initial *establishment* of this relationship is. To see this one must consider the durability or non-durability of employment and market contracts - a prominent issue in the literature (Putterman, 1986, p.7). This specifically concerns the question of the presence or absence of authority. Whereas a system of establishing separate exchange contracts for specific tasks as they arise implies the absence of any authority and subordination, durable contracts which allow a range of possible tasks imply the presence of authority. This is indicated by Coase (1937, p. 39) and Simon (1957, pp. 184-185), and acknowledged by Williamson as well as Alchian & Demsetz - the latter when they argue that recurrent spot contracting, and not durable or long-term contracts, is typifying of the employer-employee relation, and that accordingly authority is absent from the firm.

Since the firm as cohesive structure has a more or less durable existence, membership is of a continuous nature. Membership implies durability in the employment relation as against a more or less instantaneous non-durable relation in a market exchange (which does not establish membership of any cohesive whole). Durable membership implies a *durable contract* which cover and allow a range of tasks within certain limits. For if the firm has to negotiate a separate exchange contract for each task as it arises, no "worker" becomes a member. There would only be a series of momentary contracts or exchanges.

A true employment contract therefore enters the individual into a durable societal whole where he performs certain tasks. These are all covered by one contract of membership which allows the employer to assign the employee to particular tasks. That is, the employer has authority over the employee. (In the quotation from Alchian & Demsetz above the employee's typing the letter or filing a document are both covered by one membership contract. By contrast buying tuna or buying bread from the grocer implies two different, non-durable exchange relations/contracts). Alchian & Demsetz, therefore, are correct when they say that an employer has no authority over a person with whom he contracts, spot-contract style, for a single and specific task. However, such a person is not an employee proper, not a member of the firm. What they say amounts to the truism that an employer has no authority over a non-employee, for example a subcontractor. The latter remains external to the firm: there is no durability, no membership and especially no authority in such and other market relationships.[15]

Thus although employment and market relations both display a contractual side, these differ fundamentally. With employment only the establishment is by contract, not each task in the day-to-day variable actualization of the relation that the durable contract allows for and sets bounds for. With market exchanges both the establishment and momentary realization are essentially contractual. The problem in the analysis of Alchian & Demsetz stems from their failure to recognize and incorporate this distinction. Their "employee" is no real employee, no member of the firm. To paraphrase them, to speak of the employer being continually involved in renegotiation of (spot) contracts with "employees" is a deceptive and incorrect way of noting that the employer is managing, directing and assigning employees to various tasks under a single durable membership contract with an implied authority relation.

The fact, noted by Alchian & Demsetz (1972, p. 783), that an employee can readily terminate his membership does not affect this conclusion. The voluntary nature of membership does not imply that it may not be durable nor that the employer may not assign employees to tasks during their voluntarily entered into membership of the firm. In voluntarily accepting membership the employee just as voluntarily accepts the authority of the employer for the duration of his membership. As Williamson notes, the employment relation is associated with voluntary subordination (1975, pp. xv and 54; also Putterman, 1986, p. 7).

The intrinsic voluntarism of the firm does have implications for the nature of its authority relation though. Firstly, being internal to the firm it is authority only with respect to the typical firm-activities of the employee, and only as long as he remains a member; it is not all-encompassing. Secondly, the exercise of this authority is founded in economic power. This is in the first instance the power to employ, and implies a kind of authority and punishment unique to this institution. Whereas both these features imply a constraint on the authority of management, the second distinctively characterizes authority in the firm. As such the authority relation of the firm is radically different from that of other institutions, notably the State. The authority of a government is based on organized military and police power, i.e. power of physical force. (In addition membership of the State and subjection to this authority is not

[15] A so-called long-term sales contract is to be regarded not as a durable exchange relation as such, but only as an agreement to repeat the non-durable exchange at certain intervals. The supplier remains external to the firm, is not a member and is not under the authority of management.

voluntary.) However, all authority does not presuppose *physical* power. That the firm does not have physical force or power as foundation of its authority does not imply that the firm does not have *any* authority relation at all. Economic power can and does provide the necessary foundation, albeit for a specific kind of authority.

Such a misunderstanding can explain the denial of Alchian & Demsetz of authority in the firm. Note their use of the terms *authoritarian, dictational* and *fiat* - words usually associated specifically with the State and its "power of the sword". Alchian & Demsetz furthermore seem to identify authority with ownership. They argue that the firm lacks authority since it does not own all its inputs, particularly labour, and therefore does not have power over them. The necessary distinction here is between ownership of a physical input and authority over an employee. The former implies the physical power - not authority - to transform the input into an output. The latter, whilst requiring (economic) power as foundation, does not presuppose ownership. An employee can in any case not be owned (nor does the authority of a government over citizens imply that they are owned, as the argument of Alchian & Demsetz seems to require).

Employment, subcontracting and integration

The basic source of confusion regarding employment and vertical integration is that they occur together so often that they are confused with each other. However, the definition of employment that flows from the distinction between firm and market above enables one to distinguish them, at the same time clarifying the nature of subcontracting.

Integration in the first instance involves the inclusion, by an integrating firm, of new functions - previously performed by a subcontractor, say - in its range of functions. If a subcontracting firm as such becomes part of this firm, it is a merger as opposed to internal expansion. Both are acts of integration or internalization. New functions require employees to perform them. But only if new hiring takes place (or if there is a merger) do new employment relations concur with integration. Integration as such does not necessarily imply (new) employment. It is but one instance when employment *may* occur. Similarly employment as such does not imply integration, only membership of an additional individual. In principle these two processes are distinct, even though and even when they occur simultaneously. One internalizes an individual, the other internalizes a firm. This is true, notably, in the case of integrating a one-person firm: such integration can be seen to involve, in principle, both of these different processes.

Moreover, in terms of the internalization of transactions the two processes differ markedly. When a producing unit (firm) is vertically integrated a formerly external exchange relation is simultaneously internalized, with transaction cost considerations most relevant. Employment per se, however, does not comprise internalization of a transaction relation. While employment can be regarded as the internalization of an individual (but not of a one-person firm) the transition is from the absence of any exchange- or transaction relation to the existence of an employment relation. Consequently *the decision to employ per se cannot be explained by transaction costs considerations.*

This analysis shows that a likening between employment "under authority" (i.e. within the firm) and employment "in the market" is not meaningful. Employment proper is by nature and in principle within-firm (notwithstanding everyday, non-scientific use of the term as in "employing a subcontractor"). Subcontracting, by contrast, is an external, market relation. This is the main misconception in Williamson's treatment of employment and vertical integration, and explains the inconsistencies outlined before. His discussion of the "labour" market - individuals being joined in simple hierarchies to overcome transactional impediments - can now be seen to actually concern the joining of one-person firms. It is thus simply another view of integration, not of the labour market proper. His "employment relation" harbours a confusing mix of employment proper and subcontracting: he regards recurrent spot or contingent claims contracting as alternative modes of employment, while they really are alternative modes of subcontracting (market relations). His definition of vertical integration as the extension of the employment relation to include department managers ("inside contractors") confuses employment proper and integration. Once the proper distinctions are used to amend his analysis, it gains considerably in clarity and explanatory power.

Jensen & Meckling do not and cannot provide any distinctions between employment, integration and (sub-)contracting. This is inevitable and intentional, since all but the latter class are defined out of existence. If only inter-individual market exchanges and a multitude of individual producers are acknowledged, the choice between integration and subcontracting does not exist.[16] As a matter of course their analysis excludes the existence of employment proper - all that exists is subcontracting.

4. CONCLUSION

One purpose of this paper has been to highlight the usefulness and limitations of the transaction and contract approaches in analyzing the nature of, and relation between, firms and markets. Essentially these approaches focus on two aspects: the role of *transactions* (markets, contracts), and the *inter-individual* nature of these. Both angles have much insight to offer. However, they do have definite limitations. These appear when one attempts to explain firms and markets almost exclusively in terms of inter-individual market relations.

By contrast the development of an alternative approach departs from the real existence of the firm as a cohesive, durable institutional whole within which individuals play their pivotal role. One important reason for this viewpoint is that such a perspective provides clarifies most of the problems and pitfalls exposed earlier, pinpoints the usefulness of transaction insights, and provides consistent characterizations of differences between firms and markets, between internal and external relations, and between employment, integration and subcontracting. Without acceptance of the firm as a cohesive structure these distinctions cannot be drawn consistently.

In general it has been shown that the firm as such cannot be defined or distinctively characterised exclusively in terms of market transactions. Therefore the distinguishing mark of the firm as such cannot be the supersession of the price mechanism. A more particular conclusion is that the existence of the firm as such cannot be explained by transaction cost arguments. The employment decision of a firm cannot be explained by transaction cost considerations either. On the other hand both the decision to integrate and the extent of integration can be explained in this way, as has been done most fruitfully in recent contributions of, for example, Williamson (1985).

To some these results may seem very inconstructive, even trite, particularly since transaction and contract analysis still seems to be rich in insight. In particular, while much has been said about what the firm is not, relatively little has been contributed positively about what the distinctive nature of the firm actually is (see Fourie, 1981). However, I want to argue that the conclusion concerning the futility of searching for the distinctive nature of the firm in that of another, very different thing, namely the market, is extremely useful. It reprovingly points out non-productive avenues of inquiry, in particular those avenues instinctively most tempting for economists given the dominance of the market concept in conventional economic thinking. It shows that if the market is to be used at all in the search for the distinctive nature of the firm, its most useful role probably is precisely in determining what the firm is

[16] The latter is the only real choice facing the firm in this regard. Employment versus either integration or sub-contracting are not as such relevant options. Employment merely accompanies integration in some instances and is not the real alternative to subcontracting, even of a one-person firm.

not. That, rather than conceptually trying to model the firm on the market, may be the methodologically most sensible meaning of the expression "using the market as a benchmark". Everything simply cannot be explained in terms of market relations (see footnote 16).

Another, more fundamental methodological inference is that an exclusively individualistic explanation that attempts to disregard the existence of real societal structures encounters debilitating problems. The difficulties encountered severely limit the potential of these approaches to give insight into the nature of the various kinds of relations and structures one finds in society, including - ironically - the place of individuals and markets in these. A less extreme approach seems called for.

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