The economic analysis of institutions

EDITORIAL: THE ECONOMIC ANALYSIS OF INSTITUTIONS

Martin Ricketts

Introduction

Developments in economic theory inevitably reflect to some degree the practical preoccupations of the era in which they occur. If Keynesian macroeconomic analysis, which held such sway in the 1950s and 1960s, was the product of the experience of the depression years of the 1930s, a gradually intensifying concern with organisational and institutional matters was a natural response to the problems of the period after 1945. With the construction of extensive welfare states and the dawn of an era in which government spending rose above 40% of GDP across a range of OECD countries, questions concerning the effectiveness and organisation of this government intervention grew more insistent over time. With the experience of inflation in the 1960s and 1970s came an interest in how governments could be bound securely by fiscal and monetary rules. With the 'Cold War' and the era of *détente* came a prolonged debate about whether central planning and state ownership or competitive markets and private ownership would produce the higher rate of economic growth. These were important questions of political economy that required a wider set of tools than was available in the received economic theory of

By the end of the 1980s, experiments in organisational reform were occurring across the world. The most spectacular examples, of course, took place in Central and Eastern Europe as the centrally planned and collectivised economies collapsed. Even in the West, however, privatisation reversed the post-war movement towards state ownership. New regulatory structures were developed to govern the activities of the newly privatised public utilities - such as gas, electricity, water and telecommunications. More generally, the disposal of state assets in no way necessarily implied a reduction in the role of the state even if this might have been the aspiration of some proponents of the policy. Instead of seeking to achieve its extensive objectives by owning and managing assets, the state increasingly adopted the use of contract. The

provision of waste collection services, for example, does not require a government agency to own and operate the equipment or to employ the labour. The service can be delivered by contracting with an outside supplier. Similarly, the provision of equipment to the armed services does not necessarily require the government to own and manage aerospace or arms companies. As organisational reforms permeated through the OECD countries, disenchantment with nearly half a century of government planning also led to radical changes of policy in China, India and many other less developed countries. 'Development economics' in the 1950s had favoured the protection of infant industries and the encouragement of import substitution, if necessary through copious supplies of development aid mediated by government agencies. By the 1990s, openness and the development of export markets had become far more acceptable after the observed success of the 'Asian Tigers'.

Controversy surrounds all these areas of reform. The success of privatisation programmes across the world seems variable; regulatory structures continue to be debated; government contracting is subject to heavy criticism in particular instances; reforms that are associated with transformed economic performance in some countries seem to fail in others. The point here, however, is not to make the case for particular organisational and institutional structures but simply to note that economic organisation matters. Economic progress is not simply dependent upon technology or engineering – it is actually the product of a suitable framework of social institutions.

Economics and institutions

Classical political economy as it evolved in the eighteenth and nineteenth centuries was traditionally rich in institutional analysis. Adam Smith, for example, discusses¹ 'institutions for facilitating commerce in general' as well as 'institutions for particular branches of commerce'. Here can be found his celebrated comments on the wastefulness and

extravagance of joint-stock companies. Later in the same book there are extended treatments of 'institutions for the education of youth' – including universities where revenue from endowments rather than student fees has 'necessarily diminished more or less the necessity of application in the teachers' – and 'institutions for religious instruction'. John Stuart Mill includes chapters on property, the role of 'custom', the effects of different systems of land holding and, most famously, a discussion of profit sharing and worker and consumer co-operatives.²

As 'economics' emerged out of 'political economy' in the late nineteenth century, however, this perception of economic life as embedded in a set of institutions began to decline. The marginal revolution that essentially established the framework of analysis that prevails to this day, led to a focus on the technical problem of constrained choice. Robbins's (1935, p. 16) definition was dominant by the mid-twentieth century: 'Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses'. Although Robbins himself might not have approved, this emphasis on the necessity of choice in the face of scarcity, diverted attention from social institutions to technical solutions. Individual economic agents made rational calculations about their best choices in the face of known constraints. These optimal choices involved buying and selling at market prices, and therefore there was an important fully functioning institution supporting the analysis – the market. But attention was diverted away from where this market came from. The market, and the prices to which it gave rise, simply existed. And the existence of this market meant that everyone could act as the constrained maximisation model required each person making their best choice given the market opportunities facing them.

Economics became focused on a technical and mathematical problem and lost sight of the underlying social problem. Socially, the important point about 'human behaviour' in the face of scarcity is that co-operation with others will produce better results than isolated effort. Paradoxically, the market prices of the textbook perfectly competitive analysis are assumed to be so effective that this co-ordination of activity is automatically assured. The problem of co-ordination is subtly 'hidden'. It is an already solved problem. It has been solved by the assumed existence of the market prices to which all people are adjusting their choices. To use the useful language of a recent paper by Klein and Orsborn (2007), economics became the study of 'mutual coordination' – the 'mutual meshing of actions'. No person actually co-ordinates resources in the transitive sense of making decisions about how, what and when things should be done by members of a team. Each person merely decides on their own actions in the light of their 'environment' – rather as we would all choose to drive on the left if we observed that everyone else did. When we accommodate our own behaviour to an existing set of rules out of pure self-interest we may spontaneously co-ordinate our actions with others in the sense of trying to 'fit in', but we cannot be said to be engaged in the task of co-ordinating anything.

By focusing on individual constrained choice the social problem of how people decide to co-ordinate their activities through specialisation and exchange can be disguised to the point of invisibility. But it is precisely 'the propensity to truck barter and exchange' that presumably represents the 'human behaviour' in Robbins's definition of economics that is at the heart of the social response to scarcity. An economics founded on the study of the co-ordination of resources through the process of exchange cannot avoid studying institutional and organisational arrangements. This is why Williamson in his opening paper distinguishes clearly between economics as the science of choice and the science of contract. Once the problem of contract takes centre stage we are able to consider different ways in which, by private agreement, people facilitate co-ordination through the establishment of 'governance' arrangements. The papers in this issue of *Economic Affairs* all concern this fundamental question of the role played by institutional structure in the processes of co-ordination and exchange.

Transaction cost

Co-ordination through contract is compatible with the central direction of resources, as in certain types of hierarchy where we agree to be organised and to take instructions about how to act in specific situations. It is also compatible with a much more decentralised process by which people contract with each other in response to local conditions without taking much notice of what is going on elsewhere in the wider system. Robertson and Dennison (1960, p. 73) describe this tension between the claims of conscious organisation (within an organisation or firm) and the claims of decentralised adaptability (by the use of markets). The economic system consists of 'an ocean of unconscious cooperation' scattered with 'islands of conscious power like lumps of butter coagulating in a pail of buttermilk'. Modern business might have seen an increase in 'the number and size of the patches of ground which are brought within the vision and to some extent within the control of a single intelligence. But these patches are still small . . . in comparison with the whole field of economic life' (ibid.). But what forces determined the extent of these islands of conscious power, the size of the domain of the firm or the hierarchy, in comparison with the breadth of the ocean of market co-ordination?

It was Coase (1937) who first proposed a general method of approaching this problem. He accomplished this by introducing a new concept – transaction cost. If people are observed to form firms, presumably this must be because co-ordination within the firm is sometimes less costly than co-ordination using the price mechanism. It is simply not acceptable to ignore transaction costs because, in their absence, there would seem to be no explanation for the existence of firms. All resource co-ordination would be carried out using market contracts. Transaction cost has proved to be one of the most fruitful conceptual advances in the history of economics and underlies much modern work on the economics of institutions. It had the advantage of being simultaneously subversive of established doctrine and conservative in its formulation. Firms would undertake those activities internally that could be handled at a lower cost than across markets. The boundary of the firm should, according to this reasoning, be found where the cost of handling the marginal transaction within the firm was the same as the cost incurred by using the market.

Transaction costs were, however, very difficult to measure. The problems of contracting could be listed, but the costs expressed in terms of money were not so easy to estimate. They were quintessentially judgmental in their nature. The costs of search, negotiation, writing contracts, monitoring compliance, and policing and enforcing contracts in the courts were clearly factors that any business person would have to consider carefully in his or her activities. But an objective quantitative estimate was difficult to produce. Such costs depend upon subjective assessments that are likely to vary widely as people and circumstances change. In principle, of course, *all* costs are subjective and reflect estimates by contractors of opportunities sacrificed elsewhere when decisions are taken. But transaction cost is rather more obviously a subjective matter than (say) the cost of producing a particular good using a specified process so extensively analysed in textbooks of economics. The existence of reasonably well-established market prices for inputs creates the illusion of 'knowing' the value of alternatives sacrificed – that is what input prices are supposed to signal. In the case of transaction cost, however, what is being discussed is not the 'cost of production' but the process of exchange itself or of the 'cost of doing business'.

Another feature of Coase's original approach to transaction cost is that it was presented as a cost that was attached specifically to the use of markets – 'a cost of using the price mechanism'. Organisation within the firm was not costless – otherwise the economy would be organised as a single giant firm, but firms were conceived as mini planning systems implementing the pattern of co-ordination decided upon centrally. Coase had established the idea of the firm as a set of contracts with a central agent but had a somewhat restricted view of the nature of these contracts. Within limits they simply bound the participants to do what they were told. Thus the problem of economic organisation was posed as a simple dichotomy between 'market' and 'firm'.

Later work in the tradition of Coase has taken a less stark view of the contractual environment within the firm. Successful firms do not simply give orders to employees and expect them to be obeyed. Contracts within the firm will sometimes have 'market characteristics' and require employees to exercise judgment rather than implement instructions. Furthermore, if lack of trust inhibits contracting in the market it is not immediately obvious why the problem should disappear when the transaction is moved within the firm. The centralisation versus decentralisation dilemma is worked out within the firm as well as between the firm and the 'market'. The transaction cost idea therefore led ultimately to a much richer organisational taxonomy than 'firm' versus 'market'. As Williamson (1979) expresses it, the overarching issue concerned how transactional (exchange) relationships were to be 'governed'. Williamson's development of transaction cost economics is explained and reviewed in the paper by Furubotn and Richter along with empirical work on the structure of firms and on economic regulation. In his paper, Williamson himself discusses the intellectual background to the development of transaction cost theory in the period up to the 1970s.

When attention moves from the structure of firms towards questions of public policy, transaction costs remain at the centre of modern institutional analysis. Once again it was Coase (1960) who provided the paper that reorientated the

focus of economic discussion and distilled the essential argument. Here he pointed out not that there was a cost of using the price system but, conversely, that if there were no such cost we would all have to accept that problems of social policy – at least in so far as they related to economic efficiency – would dissolve. The gains to trade would be achieved since there would be nothing standing in the way. This should not be interpreted as some economist-style attempt to assume away the problem. Coase, after all, was clear that transaction costs exist and they are the theoretical key to unlocking the structure of firms. The paper, however, had the very practical implication of refocusing discussions of policy on what is the central issue. If there is some problem of resource misallocation, for example people are suffering from environmental pollution or depleting some natural resource, what exactly is preventing them from striking some deal that would benefit everyone?

Before the full implications of Coase's (1960) paper were understood, the response to problems of 'market failure' was to recommend government regulation or the imposition of taxes so that the prices facing people more accurately reflected the true 'social marginal costs' of their activities. This agenda assumed that governments possessed the information, the political incentive and the administrative apparatus to implement socially optimal policies. The alternative response that derives from Coase's paper is to look for ways of lowering transaction costs so that people can address their problems through agreement. This has the great advantage of enabling people to reveal their valuations of external benefits or costs through the process of negotiating settlements. It implies that the people closest to all the circumstances and therefore, in many instances, the most informed, will influence the outcome instead of distant government 'experts'. This way of thinking led to the formulation of the 'Normative Coase Theorem'. The law should be structured 'so as to remove the impediments to private agreements'.3

Institutions as rules of the game

Transaction cost theory, in the tradition of Oliver Williamson and Ronald Coase, emerged as a means of analysing institutions defined as 'organizations established for some object'⁴ – of getting inside the 'black box' that the firm had become in economics and treating it as a social organisation rather than a production function. An institution can also be seen as an 'established order' or as 'a custom or usage' or a 'system of principles or rules' and, in economic life, institutions in this second sense are also extremely important. When Williamson discusses the 'governance' of transactional relations he is suggesting that rules can be established within commercial organisations (private ordering) just as constitutions are established within states (public ordering) for the purpose of better handling the process of exchange and achieving the gains to trade.

At a very fundamental level economic life depends upon the existence of institutions as accepted rules of behaviour. Property is itself sometimes described as 'an institution'. This is because property rights direct attention to 'constraints and classes of permissible action' (Alchian, 1978, p. 128) — in other words rules within which people are entitled to use, exchange,

or otherwise dispose of physical or other assets with the implicit consent of others. These rules can be seen as imposed by government, and governments certainly do, by legislative and regulatory activity, greatly influence property rights. But property as an institution is more correctly seen as a product of spontaneous social evolution. 'Nothing is more silly,' writes Maxcy Zane (1998, p. 147), 'than to say that the law made private property. The fact is the exact opposite. Private property came to exist and it made the law.'

Precisely how could private property 'come to exist'? Sugden (1986, p. 55), citing a tradition that goes back to Hume (1740), describes how 'in the absence of any formal system of law, self-enforcing rules of property could evolve out of the interactions of individuals concerned only with their own interests'. In games of conflict where individuals have the strategy choice 'fight' or 'back down' - 'hawk' or 'dove' - rules of property can arise out of the gradual recognition of factors that are related to the likelihood that a person will adopt one strategy or the other. Recognition that the 'possessor' of some disputed resource (however recognised) is more likely to respond aggressively to any attempt to take it away than someone who lacks the characteristic of 'possession', will make it less attractive to challenge a 'possessor'. It will then be in everyone's individual interest to notice the features that seem to determine whether a person will think he possesses a resource or not. Perhaps the person is closest to it, or has been associated with it longest or was the first to notice it. Whatever these features might be, they give rise to self-enforcing conventions that can be regarded as 'settled rules of property' (Sugden, 1986, p. 71).

Evolutionary models can also be used to explain the emergence of other important economic institutions including money. Carl Menger (1950, p. 260), for example, describes how each individual is led by pure self-interest 'to give his commodities in exchange for other, more saleable, commodities, even if he does not need them for any immediate consumption purpose'. Clearly, the more people who are willing to exchange on this basis, the more confident traders will become in accepting these 'more saleable' commodities and, over time, one or a few such commodities will evolve into widely accepted 'money'. Alchian (1977) discusses the features that are likely to be associated with a commodity that takes on the character of 'money'.

The idea that rules and conventions can be evolved as well as imposed raises the question of whether the evolved rules are necessarily the best and whether the imposed ones can necessarily take root. Again Maxcy Zane (1998, p. 36) reflects on the resilience of conventions and the strength of the social forces that impel people to abide by established rules. 'We should expect to find customs in full force long after they should have been changed, and this is the history of law. Douglass North's (1990) treatment of the relationship between institutions and economic performance is concerned with the way property rights and other institutions have influenced economic development in the past, and North's general contribution is discussed in more detail by Furubotn and Richter. Certainly the idea that the established institutional structure of a society will be enormously important in determining its development potential is more fully understood than was the case during the era when obsession

with the purely technological requirements led to a belief that these could only be imposed by the exercise of a powerful central state.

Whether institutions can be introduced where absent and modified where deficient is, however, one of the big 'open' questions of institutional economics. Nor is the question of interest merely to academics concerned with abstract theory. The problems encountered by transition economies and by developing countries very often have an institutional side. It is no longer sufficient to recommend suitable 'policies'; the policies themselves have to be feasible in the context of the inherited institutional framework or of its plausible attainable modifications. De Soto (2000), for example, is particularly associated with the view that the development of many countries has been inhibited by the absence of privately assigned and exchangeable title to property – especially the 'informal' property held by the poor and used in the 'extralegal' sector. Capitalism fails where the supporting institutions are absent. Accordingly, policy changes unaccompanied by some remedial action to address this underlying institutional weakness cannot be expected to bring the hoped-for results.

Institutional change

As a generalisation, transaction cost theorists are more optimistic than the evolutionary game theorists about the prospects of beneficial institutional change. Potential gains to trade that cannot be realised because of institutional failings might eventually exceed in size the transaction costs of achieving reform. An early example of transaction cost reasoning in this area can be found in Demsetz (1967). The development of hunting rights in response to the growth in the fur trade was made possible because the cost of asserting control by hunting groups over forest animals that did not migrate over large distances was worth incurring. Similar property in the animals of the plains did not develop, according to this argument, because of the prohibitive policing costs that would have been faced.

North, as a historian, is well aware that inefficiencies can persist over long periods. On the other hand, changes can occur as people negotiate their way (probably incrementally) to better institutional arrangements. Very large-scale reforms are sometimes imposed by 'visible hand processes' — using the coercive power of the state — but the use of political power then runs the risk that the reforms are designed to serve sectional interests rather than the general institutional requirements of the community as a whole. Furubotn and Richter review this element of North's contribution in their paper.

Certain institutions are almost by their nature immune to change by simple agreement or by legislative action backed by force. Consider, for example, the ability of economic agents to transact honestly with strangers and not just with family or caste members. The rules of honest dealing embodied in this support for an extended order can be seen as a form of social capital – 'bridging' social capital compared with 'bonding' social capital.⁵ Such capital requires the evolution of rules of conduct derived from repeated games of exchange. If a person cheats, the possibility of fruitful future co-operation in repeat deals is lost. Further, even where repeat deals are absent, knowledge of cheating can still lead to a loss of reputation.

Where the cheating of strangers begins to produce reputational damage and a loss of 'standing' among closer associates there will be evolutionary support for the development of bridging social capital. The point is not that the absence of bridging social capital cannot be remedied. It is that it cannot be remedied by simple legislation. Bridging capital is part of a continuing process of social evolution that legislators might try to expedite and encourage but that they cannot bypass or avoid entirely.

Institutional responses to common-pool resources

The paper by Ostrom is specifically concerned with institutional change in the context of the environment. The overuse of fisheries and forests is not in principle different from the overhunting of beaver that, according to Demsetz, induced innovations in property rights. Ostrom considers three 'idealised institutions' as recommended by different analysts – private property, government ownership and 'community control'. She argues that the specific circumstances of common-pool resources are so variable and complex that single optimal solutions are most unlikely to work. Top-down regulation is often preferred by bureaucratic interests – setting catches, mandating technology, imposing common standards and so forth. Conversely, market purists might aim to speed up the Demsetz process by creating and assigning tradable rights in resources. The former requires that the information and enforcement problems encountered in all centralised systems can be addressed at low cost. The latter requires that the transaction costs that impede exchange and restrict the gains to trade in all markets will not prevent the emergence of negotiated improvements. Ostrom therefore makes the case for decentralised experiment in different 'governance' arrangements for common-pool resources, rather as Williamson sees the governance structure of firms as responding to differing transactional problems and local conditions.

Experiments in utility regulation

Littlechild's paper on utility regulation also makes a powerful appeal for institutional experiment. He regrets the 'enforced uniformity' of regulatory systems, the lack of experiment and hence the reduced 'scope for learning from experience'. In particular, Littlechild recommends the encouragement of negotiated settlements between customers or their representatives and the utility companies. It is interesting that, in the absence of regulation, problems of local monopoly or monopsony power, or problems of quality assurance and other transactional difficulties, have historically led to the formation of consumer co-operatives or mutual ownership. Hansmann (1996, p. 168) reports, for example, that agricultural supply co-operatives in the United States received one-quarter of farm production expenditure in 1990. The proportion of farm households receiving electricity from co-operative companies was as high as 50% in 1980. In urban populations where people

are more mobile and where consumer interests are more heterogeneous, however, 'consumer ownership' as a form of governance did not take root. Hansmann argues that collective decision-making costs are greatly increased by heterogeneous owners. Nevertheless, Littlechild's argument for bringing consumers into the process of negotiating with utilities is firmly in the tradition of Ronald Coase. Institutions that give the maximum scope for interested parties to come to agreements will be those that are most efficient in the long run. It follows that institutions – including regulatory institutions – should be structured so as to remove unnecessary impediments to negotiated outcomes.

- 1. Smith (1776) Book V, Chapter 1.
- 2. Mill (1898) Book IV, Chapter VII.
- 3. For a more extended discussion see Cooter and Ulen (1997, pp. 89–90).
- 1. Chambers Dictionary (1993).
- 5. These concepts are discussed in Meadowcroft and Pennington (2007).

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Martin Ricketts is Professor of Economic Organisation and Dean of Humanities at the University of Buckingham (martin.ricketts@buckingham.ac.uk).