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MARKET LIBERALISATION IN IRELAND: COMPETITION,
PRIVATISATION AND REGULATORY ISSUES**

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The Rationale and Scope for Privatisation in Ireland

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1. INTRODUCTION

The public debate over privatisation in Ireland over the last decade has single-mindedly avoided any serious intellectual analysis of the rationale behind the process in the sense of the issue of whether it is *per se* a desirable economic objective. There has been no debate at any theoretical level about the mechanisms of privatisation and there has been little by way of evaluation of the limited experiments in privatisation.

At the political level it has been accepted as something that has been imposed by the requirements of the liberalisation of markets under the Single Market programme of the European Union. It has also been adopted as an expedient related to budgetary requirements. It has not been pondered and accepted as something that is politically desirable. It has simply been implemented as something that is expedient, something politically acceptable. Arguments advanced by the Government to rationalise privatisation have been inadequate and in some cases are quite wrong-headed from an economic perspective. These are a response, in at least one case, to an equally wrong-headed parameter on fiscal policy imposed by the Maastricht treaty, namely the constraint on the ratio of public debt to GDP.

The first consequence of this failure to debate the principles involved in the process of privatisation is that we do not really know whether or why we should privatise. Flowing from this, we have no rational view as to the possible limits to the privatisation process, nor do we understand fully some of the regulatory implications of privatisation. The purpose of this paper is to fill this gap by arguing for the principled acceptance of privatisation on the basis of certain propositions, and to go further by suggesting that it is time to confront certain choices about the

political economy of this country for the next half century. The next section of the paper describes briefly what I see as the shortcomings in, and consequences of, the intellectual approach to privatisation that has been adopted in Ireland. In section three the economic analysis of the privatisation process is considered. In the final section conclusions from this analysis are drawn for the extent of potential privatisation in Ireland and contrasted with the apparent intent of decision-makers to proceed with privatisation.

2. THE REASONS FOR PRIVATISATION IN IRELAND

It is useful to reflect that as recently as 1992 the post-election negotiations which preceded the formation of a Government were dominated by a demand from the Labour party, to which Fianna Fail assented, that there would be no programme of privatisation of the public sector commercial agencies. Yet, within a few years, and now with other partners in Government, the Labour party had accepted the principle of limited privatisation. Fianna Fail, back in office in 1997 in coalition with the Progressive Democrats, forged ahead with a fairly extensive programme aimed at transferring ownership of State companies to the private sector. The question that needs to be addressed is - why?

There were several pressures that either forced or justified the privatisation process. These included, not in any order of importance, the following:

- the requirements of the Maastricht Treaty and adherence to the single currency that the debt to GDP ratio should be improved dramatically relative to the position at the turn of the decade;
- increasing difficulty in providing capital to State sector firms in the context of tightening restrictions on State aids to industry under EU rules on competition;
- the prospect of liberalisation of the domestic markets in which many State sector firms operated, which implied entry and competition from private sector firms with access to capital markets;
- the move by private sector financial institutions in Ireland and in the UK away from mutual status to corporate status;
- the need to enable State sector firms to enter into joint ventures, alliances or outright mergers with other providers in order to achieve scale economies;
- a growing awareness that solving the problems of the chronic loss makers in the public sector would be difficult, if not impossible, as long as they remained in State ownership.

All of these were undoubtedly good, practical reasons for an unprincipled but expedient decision to move decisively away from the model of State ownership in the quite extraordinarily wide range of sectors in which there was substantial presence of State sector firms. In most cases, they were reasons which were consonant with the theoretical and empirical analysis to be described later which

had emerged over the previous twenty years in economics supporting a shift from State to private ownership. But the move did not, at least formally, involve an acceptance of the conclusions of that analysis. Rather, it represented an *ad hoc* response to immediate political problems.

As a result, there has been no real policy decision on the issue of State, as opposed to private sector, production of goods and services in terms of the social and economic efficiency of the alternative modes of economic organisation. This undoubtedly suits the “pragmatic” approach to policy decisions favoured by most Irish politicians and civil servants. It enables them to avoid causing what they see as unnecessary offence to interest groups or ideological opponents. They can face both, or many, ways at once.

Unfortunately, a failure to confront the conclusions of the economic analysis means that there is no conscious, consistent, long-term policy on the issue of ownership of productive resources. A handful of politicians have asked the question: “*what is the state doing in this or that sector at all?*”. But none has asked whether, where, and to what extent it is in principle a good thing to arrange that responsibility for the provision of goods or services should be located in the public sector, and reflect political choices rather than market demand and/or resource costs of supply.

A further consequence of the absence of a willingness to confront the economic analysis has been that there has been little by way of debate about how to go about privatising. How it is done matters considerably. In particular, concentration on the Exchequer finance consequences of the privatisation programme has been both wrong headed and politically misleading. It is hardly an exaggeration to say that the dominant motive in making arrangements for privatisation has been to maximize the perceived resource flow to the Exchequer. The fact that on accruals accounting basis the sale of a State asset simply means a change in the State’s portfolio of assets is overlooked. It is treated as an increase in net worth, which of course it is not, or at best is only to a quite small extent.

By adopting this approach, however, the State has an immediate conflict between its role as a guardian of the public interest in economic efficiency and its role as a cash flow maximiser. This is nothing new. The same issues arose in the UK, where most commentators would give the Thatcher administration poor marks for the manner in which several of the privatisations there took place. The British convention of treating revenue from privatisation as a means of reducing the Exchequer borrowing requirement was groundless in economics. It led, however, to decisions on the modalities of privatisation that could be described as permitting any efficiency gains to take second place when compared with the need for maximizing the cash flow to the Exchequer.

In the UK this took place against a background of ideological conviction on the part of the British Government that privatisation was desirable in itself. This is

evidenced by the fact that the UK programme went far beyond privatising the “commercial” public sector firms, to include the privatisation of services which were not envisaged as being marketed at all such as air traffic control, the health service, and the prisons. Yet the British Government managed to get it badly wrong in several respects. Knowing why you are privatising may be a necessary condition for doing a good job, but it certainly is not a sufficient one.

In Ireland the preoccupation with the Exchequer consequences has had two serious consequences. The first is that the experience of the Telecom Eireann flotation has soured the market for further flotations, as it is widely perceived that the Government managed to sell back to the citizenry what it already owned. The second consequence is that the Government has got itself into the position that it faces enormous pressure to reduce the net worth of the Exchequer by spending the proceeds of privatisation. This is occurring at a time when we are starting the countdown to the next election, and against a background of rising inflation in an over-heated economy.

It has also meant that where there are no obvious cash flow consequences for the Exchequer there is reduced pressure to privatise. Other pressures may have this result, for example, privatising the provision of non-marketed services is simply not on the cards. Finally, as in the UK in the 1980s, the obsession with cash flow has reduced the Government’s willingness and ability to face down pressures from within State sector firms to proceed to privatisation on a basis which reduces the potential gain to the economy by restricting competition. Aer Rianta is the most recent and most obvious case in point.

3. THE GAINS OR LOSSES FROM PRIVATISATION

The Efficient Market Context

The term privatisation has been loosely, and incorrectly, used to cover a wider range of economic reforms than it actually covers. Thus, the UK Conservative Government’s attempt to reform the organisation of their national health service by “marketising” resource allocation in health care was stigmatised in public debate as “privatisation of the health care system”. It was no such thing, perhaps unfortunately, as Prime Minister Blair is now discovering. Similarly in Ireland the proposal that Dublin Bus should face competition has been described as privatising public transport. Alas, it is not.

These exercises involve changes designed to encourage as Adam, Cavendish and Mistry (1992, chapter 1) describe:

“...the assimilation by the public sector of efficiency enhancing techniques generally employed by the private sector”.

That is not privatising. Privatisation, liberalisation and commercialisation are three different things. Privatisation involves transferring control of public sector assets to private sector decision-makers. In general this means a change of legal ownership, but many economists would be prepared to include the use of private management contracts as privatisation. For the purposes of this paper, I will not include such an exercise as the concern will primarily be with the consequences of, and rationale for, a permanent change in property rights, specifically the rights to the firm's residual income.

I am going to assume that there is a wide range of economic activities where it is generally accepted that the allocation of resources, the level of output and the characteristics of the goods or services produced is better determined by market forces than by collective decisions. This does not preclude arguments about market failure. It does not mean that all activities are preferably left to market decisions. It does not mean that there is no role for regulation. It does not even mean that there is no role for collective provision, although it will be argued that this is likely to be rather limited if we are interested in economic efficiency. All it means is that as a starting point we accept that markets do a better job of resource allocation than the State over a wide range of economic activities. In short, I assume in this section that we accept the proposition that liberalised markets are, in general, desirable.

The issue then is whether in the context of liberalised markets it is politically or economically desirable to maintain ownership of supply arrangements within the country partly or wholly within the State sector. The privatisation case is then concerned with the consequences of ownership and control of resources in a market environment. The case for privatisation rests on the proposition that in general, and in the absence of market failure problems, private sector ownership yields a superior outcome in terms of the conventional measure of economic welfare, the sum of producer and consumer surplus. This proposition can be tested in one or both of two procedures. The first is to treat it simply as a theoretical problem in terms of the economics of property rights, incentives and allocation decisions. The second is to examine the track record of alternative forms of economic organisations, defined in terms of ownership, in a market environment.

The first approach involves examining the concept of efficiency compatible property rights and incentives. It views the firm, any firm, as a nexus of contractual relations. It considers the implications for economic performance of the details of these contractual relations, which are typically incomplete contracts, or relational contracts. It seeks to identify the form of contractual relations and property rights that will maximise the probability that the outcome of individualistic behaviour of economic agents within the firm will be what economists describe as economically efficient. Economically efficient in determining what will produce positive supply responses and what will result in economising on scarce resources.

Allowing for well-known problems of principal-agent relationships and

opportunistic behaviour, the conclusion of the extensive literature on the question is quite simple. Economic efficiency requires that decision-making within an economic organisation should be based on motivation to enhance the net wealth of the organisation. That in turn requires that the property rights and incentives of the firm be orientated towards maximising its net wealth. That implies that the ultimate decision-makers seek to maximise net wealth. A necessary condition for this is that the decision-makers have an incentive to maximise net wealth. A sufficient condition for this is that the property rights in the net wealth of the firm are vested in those who make these decisions. A less restrictive but sufficient condition is that the ultimate decision-makers face incentives that lead them to maximise the net wealth of the owners.

In order to ensure that privately efficient resource allocation internal to the firm results in socially efficient resource allocation in the economy as a whole requires assuming the absence of market failure and the existence of competitive conditions within the markets for factor services and outputs. For the purpose of the argument, I am going to assume that these conditions are met. Given the assumptions on the efficiency of markets, the foregoing may be summarised as follows. Direct ownership of the firm's resources or, less restrictively, a management that voluntarily maximises the net wealth of the owners, constitute a set of conditions that will result in economically efficient use of resources within the firm. Further, it implies that divergences from such a state of affairs will result in non-optimal decisions on resource allocation.

That is the core of the case for privatisation. Public sector ownership of firms that have command over economic resources is simply not consistent with economic efficiency in a world in which markets are efficient. The reason is twofold:

- defective incentives within the firm, and
- the imposition of efficiency-incompatible objectives on the firm by de facto owners who are not primarily (if at all) concerned with economic efficiency.

Public sector management marches to different drums from those affecting private sector management.

In the hay-day of soft-of-centre criticism of the failures of capitalism in the 1960s and 1970s it was frequently argued by well meaning but untrained commentators, some of them economists, that competition alone sufficed to ensure efficiency. A third way was possible, according to supporters of market socialism or co-operative enterprises. They are, unfortunately still with us. But if the arguments put forward so far are accepted it follows that such arrangements are just as susceptible to problems of economic inefficiency as State owned firms. The Illyrian firm or Horace Plunkett's vision of co-operative enterprise turn out to be delusions as far as predictions of economic efficiency are concerned.

The second, and parallel, approach is to examine the track record of alternative ownership forms in different market environments. The conclusions here again point in one direction. In the 1980s a series of empirical studies in a variety of countries examined the question as to whether, under given market conditions, State owned, worker-managed or co-operative firms were as efficient as privately owned firms. While some of these studies suggested that competition alone might be sufficient in some markets to induce similar unit costs in firms of differing ownership structures, most demonstrated that the absence of private property rights in productive resources reduced productive efficiency. Equally serious, the absence of private property rights weakened the critical positive supply response which is the necessary condition for dynamic efficiency in an economy (Vickers and Yarrow, 1991). I am not aware of any study that argues convincingly on empirical grounds for inferior overall economic efficiency resulting from private ownership in competitive markets not subject to market failure.

In recent years we have had the persuasive evidence for privatisation provided by the widespread change in ownership structure within the non-State sector. This is the move away from mutualisation and co-operatives in financial intermediation and in foodstuffs manufacturing. And just in case anyone has any remaining illusions about such arrangements, all that is necessary is to consider the outcome of the famous experiments of the Tito regime in Yugoslavia under the programme of “autogestion”, see Gregory and Stuart (1992).

The Market Failure Context

The main intellectual, as opposed to trade union self interest, argument against privatisation rests on assertions of incidence of market failure. There are, of course, well documented and discussed circumstances in which it is reasonable to assert that significant market failure is a problem, and that as a consequence free markets will not deliver a resource allocation outcome which is consistent with maximising economic welfare. The main sources of market failure which are argued to undermine the case for privatisation are the following:

- significant *external effects* in production and/or consumption;
- *increasing returns* leading to market concentration of production and (possibly) natural monopoly;
- *network* industry problems;
- *information asymmetry* problems between buyers and sellers.

All of these are dealt with in any competent textbook on welfare economics and/or the economics of the public sector. It would be time consuming and unnecessary in the present context to discuss them in detail. Instead, it will be helpful to see what they have in common and how it is related to the problem of optimising the economic organisation of production.

A further argument against privatisation based on market failure, but one not widely argued because of its political ramifications, is derived from strategic trade theory. National economic welfare may in some circumstances be enhanced by restrictions on trade, and these may result from public decision making on the production of certain goods and services which would differ in outcome from that flowing from free market determination of prices and quantities by privately owned firms.

The externalities issue is the obvious starting point. Economic analysis predicts, and empirical work confirms, that the consequence of significant externalities is that even in competitive markets the market equilibrium values for prices and quantities are not the social welfare maximising values. The economist's manner of stating this is to explain that there is a divergence between marginal private costs and benefits associated with production/consumption decisions and marginal social costs/benefits. Too much or too little of the product or service will be produced/consumed. It is generally accepted that the origins of the problem lies in imperfectly specified tradable property rights. Externalities are therefore simply a form of public good (or bad). Some resource is in whole or in part either non-rival in consumption and/or is not subject to the exclusion principle. Public sector provision can determine prices and quantities that internalise external effects, and equate private and social benefits at the margin.

The increasing returns argument at its simplest argues that the socially efficient allocation of resources cannot be achieved by private firms responding to market demands and input prices because the market equilibrium cannot and will not be characterised by equality between marginal cost and price. Public sector provision permits this equality to be restored because public sector firms will not be constrained to maximise profits. If there are indefinitely increasing returns the industry will be a natural monopoly in the sense that there is only room in the market for one supplier. In this case a public sector monopoly is stated to be preferred to a private sector monopoly. See Appendix A for a description of the conditions underpinning the natural monopoly arguments advanced here.

Network industries are characteristic of the energy, communications and, in some cases, transport sectors. They are characterised by a two stage structure, with a delivery system which may be a natural monopoly, and service/product supplied via the delivery system. They may also be characterised by externalities in consumption such as congestion effects or in the opposite case where users' utility levels are increasing in the numbers of users. These characteristics are such that a simple market solution involves an irremediable first mover advantage and absence of competition as well as, possibly, inevitable sub-optimal outcomes in terms of equilibrium values for prices and quantities. Again, these can be avoided if the entity is operated as a public sector utility.

Finally, information asymmetries result in incentive systems that give rise to opportunistic behaviour in free markets. As a result delivery costs of products and

services in a market environment may be inflated, while the equilibrium values of price and quantity will be sub-optimal. The health care sector is the best known example of this type of problem, but it is a more general phenomenon. Asymmetries may lead to quality levels diverging from what would result from voluntary exchange under full information, given unbounded rationality of agents. Again, public sector supply can be suggested as a means of dealing with the problem.

There is a single strand running through these objections to private sector ownership based on the market failure hypothesis. That strand is composed of the two propositions that

1. private ownership in such circumstances leads to a divergence between predicted and optimal values for price and quantity, and, in some cases, quality of output, and
2. that these consequences of imperfect markets can be avoided by relying on public sector provision.

Both are technically correct. It does not follow, however, that the observation of one or more of these market failure problems implies that economic efficiency requires the public sector to supply the goods or services concerned. What they do imply is that *unregulated* private sector provision under these circumstances will be sub-optimal, while public sector provision may be closer to being optimal. That in turn implies that the preferred set of arrangements *may* involve public ownership *but only if* it can be demonstrated that the alternative, some form of private sector control subject to the corrective measures of regulation, performs less well.

Two issues arise here: the possibility of “public sector failure” and the ability of regulation to drive the sector concerned suitably close to what is judged to be a social optimum. Public sector failure may be summarised as the resource costs that arise from

- defective internal incentive systems within public sector firms;
- absence of competition for the field when provision is reserved to the public sector;
- failure by the Government as ultimate owner to establish clear and non-contradictory criteria for resource allocation by public sector firms;
- establishment of Government of objectives for public sector firms which are economically inefficient;
- the pursuit by management in public sector firms of “private” agendas.

As against that, it is common ground among economists, even those who favour privatisation, that regulation as a process is subject to regulatory failure. This arises from four factors:

- principal-agent problems as between the regulatory agency and the Government;
- the costs of regulation, which usually increase with the intensity of regulation;
- regulatory capture, whereby the regulator is “turned” by the firm(s) being regulated;
- behavioural responses of regulated firms to the regulatory parameters.

Finally, the conclusions above concerning the incidence of market failure are also susceptible of resolution by means of a third organisational approach to the problem. That is to establish conditional private ownership subject to review by reference to specific performance targets: franchise or management contracts. A recent and very successful example of such a contract was the awarding to a private management company of the control of the assets of the loss making B+I shipping line, now merged into Irish Continental Group.

There are, therefore two procedures which offer alternatives to public sector provision of goods which are to be sold into markets: regulation and conditional ownership contracts. Optimal policy design involves choosing the most efficient solution, which of course may include public sector provision. The relevant question is not whether there will be private sector market failure or regulatory failure or problems arising from incomplete asset management contracts, which there usually will be. It is whether the costs of public sector failure in terms of economic efficiency, which are well documented, are predicted to be less than or greater than the costs of the alternative.

It is beyond the scope of this paper to deal with the relative merits of regulation and public enterprise in terms of the implications for outputs and costs. All that is necessary is to demonstrate that

- the existence of market failure does not imply that privatisation is ruled out;
- policy makers can legitimately choose to privatise and regulate as a means to the end of efficient resource allocation rather than maintain public sector production.

Therefore, it seems to me, that the defenders of public sector firms must prove that the track record of public enterprise in terms of economic efficiency is such that the status quo of public ownership should be maintained. The comparison must be made against the move to privatised control of the relevant assets subject to a suitable regulatory regime or in the alternative to contractual arrangements with private sector firms to manage the assets currently in the public sector.

The Distributional Context

The last set of arguments marshalled to counter moves to privatise public sector activities concerns the distributional implications of privatisation. Recently I

participated in a radio debate with, amongst others, the Reverend Sean Healy of the Conference of Religious in Ireland (CORI) on the issue of privatisation (RTE, 2000). My antagonist was concerned that the programme of privatisation of the telecommunications sector was likely to end in increased social exclusion. His immediate worry was that a privatised telecommunication industry would not install broadband telecommunications infrastructure sufficiently widely to ensure that any household anywhere that wished to have access to it could do so at a “reasonable” charge. His fear was that the absence of universal access to such a medium of information transfer would disadvantage specified groups within society. Leaving aside the issue as to whether there was any substance to his concern or whether it would make any social or economic sense to have his suggested level of geographic penetration of broadband telecommunications.

As an economist I recognise in this concern an implicit argument that in some areas of economic activity there ought to be a form of *Universal Service Obligation* (USO) on suppliers. The hostility to a privatisation initiative originated in a view that meeting an USO would require that, or at least be easier if, service provision is retained in the public sector. To those old enough to remember when a non-commercialised Post & Telegraphs had responsibility for the telephone system under a USO obligation, the argument that non-commercial organisation of the service would result in wider service supply will be a source of considerable merriment. There was equal access to the telephone system all right, no one could get a telephone on demand.

At a more serious level, however, the underlying proposition here is that an USO is better met by public service provision. The issue for policy makers is whether the USO ought to be there in the first place and is it better met by public sector or privatised suppliers.

The first thing to note is that an USO is fundamentally a redistribution of income in kind rather than in cash. My understanding of welfare economics is that:

Redistribution in kind is economically inferior to redistribution in cash, unless there are positive externalities in respect of consumption, in which case either suitably adjusted prices and consequent cross subsidisation or higher levels of cash remuneration will be superior in efficiency terms to redistribution in kind.

That said, it remains a fact of politics that universal service obligations are a commonplace aspect of the regimes affecting a range of services generally described as public utilities. The question is whether a given USO is likely to be discharged at less cost by a public sector firm than a private sector firm. This can be broken down into two further questions. Which type of firm is more likely to act as a “good” agent in meeting the principal’s USO distributional requirement? And, for any level of provision of service under the USO, which firm is likely to provide that service at lower cost?

In general, there is little doubt that if it were a matter of cost of delivery alone, the issue would stand decided. The real question is whether the ability and incentive to behave opportunistically in relation to execution of the USO is greater in a regulated market with one or more private sector suppliers, or in a market supplied by either a single, public sector supplier, or at least in which there is a public sector supplier.

Taking the last of these first, a little reflection indicates that if there is a public sector supplier that incurs higher costs by faithfully executing its USO than a private sector competitor that gets away with opportunistic behaviour, it will not be long before the public sector firm is bankrupt. Hence, for a public sector USO provider to survive it will be necessary that either it be a monopoly, or that the regulatory regime be capable of enforcing “correct” behaviour on all players. If, however, the latter is the case, then there is no case for public sector provision. It follows that we must choose between either a public sector monopoly and regulated private sector supply.

This boils down to judging whether the direct costs of regulation and the costs associated with regulatory failure are likely to be greater or less than the costs of monopolised public sector supply. In general, based on the track record of public sector monopolies, as well as on the theory of economic organisation of the firm under each regime, I would not place my faith in the public sector solution to the problem. In the end, however, it is a matter for empirical judgement.

4. THE SCOPE FOR PRIVATISATION

The preceding sections of the paper have, I hope, established the following propositions. First, the primary justification of privatisation is enhanced economic efficiency on the supply side. In a market environment, where there is no market failure, this is equivalent to increased overall economic efficiency. Secondly, while market failure is a legitimate concern of commentators or policy makers, the existence of market failure is not a sufficient condition for rejecting supply side gains predicted to flow from privatisation. Instead it suggests that there may well have to be corrective devices established, in effect regulation, in order to complement privatisation. Thirdly, there are equally legitimate concerns in some cases about the distributional aspects of using the market to determine the level of output and its distribution between consumers/users. To argue that such concerns imply that public sector supply must be retained in order to meet distributional criteria is a non sequitur.

The relevant choices are, in the case of market failure, between privatised production of the goods or services concerned, if necessary subject to regulation, as opposed to continued use of public sector production. It is a matter of the different costs. The costs of regulation resulting from regulatory failure and the costs of, and ability to, establish regulatory guidelines for evaluating and directing the behaviour

of the entities subject to regulatory supervision, in contrast to the costs of public sector failure. The costs and inherent inefficiency of regulation are far from trivial.

In addition to the classic problems of regulatory capture and the distortions introduced by regulatory mechanisms, principal-agent problems may be expected to arise. This deeper problem arising from the fact that, just like the decision-makers in public sector firms, regulators act as agents for a principal, in this case the Government. Writing about regulation a quarter of a century ago, Victor Goldberg (1976) observed: “*many of the problems associated with regulation lie in what is being regulated, not in the act of regulation itself*”.

But, unfortunately, the act, or process, of regulation has problems, and is costly. The costs of regulation increase with the complexity of the targets given to the regulator, and the costs of monitoring regulatory performance, as well as the performance of the sector being regulated, increase with regulatory target complexity. The above should be read as a sort of intellectual health warning concerning what follows.

If it is accepted that there may be a case for retention, on relative cost grounds, of public sector provision of goods or services subject to market failure when produced by private sector firms, or of public provision of merit goods, then the corollary, that public provision is not a necessary condition for dealing with these problems opens a wide, and to some people quite appalling, vista. That vista is the possibility, even the probability, that the scope for privatisation is considerably wider than has hitherto been considered the case in Ireland.

If we look at where, in terms of conventional wisdom, the pragmatically based programme, if it is one, of privatisation in Ireland has been concentrated it is immediately clear that (i) it has been confined to entities in the commercial state sector, and (ii) has been, as already argued, driven by *ad hoc* considerations. In very rare cases has it been accepted that the privatisation of an entity is something that should have been done anyway. Such cases exist. The question posed is what is the State doing there in the first place? A commentator with 20/20 hindsight might concede that there are or were entities in the State sector for which there is no good reason for this situation - State ownership was an accident. Great Southern Hotels is a case in point. Alternatively, this commentator might accept that there are cases where it is clear that it was a mistake to get involved at all, such as NET the State fertiliser company. And the commentator might even accept that the best way to ensure rational allocation of resources would be to get an entity out from under the interference that is associated with political intervention. Bord Gais might be a case in point.

Few commentators or decision-makers, however, would accept the logic of the preceding section to the effect that there is a *prima facie, a priori* case for not having the State engage in producing goods and services at all, and limiting direct

State provision to cases where the output is inherently part of the political fabric. The courts, the defence forces and the police are candidates for inclusion in this category. Though it is worth noting that policing can and is provided by markets, even in the form of a public good, in other jurisdictions. Less extremely, this approach argues that any activity should in principle be considered for private sector provision if it appears that there are no serious market failure or distribution issues. If market failure or distribution issues arise, it is possible to deal with them at a lower cost either by regulation or franchise competition than by public provision.

If this is conceded, the number of possible candidates for privatisation explodes exponentially. In addition to imitating the UK by considering water services, air traffic control, rail services and so on, though not all spectacular successes by any means, a whole range of outputs would have to be considered. Some are obvious: toll roads, for example, to replace State produced highways. Health insurance is another, even if access to health care itself is in part administered on a non-market basis I have never understood why the risk management end of the business, insurance, requires to be in public ownership. The State owned health insurance group, VHI, is a candidate for privatisation but the decision to sell it, if it is taken, will not reflect a decision that it should not be in the State's ownership in the first place.

We know that a privatised prison service is possible, after all we operate such a system for animals under the quarantine regulations, and, in any case, we can point to incidences of private provision abroad. Recent reports from Britain indicate that it does a better job in some respects than the State prison service. Much of the health care system is already supplied by the private sector, but we are reluctant to encourage private provision of hospital care because people might want to avail of it. I beg to suggest that if we had a private health care delivery system operating in the hospital sector in Ireland last year there would not have had a nurses' strike, nor would there have been a shortage of nurses and closed wards at a time of a flu epidemic.

In short, when we examine the rational basis for privatisation, and for defining where it may be appropriate, we discover that other than on the basis of the *status quo* it is hard to see why much of the present system of public provision of services, even when not sold into a market, is in State hands. Surreptitiously, of course, this point has been conceded in several cases. A joint venture between the a public sector and private sector firm is already administering part of the national debt, FexCo and An Post administer the National Prize Bonds scheme. The National Lottery, part of the State's revenue raising apparatus is in principle open to private management. It can only be a short time before a private consortium has a contract to handle the bulk of the national debt. Why not float off some of the Revenue Commissioners' functions?

Of course, this is where we can expect to see the political limits to privatisation

emerging. In the areas where the State has already privatised, opposition from the main threatened vested interest, the unionised public sector work force, has either been bought off, as with Telecom Eireann workers, or been convinced that privatisation was the lesser of two evils in a commercialised and liberalised market. The real barrier will be in the non-traded sectors - administration, education, health care, local services, and especially where there are natural monopoly or USO reasons for restrictions on entry such as postal services or urban mass transport.

And this is the key and final point I want to make. What has gone before is intended to show that we are nowhere near the possible frontier for privatisation, and there is much to be gained from going further. But the absence of a principled debate has ensured that we have run into political roadblocks a long time before we have run out of suitable cases for treatment.

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**Appendix A:
Conditions for a Natural Monopoly**

The basic idea of indefinite scale economies which is often used to explain the existence of what economists call “natural” monopolies, while intuitively helpful, is in fact misleading. Scale economies certainly can give rise to natural monopoly, but a natural monopoly can exist even if average costs are increasing. All that is required is that total output can be produced at a lower total cost by one firm than by two or more firms. Formally, this is expressed as the following condition that is imposed on the cost function

$$C\left(\sum_{i=1}^m q^i\right) \leq \sum_{i=1}^m C(q^i)$$

where, $C(q)$ is the cost of producing an output q , and the superscript i refers to the level of output by the firm. The lefthand side of the expression denotes the cost of producing a total production of m units of output in one firm, while the righthand side is the cost of producing that output through m firms producing i units each. This condition is referred to as subadditivity. Decreasing costs or scale economies implies subadditivity, but subadditivity does not imply or require decreasing costs. This means that a natural monopoly can exist even if average costs are rising.

The more precise and more general definition of subadditivity as a necessary condition for a natural monopoly enables us to extend the definition to multi-product firms. This is important because the simple idea of decreasing costs loses precision when the firm is producing different goods. Both scale and scope economies are important in determining whether a multi-product firm is a natural monopoly. It could be the case that there is a natural monopoly in producing each of two or more goods, but that scope diseconomies result in a single firm producing both goods not being a natural monopoly.

Let q_i represent an output of a mix of different types of good, q (an output vector). We extend the idea of subadditivity in this context by defining a condition of strict and global subadditivity. This is expressed by requiring that the following hold:

$$C(q_1 + q_2 + q_3 + \dots + q_m) < C(q_1) + C(q_2) + \dots + C(q_m)$$

Again, the lefthand side is the cost of producing a bundle of output mixes within one firm, while the righthand side is the cost of producing the same bundle of outputs with a separate firm producing each bundle. If the output vectors are composed entirely of different goods (i.e. there are no goods common to each bundle), then this condition implies economies of scope. Economies of scope arise when costs for one or more goods are reduced if you produce them within one firm

than if you do so in separate firms.

While, put simply, economies of scope mean that a given level of production of two or more separate goods can be produced at lower cost within one firm than if produced by a separate firm for each good, the problem of relating costs to scale and composition of output is complicated if the output vectors contain common elements (i.e., each “bundle” contains an output or outputs which are also contained in one or more other bundles). The reason for this is that simple scale economies in producing any one good imply that you should specialise in producing one good, since given resources will always be more productive as you increase output. If you produce two or more goods with given resources, you will produce less of each than if you concentrate on one, hence your costs per unit should be higher. On the other hand, if there are scope economies, production costs for each good are lowered by the fact that you are producing the other good.

A sufficient condition for a multi-product firm to be a natural monopoly is ray concavity of the total cost function and trans-ray convexity over the relevant range. This yields strict and global subadditivity. Ray concavity is not a necessary condition, but trans-ray non-concavity is a necessary condition. Ray non-concavity plus subadditivity plus trans-ray convexity or linearity will constitute sufficient conditions for a natural monopoly. In approximate terms this means that if we can show that for any one product subadditivity applies (i.e., there would be a natural monopoly for that product on its own) then unless we can show that there are scope diseconomies, there will be a natural monopoly for the several products if produced by a single firm.