

# **THE ECONOMICS OF HOUSING: THE NEED FOR A NEW APPROACH**

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## **ABSTRACT**

This paper argues that the conventional economic approach to housing is subject to a plethora of weaknesses that renders it, at best, a rather limited basis for understanding housing markets. Conventional analyses assume market efficiency and clearing, and 'rational' individuals. These core assumptions present an unnecessarily restrictive view of human behaviour and the economic process. By emphasising utility maximisation and equilibrium, and abstracting from history and social institutions, the conventional approach effectively eschews any analysis of the central forces of the market process. The paper asserts that in order to achieve this analysts will have to recognise heterodox economic contributions on uncertainty, human behaviour, evolution and exchange. A possible ramification for empirical research is the adoption of grounded theoretical procedures.

## **INTRODUCTION**

The central argument of this paper is influenced by the sustained methodological and theoretical criticisms of standard neoclassical economics, and the increasing incidence of housing economists exhibiting dissatisfaction with the performance of models nested in the neoclassical paradigm (see, for example, Meen, 1998). Consequently, the paper urges a reassessment of the unquestioning adoption of neoclassical techniques, and advocates a return to less abstract approaches in the economics of housing.

Although it is not always obvious from the content of major reviews, contemporary economic analysis of housing markets owes much to the analytical techniques and conceptual frameworks developed by a small number of US economists in the 1940s and 1950s. In particular, the contribution of a team of land economists based at the Columbia University Institute for Urban Land Use and Housing Studies working under the guidance of Ernest M. Fisher was important. During the 1950s, members of the Columbia School including Leo Grebler, Chester Rapkin, Louis Winnick, David Blank and William Grigsby developed a deep understanding of the operation of urban housing systems (see Fisher and Fisher (1954), and Rapkin and Grigsby (1960) for example). Among the group's many contributions to urban studies was the development of 'filtering models' as a framework for applied studies of housing markets and housing policies. In the model it was assumed that the housing market is characterised by a set of interrelated compartments (or housing submarkets) among which households and existing dwellings can move (see Galster, 1996 for a review). Grigsby

(1963), for example, compartmentalised the housing stock in terms of its substitutability, and groups of dwellings were linked by patterns of household mobility. Conceptually this drew on earlier work by Rapkin *et al* (1953) which stated that two dwelling units are in the same submarket if they compete with one another as alternatives to demanders of housing space. The Columbia group held that, given the central importance of stock heterogeneity, this segmented market provides the most appropriate framework for understanding the dynamic processes operating in the housing market and for informing policy debates. This research could broadly be classified as being in the ‘old’ institutionalist tradition<sup>1</sup>.

However, following the seminal contributions of Alonso (1964) and Wingo (1961) these insights were de-emphasised by urban economists (Maclennan, 1982), and empirical and theoretical economic analysis of urban housing markets became dominated by the equilibrium models of the ‘new’ urban economics<sup>2</sup>.

The ‘new’ urban economics developed from the observation that housing and employment accessibility are jointly purchased (Quigley, 1978)<sup>3</sup>. By adding the ‘standard’ assumptions of neoclassical economics to develop a model of residential location, a number of important assertions have been made about the distribution and locational pattern of urban housing in long run equilibrium. Most significantly, it is argued that there is a trade-off between access to the urban centre and space, with low income households locating in central locations and more affluent households locating furthest from the centre.

In the 1960s and 1970s, the basic ‘access-space’ framework was the subject of considerable research effort. In the United States, Mills (1967) sought to produce a generalisable version of the model; Muth (1969) synthesised the earlier contributions; and others including Olsen (1969), Solow (1972), Dixit (1973) and MacDonald (1979) extended

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<sup>1</sup> At an earlier stage, at Wisconsin, Fisher had worked with the institutional economist Richard T. Ely who is credited with the establishment of the fields of urban land and housing economics in the US. During his time at Wisconsin Ely had also tutored John Commons (Woodbury (1949)). Hodgson (1998) refers to Commons as one of the three leading figures in ‘old’ institutional economics.

<sup>2</sup> In noting this it should be emphasised that there are two main ‘traditions’ in US neoclassical work (Maclennan and Whitehead, 1996). First, there are models based on urban analysis. Second, there are those based on efficient housing finance markets (see Poterba, 1984). The second group are more important in the British context as they provide the theoretical foundations for most UK national and regional housing models (Meen, 1998). Importantly, both make similar assumptions regarding perfect information, instantaneous adjustment, and utility maximisation subject to exogenous constraints; and both permeate major reviews like that of Quigley (1997). Given this, criticism of the core assumptions of one ‘tradition’ is obviously equally applicable to the other. For illustrative purposes, however, we focus on the evolution of urban analysis in this introduction.

<sup>3</sup> Grigsby (1978), in a response to Quigley, argues that these insights can in fact be traced back to the 1950s and work by Rapkin and others. However, it was certainly the contributions of Alonso and Wingo which placed this discovery at the forefront of urban research at the time.

the model through *ad hoc* adjustments to selected assumptions. However, despite the appeal of a mathematically sophisticated, tractable model of the urban housing market, critics argued that, by abstracting from the complexity of housing as a commodity, a number of important (and interesting) housing market phenomena were assumed away (Maclennan, 1982; Straszheim, 1973). In particular, the assumption that the consumption of housing is best viewed in terms of the use of a homogenous good known as ‘housing services’ was the source of some controversy, as was the notion of a unitary market. As such the new urban economics was criticised as lacking in policy relevance and as being limited for many analytical and descriptive purposes because of the failure to consider the durability and heterogeneity of housing as a commodity (Quigley, 1978).

By extending the neoclassical framework to explicitly account for stock heterogeneity, however, Rosen (1974) stimulated a vast literature on hedonic housing market models (see Bartik and Smith, 1986, for a review). In this model it was postulated that implicit markets existed for housing attributes, and with further a priori assumptions, can be used in applied analyses which accommodate market segmentation (see Maclennan and Tu, 1996; Rothenberg, 1991).

Given this resistance to sustained criticism, the apparently seductive powers of the access-space and hedonic models have ensured neoclassical theory has continued to dominate economic analysis of housing markets. For example, in the introduction to a major collection of key papers on the economics of housing, Quigley (1997: xiii) notes that,

“[i]n common with most other aspects of applied microeconomics research, the study of housing has been *revolutionized* during the past four decades by two advances: first, the development and rapid diffusion of explicit models of optimizing behaviour by economic agents; and, second, the development of the quantitative tools which allow the parameters of those models to be inferred” (emphasis added).

Again, however, he acknowledges that a number of distinctive features of housing provide major challenges to economic theorists and empirical analysts. Most prominent are the distinctive characteristics of the commodity and the extremely high transactions associated with its consumption. This point is highlighted in another major review where Smith *et al* (1988: 29) have cautioned that,

“... although housing is a commodity that responds to market forces it has a number of special characteristics, (heterogeneity, durability, and spatial fixity), *which require that the standard neoclassical model be modified* if they are to be adequately analyzed” (emphasis added).

Arguably more significant, however, is the fact that the assumption that housing market will tend towards equilibrium in the long run as a consequence of optimizing behaviour, to which Quigley attributes great credit, is also subject to considerable criticism (see Whitehead and Odling-Smee, 1975; Maclennan *et al*, 1987).

Moreover, critics have also expressed concern about the second development highlighted by Quigley. Smith (1978: 50), for example, observes that, “[neoclassical] research .... often has a tendency to concentrate excessively on the sophistication of techniques and to overlook institutional considerations”. Elsewhere Grigsby (1978) has suggested that the reliance on econometric techniques has acted as a limiting factor on the accumulation of knowledge about the operation of housing markets.

Taken together the inability of neoclassical models to accommodate adequately the distinctive characteristics of housing as a commodity; the questionable assumption that actors in the housing market behave optimally; and the belief that empiricists have pursued the development of their analytical tools in preference to understanding the market, the impact of Quigley’s microeconomic *revolution* may appear overstated. To some extent, these doubts have also been echoed by dissatisfaction with the empirical performance and limits of macroeconometric models of the housing market.

In this paper we develop these issue by drawing on the sustained methodological criticisms of standard neoclassical economics and, in particular, neoclassical housing economics. The paper argues that techniques predicated on the core tenets of neoclassicism can, at best, only offer a very restricted basis for explaining housing market phenomena. The argument is developed as follows. The next section outlines the core tenets of the neoclassical approach, and the presumption that exchange is discrete. On the basis of this overview the following section offers a critique of relevance to the economics of housing. The penultimate section then briefly addresses alternative approaches based on less restrictive behavioural assumptions, and recognising that housing market interactions are embedded in wider institutions. A short conclusion follows.

## **THE CORE TENETS OF THE NEOCLASSICAL APPROACH TO HOUSING**

The central tenets of the neoclassical approach include equilibrium, individual utility maximisation, and the absence of severe information problems.<sup>4</sup>

Standard micro and macro-economic approaches revolve around the equilibrium conception where the economic system determines the values of its variables, and more specifically, there is a balance between economic forces - usually supply and demand. Basically, equilibrium is attained where there are no excess stocks held and there are no shortages of any given commodity at the given price. Standard models either emphasise the properties of equilibrium (or multiple-equilibria), or the movement towards some equilibrium as in dynamic analysis. The importance of the concept cannot be underestimated, Hahn (1972: 2) labelled it as the “central organising concept of economics”.

Concisely, equilibrium under suitably competitive conditions provides the optimal outcome given the scarcity of resources. Strictly, this is the general equilibrium framework founded on the Paretian rubric and the Walrasian auctioneer. Partial equilibrium, the basis for some microeconomic models of the housing market, is no more than a special case of general equilibrium (Arrow and Hahn, 1971)<sup>5</sup>. The important points are that equilibrium is optimal when markets are perfectly competitive, and that *all* markets are assumed to possess a *natural tendency* to equilibrium (Mirowski, 1989; Samuels, 1995). This property is even evident in dynamic models, where paths can exhibit considerable complexity, but where the movement of economic variables is identified with the optimisation of inter-temporal plans, or adjustment to exogenously determined constraints. The inference is clear, equilibrium is the natural order of things: disequilibrium is transitory.

The macroeconomic modelling of housing in particular invokes those important assumptions (Marsh and Gibb, 1998), although, as noted, increasingly analysts are reassessing the appropriateness of modelling predicated on perfect competition where markets clear instantaneously (see, for example, DiPasquale and Wheaton, 1994; Meen, 1996, 1998;

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<sup>4</sup> This follows the definitions offered by Arrow and Hahn (1971), Hodgson (1988; 1997), Kaldor (1972), Lawson (1995), Mirowski (1989) and Rosenberg (1994), *inter alia*. Other notable characteristics of the neoclassical approach, of less importance to the subject matter of this paper, include methodological individualism, a closed system of analysis, and extensive use of physics metaphors.

<sup>5</sup> The basis of Arrow and Hahn’s argument is succinctly stated in the following way, “The existence of one market pre-supposes that there must at least one commodity beyond that traded on that market, for a price must be stated as the rate at which an individual gives up something for the commodity in question. If there was really only one commodity in the world, there would be no exchange and no market” (Arrow and Hahn, 1971: 6-7).

Muellbauer and Murphy, 1997). Most acknowledge the sluggish price adjustment traced in housing markets. Yet despite this the literature demonstrates a persistent adherence in epistemology, language, and modelling to the central tenet of equilibrium.

This is also accompanied by the employment of the notion of optimisation at the level of the individual, or household. *Homo economicus* presumes that *all* economic actors are selfish egoists who are driven to utility maximise subject to constraints. Significantly, *homo economicus* pursues utility maximisation regardless of the institutional environment (s)he inhabits, or changes to that environment. In effect, individual preference functions are stable, predictable and exogenously determined. Preferences only adjust when there is some exogenously-determined change in relative prices. Here an individual is forced to adjust consumption or the patterns other economic activities in order to maintain utility maximisation. Thus, individuals will trade-off one commodity for another, but only in circumstances where there is some exogenous change. As Frey (1984: 202) observes,

“... [in neoclassical theory] the individual’s behaviour is explained by concentrating on the changes in the constraints to which he or she is exposed; preferences are assumed constant”.

As such individual decisions are confined to the margin. The pursuit of individual optimisation also implies that there is an absence of profound information problems. Strictly, optimisation requires the individual to be in possession of, or have easy access to, the information required to calculate the unique point where all possible gains have been exhausted. Recent developments in the standard literature highlight two principal sources of information failure.

The possibility of information scarcity or deficiencies can arise when the future is not perfectly forecastable, and secondly information asymmetries can arise between parties, as in principal-agent theory, when there are divergent comparative advantages and resulting interdependencies, or rivalrous behaviour in oligopoly, as in some game-theoretic accounts. In both circumstances information deficiencies are perceived as an additional constraint, or friction, to optimisation. Conventional theory argues that individuals maximise inter-temporal utility by basing future expectations on Bayesian subjective probabilities. Errors do occur, but only, in the strictest sense, due to stochastic variables. *Ex post* individuals will correct and adjust their expected future utility forecasts. This clearly resonates with Muthian rational expectations, popularly employed in macroeconomic models of housing. Muth’s

(1961) hypothesis contends that individuals do not make systematic errors, and consequently, in the absence of stochastic error terms markets clear instantaneously.

Regarding the second source of information failure, asymmetries may be reduced by ensuring competitive markets for agents' activities (see Fama and Jensen, 1983, in respect of the division of ownership and control of the modern corporation). However, as the paper asserts later there is more to information failure than the conventional account presupposes. Prior to this it is of some importance to the argument in hand that a further ramification of the foregoing is emphasised. General equilibrium conditions imply a particular form of contractual interaction between agents: specifically, exchange is discrete.

Discrete transactions characterise a situation where prior to the exchange the parties have no duties to one another. Obligations are determined at the contract formation stage, terminating when the contract ends. More importantly, exchange is assumed to be fully *presentiated*, i.e., the contract is complete; there is no uncertainty as future duties are known presently.

Macneil (1982: 64) observes that the discrete transactional construct diverges from observable contractual relations over a range of characteristics, including; (i) commencement, duration and termination; (ii) measurement and specificity; (iii) planning; (iv) sharing versus dividing benefits and burdens; (v) interdependence, future co-operation and solidarity; (vi) personal relations and numbers of participants; (vii) power. Thus, discrete exchange commences "sharply" for a short period of time, and ends "sharply". Price and quantity must be precisely defined in order for all duties to be discharged, and hence, planning as such focuses on the substance of the transaction. Further, there is a distinct division between the parties bearing the risks, and those appropriating benefits. Specifically, in the market risks of ownership pass to the buyer when a contract is made, whereas the seller appropriates benefits in terms of revenue, there is no risk sharing. In relation to interdependence Macneil (1982: 70) notes,

"The interdependence of the discrete transaction is so short-lived as to be easily overlooked. This is especially so in any analysis assuming the existence of markets; a participant in a market exchange is not dependent on the other participant to the exchange but is only dependent on the market".

Thus, personal relations are of little consequence. Buchanan's (1975: 15) description of market exchange at a roadside fruit stand is instructive. He states,

"I do not know the fruit salesman personally, and I have no particular interest in his well-being. He reciprocates this attitude,... Yet the two of us are able to,..., transact exchanges efficiently because both parties agree on the property rights relevant to them".

It is, according to Macneil (1986), property rights that generate power in the discrete transaction construct. Property rights permit parties to withhold goods, or payment, in order for a particular party to achieve its objective, usually assumed to be utility maximisation.

Given the foregoing, it is apparent that the discrete exchange framework cannot accommodate any time dimension. It is essentially a static construct. In this respect the construct is not well equipped to analyse any on-going exchange relationship beyond the spot. Where exchange is on-going duties are not immediately discharged; the contracting scenario is less clear-cut. For example, planning does not turn on the substance of exchange, or price and quantity considerations, but on the establishment of a "contractual constitution", i.e., rules governing adjustment, conduct, and termination during the course of the relationship (Goldberg, 1980).

Furthermore, power may no longer be bilaterally distributed, as in the discrete framework, since it may not be possible to fully specify property rights (Macneil, 1982, 1986). In other words, extending an exchange beyond the spot introduces uncertainty, which in the presence of bounded rationality, changes the complexion of economic behaviour. Hence, basing a model of exchange on the discrete framework may reveal interesting results regarding the transfer of property rights to an apple, but is inappropriate in the examination of contracts for housing.

The frailties of the discrete exchange construct reflect more general criticisms of the core tenets of neoclassicism. Obviously, the constraints of space limit the coverage that can be afforded to this diverse literature, but for the purposes of our argument the following section will focus on a number of criticisms of optimisation, information deficiencies and uncertainty, and equilibrium reasoning. The subsequent section will refer to a number of alternative approaches that may offer a more fruitful research agenda.

## **THE LIMITATIONS OF THE NEOCLASSICAL APPROACH**

Arguably one of the most damning criticisms of neoclassicism is that optimisation is not feasible. This critique is based on the grounds that the optimisation process itself is costly and requires cognitive abilities that are themselves scarce (Arrow, 1962; Simon, 1976).

Famously, one of the most celebrated contributors to neoclassical thought argued that,

“There is a fundamental paradox in the determination of the demand for information; its value for the purchaser is not known until after he has the information, but then he has in effect acquired it without cost, ..., given incomplete appropriability, the potential buyer will base his decision to purchase information on *less than optimal grounds*” (Arrow, 1962: 614, emphasis added).

Arrow’s critical passage recognises that information is costly to obtain, and that its value is uncertain *ex ante*, so the utility maximising individual faces a considerable conundrum. What is the optimal amount of information to acquire? It is not possible to calculate whether the marginal cost of acquiring further information outweighs the marginal benefits of doing so. In theory it is possible that the individual may invoke expected utility probabilistic estimates, *ex ante*, and adjust them subsequent to the acquiral of additional information. However, this does not entirely overcome the conundrum: the actor is still left with a considerable on-going calculation problem. Moreover, as Hodgson (1988: 81) argues, this involves the possession of the skills of a “perfect mathematician”.

Hodgson’s argument draws on a wider theme explored by amongst others Keynes, Knight, Shackle, and Simon on uncertainty and bounded rationality.

Even when individuals possess information they may not retain the requisite cognitive ability to employ it optimally. Hodgson (1997) convincingly demonstrates this when individuals are dealing with complexity<sup>6</sup>, such as in a game of chess. The chessboard contains all the data required to make the optimal decision, since all the pieces and their possible moves are known, as is the dimension in which the pieces can move. Yet human chess experts “routinely” memorise an extensive collection of possible moves or patterns of play, and adapt strategies to exploit those patterns. Also, computer programmers have followed these decision procedures, but impose greater rigidities. Therefore, chess programmes search for move possibilities and rely less on pattern recollection. The important point of Hodgson’s example is that in complex scenarios the finiteness of human

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<sup>6</sup> Hodgson (1997: 669) defines complexity in terms of the “density” of structural linkages and interactions between different parts of an interdependent system.

computational abilities imposes a restriction on the capability to calculate the optimal solution. As Hodgson (1997: 670) notes,

“..., in both cases, players do not ‘maximise’ by computing the optimal strategy but ‘*satisfice*’ by finding one that is ‘good enough’” (emphasis added).

Conlisk’s (1996) remarks on bounded rationality support Hodgson’s case. Conlisk stresses how the process of optimisation is subject to infinite regress. In neoclassical terms, if a conventional optimisation problem is subject to positive deliberation costs, then these costs are incorporated into the original problem. However, this new augmented optimisation problem will also involve deliberation costs: again the process of incorporation occurs and a further augmented optimisation problem is derived. But, this also incurs deliberation costs, and so on. In Hodgson’s chess game the utility-maximising player will be subject to the problem of when to cease deliberating on the costs of deliberating on the costs of further deliberation. Instead, it would appear to be more ‘rational’ for the actor to cease deliberating at a juncture that is “good enough”, or satisfactory.

This substantively represents Simon’s (1957) bounded rationality thesis. Simon contends that the neoclassical optimisation framework neglects one of the scarcest resources - the cognitive ability of humans. Famously, Simon argued that individuals are *intendedly* rational, but limitedly so. However, these limitations were not related to information scarcities, as in the orthodox economic account, but to the mental abilities of individuals to appreciate, process, and evaluate information. Individuals have limited knowledge. To non-economists this seems almost benign in its obviousness, but the ramifications for neoclassical economists are profound. In essence, Simon demonstrates that utility maximisation is no more than an abstract special case of satisficing.

The evidence on the boundedness of rationality from psychological experiments, and increasingly psycho-economic experiments (see for example, Thaler, 1992; Tversky and Kahneman, 1986) is both growing and compelling. For example, in his survey of the evidence, Conlisk (1996) describes how consumers make “inefficient” choices, characterised by considerable myopia, in their purchasing decisions of large appliances, and flood and earthquake insurance. He concludes,

“Appliances and insurance are purchases for which consumers may have little experience or training, and for which deliberation and other costs of expertise may be large relative to potential benefits” (Conlisk, 1996: 672).

This would certainly seem to apply to housing. Indeed, housing economists' discussion of the pattern of consumption in housing markets buttresses our case for invoking Simon's notion of bounded rationality in the decision-making process (see Maclennan, 1989; Watkins, 1998). From UK survey evidence, it is known that households typically enter the market once every eight or nine years (Maclennan and Tu, 1996b). Moreover, individuals are unlikely to desire a house that demonstrates features similar to those of their existing property. Given those two traits individuals are entering a highly uncertain process. The lack of market experience suggests that prices and vacancies will provide limited signals: cognitive limitations pose problems for the individual. This is further compounded by the heterogeneity of housing: even if the individual is generally aware of prevailing prices, this provides little indication of the potential value or desirability of a property to the individual. Housing is one commodity where the Austrian emphasis on subjective valuation appears to be particularly apposite.

Arguably, however, the housing economists' outline extends beyond this. Even when the individual is in receipt of information, which is continuously updated, the individual still faces radical uncertainty in addition to the complexity noted in Hodgson's chess example. Uncertainty in the Knightian-Keynesian-Shacklian sense applies to situations where the calculation of, even subjective, probability is impossible. Individuals are subject to ignorance not only of the probability of the occurrence of some event, but as to the event itself. This carries some considerable ramifications for areas of the literature that claim to accommodate uncertainty in the conventional modelling process. For example, in the housing literature Maclennan and Whitehead (1996: 342) are amongst those who claim that "many of the limitations" of the standard approach are overcome by advances in estimation techniques, search models, transaction cost economics, and game theoretic models. However, despite the admirable advances in game theoretic techniques in particular, these models cannot accommodate uncertainty. The central point of Knightian-Keynesian-Shacklian uncertainty and bounded rationality is that the actor is incapable of estimating. Without the calculation of probability, and hence risk, it is not possible for actors to reach any optimum, since tractability is not plausible; leaving an analytical black hole.

Thus, even disregarding the other problems of the optimisation process, uncertainty, by rendering the realisation of individual optimisation impossible, precludes the attainment of an efficient equilibrium. Unfortunately, the bulk of the literature that claims to recognise uncertainty in the economic process, appears not to take full cognisance of the ramifications of it. Instead, the sluggish adjustment of prices due to the exogenous constraints to demand

adjustment, or the inelasticity of supply, is presumed again mainly due to either adaptive expectations and/or exogenous shocks (see for example, Muellbauer and Murphy, 1997).. Yet the term ‘adjustment’ infers that uncertainty can be reduced to a short-term constraint in the form of some disturbance to a previous equilibrium state. The supposition remains that, *ceteris paribus*, all will be resolved in the fullness of time, with the market attaining equilibrium<sup>7</sup>. This is the message of Maclennan and Whitehead (1996), and more generally of the Williamsonian transaction cost construct. Indeed, the notion that a market economy adjusts to some equilibrium, or natural state, has considerable currency (for recent critiques see Dow, 1997; Hodgson, 1998). The key concept in this approach is the *ceteris paribus* clause. For long-term equilibrium there is a requirement for institutions to remain unchanging, or constant: at best a heroic assertion<sup>8</sup>. The recent experiences of the UK housing market question the wisdom of such a presumption.

Indeed, this raises the point, noted earlier, of the problem of infinite regress. Models assuming instantaneous adjustment to some new equilibrium as a consequence of some exogenous shock reflected in changes in relative prices, beg the question as to how the initial equilibrium state was established. Even in multiple equilibria constructs that model the process of hysteresis, the question remains: how was the initial equilibrium established? This fundamental problem may be traced to the ahistorical nature of conventional economics, its underlying physics envy, and tacit assumption that social order equates to equilibrium.

In this respect, Mirowski (1989) convincingly argues that the whole basis of the neoclassical approach is predicated on classical nineteenth century physics, and the fixation of conventional economists in establishing a “hard science” (see for example, Dow, 1997; Lawson, 1995). Drawing on this, Clark (1989) asserts that neoclassical economics erroneously abstracts from institutions and history in an attempt to establish equilibrium as some sort of natural order. The only institutions considered to be part of this natural order are

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<sup>7</sup> Whitehead and Odling-Smee (1975) provide a raft of reasons based on the intrinsic features of housing as to why long-term equilibrium is elusive in housing markets. For instance, they note that stock durability contributes to slow adjustment since stock can only change by conversion or new building - both of which are inhibited by legal and administrative costs.

<sup>8</sup> Interestingly, Williamson’s (1985, 1993) much praised transaction cost approach, despite claiming to accommodate uncertainty offers no more than a sophisticated application of comparative statics. Williamson (1985: 5) himself gives the game away when he claims that it is possible to compare the efficiency of alternative governance structures by holding the “transaction” constant. If governance changes the whole essence of the transaction changes. Moreover, he readily admits that transaction costs assumes that the institutional environment is a “shift parameter” (Williamson, 1993: 111), assumed to be capable of being held constant for the sake of analytical convenience. Williamson’s approach assumes that customs, property rights, norms and conventions are all constant and exogenously determined. The exercise of the *ceteris paribus* clause is quite outstanding.

the market and private property. Williamson's (1975: 20) almost biblical cry that, "..., *in the beginning there were markets*" (emphasis added), clearly supports Clark's contention. However, social order comes through the interrelations and regularities provided by social institutions, such as custom, the legal system, and money.

Criticising the neoclassical tenets of equilibrium, utility maximisation, and an absence of uncertainty does not imply that there is anarchy. It is perhaps appropriate to briefly refer to more fertile grounds for research in housing economics.

### **SOME SUGGESTIONS FOR AN ALTERNATIVE BASIS OF INVESTIGATION: A RETURN TO THE LAND ECONOMIST TRADITION?**

Much of the foregoing critique represents the foundation of the paper's argument for an alternative basis of investigation. Indeed, the paper stresses that the Institutionalism of Grigsby and the 'Columbia School' of land economists may be a fruitful research framework. At a more general level the section traces the potential important factors in any economic investigation of housing markets. Specifically, evolution and process as opposed to equilibrium; the role of habit, routine and uncertainty as opposed to maximising subject to constraints; and relational as opposed to discrete transactions. In essence the role of institutions is highlighted.

Institution is a term that is often employed, but not frequently defined. Hodgson (1998) quotes Walton Hamilton's 1932 definition,

“[an institution is], a way of thought or action of some prevalence and permanence, which is embedded in the habits of a group or the customs of a people” (quoted in Hodgson, 1998: 179).

As Hodgson (*ibid.*) continues this is a broad definition that encompasses organisations, such as universities and firms, but also “integrated and systematic social entities”, such as money, language, law, and religion. Therefore institutions represent a system of belief that is durable, although not unchanging. Consequently, institutions are both self-sustaining and sustained by the individuals inhabiting them. There is a feedback between the individual and the institution.

For the individual behaviour is driven not by the pursuit of utility maximisation, but by habits, conventions and routines, which are legitimised by institutions. More specifically, behaviour in markets is embedded in cultural influences, as the simple scenario of the disorientated Western tourist in an Arab bazaar demonstrates. In most market transactions the Western tourist is accustomed to fixed price tags - haggling is not conventional and is therefore not generally legitimised by the market institution (recall Buchanan's purchase of an apple from a roadside stall). This is not the case in the bazaar, where the establishment of prices is more flexible, and subject to considerable fluctuations. The auctioning process in the sale of housing is a further example of the establishment of prices by convention. As Gibb (1992) notes the procedures for establishing prices differ substantially from that envisaged by the Walrasian Auctioneer of the general equilibrium framework. Yet models of the housing market assume the latter as opposed to recognising the saliency of the former. There is no attempt to identify the routines and rules that govern the calculation of house prices, or the routines and rules involved in conveying and using information on prices. Yet these same models claim to explain the movement of house prices. At best, without recognising the underlying influences on price setting procedures, models can only offer a highly restricted and narrow account.

This draws on a more general point. The micro foundations of housing economics needs to acknowledge that the purchase of housing (including renting) really does differ from the purchase of an apple. Consequently, the discrete exchange framework of strict neoclassicism has to be abandoned for a less abstract, and albeit less tractable, analysis of exchange. The relational exchange approach (see Goldberg, 1980; Macneil, 1982; 1986), noted earlier, stresses the embeddedness of the conduct of intricate economic exchanges in social institutions. Moreover, the complexity of housing transactions involves more than two actors, as in discrete exchange. Housing transactions clearly encompasses a host of actors - in principal and agent roles - over extensive time periods in some cases, all subject to varying degrees of uncertainty, and possessing varying degrees of power. It verges on being trite to observe that housing transaction are better explained in a relational as opposed to a discrete exchange context.

Moreover, it is important emphasise the ubiquity of habits and routines - even in one-off or infrequent transactions such as housing. *Contra* Marsh and Gibb (1998: 15) there is good reason to presuppose that individuals will adopt simple rules-of-thumb when faced with situations of uncertainty or complexity. Habit has been described as, "a more or less self-actuating disposition or tendency to engage in a previously adopted or acquired form of

action” (Camic, 1986: 1044, quoted in Hodgson, 1997: 664). As an attempt to reduce the disorientation engendered by uncertainty and complexity agents may habitually consult with other agents and various measures. Habit does not preclude Marsh and Gibb’s “rational reflection” in the decision making process. Indeed, “reflection” would appear to be entirely consistent with “previously adopted courses of action”. More specifically, what is an agent to do when the price of housing falls continuously and dramatically, and there is no reliable information positing the reason for the fall. In such circumstances agents may consider selling, if it is observed that other actors are selling. Keynes (1993: 149) noted that in periods of uncertainty it was not unreasonable to follow the observed behaviour of others, or to rely on conventions. This appears to be habit.

Habit, rule following, and conventions not only act as means of coping with uncertainty at an individual level, but also serve to perpetuate institutions as systems of belief. However, institutions are not impervious to change, either endogenous or exogenous sources. Witness Veblen’s (1898) pioneering methodological contribution on economic process. Veblen distinguishes between teleological and evolutionary modes of thought in scientific endeavour<sup>9</sup>. Teleological approaches are defined in terms of theories that assume that there is an inherent propensity for phenomena to tend towards some preconceived notion of normality. By contrast, evolutionary theories have no such preconceived notions of normality to which a system tends toward, and are characterised by temporal interdependency. Essentially a phenomena is dependent on current events and its historical context: there is no notion of future equilibrium. Veblen describes this sequence as cumulative causation, the approach fruitfully employed by Kaldor (1972) and by ‘Old Institutionalists’, significantly Gunnar Myrdal. An evolutionary approach has also famously been advocated by Nelson and Winter (1982). The Veblenian notion of cumulative causation emphasises the importance of cultural influences and power in economic development and the process of economic activity.

Basically, cumulative causation, according to Kaldor and Veblen, is driven by technological progress. However, the trajectory of this process is heavily influenced by the prevailing values of institutional systems. For example, medical research into cloning may be retarded due to resistance from established moral values. The notion of cumulative causation

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<sup>9</sup> Veblen (1898) argued that the distinctions between teleological and evolutionary approaches differed from the divisions between static and dynamic analysis. Dynamic theory, as a theory of process, is not necessarily consistent with evolution. Dynamic theory can be teleological as contemporary neoclassical dynamic analysis, with its emphasis on ultimate equilibrium or multiple equilibria, demonstrates.

may be a suitable alternative in housing research to the problematic assumption of long-term equilibrium.

The foregoing also carries ramifications for the conduct of investigation. Rejecting the foundations of much of econometric modelling suggests alternative empirical endeavours. Both Hodgson (1998) and Lawson (1995) argue for the benefits of conducting examinations of phenomena from the basis of general observations, or stylised facts, and then analysing the underlying causes of those outcomes. Finch (1998) convincingly argues that this resonates with grounded theoretical procedures<sup>10</sup>. This approach employs both qualitative and quantitative analysis in case studies, where the role is in developing theory as opposed to falsifying established theory, as in conventional approaches. Consequently, theoretical as opposed to statistical sampling is of principal importance in the grounded theory research process - theory itself is perceived as an evolving process.

Grigsby (1963) and the Columbia School may be other candidates whose approach is consistent with grounded theoretical research process. The central importance of housing stock heterogeneity to the Columbia School's approach is based on stylised facts generated by observation. From here authors attempted to understand and explain the underlying dynamic processes of the housing market. Perhaps by eschewing the problematic notion of the centrality of equilibrium in analysis the Columbia School have much to teach us.

## **CONCLUSION**

This paper has attempted to outline the compelling arguments for reconsidering the present trajectory of research in housing economics. The central concepts of equilibrium, certainty, and utility maximisation in neoclassical based approaches prevent a deeper understanding of the processes underpinning the housing market. It is not enough to suggest that the recent price fluctuations in some UK housing markets can be attributable to "disturbances" and that in the long-run the 'normal service' of equilibrium will be returned to. Moreover, in this light

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<sup>10</sup> Finch (1998) and Strauss and Corbin (1997) note that grounded theoretical procedures are employed across social science disciplines, ranging from business management and accountancy to sociology. Finch further argues that grounded theoretical procedures are founded on pragmatism, and are broadly consistent with heterodox economics traditions that have action and process as central explanda, such as Austrian, Behavioural, (Old) Institutional, Post Keynesian, and Post Marshallian approaches. He continues by identifying illustrations from Andrews' Post Marshallian industry studies, and Cyert and March's Behavioural Theory of the Firm.

the assumption that social institutions are exogenous factors can be seen as a particularly limiting and damaging assertion.

If the bulk of economic research into housing continues to employ those limiting assumptions, then its policy relevance will be increasingly marginalised. It is well recognised that the performance of models has been disappointing (Meen, 1998). This disappointment will not be resolved by recourse to econometric navel gazing. A more fundamental set of considerations must be addressed - the epistemological position of research requires to be contemplated.

At a housing research conference in Toronto more than two decades ago, Grigsby (1978: 45) observed:

“two different worlds consist[ing] of two different groups of researchers, each pursuing similar topics in housing in quite different ways and not really bothering to communicate with each other or, in some cases, even to acknowledge the existence of the other world”.

Grigsby goes on to show that many important empirical facts about the operation of housing markets, although widely attributed to the seminal neoclassical contributions of Alonso, Muth, Mills and others, can in fact be traced to earlier institutional analyses. Despite this the dominance of neoclassical economics in housing research has prevented the fruitfulness Grigsby’s ‘world’ of institutional research from reaching a wider audience. In this paper, we have sought to present a critique of the neoclassical approach, and, as such, to provide a justification revisiting the institutional economics approach and for considering other heterodox traditions.

## **BIBLIOGRAPHY**

- Alonso, W (1964) *Location and Land Use: Towards a General Theory of Land Rent*, Harvard Univ. Press, Mass.
- Arrow, K. J. (1962) Economic Welfare and the Allocation of Resources for Invention, in *The Rate and Direction of Inventive Activity: Economic and Social Factors*, National Bureau of Economic Research, Princeton University Press: Princeton, New Jersey.
- Arrow, K. J. and Hahn, F. H. (1971) *General Competitive Analysis*, Oliver and Boyd: Edinburgh.
- Bartik, TJ and Smith, VK (1987) Urban amenities and public policy, in ES Mills (Ed)

- Handbook of Urban and Regional Economics*, Vol 2, North-Holland, New York.
- Buchanan, J. M. (1975) *The Limits of Liberty*, University of Chicago Press: Chicago.
- Clark, C.M.A. (1989) Equilibrium for What?: Reflections on Social Order in Economics, *Journal of Economic Issues*, 23: 597-606.
- Conlisk, J. (1996) Why Bounded Rationality?, *Journal of Economic Literature*, 34: 669-700.
- Dixit, A (1973) The optimum factory town, *Bell Journal of Economics*, 4, 2, 637-651.
- Dow, S. C. (1997) Mainstream Economic Methodology, *Cambridge Journal of Economics*, 21: 73-93.
- Fama, E. F. and Jensen, M. C. (1983) Separation of Ownership and Control, *Journal of Law and Economics*, 26: 301-325.
- Finch, J. F. (1998) A Grounded Theory Paper for Economics, University of Aberdeen, Department of Economics, Discussion Paper, 98-15.
- Fisher, EM and Fisher, RM (1954) *Urban Real Estate*, Henry Holt, New York.
- Galster, G (1996) William Grigsby and the analysis of housing submarkets and filtering, *Urban Studies*, 33, 10, 1797-1806.
- Goldberg, V. P. (1980) Relational Exchange: Economics of Complex Contracts, *American Behavioral Scientist*, 23: 337-352.
- Grigsby, WG (1963) *Housing Markets and Public Policy*, University of Pennsylvania Press, Philadelphia.
- Grigsby, WG (1978) Response to Quigley, in Bourne, LS and Hiteckcock, JR (eds) *Urban Housing Markets: Recent Directions in Housing Research*, University of Toronto Press, Toronto.
- Hodgson, G. M. (1988) *Economics and Institutions: A Manifesto for a Modern Institutional Economics*, Polity Press: Cambridge.
- Hodgson, G. M. (1997) The Ubiquity of Habits and Rules, *Cambridge Journal of Economics*, 21: 663-684.
- Hodgson, GM (1998) The approach of institutional economics, *Journal of Economic Literature*, 36, 166-192.
- Kaldor, N. (1972) The Irrelevance of Equilibrium Economics, *Economic Journal*, 82: 1237-1255.
- Keynes, J. M. (1993) *The General Theory of Employment, Interest and Money*, Macmillan: Basingstoke.
- Lawson, T. (1995) A Realist Perspective on Contemporary "Economic Theory", *Journal of Economic Issues*, 29: 1-32.
- MacDonald, J (1979) *Economic Analysis of an Urban Housing Market*, Academic Press, New York.

- Maclennan, D (1982) *Housing Economics: An Applied Approach*, Longman, Harlow.
- Maclennan, D (1989) Efficient markets framework and real estate economics, mimeo, CHR, University of Glasgow
- Maclennan, D and Tu, Y (1996) Economic perspectives on the structure of local housing markets, *Housing Studies*, 11, 387-406.
- Maclennan, D and Tu, Y (1996b) The micro-economics of housing equity withdrawal, CHRUS Occasional Paper, University of Glasgow.
- Maclennan, D and Whitehead, C (1996) Housing economics: an evolving agenda, *Housing Studies*, 11, 341-344.
- Maclennan, D, Munro, M, and Wood, G (1987) Housing choice and the structure of urban housing markets, in Turner, B., Kemeny, J. and Lundquist (Eds) *Between State and Market Housing in the Post-industrial Era*, Almquist and Hicksell International, Gothenburg.
- Macneil, I. R. (1982) Economic Analysis of Contractual Relations, in *The Economic Approach to Law*, Burrows, R. and Veljanovski, C. E. (eds.), Butterworths: London.
- Macneil, I. R. (1986) Exchange Revisited: Individual Utility and Social Solidarity, *Ethics*, 96: 567-593.
- Marsh, A and Gibb, K (1998) Modelling the housing market: the role of expectations, Paper presented at the ENHR Conference, Cardiff.
- Mirowski, P. (1989) *More Heat Than Light: Economics as Social Physics: Physics as Nature's Economics*, Cambridge University Press: Cambridge.
- Mills, ES (1967) An aggregative model of resource allocation in a metropolitan area, *American Economic Review*, 57, 197-210
- Meen, G. (1998) 25 Years of House Price Modelling in the UK. What Have We Learnt and Where Do We Go From Here?, Paper presented at the ENHR Conference, Cardiff.
- Muellbauer, J. and Murphy, A. (1997) Booms and Busts in the UK Housing Market, *Economic Journal*, 107: 1701-1727.
- Muth, J. F. (1961) Rational Expectations and the Theory of Price Movements, *Econometrica*,
- Muth, RF (1969) *Cities and Housing*, Univ. of Chicago Press, Chicago.
- Nelson, R. R. and Winter, S. G. (1982) *An Evolutionary Theory of Economic Change*, is Harvard University Press: Cambridge MA.
- Olsen, EO (1969) A competitive theory of the housing market, *American Economic Review*, 59, 612-622.
- Poterba, JM (1984) Tax subsidies to owner occupation: an asset-market approach, *Quarterly*

- Journal of Economics*, 729-752.
- Quigley, J (1978) Housing markets and housing demand: analytical approaches, in Bourne, LS and Hitckcock, JR (eds) *Urban Housing Markets: Recent Directions in Housing Research*, University of Toronto Press, Toronto.
- Quigley, J (1997) *The Economics of Housing*, Volumes I and II, Elgar, Northampton, Ma.
- Rapkin, C and Grigsby, WG (1960) *Residential Renewal in the Urban Core*, Univ. of Pennsylvania Press, Philadelphia.
- Rapkin, C, Winnick, L and Blank, D (1953) *Housing Market Analysis*, US Housing and Home Finance Agency, Washington.
- Rosen, S (1974) Hedonic prices and implicit markets: product differentiation in pure competition, *Journal of Political Economy*, 82, 34-55.
- Rothenberg, J, Galster, G, Butler, R and Pitkin, J (1991) *The Maze of Urban Housing Markets: Theory, Evidence and Policy*, Chicago: University of Chicago Press
- Samuels, W. J. (1995) The Present State of Institutional Economics: Critical Survey, *Cambridge Journal of Economics*, 19: 569-590.
- Simon, H. A. (1976) From Substantive to Procedural Rationality, in *Method and Appraisal in Economics*, Latsis, S. (ed.), Cambridge University Press: Cambridge.
- Smith, LB, Rosen, KT and Fallis, G (1988) Recent developments in economic models of housing markets, *Journal of Economic Literature*, 26, 29-64.
- Smith, L.B. (1978) Response to Quigley, in Bourne, LS and Hitckcock, JR (eds) *Urban Housing Markets: Recent Directions in Housing Research*, University of Toronto Press, Toronto.
- Solow, RS (1972) Congestion, density and the use of land in transportation, *Swedish Journal of Economics*, 74, 161-173.
- Straszheim, M. (1975) *An Econometric Analysis of the Urban Housing Market*, National Bureau of Economic Research, New York.
- Thaler, R. H. (1992) *The Winner's Curse: Paradoxies and Anomolies of Economic Life*, Free Press: New York.
- Tversky, A. and Kahneman, D. (1986) Rational Choice and the Framing of Decisions, *Journal of Business*, 59: s251-278.
- Veblen, T. B. (1898) Why is Economics Not an Evolutionary Science?, *Quarterly Journal of Economics*, 12: 373-397.
- Watkins, C (1998) Are new entrants to the residential property market informationally disadvantaged, *Journal of Property Research*, 15, 57-70.
- Whitehead, C and Odling-Smee, J (1975) Long-run equilibrium in urban housing - a note, *Urban Studies*, 12, 315-318.

- Williamson, O. E. (1985) *The Economic Institutions of Capitalism: Firms, Markets, and Relational Contracting*, Free Press: New York.
- Williamson, O. E. (1993) Transaction Cost Economics and Organization Theory, *Industrial and Corporate Change*, 2: 107-156.
- Wingo, L (1961) *Transportation and Land Use*, Resources for the Future, Washington.
- Woodbury, C (1949) Richard T. Ely and the Beginnings of Research in Urban Land and Housing Economics, *Land Economics*, 55-66.