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Markets, Prices and Market Power¹

by Thomas Lines

1. Economics lacks explanations of markets and prices

Some economists have become remarkably ambitious in their attempts to explain social and even psychological phenomena which lie outside the economic sphere. This has been described as 'economics imperialism, the colonization of the other social sciences by economics'.² It was first encountered in the 1960s in the analysis of political processes by the Public Choice school of James Buchanan and others. Yet when it comes to the basics of economics, even Buchanan once pleaded, 'Let us be honest. How much more do we know about market processes than Adam Smith knew that is of practical relevance?'³

That is a remarkable admission, yet Buchanan is by no means the only leading economist to have raised the question. It has been posed from time to time by an astonishing number and variety of senior economists, who have observed how poorly economics explains two elementary concepts: the market and prices. Two other examples, from very different schools, are Joan Robinson and Douglass North. Robinson wrote in 1966, 'It seems that economic science has not yet solved its first problem - what determines the price of a commodity?';⁴ and North in 1977, 'It is a peculiar fact that the literature on economics ... contains so little discussion of the central institution that underlies neo-classical economics - the market.'⁵ It seems that little progress has been made in that direction since those dates.

This paper examines this extraordinary gap in economic theory and suggests a way to start filling it. It is based on the author's early training in economics and the observation of economic processes throughout his career, notably as a reporter for seven years on the commodity and financial markets. Hence some examples in the paper that are taken from the commodities trade.

The paper has four more sections. The next will consider what a market's basic function is and how price formation works on it, as a way of resolving conflicting interests. The third section will describe studies of how this plays out in practice, and Section 4 sets it against the neo-classical economic concepts of the perfect

¹ This is a reworked and revised version of the theoretical passages in an earlier paper which was commissioned by the South Centre in Geneva. See Lines (2006). The author is grateful for the opportunity provided by the South Centre to work through these ideas. They were discussed in an earlier form in Lines (1988), on which this paper also draws directly. Any errors or omissions are entirely the author's responsibility.

² Fine (2002), p. 2059.

³ Buchanan (1980), p. 14. In this influential paper Buchanan argued for extending economic 'rent-seeking' analysis to the study of politics and society.

⁴ Robinson (1966), pp. 61 and 79.

⁵ From D. North, 'Markets and Other Allocative Systems in History: The challenge of Karl Polanyi', *Journal of European Economic History*, Vol. 6, pp. 703-16 (1977), quoted in Swedberg (1994), p. 257.

market, perfect competition and general equilibrium, and Adam Smith's 'natural price'. Section 5 places economic theory (including theories of markets and prices) in the context of the history of science.

A constant theme throughout the paper is that of relative market power as the guiding force in price formation. If Buchanan's form of economics trespassed on the normal territory of political science, we will conclude that the methods of political science are necessary for a proper understanding of markets and prices.

2. Markets and how prices are formed

First we must consider a simple but essential question: what economic function does a market serve? The answer may seem obvious, but for the sake of clarity we must provide it. The basic function of a market can be defined as to coordinate the supply of a product with demand for it via movements in its price. A change in one of these three variables will stimulate corresponding changes in the other two, such that the quantities supplied and demanded are again equal but probably at a different price.

In early economics lessons this is explained with a series of curves drawn on a graph on the school- or lecture room's board - what R.H. Coase termed 'blackboard economics':

The policy under consideration is ... implemented on the blackboard. All the information needed is assumed to be available and the teacher plays all the parts. He fixes prices, imposes taxes, and distributes subsidies (on the blackboard) to promote the general welfare. But there is no counterpart to the teacher within the real economic system... In real life we have many different firms and government agencies, each with its own interests, policies, and powers.⁶

On the blackboard the market is thus reduced to a mathematical game, in which curves representing supply and demand are plotted on a graph against the axes of quantity and price, and it is shown that the price will settle where the two curves intersect. A slide down the supply curve when the demand curve moves inwards looks simple and undramatic, and the explanation seems precise and orderly; it is the elementary case of Coase's blackboard economics.

These then are the elements of neo-classical price theory. Usually they are followed without a pause by an ever more elaborate series of curves on the same graph, which illustrate more advanced concepts such as elasticities of supply and demand, marginal cost and consumers' indifference. The crucial process in which the supply of a product meets demand for it on the market, and a price is found, gets quickly left behind and, ultimately, ignored. The graph seems blind to the 'interests, policies, and powers' that Coase mentioned. Mainstream economic theory, despite its elaborations about utility functions, elasticities, marginal cost pricing and other matters, fails to examine the social process through which a change in demand, supply or price will cause changes in the other two variables. It does not explain how shifts in demand and supply actually affect price and *vice versa*, in a set of *social* relations rather than just mathematical ones. It makes the actors on a market look passive, whereas they have to be active in order to survive under the rigours of competition.

It is worth quoting Coase at some length here:

⁶ Coase (1990), p. 19.

The entities whose decisions economists are engaged in analyzing have not been made the subject of study and in consequence lack any substance. The consumer is not a human being but a consistent set of preferences. The firm to an economist, as Slater has said, 'is effectively defined as a cost curve and a demand curve, and the theory is simply the logic of optimal pricing and input combination.' Exchange takes place without any specification of its institutional setting. We have consumers without humanity, firms without organization, and even exchange without markets.⁷

Yet the social process associated, for example, with a fall in demand and a decline in price is critical in the real economy. What are the implications for the various participants in the market? How is it determined which producers will cut their production and which are able to remain in business or even expand? Few explanations of the orthodox theory consider these aspects of the price system. For it is not a neutral, purely mechanical process: there are social consequences to a fall in price, as jobs may be lost and supplier businesses weakened or bankrupted.

We could fill out these thoughts with reference to many markets. For example, in recent years the international oil price has gone up and stayed up. Why? Surely it is agreed that the reason lies in the bargaining power of oil producers, which is based on a rapid increase in demand in China and elsewhere, combined with shortfalls in supply from such countries as Iraq. The power of the supply side is augmented by the practice of many producer countries to coordinate their production and sales via OPEC, and by speculative demand. In this market nobody would seriously dispute that OPEC and the big oil companies have power. But power does not disappear in a market which is more fragmented than this. Similar considerations will apply there too, even if it takes longer to identify them and they work in different ways and at different levels.

The balance between demand, supply and price is determined by the respective amounts of power possessed by the participants in a market at a given time. This view seems to win unwitting support from even the most economic supporters of the free-market philosophy when they praise market 'forces' - a term denoting power if ever there was one. Price mediates between the pressures of supply and demand for a product. It resolves the differences of interest among participants: alterations in the market (e.g. higher prices) arise when one side's interest gains an advantage over the other's. Price is determined by reconciling the opposed interests of sellers in having it as high as possible and of buyers in having it as low as possible (complicated by the competition between buyers among themselves and between sellers among themselves). For the purchaser of a product to 'win' a reduction in its price, evidently they need the power to do so. For its suppliers to win an increase in price, they too need comparable power.

Price formation therefore involves a constant struggle in which the respective amounts of power on the two sides determine an always provisional outcome. This is a general proposition which applies to all markets, no matter what their structure. It also means that any price is essentially arbitrary, arising from current contingencies of supply and demand; we will return to this point later.

There are many different methods of price formation. The position is clearest in situations where each transaction is determined after a separate negotiation, in which the buyer and seller reach a specific bargain over the quantity supplied, its quality and the price. Examples might be a corporate takeover, a house purchase

⁷ Coase (1990), p. 3; he cites Martin Slater, Foreword to Edith T. Penrose, *The Theory of Growth of the Firm*, 2nd edition (White Plains, NY: M.E. Sharpe, 1980), p. ix.

and the transfer of a footballer from one club to another. In such cases, the price is determined in formal and explicit negotiations between the two sides. The world's best footballers command higher transfer fees (and wages) than others, and the neo-classical explanation tells us this reflects their scarcity value; but that is no more than a reason for their *power* to ensure that a greater sum is paid. Similar considerations apply in arenas where prices appear to be fixed and the supply and demand sides are at arm's length from each other, such as when we go to a shop to buy the simple requirements of life like bread, newspapers and soap. The negotiations here will be tacit or immanent, being conducted through messages which tell the producer of the alacrity with which a product is sold, or by which the buyer knows how easy it is to find an item of the right sort. Where one side has sufficient market power, an outcome might be imposed without any semblance of negotiation, as some would say has happened on the oil market. However, in every case the outcome relies on the negotiating strengths of the parties - their *relative market power*.

In essence, price formation is no different from other forms of power mediation and negotiation; and there is no accident in the frequent similarities in the language that describes market, military and political processes. Price fluctuations are routinely described in terms of the relative strengths and weaknesses of the production and consumption sides. This is not only where each purchase and sale is unique and discrete, as with a footballer's transfer, but also where thousands of identical items are traded in the same place every day, as with the standard trading lots of a commodity futures market. Brokers refer to markets on which they deal as 'weak' or 'strong', or to someone trying to 'control' one of them by, for example, cornering available supplies.

Thirty years ago, Joan Mitchell summed up the interplay of market power and negotiation well:

*Market adjustments are bargains between buyer and seller, each having weaknesses in the urgency of the buyers' needs and the number of rival sellers; each having strengths in the weight of buyers' budgets, and the common costs and behaviour of rival sellers, or the superiority of the product of particular sellers.*⁸

Mitchell refers to buyers and sellers having 'strengths' and 'weaknesses', and businesses are expected to have 'strategies'. All of these terms refer back to questions of power and its mobilisation. The type of power at issue may be economic rather than political or military, but it is power nonetheless. Meanwhile the language of politics is rich with words that call to mind economic processes. Mitchell's buyer and seller make 'bargains', and so do politicians; it is commonplace to hear of them 'negotiating' political 'deals'.⁹ In the United States the common currency of legislative politics is called 'horse trading'. This idea also lies at the centre of Public Choice theory.

The coincidence of language is unlikely to arise from chance. Some would say it merely involves metaphors, which transfer images from one social sphere to another. But if there was not a similarity in the phenomena taking place, the metaphors would not work. This leads to the conclusion that, while there are some phenomena (such as costs or investment) which are peculiarly economic and others (e.g. legislation or policing) which are political, it is impossible to keep the two spheres in watertight compartments. For example, during the credit crisis we have

⁸ Mitchell (1978), p. 34.

⁹ A search for the words 'negotiate political deal' on the Google search engine came up with 213,000 entries.

heard calls for the 'authorities' to 'police' the financial markets better; and this is a matter of economic, not penal, policy.

Charles E. Lindblom saw a close link between political and economic processes in general: 'In all the political systems of the world, much of the politics is economics, and most of economics is also politics.'¹⁰ To Lindblom, the process of exchange which underlies markets is one of three 'basic methods of social control'. (The other two are authority and persuasion.) He defined exchange as follows:

*The exchange relation on which markets are built is one of deliberate control. It is a relation between two (and sometimes more) persons each of whom offers a benefit in order to induce a response. The offer is, therefore, contingent on achieving a response.*¹¹

Max Weber made a related point, even more strongly:

*Because of the very absence of rules, domination which originates in the market or other interest constellations may be felt to be much more oppressive than an authority in which the duties of obedience are set out clearly and expressly.*¹²

We might define politics as the process by which individuals and groups in society mobilise and use power over others. By that definition, it seems clear that a market in which *any* participants use economic power to exert the kinds of control that Lindblom and Weber referred to has to be at least partially explained in political terms.

The field of business studies is well up with this. It implicitly recognises a power struggle in competitive markets, using as a basic axiom the military concept of 'strategy'. It is time that economic theory caught up. Much of business studies (and much of the 'business' of business) is about how the company can maximise its power on the markets on which it buys and sells, so as to maximise profits. Seen in this light market competition is not, and cannot be, a power- or politics-free affair. Differences between markets alter the forms that the struggle over prices takes and the degrees of market power in the hands of various participants, but they do not alter the essentials. Nor is it cost-free for society: the market economy, guided by Adam Smith's 'Invisible Hand', often seems to those subjected to it more like an Invisible Boot.

3. The political complexity of markets

The identification of a market can be surprisingly elusive. Newspapers report on 'the car market' or 'the market for computer games', and we see precise calculations of the share of sales which accrue to this or that company. Yet if we see the market as an arena of competition, we soon stumble across questions about where the focus of competition really lies. Thus, we find that copper companies compete among themselves to gain copper sales and get the best price for their product. But at another level they collectively compete with, for example, aluminium companies, which produce a wire that has similar properties and can be used for similar purposes such as electricity transmission. It is said to be a substitute product. At another level still, both have competed against optic fibres for the transmission of telecommunications. What we see amounts to a kind of hierarchy of markets: those for copper and for aluminium; for conductive metals;

¹⁰ *Ibid.*, p. 8.

¹¹ *Ibid.*, p. 33.

¹² Weber (1986), p. 33.

and for materials that transmit telecommunications. Separate markets - or elements of them - can be aggregated or combined to define other markets at another level. Thus, copper wire (but not sheet or tube) combines with aluminium wire (but not sheets and diecastings) to form a market for metal transmissive materials. No market then is an island. A set of markets can be aggregated to form another market at a higher level; and it in turn can be disaggregated to reveal smaller or more local markets.

This looks complicated, and analyses of power in specific markets in different parts of the world have also uncovered complex relationships. For example, several authors have conducted research into the political relations among participants on Indian grain markets. Their conclusions have emphasised the importance and complexity of the political structures on these markets. 'Far from being a simple layer between producers and consumers, real grain markets present a bewildering diversity of institutions, organizational forms and technical functions', as Barbara Harriss-White put it.¹³ Although this was not the focus of her research, she reported that, 'In South India, 120 varieties of rice have their prices tracked, with constrained substitutions possibilities and complex, seasonally-changing, spatial flows. *The market for rice is therefore a bundle of economic markets*'¹⁴ - as we indicated above.

Meanwhile, in a case study of rural markets in India, investigating the ways in which power is exercised where there is a close connection between credit markets and crop markets, Wendy Olsen described what she called 'the structure of economic exchange'.¹⁵ The complexity stands out from her page too; it includes social and political elements besides a great variety of economic matters. This is seen in a passage in which Olsen sets her approach next to that of two Indian predecessors, K. Bharadwaj and A. Bhaduri:

In their schema, the landlords were simultaneously the village moneylenders, and had power stemming from this dual position as well as from their assets and status within the village system...

*Clearly these theories of political economy overlap with economic ideas such as monopoly and interlinkage. But as Bharadwaj stressed, the competition/monopoly continuum is only one, very partial, dimension of local power in markets. Even after modifying this approach to allow for interlinkage of markets and interlocking of transactions, there is still a diversity and complexity in local market exchanges that requires explanation. An improved explanation requires (i) distinguishing types of power...; and (ii) fully assessing the historical, social, and personal sources of power in the real markets studied.*¹⁶

Huge variety has also been found in other types of market when examined in a similar way. Reporting on a study of the British consumer electronics market, Alan Cawson made this observation:

Studies of ... industrial sectors suggest considerable differences in the way in which 'sectoral governance' takes place, with differences in industry structure (such as number and size of firms) providing only a partial explanation for these... Compared to the simple elegance of formal economic models, the political analysis of economic markets reveals a good deal of complexity and variety. The available tools for making sense of this are

¹³ Harriss-White (1993), p. 54.

¹⁴ Harriss-White (1993), p. 55 (emphasis added).

¹⁵ Olsen (1993), p. 83.

¹⁶ Olsen (1993), p. 86-87.

*admittedly crude, and require refinement through extensive empirical research.*¹⁷

Likewise, the markets for apparently similar primary commodities can work very differently from each other. There is a bewildering variety of ways in which commodities are traded, and in which their price systems mediate between competing power interests. Each method of price formation corresponds with a different combination of influential factors on the market. This includes the different roles played by producer and retail corporations, traders and brokers and, in certain cases, speculative funds. For example, six systems of price formation have been identified on mineral markets, without any claim that the list is exhaustive or mutually exclusive (since various methods of price formation can be combined in trading the same commodity). They are listed below; the complexity should be immediately apparent:

1. 'Producer prices' declared by the market's dominant corporations, as was the case until the mid-1980s for both nickel and aluminium.¹⁸
2. A marketing monopoly controlled by one dominant producer, as in the Central Selling Organisation for diamonds, run by the De Beers company.
3. Long-term supply contracts with prices periodically renegotiated between buyers and sellers, typically once a year.
4. Futures exchanges for non-ferrous metals such as copper, aluminium and tin, as well as (in the United States) precious metals such as gold and silver.
5. Spot traders' markets with price assessments quoted in trade journals, typically for the smaller markets.
6. Daily price 'fixes', in which a small group of brokers determines the price according to their information on supply and demand (the London Fixes for the precious metals, gold, silver, platinum and palladium).¹⁹

Other mechanisms also exist for certain agricultural products, such as the auctions, held in exporting countries, which determine international prices for tea and tobacco.

In all of these cases we find a great complexity in structures and power relations, and a sense of the inadequacy of the conceptual frameworks and research tools which are conventionally available. However, considerable strides forward have been made. For example, Global Value Chain (GVC) analysis examines the process of production and distribution in the agricultural sector step by step from the field or plantation to the retailer and the final consumer, enabling a complex picture to be built up of the participants at each stage and their shares of the final value of the product. GVC provides a useful framework for organising thinking about commodity market structures and concentrations of market power within them.

However, a great deal more research is required to build up a basic understanding of market relations and their associated value chains. We need comparative research into the market structures and pricing systems identified. This will facilitate a first approach towards a typology of markets and methods of price formation, and the kinds of political formation they may reveal.

4. Perfect markets, equilibrium and natural prices

¹⁷ Cawson (1993), p. 67.

¹⁸ For the case of aluminium, see Lines (1989), especially pp. 166-67.

¹⁹ This is discussed in more detail in Lines (2006), pp. 14-15.

Why does mainstream economic theory have so little to say about all this? It is tempting to ascribe a motive, as Joan Robinson hinted when she suggested that the formulation of neo-classical theory in the late 19th century was at least partly intended to distract students from the uncomfortable questions that Karl Marx had posed:

*Marx turned Ricardo's theory of profits into the theory of exploitation. Labour produces value and the capitalist takes part of it. The neo-classical theory that came into fashion after about 1870 was, consciously or unconsciously, a reaction against Marx.*²⁰

She maintained that the continued domination of equilibrium theories in the teaching of economics (especially in the United States at that time) performed a similar ideological function. It becomes even more tempting to ascribe motives when one considers the alternatives to neo-classical explanations that have been offered and ignored.²¹ At the same time as the founders of neo-classicism, other economists were examining the human side and emphasised the conflicts inherent in market transactions. An example is Max Weber, who was a professor of economics before he branched out into wider inquiries as a founder of sociology. However, he never lost his interest in the way that markets operate, which he too explained as based on power and conflicting interests. Weber defined competition as 'a "peaceful" conflict ... insofar as it consists in a formally peaceful attempt to attain control over opportunities and advantages which are also desired by others.'²² He wrote of 'the battle of man against man in the market' and stressed that monetary prices are always the result of a power struggle between the parties. But Weber's ideas on economics were sidelined and forgotten, and for a whole century his explanation of the market has been almost completely ignored.

Whatever its motive may be, the conceptual framework adopted by the dominant school has led the discipline astray with its concepts of the perfect market, perfect competition, natural price and equilibrium. The foundation stone is the perfect market. It has several features, the most important of which from our point of view is that both buyers and sellers on it will be so small and numerous that none individually has the power to affect the price by his or her purchases or sales alone. Certain other idealistic criteria also apply, such as that all participants have 'perfect information': that is, they know everything there is to know about the state of the market on both the demand and supply sides. These are said to be necessary conditions for perfect competition to operate. It will generate an 'equilibrium' price at which supply matches demand, this price being 'discovered' through the impersonal action of what Smith called an 'Invisible Hand'.²³

In the purest form of the concept, as theorised by Vilfredo Pareto,²⁴ it is argued that the resulting equilibrium will be a static state in which no reallocation of resources could make anyone better off without making at least one person worse off. (But why then do some markets which come close to satisfying the conditions of perfect competition turn out to be very volatile?) This very abstract view of 'General Equilibrium' is at the heart of modern neo-classical economics, including econometric models.²⁵ The analysis derives ultimately from Smith's concept of the 'natural price', which he defined thus:

²⁰ Robinson (1979), p. 33 (emphasis in the original).

²¹ Especially after reading a book like Dowd (2004).

²² Swedberg (1994), p. 265, citing Weber (1968 and 1978).

²³ Smith (1937), Book IV Chapter II, p. 423.

²⁴ See (in French translation) Pareto (1927).

²⁵ Developed by authors like Pareto and Léon Walras in continental Europe, it has been argued that this way of thinking departs significantly from the ideas of the earlier 'classical' economists as well

There is in every society or neighbourhood an ordinary or average rate both of wages and profit in every different employment of labour and stock. This rate is naturally regulated ... partly by the general circumstances of the society, their riches or poverty, their advancing, stationary, or declining condition; and partly by the particular nature of each employment.

There is likewise in every society or neighbourhood an ordinary or average rate of rent...

These ordinary or average rates may be called the natural rates of wages, profit, and rent, at the time and place in which they commonly prevail.

When the price of any commodity is neither more nor less than what is sufficient to pay the rent of the land, the wages of the labour, and the profits of the stock [= capital] employed in raising, preparing, and bringing it to market, according to their natural rates, the commodity is then sold for what may be called its natural price...

The actual price at which any commodity is commonly sold is called its market price. It may either be above, or below, or exactly the same with its natural price.²⁶

Smith later expands on this:

The price of monopoly is upon every occasion the highest which can be got. The natural price, or the price of free competition, on the contrary, is the lowest which can be taken, not upon every occasion, indeed, but for any considerable time together.²⁷

With these concepts in mind, let us consider an example from an important international market, that for coffee. Over recent decades, the monthly average prices paid in international trade for various grades of coffee have varied between 369.00 U.S. cents per pound (for 'Brazilian naturals', a form of the arabica variety, in April 1977) and 22.81 cents per pound (for the robusta variety in January 2001). This gives a ratio of 16.2:1. The highest average price over the period for the robusta variety alone was 312.24 cents per pound (also in April 1977), which gives a ratio of 13.7:1 between the highest and the lowest prices.²⁸ There were sharp fluctuations between those extremes. As on many other markets, there is a constant oscillation of coffee prices as supply and demand fight it out. That oscillation can be witnessed over very short periods. For example, over two months in early 2008 the New York daily futures prices for arabica coffee went up and down as follows:

January 23 rd	:	131.30
February 28 th	:	165.00 (up 25.7 per cent on January 23 rd)
March 24 th	:	128.75 (down 22.0 per cent on February 28 th). ²⁹

There is little sign of a tendency to equilibrium here, and since this is part of the regular functioning of this market, it is surely misleading to suggest it is aberrant. There appears rather to be a constant state of tension and *disequilibrium* as

as their later followers in Great Britain, including Alfred Marshall. See Blaug (1992), p. 163. For a description of Pareto's theory of 'optimality', see *ibid.*, pp. 122-26.

²⁶ Smith (1982), Book I, Chapter VII, pp. 157-58.

²⁷ Smith (1982), Book I, Chapter VII, p. 164.

²⁸ Data from the International Coffee Organisation's website at www.ico.org/asp/display10.asp (April 2008).

²⁹ New York Board of Trade coffee 'C' contract, in U.S. cents per pound for the nearest quoted month, as reported at <http://markets.ft.com/ft/markets/researchArchive.asp?report=COM>, April 2008.

participants jostle for position. It may be a failing in such a market, since it indicates that the price system is not doing its job very effectively, but it is a normal feature of it.³⁰ Traders well understand that the price paid for a pound of coffee depends on the current balance between supply and demand, not any supposed natural norm or equilibrium. In such a volatile market, where is there anything resembling a 'natural' or 'equilibrium' price? It seems to me no more useful an exercise to find one than the attempts by some Marxist economists to identify exchange values, use values and labour values. It may perhaps make some econometric calculations easier; but then those calculations would falsely represent the market in question. But mainstream theory from Smith to General Equilibrium has in effect denied that prices are arbitrary.

Since the late 19th century mainstream economics has seemed to wish away the notion that market power could be fundamental, regarding it as a special case which the theory of the perfectly competitive market can safely ignore. In the perfect market, supposedly, 'market forces' would have no practical influence. But this is surely inadequate. If a market appears to be 'perfect' on a national scale, it is unlikely to be so in almost any given locality. There may be few traders in a small town or neighbourhood. Some will be economically stronger than others and able to push prices in the direction they desire. In this way, one shop in a town or neighbourhood can achieve a dominant position and therefore market power, and so influence *local* prices. A series of such imbalances of market power, multiplied at the national level, will then make prices on the apparently perfect national market change too: the aggregation of local effects will have consequences on the national market.

So if price changes nationally, it can be the result of the aggregated operation of market power in hundreds of local areas. Even in a so-called 'perfect' market, the quantities supplied and demanded as well as the prices would change with circumstances. And if they change, in the complex social setting of a market, someone (or some combination of participants) must clearly possess the power to make them do so. For few markets are indivisible: the 'perfect' market can be disaggregated, and once we look at it in that form, we find that the pieces it decomposes into by no means satisfy the assumptions on which the model is based. There will be aggregations of local market power, driving the price system that mediates between supply and demand. The 'hand' is not invisible but is guided by the collective strengths of the actors' arms.

However, Buchanan argued: 'The idealized setting of perfect competition is defined in part *for the very purpose* of allowing a description of a situation in which there is no power or [*sic*] one person over another at all.'³¹ Once more, he seems uncommonly frank; but I find it hard to see why one should have such a purpose, unless as part of a circular argument to demonstrate what *a priori* the theorist wants to be the case. Whatever is the point of describing a situation 'in which there is no power of one person over another at all'? There *is* no such situation and there cannot be one. Human society does not work like that. It is hard to understand why describing an imaginary (and probably impossible) situation should ever be considered useful in explaining the real world. Any theory which proposes that a market can exist (even as an abstract or ideal concept, or a heuristic device) without any participant possessing market power surely deserves to be treated with the strongest suspicion: it seems to me that it cannot ever accord with reality.

³⁰ This is discussed more fully in Chapter 4 of Lines (2008), to be published in July 2008.

³¹ Buchanan (1986), p. 21 (emphasis added).

But if perfect competition does not hold, some eminent economists have acknowledged that their whole theory might be at risk. At one end of the ideological spectrum Joan Robinson (a leading Keynesian and theorist of imperfect competition) concluded:

As soon as we recognise that the market, by its very nature, is necessarily a scene of conflicting interests, every element in it (such as we saw above, the price of cocoa beans) becomes a moral and political problem. This is tormenting because there are no longer any 'principles of economics' to provide safe and simple rules for finding the correct solutions.³²

Frank Hahn - a neo-classical economist who, according to Robinson, would 'die in the last ditch for equilibrium' - echoed her a few years later:

When market power is present the Smithian vision of the invisible hand is lost. Instead of the machine-like response of agents to prices, the agents will find themselves engaged in a game. That is, it will be necessary for them to take account of the decisions of other agents and, in particular, they may have to consider how these decisions are affected by their own. Their choices will now be among strategies.³³

As, indeed, real businesses' choices are. Hahn added:

If, however, we recognise that actual agents are involved in changing prices because they have transitory or permanent market power we shall also start to get a grip on the theory, by exploiting the really basic axiom that agents are out to improve themselves. This kind of analysis is in its infancy and there are no general results to report.³⁴

5. Scientific method and economics

Economics is called a 'social science', and despite its lack of experimentation, the discipline has made more confident claims than the other social sciences to scientific accuracy, and even scientific method. Its apparent numerical precision contributes much to the beguiling power of its attempts to explain non-economic phenomena.

It is not hard to find the origins of such attitudes among economists. Isaac Newton (probably the greatest person ever to walk the streets of Cambridge) had a colossal impact on the intellectual life of succeeding generations. From the complexities of the physical world, not just in our everyday lives but across the universe, he abstracted three simple Laws of Motion. As a Christian, Newton was convinced that the set of relations uncovered in these laws was so complex that it must be guided by a supreme being. Later, Charles Darwin (another great Cambridge man) discovered principles which explained the relationships between all organisms. In this context of scientific discoveries, which abstracted simple, orderly relationships from the bewildering complexity of the world around us, it is hardly surprising that others should have looked for the same thing in the workings of society - starting with the economy because of the mathematical character of quantities produced, distributed and consumed, and prices. Adam Smith, a professor of moral philosophy, therefore conceived of a comparable basis for human relations to the mathematical principles of Newton's 'natural' philosophy. Some 89 years after Newton's *Philosophiae Naturalis Principia Mathematica* was published, Smith

³² Robinson (1979), p. 164.

³³ Hahn (1982), p. 6.

³⁴ *Ibid.*, p. 14.

described in *The Wealth of Nations* in 1776 what he considered to be ‘natural’ price relationships between all products, guided by an invisible hand:

*The natural price ... is, as it were, the central price, to which the prices of all commodities are continually gravitating. Different accidents may sometimes keep them suspended a good deal above it, and sometimes force them down even somewhat below it. But whatever may be the obstacles which hinder them from settling in this centre of repose and continuance, they are constantly tending towards it.*³⁵

A century later, during the Railway Age, a series of men educated in such subjects as physics, chemistry, mathematics and engineering systematised this idea according to the Newtonian principles which still governed those disciplines. The simplified abstractions of these creators of neo-classical theory (especially Pareto and Walras, but also to a degree Jevons and Marshall) deliberately took the human and organic out of market relations, although they had been present in the writings of Smith and the other classical economists. They devised instead an equilibrating system, at the centre of which lies the price ‘mechanism’. It is not these 19th-century thinkers, but Marx, whose theories have been compared with the more dynamic contemporary science of Darwin’s *The Origin of Species*.

The market economy in neo-classical eyes is therefore like an elaborate piece of clockwork, which merely has to be wound up by Smith’s Invisible Hand (or perhaps Coase’s teacher at the blackboard) to set it going. Since that time, market power has been either ignored in mainstream economics (by assuming it away via the concept of the perfect market³⁶) or else accommodated in special theories of monopoly and oligopoly. But as Joseph Schumpeter put it, ‘perfect competition is the exception and ... even if it were the rule there would be much less reason for congratulation than one might think.’³⁷ Even imperfect competition has now been more or less absorbed within the equilibrium framework in William Baumol’s theory of ‘contestable markets’.³⁸ He held that restrictions to market entry and exit are more important barriers to competition than market concentration, and advanced the concept of a ‘perfectly contestable market’. Although he admitted it to be just as rare, or just as unrealistic, as perfect competition, Baumol was at pains to demonstrate that equilibrium could exist in a perfectly contestable market too.

However, Schumpeter argued in the 1940s that even the monopoly industrialist could feel - indeed, *did* feel - constantly under threat from the competitive process; even such a market was always in some way *contestable*, in Baumol’s later word. Schumpeter explicitly rejected the notion of market equilibrium in favour of ‘an indefinite state of warfare between firms’.³⁹ He argued vehemently that capitalism is evolutionary and ‘never can be stationary’. Its essential feature was what he called the ‘process of Creative Destruction’, which ‘incessantly revolutionizes the economic structure *from within*, incessantly destroying the old one, incessantly creating a new one.’⁴⁰ He went on:

In capitalist reality as distinguished from its textbook picture, [what] counts [is] the competition from the new commodity, the new technology, the new source of supply, the new type of organization (the largest-scale unit of

³⁵ Smith (1970), Book I, Ch. VII, pp. 160-61.

³⁶ It has been pointed out that Buchanan’s Public Choice school even manages to evade the issue of power while applying economic theory to the state. See Baland and Platteau (1993), p. 18.

³⁷ Schumpeter (1976), p. 78; the first edition of this book was published in Great Britain in 1943.

³⁸ See Baumol *et al.* (1982).

³⁹ Schumpeter (1976), pp. 79.

⁴⁰ *Ibid.*, pp. 82-83 (emphasis in the original); see Chap. VII, ‘The Process of Creative Destruction’, in general.

*control for instance) - competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and the outputs of the existing firms but at their foundations and their very lives.*⁴¹

But Newton's own field of physics has gone far further than even Schumpeter did in rejecting simple mechanical ideas, with Relativity Theory and Quantum Mechanics; and in other ways, the other social sciences have largely rejected them too, including those that Weber illuminated. More recently, Steve Keen has pointed out how outdated is the linear mathematics that forms the basis of most econometrics (well suited though it may be to a static, mechanistic understanding of markets). As Keen comments, 'The economic fixation upon equilibrium appears quaint to ... mathematically literate economists'.⁴²

Is the simplification and abstraction of mathematical 'laws' in the 'science' of economics a mistake, or has it merely been done in the wrong way? We cannot tell for sure; maybe economics will produce its own Newton figure, although I doubt it. But I think we can be sure that the form of simplification adopted by the neo-classical school is wrong. Perhaps the biggest fault in mainstream theory lies in its very determination to find 'safe and simple rules' (in Robinson's words⁴³), akin to Newton's Laws of Motion, rather than examine the complexities of the world for what they are. The methods of related disciplines such as sociology, economic history and political science may seem messy and imprecise, relying as they do on intellectual judgment more than accurate measurement. But they can reveal the complexity of market situations far more fully than conventional economics does.

The basic neo-classical propositions seem so far removed from reality that they surely need to be replaced wholesale. However, this would risk creating a theoretical void, where almost everything would have to be thought out again. Neo-classical theory has taken more than 100 years to develop, and in that time it has produced many branches as well as numerous insights into economic affairs. These would have to be adapted to a different theoretical base, and a colossal effort would be required. So one can understand the temptation to conclude, 'Better the devil we know than the devil we don't know.'

But for a proper understanding, actual markets and prices need to be empirically studied, away from the lecture room or study with their blackboard, graph paper and spreadsheets. Much of the teaching which deals with economic issues for practical purposes is multi-disciplinary, using economics only in part. A salient example is business or management studies, which uses branches of micro-economics (for example, financial and industrial economics) alongside elements of psychology, sociology and accountancy. Meanwhile, multi-disciplinary development studies (as distinct from development economics) was founded by an economist, Dudley Seers, who was convinced that economics alone could *not* provide all the answers to development. He concluded it was essential to combine it with insights derived from political science, economic history and sociology in a bundle of development-related disciplines; not, in fact, all that unlike the political economy of the classics from Smith to Marx. The question of market power, and the strategies and stratagems required to deal with it, is a factor in both of these departures from a 'pure economics' model.

Like the classical economists, let us go back to observing what actually goes on in markets and then work up theories that will explain it. In sociology and political science, the processes of society and politics are observed and then an attempt is

⁴¹ *Ibid.*, p. 84.

⁴² Keen (2001), p. 309.

⁴³ Robinson (1979), p. 164.

made to explain them; there is an acceptance of the probable complexity of these processes. However, mainstream economics starts from a *theory* of supply and demand, then defines a more elaborate theoretical concept (the 'perfect market') and goes on from there. The view of many economists seems (perhaps unconsciously) to be that the task of economics is to work out these theories first and only apply them to real events later. But this is like determining the theories of physics or chemistry before you examine their validity in a laboratory. As Seers put it:

*Instead of building up propositions from detailed observation of scores of concrete cases, professional [economics] work goes mainly into the construction, largely a priori, of models which are provided, after their erection, with a very thin quantitative foundation..., if indeed any numbers are used at all... In all scientific subjects, progress has depended to a considerable extent on systematic and comparative research.*⁴⁴

Seers ended the same paper with what he called a 'modest but revolutionary slogan: Economics is the study of Economies.' As a policy-oriented macro-economist, national economies were his object of study. But, I would argue, markets are a more elementary concern than whole economies, and one could equally well coin the slogan: Economics is the study of Markets. As we saw at the beginning, even Nobel Prize-winning economists have admitted that the study of markets is badly deficient. We suggest that a taxonomy of market types and price formation systems is urgently needed as a starting point - the systematic observation and analysis of what actually goes on in markets, including how power on them operates.

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⁴⁴ Seers (1967), pp. 25-27. See also Kaldor (1978).

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