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THE CONTRIBUTION OF THE NEW INSTITUTIONAL ECONOMICS TO THE STUDY OF MARKETS*

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ABSTRACT: *This article first summarises the orthodox approach in market analysis and examines the contribution of the "new institutional economics" to the study of markets. In the third part it compares and contrasts the two approaches examining the strengths and weaknesses of both and concludes by emphasising the fact that they have a role to play in economic analysis.*

The relatively recent development in the economics literature which has been coined as the "new institutional economics" (NIE) has brought about many new perspectives in the study of economic relationships. This essay tries to contrast the orthodox methodology in the analysis of the market with that suggested by the NIE. The first part is devoted to briefly outlining the orthodox approach; the second part will examine some aspects of NIE and the third concludes by looking at the significance of the two approaches to the study of markets.

Incidentally, that one of the Nobel Prize winners of economics this year (1993) is Douglas North, a well known institutional economist, may reflect the fact that the institutionalists are gaining recognition in economics.

I. The ORTHODOX APPROACH TO THE STUDY OF MARKET SYSTEMS

The orthodox approach is mainly based on the *perfectly competitive market model* which has played a very important role in neoclassical economics and in economics as a whole. Hence, to understand the basic idea behind the orthodox approach, it will be useful to start by looking at the assumptions underlying the perfectly competitive market model.

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One important assumption is the existence of free competition, i.e., a large number of buyers and sellers exist in the market (theoretically, infinite number of buyers and sellers). If there are a large number of buyers and sellers each one of them being too small to influence the market condition, they will be price-takers.

Perfect knowledge by all participants is also assumed. This means all buyers and sellers know about every thing that happens on the market. Participants in the market are not segmented by differential access to information. All know the prices of the different commodities, where and when they are sold, their specifications, etc. This assumption of perfect knowledge, coupled with the previous assumption of free competition, will create a condition where one commodity has only one price.

The perfectly competitive market model also assumes freedom of entry and exit for the firms in the industry. This means there are neither institutional nor legal obstacles against the free movement of firms between different industries. In addition to the freedom of entry and exit, the model also assumes that there is perfect mobility of resources. Resources used in the production of one commodity can be used in the production of another without any formidable problem. The above two assumptions draw a picture of an economy which is highly flexible. Since there are no obstacles against the entrance and exit of firms and there is no problem of using resources used in the production of one commodity for another, what is envisaged is an economic system which can quickly and flexibly respond to changes in demand.

In addition, the commodity that is sold and purchased in the perfectly competitive market is a homogenous one. That means the consumers see no difference in the goods that are offered by the sellers. All commodities of the same type are completely identical in quality.

In the perfectly competitive market, transactions are costless. In real markets, transactions involve transportation and other costs (costs incurred in gathering and disseminating information, advertisement costs, etc.). Between the producers and the

consumers, there are many middle men that take their own share of the 'margin'. In the competitive market model all transaction costs are ignored and it is assumed that producers and consumers are directly exchanging products without any 'friction'.

In a perfectly competitive market model, due to the 'invisible hand' of the market, efficiency will be achieved. Consumers equate their marginal utility per unit of money from different commodities to maximize utility and producers equate marginal revenue with marginal cost to maximize profit. And on the market as a whole total demand is equated with supply at equilibrium. This creates a condition where on the one hand the consumers' demand for the commodity at the ruling price is satisfied and on the other the producers' 'normal' profit is guaranteed.

No researcher who uses the orthodox approach will expect to find all the characteristics of the perfectly competitive market in reality. But the model is taken as a reference and real markets are judged by their similarities and differences with it. Those which are similar are taken to be more competitive and efficient.

If the market under study is one with many sellers and buyers it is taken as an indication that there is freer competition. If we have markets where information easily flows from one locality to another, the participants have a good knowledge of what is happening and correspondingly will have a better opportunity to rationally and timely respond to changes. If the government or other social institutions have not imposed restrictions on the movement of capital, labour, other resources, sellers and buyers, the assumption of freedom of entry and exit is approximated and correspondingly markets will be more competitive and efficient. If markets have a better system of determining the quality of the product differentiating it from other similar goods (for example scientific method of quality standardization) the assumption of homogeneity of the product is approximated.

The more the conditions in real markets approach the perfectly competitive market model the more the markets in a country or in a region will be integrated. If the markets

in a region or a country are well-integrated, the price differences between them will be the transport costs incurred to move the goods from one market to another. When there are price differentials, traders will start to move the goods from those markets with lower prices to others with higher prices reestablishing equilibrium. In order to examine whether markets are integrated or not the standard procedure that is used by many researchers is to calculate the correlation coefficients between the prices of different markets (net of transport costs). If the coefficient is significantly closer to one a stronger integration and if closer to zero a weaker integration is supposed to exist. Many researches have been made by using this orthodox approach [5,3].

The orthodox approach represents the market as an agglomeration of bilateral exchanges without considering the different institutions which make market relationships possible. It ignores both 'tangible' (middle men, transportation and other transaction costs, etc.) and 'intangible' (rules, business norms, customs, etc.) institutional factors. There is also no attempt to explain why there are different institutional forms. For example, there is no attempt to explain why commodities are produced by firms instead of individuals working independently (in contrast 'transaction cost economics', which may be considered as part of institutionalism, tries to explain the existence of firms as a way of minimizing both production and transaction cost). Behaviourial differences among people in different types of institutions are not taken into account. For instance, the behaviour of people as members of households and as members of business firms may vary; but in the orthodox approach they are always assumed to maximize on the margin.

Others criticised the use of correlation analysis to examine market integration because it takes into account a statistical model which neglects problems related with autocorrelated disturbances[7]. Under the presence of autocorrelated disturbances and non-stationary variables (and usually price data are like that) the significance tests on coefficients are invalid and as an alternative the method of co-integration is suggested[7].

Now let us look at the alternative approach suggested by the NIE.

2.THE NEW INSTITUTIONAL ECONOMICS AND THE MARKET

The NIE criticises most of the definitions of the market because they do not emphasise their institutional nature. As an alternative Hodgson defines the market in the following way:

> "We shall here define the market as a set of social institutions in which a large number of commodity exchanges of a specific type regularly take place, and to some extent are facilitated and structured by those institutions. Exchange ... involves contractual agreement and the exchange of property rights, and the market consists in part of mechanisms to structure, organize, and legitimate these activities. Markets, in short, are organized and institutionalized exchange. Stress is placed on those market institutions which help to both regulate and establish a consensus over prices and, more generally, to communicate information regarding products, prices, quantities, potential buyers and potential sellers"[2].

In the process of exchange, the prices of goods and services must be fixed and communicated to potential buyers. The suppliers must also have a mechanism of knowing if there is demand for their produce. Before producing and in the process of selling the goods, the suppliers must use transportation. The exchange process is also a transfer of property rights from the seller to the buyer and this requires an established legal institution. To the NIE, "customary, legal, political and other social arrangements are central to all market systems."[2]

Nabli and Nugent also stressed the same aspects when discussing the important characteristics of institutions (which also apply to markets).

> "The first characteristic is the rules and constraints nature of institutions. Elinor Strom ... has defined these rules and constraints as 'prescriptions commonly known and used by a set of participants to order repetitive, interdependent relationships. Prescriptions refer to which actions are required, prohibited or permitted.'"
>
> "The second characteristic of institutions is their ability to govern the relation among individuals and groups..."
>
> "The third characteristic of institutions is their predictability. The rules and constraints have to be understood, at least in principle, as being applicable in

repeated and future situations. Agents should expect these rules and constraints to have some degree of stability; otherwise, they would not have an institutional character"[6].

The definition of a market as a social institution brings about a different perspective to the understanding of the market than orthodox neoclassical theory.

(i) Mainstream economics considers the market as a "natural or normal order" and considers the institutional framework either as given or completely omits it from analysis[6]. In NIE the "view that the market is simply an aggregation of bilateral exchanges between individuals, or essentially some kind of reflection of given individual preferences and purposes, is rejected..."[2].

(ii) The usual dichotomy between "free" market and "institutional constraints" are rejected in NIE. In mainstream economics, while the market is assumed to be a mechanism encouraging mobility, institutions restrict it. And hence the influence of institutions must be minimized. But in NIE "as in the case of other social institutions, the market has enabling as well as constraining functions"[2].

(iii) The notion of the market representing the free expression of the individual in contrast to institutions representing "collectivist" behaviour is rejected in NIE.

> "...this ethereal, non-institutional conception of the market [by orthodox economic theory] enables it to be regarded as the supreme medium for the expression of individual choice. Non-market institutions, by contrast, are seen as being 'collectivist' in nature; they are seen to restrict expression of those preferences and exchange activity based upon them. However, it is argued here that the market has ineradicable social and 'collectivist' aspects as well"[2]

(iv) The market does not only provide information to its participants, but like other social institutions it also influences the way people understand economic relations; "it structures the process of cognition of the agents involved and can actually affect

their preferences and beliefs"[2].

In addition to the above, NIE criticises orthodox economics on the grounds that it excessively overemphasises rationality of decision-making, it concentrates on equilibrium and statics, it usually ignores changes in preferences and underestimates the fact that behaviour is usually repetitive and habitual[6].

Even though the literature on the NIE can not be taken as a completely homogenous one, it basically developed around the discussions on problems of information and transaction costs and the theory of collective action.

To the NIE, markets are social institutions that minimize transaction costs. These costs are of three types: costs of discovering what the relevant prices are, costs of negotiating and concluding a separate contract and costs of policing and enforcing the contract [2]. Since the market is an organised form of exchange it helps by publicizing prices and creating regularized contacts between sellers and buyers. It also creates procedures and conventions for achieving bargains decreasing the cost of negotiating. Since norms of conduct are established in the market, policing and enforcement costs will be decreased.

Information cost can also be considered as part of transaction cost. If asymmetries of information are present in the market opportunistic behaviour will be an inevitable outcome. To overcome this danger sellers and buyers would have to incur a large amount of cost to collect the additional information. The market minimizes the cost needed to do that by both disseminating information more widely and by establishing norms and codes of conduct between the agents. In addition, institutions help as means of discriminating useless information from the useful one so that participants in the market are not overwhelmed by superabundance of information.

The NIE considers the participants in the market not as perfectly rational beings involved in complicated probability calculations but as people that are influenced by norms,

conventions, expectations and uncertainty playing very important roles. Due to this aspect, the game-theoretic literature is closely related with the NIE literature. Some of the recent works on the game-theoretic literature by using the models of recurrent games, i.e., games that are played over and over again, show that

> "'the players develop certain societally agreed to rules of thumb, norms, conventions and institutions which are passed on to succeeding generations of players'.
>
> Within this framework, Schotter shows that institutions and routines are, far from being market 'imperfection', actually necessary to supply vital information, particularly about the future stratagems of other agents."[2]

Even though the development of the game-theoretic literature is one of the important sources for the emergence of NIE, that particular literature alone can not be its foundation. This is true because in most of the game-theory literature the assumptions of the 'maximizing economic man' who is supposed to use all relevant information in global calculations is still retained. In addition, the literature usually also assumes the awareness of the players about the options and payoffs of each other. But in NIE instead of the rationally calculating economic agent, the focus is on actors who operate under uncertainty, one agent exploiting the ignorance of another and surprises playing a very important role [2: 192-193].

Another source of NIE is the literature (both economic and non-economic) on collective action.

> "The key issue in the collective action literature is to 'explain collective outcomes in terms of individual motivation' ... , or, to put it differently, to explain the likelihood 'of success or failure of given set of self-interested individuals in undertaking actions that may benefit them collectively" [6: 1989:1338].

The existence of institutions (including the market) can be considered as a result of collective action. And usually to overcome the problems related with collective actions (like opportunism, 'the free-rider problem', 'the tragedy of the commons', etc..) people will institute (consciously or unconsciously) norms and values. Hence, to understand in what

ways institutions function it is essential to understand the 'rules of the game'.

The literature on collective action also emphasises the relationship between interest groups and the state.

> "Frequently... the state and its agents are not merely neutral and passive bystanders in the process of group interaction. This has given rise to positive theory of rent seeking which is concerned with the means that interest groups use for getting what they want, i.e., by affecting voting patterns, legislation and regulatory agencies, administrative budgets, rules and/or judicial decisions" [6: 1339].

The concept of collective action can be (among other uses) a very good means of examining the political economy within which markets function.

In NIE, instead of rational and global calculations determining the outcome of events, the influence of other factors are stressed. One case in point is *path-dependent process*.

> "... when there are increasing returns to adoption of a particular (technological or institutional) innovation - i.e., the more it is adopted the more it is attractive or convenient for the others to join the bandwagon on account of infrastructural and network externalities, learning and coordination effects and adaptive expectations - a path chosen by some initial adopters to suit their interests may 'lock-in' the whole system for a long time to come, denying later, more appropriate, technologies or institutions a footing... historical 'small events' early on may well decide the larger course of structural change" [1: 1391]-1392].

To the NIE institutions may come into existence in different ways. The distinction between 'organic' and 'pragmatic' institutions (*a la* Menger) is relevant for the NIE. 'Pragmatic' institutions

> "... are those which are the direct outcome of conscious contractual design, as in the case of some corporate structure and practices. Organic institutions...are, on the other hand, comparatively undesigned, and they evolve gradually as the unintended and unforeseeable result of the pursuit of individual interests... it is possible that an institution is created organically but preserved pragmatically" [1: 1392].

The market can be considered as an 'organic' institution which is being 'pragmatically' preserved.

To conclude, the NIE considers the market as a social institution which is a result of collective action, regulating the exchange relations in an organised manner by a set of rules, modes of conduct, habits and by so doing creates a more stable, predictable relationship between the agents and minimises the transaction and information costs.

3. SOME COMMENTS ON THE RELEVANCE OF THE ORTHODOX AND THE NIE APPROACHES

In the previous two sections we have looked at some of the salient features of the orthodox and the NIE approaches in the understanding of the market. In this section we will briefly examine the relevance of the two to the study of markets.

One important thing to bear in mind, as already indicated, is the fact that the NIE group is not still a group with a homogenous set of 'monolithic' ideas. But the outline of a clearly defined 'school of thought' is obviously discernible.

Even though the study of markets by considering the perfectly competitive market model as a reference can not be said to be totally worthless, the neglect of the institutional set-up of markets is not affordable. Probably, due to the understanding of this fact some neoclassical economists are now engaged in the study of institutional factors affecting economic relationships (the neoclassical NIE considers the changes in relative prices of different factors of production as the central cause behind the evolution of institutions). The study of markets in the fashion of the orthodox approach (in its broadest sense) has still relevance because it helps to understand the mechanisms through which interactions of individuals can be coordinated and resources allocated through the market. But in trying to understand the mechanism of the market, looking at the somewhat 'mechanistic' relationships contained in them must not be the end of the story. A thorough examination

of the institutional set-ups must also be done.

Instead of considering the orthodox neoclassical models (models of perfect competition, monopoly, oligopoly, monopolistic competition, etc.) as totally alien theoretical constructs to NIE, it is better to consider them as highly simplified and stylized representations of reality, which can be developed and modified (sometimes discarded) and more 'flesh' added on them. In addition, we can look at them as skeletal representations of 'institutions' (in the NIE sense) under highly simplifying assumptions (it is as the result of these simplifying assumptions that they have become 'mechanistic'). On top of that, it is also wise to make them references in theoretical discussions since a lot of intellectual 'capital' has been invested on them and they are better known.

One strength of the NIE is that in trying to understand institutions (including the market) it follows a multi-disciplinary approach. Since in real life economic relationships are seldom found in isolation, this approach has an obvious advantage. But this strength is at the same time its weakness, since the problems to be solved correspondingly become complicated and multi-disciplinary. They become complicated because on the one hand many variables must be considered (more unknowns than the equations?) and on the other hand the researchers' capacity to rigorously analyze all these multi-disciplinary variables will be limited. The NIE stresses the importance of uncertainty, surprise, etc., but modelling these variables to examine their relationships is next to the impossible.

Even though the above problems are difficulties, this does not mean that there is no solution for them. With the recent development in game theory and related subjects we can hope that many important steps ahead will be made in the study of problems that are raised by the NIE.

In addition we should not always forget that the development of sciences is usually enhanced by cross-fertilisations that occur between them. The two methods discussed in this essay may also have a possibility of fertilising each other, the result being a better understanding of the problems at hand.

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