POLICY FORUMS

THE ECONOMICS OF BUREAUCRACY AND STATUTORY AUTHORITIES

Gordon Tullock • A.S. Watson • Peter L. Swan
Warren Hogan • G. W. Edwards • P.E. Rae • H. Geoffrey Brennan

THE CENTRE FOR INDEPENDENT STUDIES

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The edited proceedings of a CIS Policy Forum
held in Melbourne on July 8th, 1981

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Preface

Economists have two quite distinct approaches to the study of government enterprises and regulatory agencies. Both are represented in this volume.

The traditional approach has been a normative one: the institution's performance is evaluated in terms of criteria derived from the theory of efficient resource allocation. This theory goes under the somewhat confusing name, welfare economics, and has numerous applied offshoots, including public utility economics and cost-benefit analysis. The normative approach is well exemplified here by Geoff Edwards's discussion of natural gas pricing in Victoria.

In the last couple of decades a new, positive, approach to the study of institutions has been developed. Explanations of the activities of institutions (governmental and others) are sought in the incentives and constraints confronting their managers, on the assumption that the latter behave as rational utility-maximisers (or economic men). Two pioneers of the positive approach (which might be called comparative institutional analysis, but which has been termed - again somewhat confusingly - 'public choice') are James Buchanan and Gordon Tullock. Professor Tullock opened the proceedings reported in this volume with an informal introduction to the 'public choice' approach and a brief survey of some theories of regulation.

In his address Tullock remarked that 'the history of regulatory authorities has been one not of designing regulatory authorities which more and more serve the public interest, but an increase in understanding of why they don't'. One could add that developments in pure and applied welfare economics, and practical experience, have made us increasingly aware of the difficulties of prescribing and enforcing appropriate policies for public agencies. The derivation of efficiency norms for an agency operating in an economy subject to numerous distortions and non-optimal interventions is a task of great analytical complexity. Furthermore, a subjective element enters in that it is a matter of opinion as to whether certain existing interventions should be assumed to persist indefinitely, or should be assumed away. (For example, the appropriate price and use pattern of Victorian gas depends on whether the existing ban on exports remains in force or not.) Another source of

difficulty is the subjectivity of the decision-making process (within the enterprise or agency) and of the costs and benefits that enter into it. Thus costs are not simply a given: it is the creative role of management to **discover** what the relevant alternatives, and hence the opportunity cost of actions, are. Requiring statutory bodies to present timely and proper accounts (as discussed by Senator Peter Rae) serves a number of useful purposes but does not necessarily reveal inefficient performance.

If our ability to prescribe and monitor economic performance by public institutions is quite limited, greater importance attaches to the provision of incentive structures that will guide managers themselves to make decisions that are socially beneficial. In the market the principal means of promoting efficiency is competition, within and for markets, and for control of assets. Crude though they may be, even these incentives are lacking in the public sector. The radical way of reforming inefficient public enterprises is to privatise them. This theme is touched upon in several of the papers.

This book inaugurates a new series to be known as Policy Forums. Each volume will report the proceedings of a seminar, and will consist of a number of thematically-related short papers, and the edited discussion.

The series will give tangible expression to the aim of the Centre for Independent Studies of encouraging public participation in the discussion of policy issues. Although editing is necessary to turn speech into writing, it is hoped that the published Forums will preserve the spontaneity of the spoken word, and the clash of opinion.

Ross Parish

Public Choice and Regulation

Gordon Tullock

Gordon Tullock is University Distinguished Professor of Economics at the Center for the Study of Public Choice at the Virginia Polytechnic Institute and State University. He has also taught at the Universities of South Carolina and Virginia, and at Rice University. He is the editor of *Public Choice*, co-author with James M. Buchanan of *The Calculus of Consent* and the author of many books including *The Politics of Bureaucracy*, *Private Wants, Public Means - An Economic Analysis of the Desirable Scope of Government*, *The Sources of Union Gains*, and *The Vote Motive*. He has also published over 100 articles and papers in journals and magazines worldwide.

Public Choice and Regulation

Gordon Tullock

I. PUBLIC CHOICE

The basic idea that we at the Center for the Study of Public Choice have been developing is that politicians and bureaucrats aren't really different from the rest of us. We acknowledge that the voter and the customer of a shop are in fact the same person and we assume that they make their decisions for much the same reasons. In one case they are choosing what political party they think will do best for themselves and their families, and in the other case they are choosing what will be best for their families by way of soup or whatever it is they are thinking of buying.

You have to be a little careful about this because in the private market place there are institutions that engage in charitable activity or that do try to benefit the public interest. There is no doubt that there is some money available for this type of thing, and it is undeniable that government servants and politicians are in part interested in this kind of activity - though they don't seem to be interested in it very much. This is a matter which involves empirical study, but I think the rough rule of thumb is that most people are 95 per cent selfish. In other words, a 5 per cent interest in the public interest, or charity, is fairly good. There are people who are members of churches which threaten you with hell for eternity if you don't make contributions and they can usually get 10 per cent or so, but roughly 5 per cent seems to be reasonable.

Politicians

The politician should best be thought of as a businessman. He is in the business of trying to make money by being elected to office instead of trying to make money by selling products to you. He is primarily engaged in making a living by selling policies to people and he changes them just as readily as a businessman does. We don't expect businessmen to continue selling the same car for 20 years, and we sometimes are a little indignant when we discover that politicians have been selling the same policy for 20 years - but, generally, they do shift their positions rapidly.

Bureaucrats

Bureaucrats - the group which I'm really supposed to talk about today - and particularly bureaucrats in regulatory agencies and statutory authorities, are once again primarily concerned with their own well-being. What you want to do is to set up the institution such that the well-being of the people who run it coincides with that of the public or of the organisation to which it is responsible. This is unfortunately terribly difficult in the political sphere. I wouldn't say it was impossible, but it is certainly terribly difficult.

Government employees are frequently alleged to be primarily interested in seeking out some abstract entity called 'the public good'. Another idea which is very popular is that they simply implement basic policy decisions made by elected officials. Bureaucrats in England and no doubt Australia too, often refer to the politicians at the very top of each department or bureau as 'our masters'. This attitude at least implies that the bureaucrats themselves have little power over those 'masters' who make all the basic decisions which the bureaucrats simply carry out.

Bureaucrats, and for that matter their political 'masters', as I have said, are much like other men. There are among them scoundrels and saints, but both are rare. The average bureaucrat or politician is not markedly different from the average businessman or college professor. They are, like the rest of us, to some extent interested in the public good and in helping their fellow men; but, like the rest of us, they put far more time and attention into their private concerns. Thus the bureaucrat, in making a decision about some matter, is likely to give more weight to the effect of his decision on his personal career than on the nation as a whole. These two categories are not, of course, necessarily in conflict, but sometimes they are. And then we must expect the bureaucrat, most of the time, to choose his personal well-being rather than the public good. These common human characteristics affect the bureaucrat's behaviour, and this in turn will affect the function of the institution or institutional framework he is working in.

Bureaucrats are not pressed to work hard and be efficient. They can avoid pressure from above because they cannot be fired. This means not only that they are apt to be overpaid but also that they are inefficient in other senses: they do not seek the most efficient methods, they do not work hard, and so on. Here, I am mostly familiar with the American data.

It is a little hard to get cases in which governments directly compete with competing private industries because in general when the government undertakes an activity it makes it illegal for private enterprises to compete, or it funds its services entirely out of taxes and provides them 'free', with the result that a private competitor cannot hope to provide the service. There are some exceptions, however, and studies indicate considerable government inefficiency. They show very considerably higher costs when government provides a service than when it is provided privately. This is particularly surprising, since often the private industry which competes with the government is a regulated monopoly, well known to be relatively inefficient.

The exact cost inflicted on the citizenry because civil servants are both overpaid and relatively inefficient, is hard to compute. The rough rule of thumb is that it costs the government about twice as much as it would a private competitive producer. The only example I know of in which there is a clear-cut comparison of a government-provided service with a private, competitively provided service concerns garbage collection in an area near Washington, D.C. It shows that private provision is about half as costly as government provision, although it is not obvious that we should draw firm conclusions. It is amusing to consider what a GNP for most Western countries would be if the government sector were evaluated not at its resource cost but at one-half of it, which is what these figures would seem to indicate is about right.

The history of regulatory authorities has been one not of designing regulatory authorities which more and more serve the public interest, but of an increase in understanding of why they don't. This is not a very helpful discovery, but at least before you set them up (or before you demolish them for that matter) you should understand that they are not necessarily going to serve the best interests of the public. They are going to serve the best interests of the regulators and frequently, but not always, the best interests of the people who are regulated.

II. THEORIES OF REGULATION

The public interest theory

If you look at the history of regulatory authorities and their study – and here I have to talk about the American experience - we find that regulatory authorities were first set up because the government of the time, the Congress or the President,

had some problem which they thought was a real problem. They didn't know quite what to do so they appointed a regulatory board to control it. The original idea was that the regulatory board would go about and do what it had to do in the public good.

The railroads were the first major industry subject to regulation in the United States. The railroads were in part monopolistic and in part competitive and they tended to charge higher prices on their monopolistic runs than they charged on their competitive runs. In fact, they tended to get into knife fights (a true-to-life example of cut-throat competition?) and reach terribly low prices on their competitive runs. The farmers, who in the main had to deal with the monopolistic runs because most farms were close to only one railroad, were unhappy about this, and the Interstate Commerce Commission was set up with the aim of eliminating this undesirable behaviour. The railroads thus came under the control of the Interstate Commerce Commission and this led to the regulation of other activities.

It began to occur to economists, however, that things weren't working the way they should. It seemed that what the Interstate Commerce Commission had done was not to lower the rates in the monopolistic parts of the railroad system, but to raise the rates in the competitive part of the system. If you look at the other areas where regulation was instituted, you have this same sort of thing occurring.

The capture theory

From observations of this has developed what is known as the capture theory of regulation: that the bureau had been set up with the best of intentions and good people had been appointed to staff it, but somehow or other the regulated industry had taken control. In the instance of the railroads, they were now using the Interstate Commerce Commission to run a cartel.

This was a better theory than the original idea that the ICC was set up to do good, but it wasn't all that satisfactory because when you looked at the data, the first thing you noticed was that a number of the railroads had been very active in getting the ICC organised. This would seem to indicate that the idea in the first place was to have a cartel. As George Stigler put it, 'a man who complains about a regulatory authority running a cartel in the industry is in the same situation as a man who complains about a dentist pulling teeth.' In both cases that is what they were set up

for. Now I'm not going to swear that this is true in all cases but historical evidence seems to indicate that there are many examples of it.

Not very long ago the American Telephone & Telegraph Company (the Bell Company) ran big full page advertisements in the newspapers which said: "Why is there only one telephone company in your town?" They explained that an early president of Bell Telephone had come to the conclusion that it was undesirable to have more than one telephone company in town, not of course because he wanted monopoly profits, but because it would be inconvenient for people to have more than one telephone company. The Bell Telephone Company had succeeded in getting the establishment of state regulatory commissions, later replaced by a Federal agency which then created Bell Telephone monopolies all over the place. I should say that Bell's profits went up very sharply after they succeeded in getting government regulation, although they never mentioned this great step forward in any of the advertisements that they ran.

Recent studies of the development of state (now also replaced by Federal) regulated electric power industries once again seem to indicate that the net effect of these things was to raise the profits of the electric power industry. Remember, too, that in such regulated utilities, or in statutory authorities as you have in Australia, much of the 'profit' in fact goes to those bureaucratic participants in the industry. This can come about in a number of ways as I have indicated: such as employees not working very hard; overmanning of offices for reasons of prestige; or greater holidays or more generous pension schemes than could be justified in the competitive private sector.

The final example of this attitude towards a regulatory commission (that they are set up with the purpose of running a cartel) was the Civil Aeronautics Board, organised in 1937. If you look back at Congressional debates, it turns out that the main thing that anybody argued in favour of the CAB was that they were afraid there might be destructive competition in the air industry. They didn't say that there actually had been destructive competition up to that point, but they thought it might occur. The CAB was established and from that time until about four years ago, no new major airline was permitted to start operation in the United States. This was price-setting cartel activity with a vengeance. We have now succeeded in getting rid of it. This theory, that the regulatory agencies are actually set up by a small pressure group - specifically the regulated industry

which wants cartel profits - does have certain elements of truth behind it.

The unbudgeted transfer theory

However, there are several additional theories that have emerged subsequently. One is what is called the unbudgeted transfer theory; that is, that the existence of the regulatory body makes it possible to transfer money from one group of people to another. I should say, as an aside, that I have always been in favour of this. I'm a bachelor with a rather high income and as almost all of my travel is business travel, it is therefore deductible for tax purposes and so I always fly first class. During the period when airline regulation was in full flower in the United States, the tourists subsidised the first class passengers. You can all see the social advantage of this kind of thing of course. I used to tell my colleagues with families and who therefore couldn't afford to fly first class, that if they bought a martini they could say to themselves: 'I am making a social contribution - two cents of this is for Tullock's free martini!' There are also a couple of other subsidies that I have benefited from in this regulated period. Short flights were subsidised by long flights, and if you flew from a small airport you were subsidised by people who flew from major airports. Since I fly from Roanoke, Virginia, which is a small airport, and you have to change to another aeroplane if you want to go any distance, I not only got the first class subsidy, I got the small airport and short distance subsidies as well. Deregulation of the airlines is still not complete, and there is still some cross-subsidisation within the system, but it is progressing. This is only one of many such transfers.

The 'political lever' theory

For many years Piedmont Airlines, which operates the only airline through Roanoke, was compelled to land each day five north-bound and five south-bound seats at Pulaski, Virginia, in order to subsidise that rather small group of people who lived in Pulaski who wanted to fly. They were made to do this in order to maintain a monopoly on certain other routes that they had.

If you look over the airline regulations you find an immense web of special requirements of this sort. They lower the total profit of the airline; they transfer funds from one group of persons to another; and presumably the reason they

are there, and the reason the airlines didn't complain terribly before deregulation, was that they regarded this as a way of buying political support. It wasn't just the airline that was benefitting from it either. There was also a set of small concentrated groups which could bring political pressure to bear and the regulatory body was responding to it.

The 'agency benefit' theory

The response of political pressure in this way brings me to my fifth theory of how a regulatory agency works and that is that the regulatory agency is simply trying to maximise its own benefit. From my earlier remarks about what I think of bureaucracies, you will immediately recognise that I think this is a particularly likely theory. Bureaucrats are simply trying to maximise their own benefit and they engage in political manipulation for that purpose. The requiring of the five seats in Pulaski was an example - there was in fact a Congressman from Pulaski. One can go on.

The best study of this particular thing was done by Aitcheson and Chant using the Canadian central bank as their regulatory agency. One of the things that economists are always concerned about is central bank policies. Central bankers seem to behave like low-grade morons or perhaps like vicious criminals. There are differences of opinions as to which of these is the best model. They don't seem *per se* to be these kinds of people - they seem very nice when you meet them, fairly intelligent in fact. In any event Aitcheson and Chant looked into the issue and they came to the conclusion that you could explain the central bank of Canada's policy not on the grounds that they really didn't understand what they were doing - which is the favorite explanation used by most economists with respect to most central banks - but on grounds that they understood very well what they were doing. What they were trying to do was to maximise their political power, or minimise the political repression that the chairman of the central bank of Canada received. They took actions in such a way as to minimise the pressure brought to bear on them and this led to all these disastrous consequences (depressions and inflations and so forth) because they were adjusting to that situation.

I find that theory a very good one, and of course it can be used to include a number of the others. If the regulators are responding to political pressure they would also be responding to pressure from the industry and hence would tend to give some cartel profits. They would respond to political pressure

from the Congressman from Pulaski and see to it that aeroplanes fly in and out of Pulaski. Whatever else anyone may think about first class passengers, they clearly are politically more influential than tourist passengers. So there is a response to political pressure there also.

The 'random behaviour' theory

I regret to say that there is a final theory invented by the Harvard political scientist James Q. Wilson. This is that the regulatory bodies simply engaged in random activity. Let me give you one piece of evidence for this. There was a young man who took a Bachelor's degree in nuclear engineering and then went out to get a job with Babcock & Wilcox, a big company that makes nuclear power stations. They told him that they would be glad to hire him, but it would be 7 or 8 years before he'd be permitted to design anything because of a long training program. He thought that this sounded dull, so he didn't take the job and instead went to Washington and got a job with the Nuclear Regulatory Commission. His first duty was to write the specifications for a new power station. He settled down to write these specifications which the other members of his class would then take up and proceed to spend 7 or 8 years learning before they began designing the devices.

Undeniably this does occur in any regulatory commission and in fact there is no real way you can avoid it. If you begin writing a long list of regulations, a very large part of that list will be things where it is not possible to tell what is the right regulation, either at all, or at the very least without a great deal of careful study which isn't really worthwhile. So you produce a long list of regulations, some of which are very sensible, some of which may be silly or perverse; but a very large part of which are simply regulations that have been produced because you have to produce regulations and you have to have some kind of a rule, good or bad.

Summary

I have given you a number of theories of how regulatory agencies act and I regret to say that instead of telling you now which one of them is true, I think all of them are partly true. I think there is no doubt that regulatory agencies to some extent engage in trying simply to do good. The people in them have a certain amount of freedom to do that and I think they do. I also think that they tend to get influenced

by the very expensive people who are hired by the regulated industries to influence them. If you want to make money in the United States you go in for that kind of activity.

There is also no doubt that to some extent the original organisation of these things is affected by political pressure and they are set up to some extent to establish cartels. In a real sense what happens is that Congress pays off the indirect costs of establishing a regulation by providing some benefits to the regulated industry. This by the way is not necessarily a bad thing. If you force a company to do something which is of public benefit rather than just its own benefit, then arranging in some way to compensate for this is not necessarily (it often will be) an undesirable activity.

Undeniably, too, there are transfers of resources back and forth and it is also true that political pressure is important and the individual regulatory boards respond to that by trying to benefit themselves. Last but not least, I regret to say that they engage in some random behaviour. I can't see any way of avoiding it.

III. CONCLUSION

The general picture here then is of an agency or a group of organisations which do not work all that well. But remember if they don't work so well, the alternatives may not work so well either. In general when you talk about government, you should try to aim for something that is perfect. You won't succeed but there is no reason why you shouldn't try. We should try to get the best institutional structure we can. We should recognise that it won't be perfect but think of the alternatives. In some cases like the airlines and the railroads the sensible thing to do would be just not regulate. In the case of the telephone, it may well be that a regulated monopoly is better than doing nothing, even with the regulation having all the defects that I have described.

The so-called new regulation - the regulation of things like air-pollution, water-pollution and certain safety characteristics - provides very good arguments that government should be in the business even if government is going to behave rather inefficiently; because the inefficiency of the government is no worse than the inefficiency that you would anticipate without it. The courts don't do very well on these issues and Congress would certainly be more responsive to political pressures than the regulatory bodies.

The fact that I have said all these rather unkind things about regulatory authorities doesn't indicate that we shouldn't

have them. It really indicates that we just shouldn't have dreams about their efficiency. The regulatory authority, we hope, is established in circumstances in which for some reason it is really needed. I don't think in the case of railroads or airlines that was true, and certainly the extension of railroad regulation to the trucks in the early part of the thirties was a very, very severe mistake. In other cases the rather inefficient structure that I've been describing to you may well be the best way of dealing with things because the alternatives are also highly inefficient. What we must do is to think about the whole problem and then make our decisions on what is the best kind of institution and we shouldn't do this under the assumption that if we appoint a regulatory board, the regulatory board will solve the problems. The regulatory board is a problem in itself. It may be better than alternative solutions or it may be worse, but before we make the decision we should carefully look at the regulatory board and be very careful indeed not to assume that the regulatory board will go about the world doing good in the way we would hope.

It is fairly easy to discover cases where regulation has done a great deal of harm, but let me close by giving you a very minor, but for many people a very important example, in which American regulation did considerable good. Children in the United States, and I suppose in Australia too, after they get to big for the crib, are put in a bed which has slats on the sides so they can't fall out. The Consumer Products Safety Division began collecting statistics on all sorts of accidental injuries and they discovered something that no one had ever known before and that is that these slats on American beds were spaced in such a way that the baby could get its head through and strangle itself. There were about 50 of these accidents happening a year in the United States. Nobody had ever noticed it before this because every single hospital or doctor had assumed it was a freak occurrence. There apparently was no place in the United States that two of these things happened to the same doctor. The discovery that this risk could be reduced by changing the slats immediately saved a considerable number of lives. Nobody really complained about the new requirements. The information that led to this discovery came out of a regulatory agency which on the whole has been pretty foolish and pretty badly organised and has done all sorts of extraordinary things. So there are profits as well as costs with regulatory agencies.

But to repeat: what you must do when you view these agencies is to realise that they are not perfect. Most of us aren't perfect either so we shouldn't criticise them too heavily.

The Australian Wheat Board: Marketing Agency or Plaything for Politicians, Public Servants and Farm Organisations?

A.S. Watson

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The Australian Wheat Board: Marketing Agency or Plaything for Politicians, Public Servants and Farm Organisations?

A.S. Watson

The formation of the Australian Wheat Board was a political response to economic conditions in the wheat industry during the 1930s, when depressed wheat prices coupled with the inappropriate size distribution of wheat farms led to widespread economic distress for wheatgrowers. As has usually been the case in the evolution of agricultural price policy in Australia, government intervention in wheat marketing was prompted by price and income-related goals, and the many indirect effects of regulation on the marketing system were either not fully anticipated, or regarded as not worth bothering about (Watson and Parish 1982). The marketing system that was created in response to those earlier circumstances persisted with only minor modifications until 1979, when the Seventh Wheat Stabilisation Scheme was introduced which embodied major changes with respect to the basis and speed of payment of growers, and the abandonment of price stabilisation through a buffer fund (Miller and White 1980). At the same time, the Wheat Board was required to raise more of its funds from commercial sources rather than be financed exclusively by the Reserve Bank. This change has increased greatly the complexity of its operations.

Nevertheless, the institutional arrangements and machinery for making decisions about wheat marketing are largely unchanged. The Australian Wheat Board retains its acquisition powers and its monopoly on the domestic and export markets.

The Wheat Board has attracted some controversy in the last couple of years. It is required under the *Wheat Marketing Act* 1979 'to receive wheat, establish standards, store and market wheat and make payments to growers' (Australian Wheatgrowers' Federation 1981, p. 2). By the standards of other statutory authorities, the Wheat Board is a rather frugal organisation. Overseas representation is kept to a minimum as around half of export sales are arranged through the international grain trading houses. Paradoxically, most of the arguments in wheat marketing have concerned the domestic trade which is not as significant as the export market. The economic significance of the Australian Wheat Board should not be overrated. Prices are essentially determined on the world market and the handling,

storage and internal transport of wheat are largely outside its control. It is important as a financial intermediary and because of the close involvement of its Board members with the politics of wheat.

Marketing efficiency and equity

Given the changes that have occurred in the wheat industry and in social attitudes towards government regulation of agricultural marketing, some reappraisal of wheat marketing was long overdue. The wheat industry has been extremely prosperous throughout most of the post-war period. The maintenance of a regulatory apparatus that was introduced to deliver higher prices and incomes to struggling farmers is something of an anachronism. In terms of assistance actually afforded to wheatgrowers through high prices, wheat stabilisation has been irrelevant or even damaging (Longworth and Knopke 1981). Therefore, the scheme ought to be judged according to its effects on the performance of marketing functions and its effects on equity between wheatgrowers.

The Wheat Board has come under pressure from three sources: an inquiry by the Industries Assistance Commission in 1977, legal action in the High Court of Australia (the Clark King and Uebergang cases) and the Senate Standing Committee on Finance and Government Operations. The matters that have been in contention are the central issues of serious agricultural marketing discussion in Australia: the form and level of industry assistance, the relationship of price-raising and/or stabilising instruments to the performance of marketing functions, Commonwealth-State powers with respect to agricultural marketing, and the accountability of institutions set up under government legislation. Since the Industries Assistance Commission was unable to find much in the way of assistance, its attention strayed to other matters and it recommended the freeing-up of the domestic market for wheat (Industries Assistance Commission 1978). Naturally, that recommendation was unacceptable, particularly to bulk handling authorities and most State Governments, because of the possible effects on their revenues from provision of handling, storage and transport facilities; but also to the Australian Wheatgrowers' Federation because it would have removed for all time even the potential for income transfers to producers via a higher domestic price for wheat. The *Wheat Marketing Act* of 1979 attempts to sidestep the 'difficulties' of private trade in wheat by improving payment terms for wheatgrowers. The

economic incentive for 'over-the-border' trading is thus partly reduced whatever is the eventual outcome of the tortuous legal processes in the High Court. The Senate Committee is not concerned with wheat policy as such but with matters of public administration concerning the Wheat Board. It has raised the legitimate questions: 'Are growers being fairly treated? How can anyone judge if financial statements are not made available?' (Rae 1979, p. 2862)

One important outcome of this varied debate is greater recognition of the many conflicts of interest between wheatgrowers brought about by the pooling of marketing costs between producers. This is particularly the case with respect to differences in location. An important factor in the 'over-the-border' trading which precipitated the Section 92 cases in the High Court was the appalling performance of the New South Wales Grain Elevators Board (GEB), as it then was, in handling and storing grain. Wheatgrowers in northern and southern New South Wales were bearing the burden of this inefficiency and they were tempted to escape a situation that was not of their choosing.

Although that situation is in the process of being cleaned up, and there has been the now-standard name-change from 'Board' to 'Authority', some serious matters have been raised by the (excellent) reports of the New South Wales Grain Handling Enquiry (1980, 1981). These issues are deserving of special comment because they show how things can go wrong in a statutory authority when there is little financial discipline and tenuous administrative authority. Perhaps the most damning statement in those reports is as follows:

> Most growers were very critical of many aspects of the system, but in particular of the lack of communication to them of the true situation. Many growers expressed the view that the industry was severely handicapped by the fact that the Grains Committee of the principal grower organisation contained all of the grower members of the GEB and as a result their organisation did not objectively represent them in matters relating to deficiencies in the GEB. (para 10, p 2, 1981.)

This dereliction of duty, or self-protection by a few well-placed individuals, does not merely involve farm organisations in New South Wales, for wheat handling and storage charges were pooled nationally until 1977. It was only when the New South Wales growers were unable to shift the burden of mis-

management elsewhere that this particular shambles became public knowledge. In the absence of stock reconciliation between first receival of wheat and its disposal through seaboard terminals, wheat worth almost $10m, at today's prices, is apparently mislaid from the system each year. (Estimated from information in paras 90 and 91 of the Final Report of the N.S.W. Grain Handling Enquiry, 1981, p. 15.) Incidentally, as the New South Wales GEB did not keep adequate records of its stocks, little wonder the Australian Wheat Board found it hard to keep up to date with its accounting, let alone its accountability.

The situation was in effect tolerated by the rest of the Australian wheat industry for around thirty years while national pooling existed. The experience of grain handling and storage in New South Wales is a good example of the way the composition of a board and its economic decisions interact. Grower members of New South Wales GEB were elected from regions. It was inevitable therefore that there was a gross imbalance in the investment programme, with over-provision of silos in wheat-producing areas, to keep the electorates happy, but gross neglect of the maintenance and operation of seaboard terminals through which wheat must flow for the system to operate efficiently.

The introduction of State accounting is only a small step in reducing the costs of pooling. There is no doubt that a great amount of economic inefficiency, and cross-subsidisation between producers, can still occur through the pooling of marketing expenses within States. In the case of Victoria, the infrastructure costs of any expansion of cropping into new areas in southern Victoria ought to be borne by the new producers rather than lost in a maze of transactions which disadvantage the established wheat-growing areas and ignore considerations of comparative advantage in cropping and livestock activities. The Victorian GEB might not be able to resist the pressure to invest in more grain handling facilities if there were ever to be a few swinging seats in the Western District, or the agronomists and plant breeders got the upper hand over the veterinarians in the State Department of Agriculture.

Institutional paralysis

It was not hard to shoot holes in previous wheat schemes which were 'stabilisation' in name only. Any system based on prices just has to be irrelevant to income stabilisation, given the variability of yields. The buffer fund involved arbitrary

transfers between wheatgrowers, not to mention the losses in economic efficiency brought about by distorted price relationships between commodities. With such glaring faults in pricing instruments and confused policy objectives, it was not surprising that the more subtle effects of wheat marketing arrangments on the performance of marketing functions tended to be ignored by economic commentators.

The long-term paralysis of thought and action in the wheat industry can be explained in straightforward terms. The folk-myth has been sustained amongst wheatgrowers that their prosperity could be explained by the marketing scheme, rather than being the result of those more fundamental economic forces that account for Australia's comparative advantage in wheat production. At the official level, most of the participants in decision-making with respect to wheat marketing have powerful incentives to support the *status quo*. This is because so many compromises and deals were necessary to overcome the initial difficulties in establishing the wheat scheme. Agreement between the States was difficult to achieve in the first instance, but once the wheat marketing arrangements took their essential form, it was even more difficult to get them to disagree.

The problems of wheat marketing are largely the result of the measures taken to influence prices. It is inevitable that any measures designed to raise prices or reduce their variability will affect market organization and the performance of marketing functions. These effects need not be drastic if direct methods of price or income augmentation are chosen instead of the usual Australian approach which involves elaborate control by statutory marketing boards. This is because our main price-raising device is the home consumption price which requires the separation of markets and arrangements to ensure that farmers receive uniform returns from sales in different markets.

Importantly, from the point of administrators and farmer politicians, this indirect approach has the advantage that its consequences are hidden from public gaze. In the case of wheat, as stated, the net effect of the opportunity for discrimination between the domestic and export markets has been to the detriment of wheatgrowers, because protection has been negative in many years. What remains, therefore, from a structure created to give assistance is merely a labyrinth of devices to maintain the pooling of marketing costs between producers. The pooling is not complete - producers bear their own transport charges, and can earn premiums and suffer dockages to a limited and arbitrary

extent for quality differences in their wheat - but the system works so that they cannot make their own economic decisions with respect to time of marketing. This has placed restrictions on financial management of individual farms, and on the economic development of the wheat-using industries.

The major factor underlying the politics of Australian wheat has been the ambiguity of the legal powers of the Australian Wheat Board with respect to interstate trade in wheat, even when the Board is supported by complementary State and Federal legislation. State Governments of different political complexions, and their respective bureaucracies, have supported regulation of the wheat industry without serious question. The relative affluence of the wheat industry is the main explanation for this because it makes wheatgrowers generally happy with the current situation. It is easy to understand the defensiveness of governments and farm organisations with respect to agricultural marketing schemes which clearly benefit producers in the aggregate: eggs and dairy products are obvious cases in point. It is a bit harder to explain inertia when arrangements do not seem to be conferring much benefit at all.

A possible explanation of the conservative behaviour of the agricultural bureaucracy is the fear that any radical change might upset the delicate balance between States with respect to other commodities where the assistance consequences of government intervention are really important. Sugar in Queensland, apples in Tasmania, rice in New South Wales, dairying in Victorian and horticultural products in South Australia are all highly regulated or protected industries of special interest to their respective States. These arrangements could be at risk if any State decided to step out of line on wheat marketing. The Australian Agricultural Council, the Federal-State committee of Ministers of Agriculture, which is the forum that discusses such potential conflicts, is essentially a device to make sure nothing ever happens in agricultural policy.

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The Economics of QANGOS: SECV and ELCOM

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The Economics of QANGOS: SECV and ELCOM

Peter L. Swan

I. INTRODUCTION

As electricity consumers subject to blackouts and power restrictions in both Victoria and N.S.W. discovered in the winter of 1981, the two quasi-autonomous-governmental statutory authorities[1], the State Electricity Commission of Victoria (SECV) and the Electricity Commission of N.S.W. (Elcom), are not responsible to the average domestic or even industrial consumer, who can be cut off with little or no warning, cannot go to other suppliers as he could for a loaf of bread, and appears to lack even the common law right to sue for damages. One might imagine that the Commissions, as statutory monopolies, are responsible to Parliament but this is not the case. By law, the Commissions are responsible to the relevant Minister, but in practice there is a tendency for the reverse to be true: Ministers often come and go in rapid succession - witness Victoria - but the Commissions live on indefinitely. In Victoria the monopoly position of the SECV is not quite complete because of Alcoa's small but efficiently run generator which supplies almost half the power for its Point Henry smelter.

Even if the Commissions were subject to control by Parliament, and thus indirectly by voters and consumers, this would still be inappropriate because of the very diffuse nature of the common property rights of voters in state-owned instrumentalities. As Gordon Tullock and others have pointed out, the informational and other costs associated with each individual voter's monitoring the activities of these organisations are immense, relative to the almost negligible personal reward that each voter obtains from making an informed choice at the ballot box.

The large scale production and distribution of electricity is both complex and highly technical. The organisation which is charged with the responsibility of supplying adequate power in an efficient manner can be regarded as a production 'team' in which monitoring of the performance of each and every team member is required to ensure the desired outcome and to prevent excessive 'shirking' and wasteful misallocation of resources. Alchian and Demsetz (1972) point out that

monitors or administrators are employed to carry out this function, but ask, 'who will monitor the monitors?' With privately-owned firms subject to competition in the market place and by threat of takeover (exchange of property rights) part of this monitoring role is performed externally, but in addition the monitor is usually appointed the residual claimant whose incentive to shirk himself is reduced by the knowledge that his 'profit' or residual reward will be lower if he does not perform well.

Given the lack of external competition arising from prohibition of rival power companies, the inability to discipline poorly performing management by means of a takeover (there are no explicit shares in the SECV or Elcom let alone trading on the stock exchange) and the complete lack of a residual claimant with a profit incentive, the difficulty is to explain how the electricity Commissions manage to perform their complex task at all - not to explain why it is performed so poorly![3]

II. WHAT DO THE QANGOS MAXIMISE?

The lack of accountability of the Commissions either to consumers or to their implicit shareholders, who are the taxpayers of Victoria and N.S.W., means that in reality each organisation not only sets its own goals but also discards them as soon as they have unpalatable consequences. For example, the SECV's quantified targets, which up to 1979-80 included a 7 per cent return on capital (presumably in historic cost terms which do not allow properly for inflation), have now been deleted from the *Annual Report* for 1979-80 along with the goal of 50 per cent internal financing. I imagine that this return on capital criterion was dropped because it was not being met. Moreover, internal funding has fallen to less than 20 per cent; but any attempt to obtain a sensible positive, in real inflation-adjusted terms, return on capital or to reduce dependence on external borrowing comes into conflict with the retained objective of keeping electricity price increases below the increase in the Consumer Price Index. While such an objective sounds, on the face of it, to be in the public interest, this need not be the case, especially if it means excessive electricity sales, an over-inflated authority and large-scale misallocation of scarce resources of capital and labour. Fortunately this objective has been honoured in the breach in the last couple of years.

Economists such as Williamson (1963) and Niskanen (1968) have drawn attention to the importance of salary, perquisites,

security, power, status, prestige, professional excellence, patronage and rate of promotion as motives of managers and bureaucrats. These factors are often highly correlated with the size of the organisation, its budget and its output. However two immediate difficulties arise in assessing the relevance of these different proxies for the underlying managerial goals. First the constraints facing the organisation must be considered. Clearly, the ideal situation for the organisation is when its budget is met from the public purse with the product given away. Universities and Colleges of Advanced Education come closest to this organisational ideal, with students, many staff and most university and higher education administrations protesting over the limited reintroduction of fees. The railways closely follow the higher education ideal, given the scale of their losses, but the electricity Commissions have not yet managed to get themselves into the privileged position of higher education and public transport. The Commissions must still remain financially viable in terms of a crude system of historical cost accounting which takes no account either of rising physical asset values and replacement prices or the falling real value of liabilities fixed in money terms due to inflation. However, the Commissions are not obliged to introduce a proper inflation-proofed system of accounting, although they could do so voluntarily; nor are they obliged to obtain a real inflation-adjusted return on funds employed equivalent to the rate that a similar private organisation would have to pay for debt and equity capital without the ability to be bailed out by the taxpayer should things go wrong. Fortunately, things are now changing for the better.

Given that most domestic consumers are probably still on the inelastic portion of their demand curves, the Commissions must also consider what would happen if they were to adopt the second and superficially more appealing avenue of raising the Commissions' budgets by increasing tariffs. The fear is that higher dividends would need to be paid into Consolidated Revenue, leaving little gain to the managers and employees, although taxpayers would then receive some compensation for the risks they are bearing by underwriting the Commissions. The SECV is already making a small contribution to Consolidated Revenue by means of a 5.5 per cent turnover tax and it is now proposed that they pay more via 'dividend' payments to the Victorian Government, but Elcom makes no equivalent contribution to the N.S.W. Government coffers.

The bias towards electricity output maximisation subject to a zero accounting profit constraint is boosted by the

dominance of two groups in the Commissions, the engineers and the accountants, particularly the engineers who see increased output as a monument to their professionalism. Needless to say, economists, who might question the $10 billion expansion plans of the SECV or the plans of Elcom to double output, in terms of the waste of society's scarce resources when tariffs are set well below economic levels, have no future in the SECV or Elcom.

This bias is also reinforced by politicians and large customers of the authorities such as the aluminium companies who use or, should I say, misuse the alleged employment multiplier effects of new developments which rely on cheap power such as smelters to argue that unemployment is relieved by subsidising particular large electricity consumers. As Professor Michael Porter said in evidence to the Senate Standing Committee on National Resources, the net employment multiplier effect over the life of a smelter is likely to be zero. Aggregate unemployment is better left to macroeconomic policy, and policies relating to the minimum wage and unemployment benefits.

III. SOME UNFORTUNATE CONSEQUENCES OF OUTPUT MAXIMISATION

A number of important features of SECV and Elcom policies would appear to be explained by constrained output maximisation and the 'professionalism' of SECV and Elcom engineers:

1. Tariff charges which are well below economic costs, particularly for large users with highly elastic demands. The hypothesis is that in order to increase sales, tariffs will not fully reflect economic costs so long as losses based on historical accounting costs are not too great.

2. Cross subsidies from consumers with relatively inelastic demands to aluminium smelters with elastic demands (because they could locate interstate or overseas).

3. The sale of large blocks of electricity to particular customers (the smelters) even when existing power supplies are insufficient to meet existing consumer demands and while expecting that the supply position will worsen for some years.

4. The professionalism of the planning engineers enables technical decisions - such as brown coal versus black coal

versus nuclear power stations - to be based on reasonable economic criteria such as a 10 per cent real rate of interest/discount, as in the case of the proposed Victorian 4000 megawatt Driffield station; but tariff setting is done on an entirely inconsistent basis in which average historical costs are allocated in a traditional and largely meaningless way to achieve real rates of return well below zero in many instances. The compartmentalisation of the organisations between planning and tariff-setting operations perpetuates this schizophrenic behaviour. It is about time that the 'Tariff Engineer' who engineers the tariff began to see eye to eye with the 'Planning Engineer'.

These points can now be amplified:

1. Elsewhere (Swan 1981 and Swan 1982), I have provided extensive evidence of SECV tariffs set well below economic costs. This is easiest to check for aluminium smelters which have an almost continuous load corresponding to a base load power station. Table 1, which is partly derived from Swan (1982), shows my estimates of the cost of base load power from the SECV's station, Loy Yang, which is currently under construction. The estimates are based on real, inflation-adjusted rates of interest/return ranging from 5 to 10 per cent per annum. For example, a real return of 10 per cent per annum would correspond to a nominal or money return of 20 per cent combined with an expected inflation rate of 10 per cent per annum.

The SECV has adopted a 10 per cent real return criterion for costing purposes and obtains unit cost estimates of between 2.2 to 2.6 cents per kilowatt hour for Loy Yang and the proposed Driffield station in 1980 prices. An estimate repared in this manner should rise in line with the inflation rate generally. Thus if the inflation rate is 10 per cent per annum, costs and hence prices should rise at the same rate. My estimate at a 10 per cent rate in 1982 prices is higher than the SECV's at 3.51 cents per kilowatt hour because of what I consider are overly optimistic assumptions made by the SECV in relation to planned and unplanned outages (which includes breakdowns) and in relation to operating, maintenance and overhead costs. The figures shown in brackets in the Table are estimates prepared by Cochrane (1981) as part of his official inquiry into the SECV's base-load electricity tariffs. They correspond approximately to SECV estimates except in relation to transmission costs to Portland. The SECV's own estimates are higher.

TABLE 1

Estimated Base Load Electricity Costs

	Victoria (Loy Yang)*			N.S.W.	
Real Rate of Return (%)	5	8	10	5	10
Direct Capital Outlay $/kw	960 (883)	960 (883)	960 (883)		
Value on Completion $/kw (including interest during construction)	1117 (1049)	1233	1322 (1257)	773	832
Annual User Charge $/kw (interest + depreciation)	72 (68)	109	139 (133)	50	87.5
Operating and Maintenance $/kw (including coal winning and some overheads)	50 (29)	50	50 (26)	76	76
Total cost $/kw	122 (92)	159	189 (159)	126	164
Average Energy Sent Out per Kw of Capacity in Kwh	5387 (5775)	5387	5387 (5775)		
Cost of Energy Sent Out c/Kwh	2.26 (1.60)	2.95	3.51 (2.75)	2.33	3.04
Transmission Cost and Line Losses					
- At Stage 2 (no line loss)	0.92	1.13	1.4		
- At Stage 4 (2% line loss)	0.51	0.62	0.77		
- At Stage 4 (including SECV transmission costs only)	0.44 (0.18)	0.51	0.68 (0.27)		
Total Energy Cost, Portland					
- Stage 2	3.18	4.08	4.91		
- Stage 4	2.77	3.57	4.28		
- Stage 4 (transmission costs incurred by SECV only)	2.70	3.46	4.20		
Cochrane, September 1981 prices	(1.78)		(3.02)		

* Don Cochrane's (1981) estimates converted to September 1981 prices are shown in brackets.

Source: see text.

Despite the very high long-term interest rates experienced in the last year or so a 10 per cent real rate of return estimate may be a little too high given the experience over the last twenty or more years (Swan, 1982). A conservative figure of between 7 and 8 per cent may be more reasonable while Professor Michael Porter has opted for a figure of between 5 to 6 per cent (in 1981). Table 2 shows a range of estimates of the annual subsidy to Alcoa's Portland aluminium smelter at different real rates of return in 1982 dollars. My estimate at an 8 per cent rate is $93m. These estimates are based on full-scale operation of the smelter.

TABLE 2

Estimates of Subsidies to Alcoa's Portland Smelter (Stage 4) at Portland based on Driffield Costs: 1982 Prices

$ million per annum

	Real Interest Rate %	[a]Total Cost at Portland	[b]Total Revenue	Estimated Subsidy
(Swan)	5	209	175	34
(Swan)	8	268	175	93
(Swan)	10	325	175	150
Cochrane	5	138	175	(37)
Cochrane	10	234	175	59

a Based on Table 1 with an annual consumption of 7737 gigawatt hours

b Revenue is calculated before an allowance for interruptibility of the smelter and is based on the period September 1981 - September 1982.

The average base price of electricity to the smelter has been set by the former Thompson Government in Victoria at 2.256 cents per kilowatt hour in 1981-82 after Alcoa threatened not to proceed with the smelter. This price cannot increase faster than the CPI over the next ten years under the agreement. In 1982 Alcoa announced that it would mothball the partly completed first stage of the smelter because of the depressed market for aluminium so that completion of Stage 1 will be delayed beyond the originally proposed date of 1983. It is possible that the proposed expansion to full-scale (Stage 4) could be postponed indefinitely.

One of the reasons for the low price of electricity generally and the very poor returns that the States have obtained on huge investments in power generation is an unwillingness or an inability to understand the relevance of marginal cost pricing, let alone to implement it. This is illustrated by the discrepancy between the costings for new base-load plants and the pricing of the output.

Let us examine more closely the SECV's own cost estimate for the proposed Driffield power station. The crucial factor in the SECV's 2.6c/kwh cost estimate for Driffield is that it is in (real) September 1980 dollars, which means that the cost estimate is unaffected by future general increases in the price level (inflation) and, as well, past increases in the price level. In evidence given to the Driffield Public Works Committee Inquiry, (4th April, 1981, p. 90), the SECV explains the large discrepancy between the Driffield cost and actual tariffs such as the 1980-81 price for Portland power (Stage 1) of 1.75 cents/kwh:

> The price that the tariff structure is based on now is the cost of production of the plant that we have on the system at this point in time, the actual cost of supply. You have the advantage of all your low cost early stations like Hazelwood which are reducing the average cost to produce that.

Although this explanation for low tariffs may satisfy the SECV engineers and accountants, it will surely puzzle economists. Hazelwood is valued by the SECV at $150 per kw before allowing for depreciation whereas Driffield would cost $1200 per kw including interest during construction, according to the SECV. There is no economic reason why the cost of power from the two stations should differ significantly. In fact efficient production requires that the marginal cost of existing plant be equated to marginal cost with the new plant. The tariff should at least equal marginal cost to ensure an allocation of resources which is socially optimal.

The SECV is not the only electricity commission apparently to undercharge its customers and hence short-change taxpayers. The final two columns of Table 1 shows some estimates of the cost of electricity from a new black coal-fired power station in N.S.W. such as Eraring. The capital costs (presumably including interest during construction), operating and coal costs have been computed from information contained in the Zeidler Report (1981, Vol. 2, p. 13.3)

and updated from 1980 on the assumption that costs have escalated at the rate of 14 per cent per year. In other respects the estimates have been prepared in a similar fashion to the Victorian ones. For example, the effective capacity factor has been assumed to be the same as my estimate for Victoria.

The average cost estimates ranging from 2.33 to 3.04 cents per kilowatt hour for real rates of return between 5 and 10 per cent do not include any allowance for transmission costs and is therefore at the power station. Moreover the coal winning costs which make up the major element in the operating cost component include only the costs of coal extraction and therefore exclude any rent component attaching to the coal mine because the market price based on the net export parity price is above the extraction cost from captive Elcom mines. These estimates therefore understate the true cost of electricity.

Dick (1981) has drawn attention to subsidies included in the price of electricity to aluminium smelters located in the N.S.W. Hunter Valley. The 1980-81 price announced by the Wran Government was in the range 1.8 to 1.9 cents per kilowatt hour, but it has been suggested that the effective price after allowing for discounts could be lower still. Also one of the long established smelters could be paying considerably less under an old contract. The kind of indexation provision included in the contracts has also not been revealed, but if the 1980-81 price is any guide the revenue from smelters could be far lower than present costs of supply.

2. In Swan (1981) I provide some evidence to support the hypothesis that aluminium smelters in Victoria are being cross-subsidised by other users because of the manner in which a disproportionately small fraction of capital charges is included in the electricity tariffs of very high load factor customers such as smelters. Commercial consumers particularly and perhaps urban domestic consumers pay relatively more than they should in Victoria while other groups with 'political clout' such as the rural community and some major industrial users pay too little. As serious as the question of cross-subsidies is, the major problem has been the very low overall return on capital investment.

3. Both the SECV and Elcom made commitments to supply major new or expanded customers like the aluminium smelters when at the time it appeared rather unlikely that

sufficient power would be available to supply them. Existing reserve margins were low and, as is now history, blackouts and brownouts with severe power rationing occurred in Victoria in 1981 and N.S.W. in early 1982. Fortunately for the short-term supply position in Victoria in 1983 and perhaps 1984 the first stage of the Portland smelter has been mothballed for the time being. In N.S.W. the short-term supply position has remained tight but in the longer-term an oversupply position is emerging with the concellation of a number of smelter projects and a lower projected growth in demand due to higher real power prices and the severe downturn in the economy. Elcom is now beginning to slow down the very big increase in capacity expansion which had commenced in the earlier boom period.

IV. A NEW BROOM?

A number of major changes for the better have occurred in the Victorian and N.S.W. power industries in 1982. Firstly the new Victorian Labor Government has accepted a recommendation from the Office of Management and Budget Task Force that overall pricing levels by the SECV should be based on a real target rate of return of 5 per cent per annum on total assets employed. Assets are valued at replacement cost prices and depreciation, also measured at replacement cost prices, is deducted before the rate of return is determined. No deduction is made for interest payments as the return is calculated on all assets independently of the means of financing. Between 1978-79 and 1980-81 the return calculated on this basis varied between about 2.1 and 2.8 per cent per annum. The return measured in this way is positive largely because of the existence of the 5.5 per cent turnover tax on the SECV. In N.S.W. where there is no turnover or equivalent tax the return could be expected to be much lower.

The desired target rate of return will be phased in over several years. Moreover, it has been announced that there will be a gradual removal of some of the cross-subsidies as the present discrimination against commercial users, for example, is reduced.

In N.S.W. a major tariff reform was carried out in July 1982 with a rise in the average bulk tariff rate to councils from 2.83 to 3.82 cents per kilowatt hour for a user with a constant all year round load factor. This 35 per cent rise was prompted partly by higher costs following the failure of a number of units at the Liddell station. Not only were prices

raised to a more realistic level closer to long-run marginal costs, but also an explicit time of day element was included in the tariff along with a winter surcharge. Both measures should at least help to improve the system load factor and hence make better use of highly capital intensive power station investment.

While there is a great deal more to do in both Victoria and N.S.W. there is some indication that moves are being made in the right direction. Perhaps one day we may even see privately built and operated power stations selling electricity to the grid.

Notes

1. Since QANGO stands for quasi-autonomous national governmental organisation I am using the term to denote the genre. The purist would no doubt insist on QASGO to denote state rather than national organisation or QASA to place the emphasis on statutory authority.

2. To be fair to the electricity commissions their administration and efficiency are, as far as one can gauge, vastly superior to some other government instrumentalities such as, for example, the N.S.W. State Railways where featherbedding practices and over-manning have become endemic. The expected deficit on the N.S.W. Railways in 1982 will be in excess of $500 million per annum once interest on capital funding is taken into account. Nonetheless restrictive work practices, bans on shift work and various featherbedding arrangements are commonplace in the electricity generating industry.

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Regulating Airlines in Australia

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Regulating Airlines in Australia

Warren Hogan

I. INTRODUCTION

This paper deals with the regulatory environment provided by the activities of the Department of Transport. While the testing of the various theories of regulation as interesting, the thrust of this paper is the experience of regulation and its performance in Australia. Should the discussion reveal something about the theory of capture - of the regulated and the regulator - then an additional purpose will be served. Thus the emphasis in the paper is towards policy approaches and their implementation.

At the outset it is necessary to examine the Two-Airline Policy. It is effectively a framework of policies which have been in existence one way or another for 30 years and, until very recently, had been in a form little changed since about 1957-58. The Two-Airline Policy is the main fact of domestic aviation policy in Australia. It is couched in terms of efficiency, the maintenance of a national network, and other objectives such as increased competition. What meaning is to be attached to these objectives, in terms of the behaviour of the regulating authority, is a matter of analysing the performance and the possibilities.

Subsequent sections will examine the concept of a network, if only briefly, and then pricing and discounting. A final section attempts to give a perspective on issues in regulation of airlines.

II. A TWO EQUAL AIRLINES POLICY

It is wrong to talk about the Two-Airline Policy. What in fact we have had is a two **equal** airlines policy. This policy dictates first of all that there should be equal fleet capacities. Initially an estimate must be made of aircraft productivity, reflecting speed, payload capacity, and the number of hours an aircraft can be used to earn revenue. These are used in calculations approved by the regulatory authority of the frequency of flights in relation to established schedules on the basis of a given load factor. That the load factor used in making these calculations had little to do with

the actual load factor in many years is enlightening but purely coincidental. The significance of this discrepancy is to be found mainly in pricing and discounting. Having established fleet capacities to ensure that each airline had the same fleets for the main networks, the next task was to determine those capacities to be allocated to each sector or route. In short, it was a further rationing device to ensure equal performance, subject to some rationalisation between the two airlines on those occasions when problems such as actual load factors became too demanding. Examples would be reductions in the parallel flights of the two airlines on routes with low passenger loadings such as between Alice Springs and Darwin.

From these aspects of load factors, route capacities and fleet capacities, some obvious features emerge. Similarity in capacities of the two airlines with the same types of aircraft brought similarity with respect to scheduling. The flexibility in the arrangement lay in the variation between the actual load factor realised compared with the nominal load factor used in the capacity calculations, and the scope for using the aircraft for longer hours of operation than provided in the established passenger schedules for each sector or route.[1]

The new arrangements permitting Ansett and TAA to use different aircraft still require the regulator to determine these capacities. Hence there are splendid possibilities for argument as to what constitutes seat capacity in Boeing 727s, 737s and 767s, as well as the A300 Airbus, subject to the routes to be flown and aircraft range. The working of the long-range 727 on services between the eastern seaboard and Perth may force the A300 into a less economical pattern through having to fly from Sydney via Melbourne to Perth so as to achieve a satisfactory load factor.

What comes out of this is a network for each major airline, Ansett and TAA. They each have a national network along major trunk and regional routes and each network is then supported by regional subsidiaries or independents who are to some degree associated with them. This linking to independents is to be explained by the latters' need of access to terminal facilities. A network is sustained by the capacity to load and unload passengers. The characteristic of the Australian network scene, given the two equal airline policy, is the absence of common-user facilities at terminals. Most terminals are specific in their use by each major airline at the main ports. In most instances, the other operators, of which the most obvious is East-West, have to

rent facilities in one of the major's terminals. Thus as long as there are no common-user facilities, the scope for entry of newer airlines is limited to say the least. Anybody who has walked from the Flight Facilities Area for general commuter aircraft at Mascot airport to the main terminals of Ansett and TAA would appreciate the restraints. Moreover, the failure of Bizjets to sustain a service between Melbourne and airports in north-east Tasmania is partly explained by its having to use Essendon rather than Tullamarine, thus making transfers to onward flights all the more difficult.

III. THE NETWORK

The character of the network in the Australian setting is a reflection of the regulatory environment. The network must necessarily be filled by both airlines on the major trunk and regional routes - two equal airlines, each providing services subject to some minor rationalisation. On those routes they have primacy of access; a primacy which in fact will be reinforced rather than diminished by recent legislation. This is supported by the provision of specific user facilities at main airports and sustained by other measures, such as the packaging of tourist arrangements, denied to others.

The special characteristics of the Australian network must be noted. In contrast one might think of a network as referring to the array of services offered by all airlines supported by specific or common-user facilities. A characteristic feature then would be the capacity to shift people between airlines on different stages of a multi-stage journey. Thus the network would reflect the workings of all airline operators taken together.

The implications of the Australian special case should be recognised. With two airlines operating aircraft in parallel on the main trunk and regional routes the possibilities for developing services applicable to various segments of the passenger transport market are restricted. For example, suppose each airline operates three aircraft per day on a stage, say between Launceston and Tullamarine, Melbourne. This means three arrival and departure times each day as each airline uses its aircraft at about the same time. At any one of these three times there will be a large number of seats available. Widespread discounting, including the provision of standby fares, must imperil revenue-earning capacity because on most days travellers will know that discounted seats will be obtainable. Should one airline be able to offer four or five or six services, each at different times during the day,

then it would be possible to differentiate more effectively between the different types of traveller without risking the dilution of revenue always likely with the parallel service. So long as there were common-user facilities the efficiency of the network would be preserved.

Only on the dense traffic stages and sectors between the capital cities on the eastern seaboard is it possible under present arrangements, to pursue this market differentiation without diluting the revenues. On an origin and destination basis, travel between Adelaide, Brisbane, Melbourne and Sydney accounts for about 45 per cent of all passenger traffic.

IV. PRICING

The basis of pricing in the industry under the supervision of the regulatory authority has been cost recovery with some leads and lags. This approach was clarified in the Report of the Independent Public Inquiry into Domestic Air Fares (The Holcroft Inquiry) in February 1981.[2] This means that there has been simply a recovery of costs incurred whether the purposes of incurring those costs were realised in terms of revenues or not. Moreover some of the concepts used, such as annualised costs, are challenging so that whether one is looking at leads or lags when assessing costs is a matter of conjecture.

In addition there have been problems associated with the accounting procedures when examining costs. Non-uniform accounting procedures apply between the two major airlines. It is difficult to accept unreservedly the view that the regulatory authority knew precisely what was being taken into account. Moreover, since 1974, when the current airfare structure was established, distinctions have been made between fixed and variable costs. These distinctions ensured a fixed element as well as another element reflecting the distance flown. But such distinctions had no firm basis in cost analysis. Furthermore, pricing determinations could not have been founded on market demand because neither major airline had undertaken studies on the nature of the passenger travel market.

Ever since 1974, the examination of prices for the recovery of costs was in terms of incremental accounting. No consideration was given by the regulatory authority to the base year 1973 to distribute those cost categories in ways which would be required of any reasonable public company operating in a competitive milieu. Instead what took place

were assessments of what costs had increased regardless of the basis from which they started. There was no breakdown of the cost arrangements other than by what might generously be described as an *ad hoc* basis as between fixed and variable costs. Along with that incremental accounting notion of simply recovering those increased costs from a base year, was the absence of any measure of profit in these assessments. There were simply increases in costs. Thus the regulatory authority pursued activities in an industry in which there was no apparent provision for profit.

The regulatory authority did not examine the relationship between cost and actual prices charged in the base year. Hence, by default, it simply preserved the profit margin of 1973, whatever that may have been.

Along with this litany of omissions is the absence of any assessment of productivity change. It would be reasonable to expect some productivity gains between 1974 and 1980. Such a realisation would further enhance profit margins.

With no systematic basis for allocating costs, arguments about cross-subsidies and direct operating costs could not be resolved by investigation, despite provisions requiring both airlines to maintain services to areas with traffic problems, so long as they were covering their direct operating costs. In other words it was extremely difficult to find, on the basis of the pricings and costings of the airlines, whether the regulatory authority really knew much about what was going on. Lemons and oranges were joined in accounting information.

The absence of any direct measure of the return on capital employed raises other questions about the use of capital in a regulated industry. The presumtion is that in regulated activities subject to a maximum return on capital employed, a greater use of capital will be made than in a competitive industry.[3] But Australian airline regulation, by concentrating on assessing fleet capacities, aims at curtailing an excessive application of capital. Hence investment leading to the expansion of airline capacity beyond existing market requirements is avoided, thus thwarting possibilities of substantial price competition to foster a greater volume of traffic. That interpretation reflects the doctrine underlying the two equal airlines policy.

Nevertheless this view must be challenged. For one thing the estimate of capacity reflects a whole set of assumptions about load factors, routes flown and aircraft use. But, with a given fleet capacity, further investment in ground facilities, especially for maintenance and servicing,

would keep the aircraft in the air for longer periods than normal operating experience in a competitive market would suggest. That possibility has not been scrutinised by the regulatory authority despite the evidence for very high utilisation of aircraft by the two major airlines.

In all these circumstances the decision to establish an independent air fares committee is most welcome. It would permit a public scrutiny of the many questions about pricing of airline services which the Holcroft Inquiry attempted during the course of its thwarted activities. That a thoroughly independent committee is essential to effective work is demonstrated by the Price Waterhouse recommendations to the Minister of Transport in July 1981.[4] This report reflected established industry and department views without any significant analysis of the Holcroft Inquiry's recommendations even though that was the task to which Price Waterhouse was directed.[5] Such an outcome was not surprising in view of the very limited time available.

V. DISCOUNTING

The ostensible purpose of discount pricing is to fill seats in aircraft which would not otherwise be taken. The theme of the belated submission by the Federal Department of Transport to the Holcroft Inquiry was that discounts should be commercially viable, self-financing and not dilute the revenues by diverting passengers from full-fare payments. In short the purpose of discounting was traffic generation and not diversion.

The discounting experience suggests that these objectives were not met. Both the airlines and the regulatory authority lacked the information to determine a discriminatory pricing policy owing to the failure to estimate market demand. Discounts through tour-based fares stimulated tourist traffic. Other discounts for social and commercial reasons have been implemented on occasions.

From time to time discounts have been extended widely to foster an increase in load factors. This policy was pursued by TAA during the latter part of 1979 and much of 1980 in an effort to increase its passenger traffic. The repercussions are well known. The airline achieved its target, but at the cost of having perhaps as much as 20 per cent of its passengers travelling on discount fares of one type or another. Ansett did not match this effort, recognising the implications of such discounting for the dilution of its revenues. This controversial issue was resolved by ministerial intervention to

limit discounts and to refer the matter to the Holcroft Inquiry on 12 September 1980.

One general question is pertinent to the discussion of discounts. How could discounting proliferate when there was close supervision of fleet capacity? For reasons spelt out earlier the estimates on which fleet capacities are based do not reflect operating experience. Hence the available aircraft exceed the number necessary to operate the specified traffic schedules even supposing those schedules were adhered to by the airlines. Furthermore there was no reason for thinking, at least up to the time of the Holcroft Inquiry, that the Department of Transport had developed a model of the networks for both airlines which would have permitted that regulatory authority to judge the optimal number and mix of aircraft types to meet the needs of the network. Without such analyses the matching of aircraft with various stages, sectors and routes does not ensure optimal use or numbers of aircraft. The linear programming model developed for the Holcroft Inquiry aimed at estimating network costs with jet aircraft but it gave some insight into aircraft use. Although too much may be made of this work owing to the abrupt termination of the Holcroft Inquiry, that analysis hinted at the airlines having perhaps as much as 20 per cent excess capacity in relation to the requirements of their networks.

In effect the provisions for supervising fleet capacity have not been tight. Thus the airlines have a good measure of capacity which could be turned to traffic generation should that possibility exist. But the nature of the Two Airline Policy hampers the differentiation of markets so that revenue dilution is an ever-present risk with any significant effort at discounting.

The effect of discounting policies by airline management has been to strain further the purposes of fleet capacity limitations. Lacking knowledge of the nature of the markets and having certain beliefs in the nature of the capacity, frequency and schedules to be operated, the authorities give little attention to the effects of discounting. What seems to have taken place is that discounting has been expanded over recent years. As a result the load factors have been increased. The implications are striking. With the achieved load factors higher than the load factors used to establish what capacities were required, it was then possible to justify more aircraft because of the growth in passenger traffic. But the purpose of discounting is to fill existing seats, whereas the problem has been that discounting seems to have

brought additions to fleets and, in all likelihood, substantial cross-subsidies from the regular fare-paying passenger to discount passengers. This has been shown by the growth of holiday air traffic in this country compared with other types of passenger traffic.

In these circumstances it is difficult to interpret what is meant by commercially viable discounts. Yet that has been the concept advanced by the Department of Transport. On some interpretations a standby fare as low as 5 or 10 per cent of the regulated fare would be commercially viable. But such a pricing approach would risk diversion by regular fare passengers and thus would dilute revenue. Under a cost recovery pricing arrangement, as has been the case in Australia for so many years, this could only lead to further rises in regular fares thus making discount fares all the more attractive.

VI. FINAL COMMENTS

The competitive objective has had a negligible impact with respect to airline operations along the major trunk and regional routes. TAA and Ansett under the new legislation have primacy to a degree they have not had before. Certainly commuter airlines operations have expanded but they might now be retarded as the result of new requirements. The only area in which one is likely to find competition is in the regional operators of which we have only two in this country independent of the majors: East-West and Bush Pilots. It is there that the pressure of competition between the rise of the small commuter airlines and the primacy of the two majors provides a competitive squeeze. That is as a result of regulation and not market forces.

On reflection, the existing practices of regulating airline activity in Australia have little to do with simulating a competitive situation. Regulation has been directed to the preservation of a two airline arrangement regardless of price, cost or efficiency. The Australian position is an extraordinary case of constrained behaviour whereby a national network is deemed possible only by maintaining two equally-sized airlines.

Yet a national network can equally well be provided by a number of airlines of varying sizes competing on some routes and operating solely on others. The dense routes on the eastern seaboard would accommodate more than one carrier in a competitive environment. No doubt carriers on these routes would offer a variety of services with respect to price,

frequency and speed. The less dense routes would see one major operator surviving, probably in competition with one or a few commuter services. Such outcomes would depend upon the availability of common carrier facilities at airports. This would require a major re-orientation of policies about the provision of domestic airport services.

One situation of immediate concern may help clarify this distinction between the existing concept of the network and one more attuned to stimulating a competitive outcome. The Tasmanian position is that travel to and from the other States - the 'mainland' in the local dialect - is only available by air as the other mode, by sea, is limited in access and frequency. However there is equally no justification for a general reduction in air fares to and from Tasmania by comparison with other air fares around Australia. Business and official traffic from northern or southern Tasmania would use air services even were there frequent sea transport services or a land bridge. But so long as a two airline policy applies, given the present and prospective traffic estimates, there will be a few dual departures from the main ports in Tasmania throughout the day with no prospect for effective market differentiation leading to discounting off-peak services.

A single major operator would be in a position to secure high load factors from full fare-paying passengers in preferred hours for business and official travellers while being in a position to discriminate more securely than at present with two airlines. With open entry the one operator would face potential competition should the charges to full fare-paying passengers earn substantial profit margins.

Notes

1. Two aspects of this established passenger schedule should be noted. First, the two airlines have a mutual interest in 'rationalising' to the use of one aircraft on routes with low load factors when two aircraft would be operating. In this way aircraft would be released to work on extra flights especially those serving tourist developments. Secondly, there is no evidence of the regulatory authority, the Department of Transport, having checked to see whether or not the established schedules were adhered to as part of a regulated passenger transport service.
2. *Report of the Independent Public Inquiry into Domestic Air Fares* (Australian Government Publishing Service, Canberra 1981). Volume 1 - Report, Volumes 2 and 3 - Selected Submissions.
3. A.A. Robichek, 'Regulation and Modern Finance Theory', *Journal of Finance*, Vol. XXXII, June 1978, pp. 693-705.
4. Price Waterhouse Associates, 'Jet Network Air Fares. Recommendations', July 1981.
5. Without embarking on an exhaustive appraisal of the Price Waterhouse document, two features may serve to illustrate the extent of regression: first, the decision to recommend the treatment of interest as a cost with no more than cursory acknowledgement of the detailed arguments and reasons in the Holcroft Report; secondly, the dismissal of the Holcroft recommendation on the allocation of overhead costs without any explanation or analysis.

Energy Policy and the Gas and Fuel Corporation of Victoria

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Energy Policy and the Gas and Fuel Corporation of Victoria *

G.W. Edwards

I. INTRODUCTION

The Directors of the Gas and Fuel Corporation of Victoria (GFC) might reasonably expect to be assessed in terms of how well they do what the Victorian Government says they are to do. To take that approach in this paper would be to beg the most important questions. If one believes that the Victorian Government has given the GFC inappropriate terms of reference, that belief should not be set aside. It is more useful, and more interesting, to examine the activities of the GFC in association with the stated objectives of governments.

My approach is, therefore, to start with a brief statement of and commentary on the objectives of energy policy. Because of the importance of the Federal Government's role in overall energy policy in Australia, the objectives enunciated by it are covered, as well as the objectives of the Victorian Government. This is followed by an outline of the objectives of the GFC and a consideration of some features of its behaviour. Because of the importance that I believe attaches to the issue of gas pricing, particular attention is given to this. Finally, some observations are made on ways in which governments could make the behaviour of the GFC correspond more closely with the community interest.

Examination of the behaviour of politicians, governments, bureaucracies and statutory authorities under different constraints is an important part of the subject matter of the economic theory of regulation or public choice. (See, for example, Buchanan et al (1978), Peltzman (1976), Sieper (1982), Tullock and Perlman (1976).) The insights provided by that approach appear to be important both in understanding the current situation in the Victorian natural gas industry and in thinking about changes in Government policies which might allow larger and more evenly distributed economic gains from

* Helpful comments from R. Clarke, D. Hocking, G. Lindsay, C. Richardson and officers of the Department of National Development and Energy are gratefully acknowledged. However, an author must - and this one does - accept responsibility for the final product.

Victoria's natural gas. Some of these insights are utilised in this present paper.

II. OBJECTIVES OF GOVERNMENT ENERGY POLICY

Federal Government

In its publication *Australian Energy Policy - a Review*, published in 1979, the Department of National Development repeated six objectives of the Federal Government's energy policy that had been stated initially in 1977. These were:

- to move crude oil prices to world parity over a number of years;
- to restrain the average rate of growth of energy consumption, particularly of liquid fuels;
- to achieve the highest degree of self-sufficiency in liquid fuels consistent with the broadly economic use of Australian energy resources;
- to develop new economic oil and gas resources;
- to substantially increase energy research and development, particularly in coal liquefaction and solar power; and
- to encourage individual major projects to meet overseas demand for energy materials where these would provide an adequate return to Australia (p. 4).

Four observations on this list are pertinent to my purposes. First, Federal Government policy has been directed primarily to improving the supply-demand balance for **liquid** fuels. Second, aligning domestic crude oil prices with prices in international trade is listed as an objective in its own right. This is an enlightened view; often world parity pricing for oil has been viewed unrealistically as an evil that is necessary to achieve other **real** objectives (say, items 2 to 5 in the above list). Third, an important qualification is attached to the objective of a high degree of self-sufficiency in liquid fuels. The intended message, I expect, is 'balance the value (in terms of security) of extra self-sufficiency against the costs.' Fourth, the final objective explicitly recognises that, notwithstanding the objective of a high degree of self-sufficiency for liquid fuels, some projects involving the export of energy resources advance Australia's economic interest.

Victorian Government

The first listed aim in the latest statement on Victoria's energy policy is rather nebulous:

> Management of Victoria's resources to ensure the wisest allocation of energy forms to particular uses, having regard to present and long term needs. (Energy Policy for Victoria, March 1979, p. 4)

Other aims include conservation; 'minimum dependence on imported crude oil'; encouraging exploration; encouraging and monitoring energy research; 'the provision of all forms of energy for Victoria as cheaply as possible'; and 'co-ordination of activities with the Commonwealth and other States and continuing review of policies in the light of Australian and overseas developments' *(ibid)*.

Apart from the predictable vagueness with which some of these aims are stated, there are clearly some conflicts. The most obvious is the conflict between the aim of cheap energy and the aim of conservation and avoidance of wasteful energy use. But there are also other conflicts - for example, between low (producer) prices for energy and increased exploration.

When we look for a more specific statement on gas we find the following:

> The prime objective of natural gas resource policy is to extend the scope of natural gas in the State's energy supply by continuing to replace scarce petroleum products in stationary uses. The replacement of oil in stationary uses is achieved by matching fuels through the price mechanism with their economically appropriate end uses, thus precluding resort to consumer coercion via physical allocation schemes. (op. cit. p. 25)

Although they cannot be elaborated in this paper, it is important to bear in mind that **general** objectives of governments, and not just the objectives of energy policy, are relevant in evaluating energy policies. I suggest that the general economic objective of using **all** resources efficiently, thereby facilitating increases in the level of real incomes, is especially pertinent in this context. The statement of the Victorian Government's energy policy objectives shows much less appreciation than does the Federal Government's statement, of the need to weigh what one would like to

achieve in the energy area against the costs in terms of foregone achievement of other objectives.

III. GFC OBJECTIVES AND BEHAVIOUR

Objectives

Consistent with the Victorian Government's policy on natural gas, the *Gas and Fuel Corporation Act* says the Corporation is 'to encourage and promote the use of gas'. Recent annual reports have included the following statement of objectives:

> As a public authority of the State owned jointly by the Government and public shareholders, the Corporation's principal objectives are:
>
> - to ensure a safe, economical and effective supply of gas to the people of Victoria.
> - to promote the efficient use of gas in those applications where it can effectively contribute to meeting the energy demands of modern society.
> - to operate as an efficient business enterprise at a level of profit consistent with its role as a publicly-owned utility.

Behaviour

Undoubtedly, the factor that has been overwhelmingly important in encouraging the use of gas has been price. The first contract negotiated between the GFC and Esso/BHP in 1967 provided for the supply of 2 trillion cubic feet of natural gas over 20 years at a price of approximately 3 cents per therm. Another contract signed in May 1974 covered the provision of a further 3 trillion cubic feet of gas. In this contract the base price was again approximately 3 cents per therm, but the price was to be adjusted at a rate equal to half the movement in the Consumer Price Index.

This form of indexation has proved a very happy choice for the GFC. The increase in the Consumer Price Index, divided by two, in Australia between March quarter 1975 and March quarter 1981 was 41 per cent. By contrast, measures of international prices for gas suggest that the 'world' price for natural gas more than doubled in the same period (see Carrick, 1980; Hocking and Clarke, 1980).

The Chairman of the GFC, Mr Smith, makes the point

that its contracts for the purchase of gas from Esso/BHP in 1968 (negotiations for which occurred in 1967) and 1974 were freely negotiated at prices acceptable to both parties. Questions have been raised about how free Esso/BHP felt during the negotiation of the second of these contracts. Leaving such questions aside, I find Mr Smith's argument on this matter convincing and I also find reasonable the statement:

> The Corporation is not averse to paying today's market price for today's gas. If Esso/BHP come forward with new reserves we will be happy to negotiate on today's market price, but we are not prepared to pay today's price for gas that was discovered and developed over ten years ago (Chairman's Address, 30th Ordinary General Meeting, 1980).

However, I do not think that higher prices for Esso/BHP on existing contracts are what is sought by most of those (called by Mr Smith 'a small but vocal lobby') who claim that Victorian gas prices are too low. What these critics of Victorian gas pricing policy support is movement of **user** prices for gas towards the prices that reflect the market value of gas under conditions of free exchange, including international exchange. This is essentially the policy that has been in existence for 'old' oil in Australia since 1978: consumers, but not Esso/BHP, have experienced fully the movements that have occurred in world prices.

The price of gas to users reflects charges for the costs of getting the gas to them and the turnover tax imposed on gas (and electricity) sales by the State Government, as well as the price that the Corporation pays Esso/BHP. These charges account for most of the consumer price of gas. The GFC opposes higher prices for consumers. This is, no doubt, to be expected given the GFC's charter, its business and the interests of its management in the Corporation's growth. Two important issues arise here. One can be phrased as a question: who should benefit from the large gas purchases made by the GFC at prices much below current international prices? The other issue concerns the effect of present pricing policies on incentives to economise on the use of scarce natural gas resources.

The Corporation's view on the first issue is clear. Mr Smith has said that the Corporation '. . . makes no apologies for any advantage that present contracts offer its customers' (Chairman's Address, 29th Ordinary General Meeting, 1979).

In support of this view it can be argued that the GFC has contracted legally to buy the gas and has the right to decide upon the price and other conditions of its sale. Against this it might be held that a statutory corporation should represent the interests of **all** people in the State where it is established. In fact, it can be argued that the GFC, and other statutory bodies, have a responsibility to their citizen 'shareholders' which is as fundamental as Esso/BHP's obligation to its shareholders - an obligation remarked upon by Mr Smith (letter to *The Age*, 25 April, 1979). If this argument is accepted, it would appear to be incumbent upon the Victorian Government to ensure that the GFC (and other Government-established bodies) give priority to giving a good return to their 'shareholders'. The 'citizen-owners' of the natural gas resource will benefit from higher user prices.

Although I find the citizen-owners argument presented above persuasive, I cannot prove that it is correct. The argument rests ultimately on one's view on who owns the property rights in gas purchased cheaply by the GFC: is it the GFC, gas consumers or all Victorians? Some policy changes that merit consideration if that gas is considered to belong to all Victorians are discussed in the final section of the paper.

The second issue distinguished earlier - the effect of pricing on gas use - calls for a more detailed discussion.

IV. PRICING AND EFFICIENCY

Putting the matter simply, the efficient use of a resource means using it where it is most valuable. In general, this requires that the price of the resource in each use and to each consumer should be equal (after allowance for any differences between uses or between consumers in the costs of making it available). If there is more than one price the value of the resource, at the margin, will differ between individuals and/or between uses. More value could be obtained from a given amount of the resource by reallocating some from lower price buyers or uses to higher price buyers or uses. Efficiency also requires that the price that prevails wherever a resource is used is not less than the price that could be obtained in any use that is foregone (opportunity cost).

One widely accepted means of valuing a product or a resource that is traded internationally is to use a representative world price. Although it is considerably more difficult to determine a world price for natural gas than for

wheat or tin (largely because international gas contracts vary greatly with respect to such factors as size, processing costs and transport costs), this can be done. The value of natural gas exported from eastern Australia to Japan, expressed as 'export netback' at the wellhead, has been estimated by Hocking and Clarke (1980) at 21 cents or 26 cents per therm, depending on the size of the liquefaction plant. (The lower of these figures was well above the marginal price received by the GFC for gas delivered to large industrial users in 1980). This approach to the valuation of natural gas can be regarded as putting a **lower limit** to its value. The freely determined price of natural gas could be much higher than export parity in some locations and uses in Australia. The value to Australian users is in many situations influenced strongly by the price of substitutes derived from crude oil, prices for which reflect world values (and the costs of transport to Australia). Often a pricing pattern giving approximately equal value to a unit of energy in gas and oil products would be expected to emerge. The size of departures from energy equivalent pricing would vary considerably across space and uses, reflecting differences in such factors as relative distribution costs and the importance attaching to pollution abatement.

If natural gas were quite uncompetitive in the Victorian market when priced at its export value - a situation very hard to envisage while oil prices are tied to import parity - it would be better to sell the gas in the export market only. It would then be possible, if that were desired, to distribute the proceeds from the export of gas so that Victorians denied the opportunity to buy natural gas could buy alternative energy and be better off than if they had been able to buy gas cheaply.

If one holds the view that export of Victorian natural gas (even in conjunction with gas from elsewhere) is unattractive because the quantity involved is too small, one can still conclude that it is being sold well below its value by comparing its price to users with the price of competing energy forms in Victoria and by comparing the return Victorians currently get for this resource from local sales with the return available from interstate sales.

Movement of user prices for natural gas to, or towards, levels reflecting world energy market realities has been supported by Federal Ministers, the National Energy Advisory Committee and, with least equivocation, the Australian Treasury. In Victoria, a Green Paper on Energy prepared for the Ministry of Fuel and Power and published in 1977 pointed

out that 'cheap energy, although attractive as a short term benefit, can give rise to substantial long term costs'; but this piece of conventional wisdom was presented in the abstract, and not associated with the existing pricing policy for natural gas (or any other energy resource). In fact, the existence of short term economic advantages from low prices is unlikely, when one counts losses to Victorians as natural gas owners as well as gains to Victorians as consumers of gas. Even analysts who have been highly critical of market-oriented approaches to energy policy have criticised unduly low consumer prices for natural gas in Victoria (e.g. Saddler 1981).

In pointing out the GFC's complete opposition 'to any form of so called world pricing of natural gas', Mr Smith said:

> As I have indicated on a number of occasions, I believe that the availability of energy at reasonable prices is one of the few factors we have favouring the manufacturing industry in Victoria and, notwithstanding all propaganda advanced by oil companies and other vested interests, I see no reason to alter that opinion (Chairman's Address, 30th Ordinary General Meeting, 1980).

The GFC appears to consider that the costs of extracting natural gas and making it available to customers is more relevant than its value in the energy market in determining the price to users. It takes a similar position in relation to liquid petroleum gas (LPG), a fuel that is exported and which is sold in Australia at a price reflecting its value in the world energy market, though this export parity pricing applies only while it gives a lower domestic price than results from adjusting a 1980 base price for LPG at the same rate as the movement in oil prices. A Federal Government subsidy reduces its price to domestic and some other consumers. The GFC has called on the Federal Government to abandon '. . . its unrealistic export parity pricing policy' and to see '. . . that Bass Strait LPG is supplied to the Australian market at a price related to the true cost of production . . .' (Chairman's Address, 29th Ordinary General Meeting, 1979). This emphasis on supply and neglect of demand considerations was once a feature of the commodity policy proposals of farmer organisations in this country; it is now less evident in that area. The crucial point is that given Australia's small weight in the relevant international markets, the value of Australia's oil or gas production, like the value of its beef or sugar, is determined primarily by supply and demand **outside Australia;**

costs and demand **within** Australia are relatively minor in importance. If the view is accepted that international comparative advantage is appropriately gauged in terms of ability to compete when tradeable outputs and inputs are priced at world values, it is difficult to reconcile the GFC approach with the objective of using Australia's package of resources (labour, capital and natural resources) in those uses where their values are highest.

Consider for a moment the pricing of natural gas in the context of the objective of increased self-sufficiency in oil. Mr Smith has said that 'every tonne of fuel oil or heating oil displaced from non-transport applications by natural gas in Victoria increases our ability to cope with this 'oil crisis' (News Release, Gas and Fuel Corporation of Victoria, 19 February, 1979). This is true, and given that more self-sufficiency is regarded as a good (has a positive value) there is some gross benefit from substitution of natural gas for oil. But five points (at least) need to be made. First, higher self-sufficiency will not itself afford Australian oil users any protection from externally generated price shocks so long as local oil continues to be priced to refiners at import parity. Second, from the point of view of eking out the oil for Victoria's future use, it may be noted that as Victoria accounts for a little less than one quarter of Australia's oil consumption it could expect to obtain less than 1 extra barrel of oil as existing domestic fields near depletion for each 4 barrels of oil saved now by turning to substitute fuels in Victoria. On the other hand, it is to be expected that Victorians bear a high proportion of the costs involved in using natural gas at a price below its value. Third, and this is implicit in what has been said already, the sense in pricing one scarce resource well below its value in order to economise on another resource that is in some way scarcer, is dubious. The effect is to increase overall use of the resources. Fourth, it needs to be recognised that the efficient pursuit of higher self-sufficiency in oil requires that oil prices be raised, not that gas prices be held down. Only with domestic oil prices (to consumers and producers) above world prices and other energy resources priced on world energy market values will more 'self-sufficiency in oil' be obtained without causing production and consumption patterns to diverge from those appropriate to Australia's comparative advantage. The implication for Federal Government policy on oil pricing is obvious. (Perhaps consideration of this implication would lead to a reassessment of the importance attached to the self-sufficiency object-

ive.) Fifth, the case against big incentives to encourage gas consumption is stronger if its price is expected to rise rapidly. It appears that the GFC expects this to happen. Its loan advertisement line that 'energy will be more precious than gold' in tomorrow's Australia suggests that more gas should be left in Bass Strait to appreciate in value.

Another strand to GFC (and, it seems, Victorian Government) thinking is the idea that socially optimal decisions on the choice of fuels for particular uses can be made by a party other than the individual consumer. '. . . We must influence people to use gas when gas is obviously the right fuel for the job' (Chairman's Address, 27th Ordinary General meeting, 1977). Can the GFC, or anyone other than Mr and Mrs W.E. Cook and family, say that gas or electric cooking is best for them given their cooking habits and preferences, their attitudes to cleaning, their views on the aesthetics of gas and electric appliances, their assessment of their children's safety, and perhaps their views on future prices for gas and electricity? I would answer no, and would give the same answer in relation to choices between gas and alternative fuels for purposes other than cooking. For those who are in the business of providing one option to suggest that some consumer decisions are right while others are wrong strikes me as improper pressure on the customer. The criticism that such behaviour warrants is strengthened by the under-pricing of gas. To attempt to define right uses for a resource, whether that be labour, wool or natural gas, when price is held below the opportunity cost is to attempt a form of sub-optimisation. It would be preferable to define and establish a right **price**, and let the uses sort themselves out.

The GFC has used considerations regarding right and wrong uses of natural gas **by Australia's trading partners** in criticising the export of gas from the North West Shelf. The criticism of this project is in spite of GFC assurances that established Bass Strait reserves are sufficient to meet cumulative demand (even, presumably, with present pricing policies) for some time into the next century; that there is more gas to be found in Bass Strait; and that substitute natural gas produced from brown coal will make a 'significant contribution' to Victoria's energy needs 'if, or perhaps I should say when, the time does come to switch over to manufactured gas . . .' (Chairman's Address, 27th Ordinary General Meeting, 1977). Mr Smith said that the export of North West Shelf gas 'just doesn't make sense' and 'the big financial interests who stand to make millions . . . somehow or another have convinced both Government and opposition parties in Canberra alike

that money is more important than energy security' *(ibid)*. Although it was probably only padding to an argument predicated on other grounds, Japan's likely use of some of the gas for 'power generation and other non-premium uses' was advanced as a point against its export. One thing that the North West Shelf project **should** do is to stimulate thinking about the difference in prices received for exported Shelf gas - expected to be at least 50 cents a therm in Japan (*Australian Financial Review*, 7 July, 1980) - and for Bass Strait gas sold in Victoria.

It is worth noting that the decisions to build gas-fuelled electricity generators in Victoria at Newport and Jeeralang would be less susceptible to criticism if it were clear that the price paid by the SEC for gas purchased from Esso/BHP was reasonable in relation to world prices. (The price is confidential.) SEC assessments of whether to build gas power stations, and of their appropriate size, would correspond more closely to an overall cost-benefit analysis with a realistic price for the fuel input. If the price is low, as one suspects, it provides a firmer basis for criticism of these projects than the conviction that natural gas is the 'wrong' fuel for use in electricity generation.

In setting prices to users the GFC says that it endeavours to charge each class of user a price that covers the cost of supplying them, thus avoiding cross-subsidisation. (The policy of uniform pricing of natural gas throughout Victoria violates this principle.) In accordance with this approach, the price per unit of gas supplied to commercial and industrial users falls progressively as one moves to higher consumption blocks. The domestic pensioner category also includes two consumption blocks. The fixed charge per meter per month which applies to other customer classifications does not apply to pensioners; this is presumably an equity measure intended to reduce the monthly bill faced by pensioners using very little gas. In the case of pool heating and air conditioning in the domestic sector, the price **increases** as one moves from the first to the second consumption block. This is inconsistent with the cost-of-supply guideline and appears to reflect a GFC judgement that, beyond a certain level, an individual's use of gas for these purposes becomes socially less acceptable. However, the price (at June 1982, 0.285 cents per MJ or 30 cents per therm excluding the supply charge of $3.84 per month) of the first 40,000 MJ per month used for heating pools and for air conditioning is the lowest domestic tariff; additional gas used for these purposes shares the next lowest price (0.351

cents per MJ or 37 cents per therm with domestic space heating). There is a good reason for the relatively low price of gas for pool heating and for air conditioning: it is used in the warmer months when the gas supply system does not operate so close to its capacity. Comparing the price schedule operational at 16 August 1976 with the current one shows a moderate overall increase in prices and a reduction in the dispersion of prices across tariff classifications. Does this mean that the costs of supplying gas for different purposes have become more nearly uniform or does the Corporation see more uniform prices as desirable for other reasons?

The GFC carries out a range of promotional and informational activities. Some of these are intended to bolster the effects of attractive prices on gas sales. Others, such as the demonstration of low energy houses, education on ways of reducing energy use and the advancing of credit at favourable rates to customers of the Corporation's Home Insulation Division, could be expected to result in energy savings, though not without cost. The GFC's publication *Waste Not Want Not* presents a more pessimistic assessment of the availability of domestic oil at the end of the century than do the Federal Government and the National Energy Advisory Committee. (Presumably the Corporation is correct; its Energy Information Centre 'supplies all the answers'!) The hint that 'paper can be made to go further by using a lighter pen writing on both sides' apparently holds no attraction for the Corporation's Energy Management Centre whose annual reports feature much blank paper. In an application of an important principle in the writings on the economics of regulation, Hocking and Clarke argue that a distributor obtaining gas below world levels is likely, unless there is strict supervision by the Government, to dissipate the economic rent in unnecessary expenditure. According to them, 'it seems unlikely, for example, that resources would be devoted by gas distributors to energy conservation centres if competition between distributors of different energy sources were more evenly balanced' (Hocking and Clarke, 1980, p. 45).

V. NEW APPROACHES

The discussion in this section is predicated on two propositions. The first proposition is that Victoria's valuable natural gas resource is being wasted and that the elimination of this waste requires that users pay a price which reflects its market value. The second proposition is that by selling natural gas for much less than its value Victoria is foregoing

opportunities to do better on objectives other than economic efficiency - objectives such as making the distribution of real incomes more equitable and increasing employment and industrial development in the State.

The first proposition was supported in some detail earlier in the paper. In brief, economic costs are incurred in selling natural gas within Victoria at present prices.

The second proposition warrants some discussion. It concerns the collection and use of the economic rent on the large amounts of natural gas which the GFC has contracted to buy. Whatever the reasons for the conditions of the contracts between GFC and Esso/BHP, they ensure that a large share of the increase in economic rent that would have accrued to the Gippsland Basin producers had they received the full benefits from the energy price rises of the last fifteen years are available for whatever purposes the Victorian Government wishes to use them. By choosing to keep increases in the price of natural gas to users well below the increases that would have occurred had prices followed world energy markets, the Government has effectively chosen not to collect much of the economic rent available to it; rather, it has allowed this rent to pass to natural gas consumers, with each consumer's share in the rent being proportional to his use.

This is, of course, one way to distribute economic rent. However, apart from ensuring that resources are used in less economically productive ways than they would be with realistic gas prices, it is hard to reconcile it with statements by governments on other objectives. The distributional objective of transferring real income from the better off people to the worse off is rarely achieved well through holding a price down. Given that the biggest domestic consumers of gas are typically using it for ducted heating and to heat swimming pools even the possessor of the slickest hired tongue might blush while arguing that distributional equity is being promoted.

A large number of households using small amounts of natural gas, or none, are worse off with present low gas prices than they would be with prices that reflected values in world energy markets together with a wide distribution of the resulting increase in Government revenue (through reductions in other taxes and charges or through extra publicly-provided services). But a cautionary note is in order. The beneficiaries from the reductions (or increases avoided) in other taxes and/or the increases in government services that occur when government revenue from a particular source, such as

natural gas, is increased by $x million depend on **which** other taxes are reduced (and by how much) and on **which** government services are increased (and by how much). The distribution of benefits from a reduction of $x million in government revenue due to reducing payroll taxes, holding down public transport fares or reducing charges for liquor licences will all be different. Similarly, the distribution of benefits from extra facilities for the aged will be different from that from extra resources for education, and both will differ from the distribution of benefits from environmental protection. Because of this there would be much merit in funding cash payments to those deemed deserving on equity grounds out of the increase in Government revenue. If it were judged that **all** Victorians should share in the economic rent an annual cash payment could be made to each citizen to use as he pleased. Of course, users of large amounts of gas - the largest customers are industrial and commercial users which together account for some two-thirds of the GFC's sales - would lose more from the removal of current low prices than they gained from equal division among Victorians of the benefits from the increase in value of natural gas covered by the GFC's contracts.

Similarly, objectives concerning the promotion of employment and industrial development are highly unlikely to be achieved at the lowest cost by subsidising inputs of natural gas. If users of natural gas were charged prices that corresponded to energy values in world markets substantial extra resources would be available to Government for rewarding industry on a basis more closely related to job creation or industrial expansion. A reduction in payroll taxes is one example, albeit an important one, of what could be done.

It appears ironic that while so much attention is being devoted to devising resource rent taxes and other devices to obtain a significant part of the economic rent from the extraction of Australia's natural resources for the community, the opportunity that exists to collect and use in equity-promoting ways much of the economic rent from Victoria's natural gas is being passed over. This contrasts with the gathering of much of the economic rent from Bass Strait 'old' oil through the Federal Government's policy of increasing its tax take in response to increases in world oil prices. Victoria's failure to collect and distribute in an equitable fashion the easily collectible economic rent from the natural gas covered by the GFC's contracts could be held to strengthen the case for the Federal Government to levy an excise tax on Australian natural gas.

What approaches could be followed in order to raise user prices for the natural gas that GFC has contracted to buy at prices well below current market values, and to put the benefits from the increase in value of the resource at the disposal of the Victorian Government? There are several possibilities.

The first and perhaps the most obvious way to make consumer prices of natural gas covered by existing contracts more realistic would be for the Victorian Government to increase the taxes it levies on the GFC's turnover. This would require no changes in the present institutional arrangements of the natural gas market in Victoria.

A second approach would be for the Victorian Government to require the GFC to cost natural gas into its system at its value on the basis of world energy prices, even though the price at which it buys from Esso/BHP is well below this. The GFC would then have to raise user prices and the amount of turnover tax paid to the Government would increase.

A third approach, favoured by Hocking and Clarke (1980), would make the **actual** price paid for natural gas by the GFC (though not the price received by Esso/BHP) equal to the world price. This would involve placing a levy on gas purchased by the GFC to increase city gate prices to world levels. The GFC would then have to raise its selling prices. This approach would be similar to the Federal Government's policy for ensuring that oil refiners and consumers of refined petroleum products pay world prices for indigenous crude oil.

Each of the above three approaches could give the appropriate increases in the GFC's selling prices for natural gas. The second and third approaches have two advantages over the first one. The tax per unit of gas is not higher for smaller users as it is with the turnover tax (because consumers of small quantities pay a higher price). And they provide incentives to reduce natural gas lost due to leakages. Using any of the three approaches the initial market value of natural gas and subsequent movements in market value would need to be determined by a party independent of the GFC.

A fourth, and rather different, approach to using natural gas in the interest of citizen-owners would be for the Government to direct the GFC to make as large a profit as possible. Again, the tax collected by the Government with a given rate of turnover tax would increase. The reflex reaction that profit maximisation is an inappropriate policy for a public utility is unwarranted if it is accepted that part

of the gas bought cheaply by the GFC 'belongs to' each Victorian. Profit maximisation would require that the price of gas in different segments of the market be set with regard to the competition from substitutes.

With the use of any of the above four approaches the interests of the citizen-owners of natural gas would be advanced by requiring the GFC to sell natural gas interstate or overseas if this gave a good return. They would be further advanced by requiring that the price charged for natural gas in all locations and uses at least equal the marginal cost of supplying it. Refraining from supplying gas to country or other users at less than marginal cost would be an essential condition for implementing the fourth (profit maximisation) approach to rational use of gas and should occur without government directive if that approach were followed.

Would private ownership help? Once one takes the radical (or conservative?) step of admitting approaches involving a bigger role for private ownership, a number of options emerge. The most obvious one, which has been seriously raised at various times in the past, would be to sell the GFC, and its contracts to purchase gas, to private enterprise. Alternatively, the distribution of natural gas could be left with the GFC while the gas covered by the contracts was sold to the highest bidder. With each approach arrangements could be made for payment to occur over time, perhaps coinciding with the sale of gas by the successful bidder. With either approach the State would receive a higher price - and the most efficient use of gas would be facilitated - if the sale included the right to export. This right would appear likely to be forthcoming from the Federal Government if it was supported by the State Government. With sale of the gas only to private enterprise, steps would be needed to ensure that the distribution network was available to the purchaser. This could be achieved if the distribution system, or appropriate parts of the system, were given common carrier status. (This status applied to the main trunk pipeline until 1971.)

A very different route to 'privatisation' would be to offer property rights in the GFC's natural gas to each citizen of Victoria, perhaps at a price sufficient to pay Esso/BHP. This approach would give meaning to the claim that 'natural gas belongs to the people'. Like the sale of the GFC to the private sector, this approach would directly overcome the fundamental problems that arise because '. . . no one in the general public has any of the property rights usually associated with ownership' when a resource is 'publicly owned'

(Spindler 1980, p. 162). 'That is, there is no specific evidence of ownership such as a share; there is no right to receive benefits or to exercise any rights to control over specific bureaus or Crown corporations; there is no right to trade one's right with others - that is to buy and sell shares; and hence there is no market value to an individual's non-existent public ownership rights' *(ibid)*. If each citizen were allocated a share in the natural gas resource he would be able to sell it, to buy extra shares, or borrow against it. Again, of course, the value of the shares would be greater, the fewer the restrictions imposed on the use of natural gas. Citizens would then see clearly that it was in their interests to allow the export of natural gas. But even without the right to export, substantial competition could be expected for natural gas for marketing in Victoria with suitable common carrier arrangements in the pipeline system.

There are many possible approaches to using Victoria's natural gas resources less wastefully. Of the approaches discussed above, all except the last one - which involves offering valuable property rights in natural gas to each Victorian citizen - have the attractive feature, from the view of the Government, that they increase public revenue as they effect increases in efficiency. Approaches involving privatisation or profit maximisation by the GFC would ensure that user prices for gas responded in a fairly direct way to the changing realities of world energy markets; the responses would be more direct the fewer the restrictions on the sale of natural gas outside Victoria. Approaches involving a regulated industry, with Government action to make user prices for gas correspond to those that would occur in a free market, have the disadvantage that the relevant market price cannot be determined with perfect accuracy. But as Hocking and Clarke note, 'this problem, while manifestly real, does not make a case against attempting to improve the current evidently non-optimal situation. The direction, if not the precise extent, of the movement in prices required is obvious' (p. 52).

Postscript

After this paper was finalised the incoming Labor Government in Victoria announced a commitment to two fiscal principles that have implications for pricing and investment policies of public authorities. The first principle was that public authorities should pay an annual 'dividend' on the State's (or people's) equity in the authorities. The intention is to give taxpaying Victorians a fairer return on their

investments in public enterprises. The second principle was to move to opportunity cost pricing of scarce resources so that the benefits from these are shared widely rather than being received just by consumers in proportion to usage.

To collect its extra revenue on behalf of the Victorian community the Government increased the turnover tax on GFC sales from 15 per cent to 33 per cent and imposed a new energy consumption tax of, initially, 10 cents a gijajoule (0.01 units per megajoule) on consumption in excess of 10,000 gijajoules per year. Although they will not apply for the full financial year these two measures are expected by the Government to raise an extra $44 million and $10 million respectively in 1982-83, giving the State revenue of some $103 million from taxes on gas. In addition, doubling of the trunk pipeline licence fee is expected to raise a further $33 million from oil and gas resources in 1982-83. For gas consumers these measures involved price increases late in 1982 averaging 18.5 per cent, the increase being greater than this for gas for domestic pool heating and air conditioning (35 per cent) and for gas in contract sales to industry (23 per cent).

Changes in user prices of natural gas consistent with the principle of opportunity cost pricing of this scarce resource and of the principle of ensuring a decent rate of return on the investment of Victorians in the natural gas supply network are to be welcomed. Overall, the price changes effected by the Labor Government are a move in the right direction, though substantial further increases are needed. It was suggested in the previous section of this paper that higher consumer taxes were the easiest but not necessarily the best method of achieving needed increases in user prices. Although there is no apparent economic basis for some of the changes in price relativities - for example, the comparatively big increase in gas used for heating swimming pools - the Government, like its predecessor, had no trouble finding justifications for differential treatment that it favours on non-economic grounds. If new investments in the GFC system are restricted to those showing a real rate of return of 5 per cent or more (5 per cent being the dividend rate payable to the State on its equity) the logic of departing from the longstanding policy of pricing natural gas (like electricity) uniformly throughout the State should quickly become more widely appreciated as extensions to extra country centres are shown to be unjustified at pricing on the State schedule but attractive at prices that people in the centres would willingly pay.

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The Reporting and Accountability Requirements of Statutory Authorities

P.E. Rae

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The Reporting and Accountability Requirements of Statutory Authorities

P.E. Rae

In the short time available to me, I do not wish to canvass the major economic issues arising from the existence and operation of statutory authorities and the bureaucracies through which they are responsible to the Commonwealth and States' Parliaments. That has been done by the preceding speakers.

The four reports published already by the Senate Standing Committee on Finance and Government Operations indicate very clearly that the economic impact of statutory authorities is as substantial an issue as the reporting and accountability of those authorities to the parliaments which created them.

The issues of reporting and accountability have been highlighted by the recent problems of TAA and the Federal Government's proposal for restructuring it as a public company; by the Australian Wheat Board's accounting difficulties; by the Australian Dairy Corporation and its overseas subsidiary Asia Dairy Industries (HK) Ltd.; and by the difficulties of the Victorian and NSW power generation authorities.

The *Australian Financial Review* editorial of 26 June 1981 entitled 'Light Needed in Dark Places' which deals with the electricity authorities of Victoria and NSW says clearly what is becoming the bi-partisan view of the Senate.

> The technique of setting up statutory authorities, in the hope that they will operate in an expert fashion, free of political interference, created a series of inefficient monsters exercising political influence to escape any real public examination or criticism . . . The fundamental economic and political problem of how to make major public utilities operate efficiently in market terms, while also limiting their monopolistic power has to be faced.

There are substantial political, economic and social problems associated with statutory authorities. There has been a tendency to believe that by creating a statutory authority the problems will somehow go away. The opposite is proving to be the case.

The Economics of Bureaucracy and Statutory Authorities

In October, 1977, the Senate referred to the Finance and Government Operations Committee for investigation and report:

> The continuing oversight of the financial and administrative affairs or undertakings of Commonwealth statutory authorities, and other bodies which the Commonwealth owns or controls wholly or substantially, and of the appropriateness and significance of their practice in accounting to the Parliament.

It has proved to be a substantial task. It has revealed that the control structure and operation of statutory authorities is an area which has not received the attention it deserves.

At the Federal level there are over 257 authorities, at the last count, and between NSW and Victoria the number is about 1,000 and these only constitute the major authorities and does not take count of the thousands of smaller organisations. They intrude deep into our political and economic life. The loan raisings of the Commonwealth statutory authorities alone are currently running in excess of $2 billion; in 1978 they employed about 60% of all Commonwealth employees and their land and investment is equivalent to about 50% of the capitalisation of the companies held on the Sydney Stock Exchange. The Committee has no reason to believe that the relationship has changed dramatically.

The Federal statutory authorities are established by acts of the Commonwealth Parliament. Their very existence depends upon that legislation. The Parliament has a legitimate interest in their operations. While it chose to separate the functions and powers they exercise from the departments through whom they are responsible to the Minister and eventually and ultimately Parliament, it did not envisage that the authorities should live a life of their own free from parliamentary scrutiny.

All Federal legislation establishing statutory authorities requires them to report to the Parliament and in many cases the responsible Minister has power to issue directions; appointments to the authorities are made by the Minister or are subject to his approval.

The Committee has identified five main classes of statutory authorities. They are:

1. Business Authorities;
2. Primary Industry Authorities;
3. Administrative and Adjudicative Authorities;
4. International Organisations; and
5. The Non-Statutory Authorities.

The Finance and Government Operations Committee's concern has been to ensure that all the authorities should observe the highest reporting standards and fulfil their accountability obligations to the Parliament.

It may be useful to state some fundamental propositions about statutory authorities before going into detail about what I see as the accountability and reporting obligations of statutory authorities to the Federal Parliament. The propositions are:

1. Tax-payers have a valid interest in the operation of all statutory authorities. In addition to the fact that their very existence depends upon the Parliament, the Commonwealth would be expected to meet the bill in the event of their financial failure.

2. The Parliament confers rights and privileges on the authorities - it may be a trading monopoly; it may be preferential financial arrangements and it may be exemption from taxation and so on. The bestowing of the rights and privileges creates duties and obligations.

3. The Parliament which is responsible to the electorate at large is the steward of the taxpayers' funds. It has a clear duty to ensure that to whomsoever it grants rights and privileges the concomitant duties and obligations are fulfilled. This entails authorities reporting regularly and in detail about their actions. As Ministers are answerable to the Parliament for the action of the statutory authorities for which they are responsible, Parliament is entitled to full and complete disclosure. The fact that the source of the creation of the statutory authorities is the Parliament requires the highest standards of accountability. The standard should be at least equal to those expected from individuals or corporations who are subject to the sanctions of common law or the Companies Acts.

4. Members appointed to statutory authorities, especially in the trading area, have special duties and obligations

imposed upon them which at least require them to act in a manner similar to directors of public listed companies governed by the Companies Act and the rules of the Australian Stock Exchanges.

During its investigations the Committee noticed that across the broad spectrum of statutory authorities there is resistance to Parliament's exercising its proper function in maintaining the oversight of its creations. The resistance is based on the view that because a statutory authority has been created it has no further or very limited obligations to the Parliament. It is a view of complete separation from the Parliament. It is often explained by a desire on the part of the trading authorities to be commercially independent. This notion is false. Be they trading or primary industry authorities, personnel are often employed in accordance with the Public Service Act or within public service guidelines; the Commonwealth Superannuation Scheme operates; in some cases Commonwealth government guarantees or letters of comfort are given for loan raising and the chairmen have their salaries determined by the Remuneration Tribunal; equipment purchases are subject to Commonwealth guidelines and so the list goes on. In some cases there are departmental officers appointed under the enabling legislation as voting members of the authority.

The commercial independence which some of the authorities seek is modified by the degree of legislative support they seek to retain. In the circumstances it is difficult to see why there are so many problems about the accountability and reporting responsibilities of the authorities to the Parliament. The obligations are statutory. They are spelt out in enabling legislation. They are usually less onerous than the Companies Act and the Stock Exchange rules.

The Committee was given its terms of reference in 1977 and it has found that in addition to some of the major authorities, which regard themselves as equivalent to listed public companies, failing to present their annual reports within either a reasonable or the prescribed time, they have also failed adequately to disclose the real state of their financial affairs.

In some instances the Auditor-General has disclosed and commented upon the delays in presenting the Annual Reports and the deficiencies in the accounts. The Committee has often had to extract relevant information about the delays and deficiencies in the same fashion in which a dentist pulls a tooth - sometimes with the same painful consequences.

The Committee has not had to go looking for work. It uses a self-select system. A statutory authority which fails to present its annual report within the prescribed time is automatically referred to the Committee. Thus it is the dilatoriness of the authority which ensures an examination and report by the Committee.

Examples of the authorities which failed to present their Annual Reports within the prescribed time are:

The Australian Film Commission;
The Canberra Showground Trust;
The Australian National Railways Commission; and
The Australian Wheat Board.

Following the investigations and report of the Senate Select Committee on Securities and Exchange the Companies Acts and the Stock Exchange listing requirements were substantially amended to:

1. require more frequent reporting by public companies;
2. secure greater disclosure of material information about company affairs;
3. raise the standards of corporate behaviour and in particular impose higher standards of conduct on company directors;
4. ensure that the shareholders **and** the public receive more detailed, current and relevant information about a company's operations and financial affairs; and
5. strengthen the sanctions imposed on company directors for any breaches of the Act.

In terms of timeliness of reporting, accuracy of published information and the behaviour of the directors, comparison between public companies and the business and commercial trading authorities is valid.

The Companies Act and the Stock Exchange listing requirements specify that a company's audited financial statements and annual report be tabled within six and four months respectively of balance date. The ultimate sanction is delisting which makes the shares untradeable. There is no similar sanction for offending statutory authorities. In the great majority of cases the time for the presentation of reports contained in the enabling legislation is longer than for listed public companies. If a report is not presented in the time required in the enabling legislation, the current sanctions do not have the same effect as those potentially applicable to a public company.

The Companies Act and the Stock Exchange listing requirements impose minimum standards for information to be supplied. There has been no uniform standard laid down for business and primary industry marketing authorities. The Auditor-General and the Department of Finance's activities are moving statutory authorities towards improved, standardised financial reporting. However, a quick comparison of the major statutory authorities' reports will show that few meet the Stock Exchange listing requirements and many do not disclose the type of information which shareholders would expect and to which they are entitled. In some instances superannuation obligations have not been properly disclosed; assets are not properly valued and as a consequence the gearing ratios can not be accurately calculated and stock figures cannot be verified.

The Committee has not received any evidence which convinces it that in terms of accountability and reporting the business and primary industry marketing authorities should be treated any differently to public companies.

I note in the June issue of the Australian Director Mr Geoffrey Cohen, the Chairman of the Victorian State Council of the Institute of Chartered Accountants comments:

> *The Financial Times* survey revealed the average length of time between the financial year end and the Annual General Meeting of its sample of publicly listed Australian companies is slightly under four months, whereas the average for a British company is five months. Yet every publicly listed American company manages to report their results within three months.

If the Australian statutory authorities were added to the comparisons there are very few which match the Australian public company average of four months and certainly none which matches the American average of three months. While there has been a conscious effort by some of the authorities to improve the timeliness of their reports the current norm is six to twelve months after the close of the financial year for the presentation of the Annual Report and the financial statements to the responsible Minister. The Committee regards this as unsatisfactory.

The timeliness question is not new. In the third report of the Committee released in January 1980 the Committee observed:

Our investigations have disclosed a sorry story of

> prolonged disputes, deficiencies in foresight, problems in decision-making, lack of co-operation and plain errors . . . in brief, the evidence portrayed a standard of accountability to the Parliament which is completely unacceptable.

The Committee proposes, and understands that the Government has accepted in principle for inclusion in the proposed Annual Reports Act, that business authorities should be required to report within six months of the end of the financial year and other authorities to report within nine months immediately following the end of the financial year.

A clause which has been suggested by the Committee for inclusion in the Annual Reports Act is as follows:

> A Category One Authority shall, within six months immediately following the end of the financial year, prepare for submission to the Minister for the time being administering the Act or ordinance that constitutes the Category One Authority, a report of its operations during that financial year together with financial statements in respect of that year in such form as the Minister for Finance approves. The Minister shall cause the Report and the Financial Statements to be laid before each House of the Parliament within fifteen sitting days of that House after their receipt by the Minister.

In the same report the Committee proposed also that the Annual Reports Act should include an interim report requirement for all authorities. This is to provide for the situation in which an authority, for reasons beyond its control, may be unable to finalise its Annual Report. The suggested clause is as follows:

> If the report of a Category One authority is not ready for presentation in a complete form to the Parliament within six months of the end of the financial year, then the authority shall, before the end of that six month period, prepare and furnish through the Minister an interim report on the activities of the authority together with informal financial statements and an explanation for the unavailability of the complete report. The Minister shall cause the interim report and the explanation to be laid before each House of the Parliament within fifteen sitting days of that House after their receipt by the Minister.

Since that report was released the Committee's thinking, influenced by the changes in the Companies Acts, the deficiencies in statutory authority reports and the economic impact of some of the larger business authorities, is moving towards the view that business authorities should also adopt the policy of issuing six-monthly reports. The major public companies engage in this practice and where business authorities such as Telecom, the Australian Wheat Board, TAA, Qantas and others have an impact on national economic management, a six monthly report would at least fulfil two important functions - keeping the Parliament informed and providing the government with current data about their financial affairs and the impact that they might have on the economy generally.

The Committee in its third report recommended sanctions for authorities failing to comply with the Annual Reports Act and as it continues its review of statutory authorities which select themselves for examination it has become abundantly clear that the need for the introduction of the Annual Reports Act becomes more urgent. The government is already working on the introduction of the Act and as the recommendation for it had the unanimous support of the Committee it expects to see the Act produced to the Parliament in the not too distant future.

Timeliness is not the only issue concerning the Committee. The Committee is also determined to see the contents of authorities' reports improved, especially by increased disclosure of:

1. depreciation;
2. asset valuation;
3. superannuation commitments;
4. gearing ratios;
5. capital expenditure programmes (which may have a substantial national economic impact but the Annual Report does not disclose that it is likely to be so); and
6. observance of specific statutory obligations or adherence to directions from the Minister.

The arguments for full and frank disclosure have been stated in the debate about improving corporate reporting generally. Mr Cohen's article, which I quoted earlier, indicates that professional groups expect far more disclosure and greater analysis of corporate objectives and strategies. It would certainly conform with the spirit of the Freedom of Information Act which was recently passed through the Federal Parliament.

One of the areas for greatest concern is that the financial statements do not accurately reflect the position of an authority. For the three most recent years the accounts of the Australian Wheat Board have not disclosed its true financial position in the opinion of the Auditor-General. However, the Board has annual sales exceeding $1 billion and has borrowed $800 million over the last twelve months from the Australian capital market - making it about the largest trading enterprise in Australia. It is inconsistent that while lenders demand accurate, detailed, and mostly audited financial information from the private sector, a statutory authority is able to borrow massive amounts without current, unqualified audited annual accounts. I suspect that the reason that money is lent is because the lenders believe that if all else failed the Australian government would foot the bill.

In the instance of statutory authorities the case for disclosure is stronger because of either the direct budget assistance or the indirect support given the authority by the Commonwealth. If the Parliament confers rights and privileges it is entitled to be fully informed about the body receiving the benefits of those rights and privileges. There is no room for the Parliament's being presented with a statement which is more notable for its omissions than for its inclusions.

While there may be different political emphasis about the mix of private and public sector activity the majority view of the Parliament is that where statutory authorities trade or operate in a business environment they must satisfy the Parliament that they operate as efficiently and effectively as possible. The unanimous resolution of the Senate passed in November, 1979 and re-iterated in February 1980 condemning the Australian Wheat Board for failing to present proper audited accounts is evidence of the bi-partisan view which is adopted. The demand for scarce resources is too great for them to be allowed to do otherwise.

There is a wide range of issues which have arisen as a result of the Committee's investigations and reseach. It is clear that the establishment, role and operations of the Commonwealth statutory authorities are under closer scrutiny. The Parliament has signalled already that it will examine more critically the purposes for which an authority is established, how it is to operate, the obligations of its board members and its continuing existence.

Implicit in the attitude of some statutory authorities to investigations by the Committee and the demands by the

Auditor-General for better accounting and reporting standards has been the notion that once established the authority is the exclusive preserve of vested interest groups. Inherent in the creation by legislation is the notion that a public purpose is fulfilled. That public purpose may be something less than the broad national interest. It goes beyond a very narrow industry interest. It requires that Commonwealth statutory authorities must report regularly, in detail and with frankness. They must respond to the same pressures for change as the private sector in reporting to the Parliament or in the case of companies to shareholders. If they fail to do so I have little doubt that sooner or later the Senate Committee will conduct a detailed investigation.

If the statutory authorities are unprepared or unwilling to meet their statutory and wider responsibilities they should at the same time consider if they really wish to continue operating under legislation or would prefer to adopt another corporate form. The Committee has not noticed a rush on the part of the statutory authorities to desert their parents no matter how much they mutter and complain about the parents' interest in the child's welfare.

Comments

H. Geoffrey Brennan

H. Geoffrey Brennan has been Professor of Economics at the Virginia Polytechnic Institute and State University since 1978. He was previously Lecturer, Senior Lecturer and Reader in Public Finance at the Australian National University from 1968-1978 and a Full-time Research Consultant to the Australian Taxation Review Committee 1973-74. His main research and teaching interests are in public finance, welfare economics and public choice. He is the joint editor of *The Economics of Federalism* (1980) and joint author with James M. Buchanan of *The Power to Tax: Analytical Foundations of a Fiscal Constitution* (1980).

Comments

H. Geoffrey Brennan

Some years ago Ronald Searle, the cartoonist, produced a little book on New York full of satirical sketches. At the very outset of this book the author remarked, in a rather brazen way, that he had never been to New York in his life. He claimed that such ignorance gave him a magnificent objectivity. It is precisely that objectivity that I am going to claim for myself this afternoon: I am totally ignorant of the details of the operation of TAA and the SECV (and of statutory authorities in Australia generally) and I have no way of evaluating whether what we have heard this afternoon in relation to those authorities is accurate or not. Hence it would be more than usually foolish of me to attempt some fatuous remarks on the implications of what we have heard.

On the other hand, as my colleague Gordon Tullock will assure you, ignorance has never prevented me from speaking in the past; and I don't intend to let it prevent me from speaking now. What I do want to do is to try to extract from the morass of institutional detail the central issues. That is, I want to ask the sort of reflective question that one always asks after the event (the 'what the hell am I doing in bed with this slob anyway' sort of question). I betray the theorist's presumption that asking this cosmic question is worthwhile.

It seems to me that our ultimate goal in this conference ought to be to develop a set of generalisations, what we might loosely call a theory, about the operation of statutory authorities - we might seek to do this for either of two purposes. We might conceivably do it for its own sake. Or more likely - I think more responsibly - we might want to have a theory of the way in which these particular institutions work because we want to be able to make decisions as to whether to assign particular responsibilities in the future to institutions of this type or to alternative institutional structures that might present themselves.

A crucial ingredient in any such theory is the underlying model of human behaviour used. In this connection, the thing which characterises the so-called **economic** theory of bureaucracy and distinguishes it most strikingly from alternative theories is the underlying set of assumptions about the nature of the agents who operate within the institutional struct-

ures. Economics makes a very specific set of assumptions about the nature of those agents, namely that they are conventional utility-maximising or more specifically income-maximising individuals. It is of course precisely this element that proves to be the most controversial element in the whole theory that economics seeks to provide of political processes generally.

In other words, economists typically assume that those individuals who are assigned discretionary power within political institutions will exercise that power in their own narrowly-conceived interests. And in that context, the talk about duty and obligations of statutory authorities strikes the more cynically-minded economist as pure rhetoric or hopelessly utopian metaphysics.

I want to say something very generally about the justification for the model of bureaucratic behaviour that underlies such an economic theory of statutory authorities. What I want to do is to attempt to justify the particular, rather cynical, set of assumptions which economists tend to make (often in the face of somewhat compelling evidence to the contrary). An 'economic' theory of politics, in this sense, has to explain why politicians are not the richest people in Australia. For, if it is true that these people exercise the discretionary power that we know that they do exercise and if they are wealth maximisers, then they are either very bad calculators or there is something wrong with the theory.

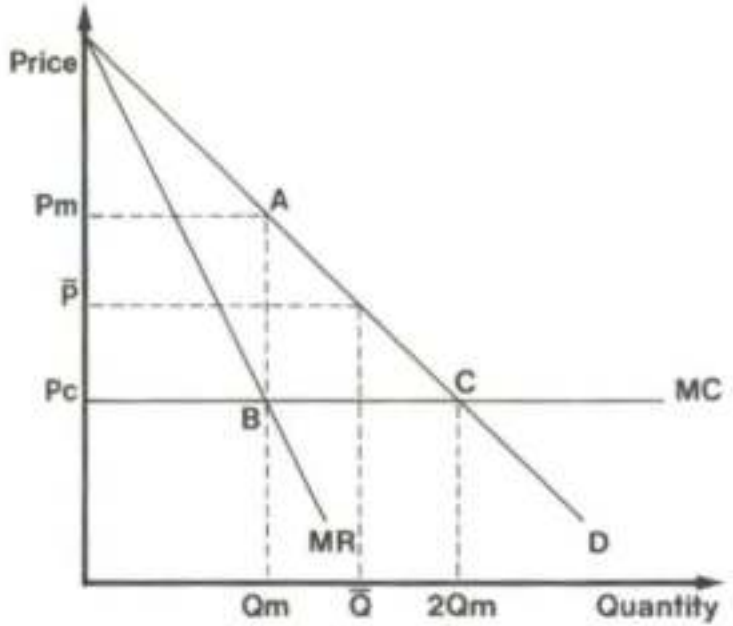
One way of approaching this question about statutory authorities would be to look at specific cases and to try to determine empirically something about the way in which agents within those authorities seem to behave. This is of course, something that has been at stake in a lot of the discussion this afternoon. But I want to suggest to you that the sort of model of statutory authorities that might emerge simply from an examination of them - however savage the scrutiny - will tend to yield a model of behaviour which is not an appropriate one for evaluating those institutions for the purposes of what I might call comparative institutional analysis: that is, for the purposes of comparing that institutional structure with alternatives. I will begin by appealing to what the classical political economists have to say about this issue. I am going to give you two quotes (I always like to have some texts when I speak particularly from a pulpit like this), one from David Hume and one from John Stuart Mill. The one from David Hume is on the independence of Parliament and it reads this way: "In constraining any system of government and fixing the several checks and

controls of the constitution every man ought to be supposed a knave and to have no other end in all his actions than private interest.' I should emphasise the syntax of that sentence, 'every man **ought** to be supposed to be a knave', because it seems to imply that that particular assumption is to be justified **not** on empirical grounds, but on methodological grounds. There is something in the nature of the comparative institutional exercise that **requires** some such assumption.

John Stuart Mill, in *Considerations on Representative Government*, wrote: 'The very principle of constitutional government requires it to be assumed that political power will be abused to promote the particular purposes of the holder, not because it always is so, but because such is the natural tendency of things to guard against which is the special use of free institutions.' So it seems clear that the classical political economists in approaching the comparative institutional analysis of market and political institutions adopted an approach in which the assumption that each man is a knave - that political power will be abused to promote the particular purposes of the holder - was central. This was, I believe, a working hypothesis which the classical political economists used very consciously, very specifically for the purpose of comparing institutions. I want to offer a very simple analytic justification for this sort of view.

Consider as an example the most familiar institutional comparison in standard economics. The accompanying standard price-quantity diagram shows the monopoly outcome (P_m,Q_m) and the competitive one $(P_c,2Q_m)$ for a good produced under constant cost and having a linear demand curve. Now we know that there are various reasons why a monopolist may not seek to maximise profits: he might be a 'satisficer', he might be constrained by the threat of entry, or of government regulation - by a whole host of things. I want you to suppose we have a sample of monopolists - they could be statutory authorities, or something else, for that matter - and that half of them are profit-maximisers while the other half operate at the perfectly competitive equivalent level of output (i.e. where the demand and the marginal cost curves intersect). Thus half of the monopolists produce at Q_m and half at twice Q_m.

If, on the basis of this sample, we made an estimate of price and output behaviour for this particular market form, monopoly, we would get: a price, $\bar{P}$, that is half-way between the monopoly price and the competitive price; and an output, $\bar{Q}$, that is half-way between the monopoly output and the competitive output.



But of course our interest for comparative institutional analysis focuses on the welfare losses that are generated by the institution. Now the welfare loss that is generated by this institution is **not** equal to the welfare loss that is generated by the best-estimate predictive model of monopoly behaviour that we have just described. The little shaded triangle that is generated on the basis of average output and average price is not in fact the expected value of the welfare loss associated with that institution. The expected welfare loss is the size of the bigger triangle ABC divided by two, because half the people are pure monopolists causing a loss of ABC, and half are causing no loss at all.

If we ask ourselves what single model of price-output behaviour would generate as a welfare loss an area equal to half of ABC, the answer is that the particular output will lie to the left of mean output and the particular price will lie above the mean price.

Now this fact has implications, which need not bother us here, for the way in which one goes about measuring welfare losses for industries under monopoly. The important point that I want to draw out of this is a more general one about institutional analysis. One can easily make an observation of a whole range of one's friends and others who are bureaucrats

or politicians and argue on the basis of that observation that the average bureaucrat or politician is not a bad sort of fellow; he seems to be inclined to operate moderately in the public interest (or talks as if he seeks to). And on this basis we might be inclined to think that the institutions in which he works may well generate outcomes that are not too bad. What this little example indicates, however, is that, providing we can postulate that the valuations which individuals place on the things supplied by public institutions obey the normal laws of demand, then the exercise of determining a model of institutional behaviour on the basis of which to compare that institution with some alternative, will require a systematically more cynical model of human behaviour than mere empirics would indicate. While the exercise of trying to draw together empirical observation of the behaviour of statutory authorities is an important one both academically and intellectually, when we come to evaluate the institutional structure of the statutory authority we should for very good analytic reasons make assumptions about the behaviour of the agents within those organisations that are systematically more cynical than mere observation would justify.

Discussion

Ray Evans, Deakin University: As an electrical engineer who regards the generation and consumption of electricity as a good in itself, I'd like to take up a couple of points with Dr Swan. The major problem, it would seem to me, for both electricity supply and telecommunications services, is that the nature of the activity in itself is inevitably a monopoly: you can only afford to have one reticulation system for both electricity and communications purposes and it seems that the big question to be faced is how this inherent monopoly is to be regulated and made competitive.

Peter Swan, Australian National University: I don't share your view that electricity output is a good in itself in that particular sense. But given that it is a monopoly, I'd like at least to see a competitive rate of return instead of what I think is a negative rate of return being added on to electricity production. The evils of underpricing at the moment are potentially more dangerous and disastrous than the evils of overpricing.

The situation for private enterprise involvement that I would like to see us move towards needn't mean dismantling all of public enterprise or public developments from the outset, but would be a sort of 'two-airline' policy with a fixed number of private and a fixed number of public enterprise firms 'competing'. There would be publicly-provided supplies competing with privately-provided supplies and anyone who wanted to, could set up and produce electricity. I'll concede that there are some sizeable economies of scale, so that the number of potential private enterprise suppliers would be limited into any one grid. Also, if we went completely over to private supply, then there might conceivably be a need for oversight by some commission, but I would like to see that kept to a minimum.

In the US the problem with private enterprise supply is the fact that it is a regulated supply and this gives rise to many inefficiencies. Many of the same sorts of difficulties we are now seeing in Australia. I am not an advocate of a highly-regulated private supply. I do, however, feel that one should look not only at the potential number of suppliers of

electricity, but also the number of competing suppliers in other energy-related areas. I would of course also like to see competition reign there with the Gas and Fuel Corporation required at least to charge market prices for its gas.

Gordon Tullock, Virginia Polytechnic Institute and State University: I deny that electricity provision must be a monopoly. To begin with, there are seventeen places in the United States where there are two competing electric companies. They are, you will not be surprised to hear, the places in the United States where service is best and where on the whole prices are lower, though not strictly speaking the lowest. One of the more delightful features is that these are the only places in the United States where the electric company will put your TV antenna on top of the electricity poles if you ask them to.

Now, in addition, there is a well-established competitive market in the United States at the wholesale level for electricity. Mainly these are large generating companies that transmit through the grid. It is regulated to some extent, but the regulation is to a large degree escaped due to the fact that a good deal of the regulations are state regulations and the electricity networks go across state boundaries.

The actual history of regulation is fairly certainly one of these cases where a regulatory body was set up for the purpose of increasing monopoly profits in the industry. The original arrangement was sort of quasi-competitive: there were a lot of companies which kept dashing off to city councils saying, 'We would like to provide electricity, the guys that are providing right now are robbing you'. The city councils fairly normally said, 'Yes, that's true', without any investigation at all, which made life miserable for the existing electric companies. So they got state regulation put in and the result was a rise in the profit for electric companies and higher rates.

Now when it comes to telephones it's not so easy. Once again, we did have competing telephone companies and it was the Bell Telephone company, as they are very proud of reminding themselves, who abolished this by getting people to pass laws against competition. I'm not absolutely certain that if you repealed the laws against competition you would get competition, but it seems to me that to argue that these things are natural monopolies when there are laws prohibiting competition (except in these seventeen places that I have mentioned), is undesirable. We should begin by repealing the

laws against competition and perhaps after a few years make up our minds whether they are natural monopolies or not.

Bob Richardson, Australian Wool Corporation: I work for the Australian Wool Corporation, one of the Qangos not referred to today, perhaps fortuitously. Unlike Mr Baxter I wasn't sent here to represent my organisation in any formal sense at all, but I do find disappointing the imbalance that there seems to be in the speakers we have heard today. I feel the type of debate that I'm sure we'd all like to have is one that's very difficult to have in the context of only having a group of speakers who don't represent and aren't involved, in any way that I can readily discern, with statutory authorities. So it does seem to me that things are somewhat out of perspective. If I could go back to Professor Tullock's analogy about the size of babies' heads, perhaps there are some things that statutory authorities can do and/or should do, subject of course to appropriate accountability and constraints. It seems to me today there's been precious little sensible discussion of that point. I think the points that have come out so far are that we ought to allow market forces somehow to determine prices and to allocate resources. There are not many economists who need to be converted to that particular inclination.

There has also been some comment about whether or not we ought to have natural monopolies, but I wonder if any of the speakers do have some ideas about the types of criteria that ought to be considered in looking at whether statutory authorities should do anything at all.

Geoffrey Brennan, Virginia Polytechnic Institute and State University: There is a certain conventional argument in welfare economics about increasing-cost industries (of which, with all due respect, I wouldn't have thought the sale of wool was one), that would argue for the possibility of some government intervention. But you see, part of the problem that we confront is in the history of the way in which these things have been discussed. We have a theory, a legacy from Adam Smith, that went along the lines that markets weren't perfect. From Pigou on, certainly, and reaching its apotheosis I suppose in the fifties and sixties, there has been the development of a theory of market failure and a whole set of reasons why the market would not work perfectly. In many contexts people simply said, 'Well, the market doesn't work perfectly, therefore there is a case for government intervention'. But what there wasn't, and hasn't been until

relatively recently, is a theory of the way in which political institutions work to set alongside a theory of the way in which the market actually does work. Until one has a theory of political institutions, one can generate some presumptive reasons as to why political institutions might work fairly well in the provision of services such as decreasing cost; and then it seems to me that far from the debate being stacked on the side of the market, the intellectual legacy which we now inherit is one in which the arguments have been almost entirely stacked on the other side. The demonstration of some ultimate market failure was interpreted as a sufficient case for government intervention. If we are not moderately familiar with some welfare economics arguments, then that is an explanation for the stance that certainly I take. In a sense it is a question of the onus of proof. To date we have no presumption, I would have thought, that statutory authorities are likely to do better than the market, even if it does fail.

Tom Tormasi, Gas and Fuel Corporation: I don't think that an attempt has been made today to refer to and describe the role of statutory authorities established by liberal governments in determining income distribution in free societies. In my mind, and I'm only a practising not an academic economist, that **would** have been the real challenge that you people, the academics, could have contributed to the issue. With due respect, of the four speeches here very few were new or original. We have hammered out most of them in one way or another.

I can really only talk about my subject, gas. With due respect to Mr Edwards, whatever he has brought up here today has been said better or earlier by others, therefore it wasn't really worthwhile. I can't comment on electricity or wheat, but I wouldn't be far wrong if the people expert in those fields would have come to the same conclusion.

I should like then to add a few comments on Mr Edwards's paper. Concerning pricing of gas: gas is not like beef or sugar or tomatoes or oil. There is no market for gas, no world-wide market or price for it. There is no market day for gas when you can clear the market. You have to have long term contracts specifying volumes for gas and a certain minimal amount of gas available for export. It's obvious that these pools which are at present in Australia don't all qualify, with the exception of the North West Shelf.

Secondly to assume that substitution of gas for oil is a negligible benefit, strikes me as being somewhat naive.

Obviously there is an energy abundance in Australia. If there is any problem energy-wise, it is transport fuel and it is crude oil that provides transport fuel. Therefore any contribution towards producing efficiency in transport fuel would be applauded.

Geoff Edwards, La Trobe University: I would agree, Tom, that there is little that is new under the sun. I think, however, the repeating of old ideas is sometimes a very desirable thing. In relation to your comment that there is no world market for gas, I would agree. In fact I said in the paper that the world market for natural gas is not so clearly defined as the market for wheat or for oil. However, I think there is no doubt that we can point to international contracts that are being made in natural gas and we can certainly conclude something about the general order of prices from those and we can compare this with the prices stipulated in the contracts in Victoria. I am sure the Federal Minister for National Development and Energy would agree with me on this matter. He said, not so many months ago, that world natural gas prices have approximately doubled between 1975 and 1980; but, as I indicated in my paper, the price paid by Gas and Fuel Corporation moved up very little over that period. Perhaps the crucial test is what would happen to the price of gas covered by the current contracts by Esso/BHP and Gas and Fuel if we were to try and sell it. If Gas and Fuel were to try and sell that gas freely on the Australian market (even if for a moment we leave out the ability to export) then certainly for many uses, people would be willing to pay significantly more for that gas than they're asked to pay now by the Gas and Fuel Corporation. I don't think that is in doubt. Secondly, if as it has been argued, as you rightly say, by various people in the past that if we were to free up the export side and allow people with gas now (and certainly those who find it in the future) to export freely, that certainly would be reflected in a higher price domestically for gas. Old arguments, perhaps, but does that mean they're invalid?

Graham Macmillan, Touche Ross: I don't know if this is fair but I'd like to address a question to Ken Baxter on Senator Rae's paper. Our firm has just had the privilege of completing a report for Dr Kevin Foley's Public Body Review Committee on the reporting and auditing of public bodies in Victoria. I notice that Ken mentioned that the Commonwealth has nearly a thousand statutory bodies. One

of our first jobs was to count the statutory bodies in Victoria and we got to nine thousand before we stopped. We looked at the conceptual aspect of accounting and reporting and what we did come up with was a recommendation for a single conceptual framework that applies to all public bodies. We didn't classify them between business and non-business or primary and secondary, as Senator Rae has done in his reports. He mentioned that business bodies should report within six months and non-business within nine months and my question is why? Why should non-business bodies be any different in that respect to business bodies? What we decided was that what we require out of financial information, and that is distinct from the non-financial performance indicators, is an operating statement; and it doesn't matter if the bottom line is profit or surplus or deficit. We need a statement of resources, in other words a balance sheet, and we also need a flow of funds for the period. Now that is common to all public bodies, not necessarily only business or non-business. Now given that, why should there be any distinction between the two?

Ken Baxter, Senate Select Committee on Finance and Government Operations: In answer to that, the Committee in its Fourth Report set out in fairly detailed form the categories and sub-categories of authorities. I dealt mainly today, on Senator Rae's behalf, with the first two. If you read that Fourth Report, a number of authorities - but particularly those categorised as 'international organisations' and many of those categorised as 'regulatory authorities' - pose certain problems at the Federal level which I suggest don't exist at a State level. For example, there are certain limitations which rise in relation to the Asian Development Bank, the International Monetary Fund, the Antarctic Treaty Organisation - which all fall into that fourth category of international organisations - which mean that, if I recall correctly, their reporting standards were rather less in some cases than even the Commonwealth statutory authorities. It is very difficult to impose a requirement on, for example, the organisations within Australia connected with those when they in fact could not impose that same standard on the international authority.

There is also a predicament as I recall it with the courts, in which the judiciary have regarded themselves, and the convention of law has established them, as being at arm's length from the executive. If the executive starts to talk to the judiciary about even its financial affairs, there will be a

fairly major confrontation. Not that that puts the Committee off, but I think in conceptual terms there is no real difference. It was a case of practical problems. I believe I can say on the Committee's behalf that there has been a continuing discussion with the Auditor-General about the problems of dealing with the three last categories and the sub-categories within them, and that matter hasn't been resolved.

Can I say, Mr Chairman, while I'm on my feet in relation to the two previous questioners: I hope that they might take the trouble to read the First Report of the Senate Standing Committee, which makes rather good but boring bed-time reading, because it serves to answer some of the matters they have raised.

Ian Wills, Monash University: Geoff Brennan implied that he wasn't terribly happy with setting politicians, in particular the Senate Committee, onto the business of keeping tabs on statutory authorities that they had in fact set up, so I'm wondering whether we might have a little more comment on where all this leads us policy-wise. What I take Geoff to be pointing out is, of course, that on many of these statutory authorities we have somewhat of an unholy alliance between the demanders of regulation on the one hand and the suppliers of regulation, namely the politicians, and perhaps to some extent the bureaucrats, on the other. The political solution would be to vote the rascals out of office. But it was also implied, somewhere along the line, that there are real informational problems for the average voter or even groups of voters in getting their hands on the sort of information that is required. We've heard also a lot today, by implication, about the importance of property rights in information and the jealous way in which this is guarded. Perhaps Professor Tullock might like to comment by way of comparison with the US. But in Australia, of course, the problems associated with legal standing (I think Dr Swan mentioned that you can't sue the SECV), with class actions, and with our libel laws all militate against the private initiative type solution; that is, hiring a gunslinger-lawyer on behalf of a group of private citizens perhaps to sort out some of these problems. I'm wondering what comments in particular Professor Tullock might have about the sort of situation we face in Australia, where some avenues which to some extent are open in the US and not open in Australia to deal in particular with the informational problem which I think is a very serious one.

Gordon Tullock: Actually I regret to say you're praising the United States too much. We have these problems too. Generally class action suits and that sort of thing are not available against government agencies, although sometimes they are.

The information problem is a very real one. It goes through the whole of government, not just these agencies. One thing that can be done about it, putting it bluntly, is to arrange to have people make reports and then get some publicity for them. We've been doing that this afternoon and that does have some effect.

There is another mechanism which is part of Anglo-Saxon law and isn't used very much, but which does have some effect, and that is the special Grand Jury. There is no reason why you can't empanel a Grand Jury to investigate absolutely anything. Now you get a group of average citizens, who aren't usually very penetrating; but they are a small group and have some motive to collect information because there are just a few of them and it is available to pick up some of the worst scandals and is occasionally resorted to in the United States though not very often. I believe it is occasionally resorted to in England. I don't know whether you ever do it in Australia. But the common law is very clear that the Grand Jury can subpoena anybody to talk before it in secret and it can investigate anything it feels like. A special Grand Jury may be a way of improving information. It has not been much experimented with and it might be worth trying.

Geoff Brennan: I shall spell out in rudimentary detail the sort of anxieties I have, which are twofold. Firstly we have, apparently, tens of thousands of these statutory authorities, and now these tens of thousands of statutory authorities are all going to be compelled, potentially, not just to produce annual reports, but six-monthly reports; and the question that I'm pursuing is, what are the precise incentives for the generation of this information and who's going to read these reports? If you push this hard enough, what the economist *qua* economist would say is that the person who's likely to get a job reading the report is the guy who is likely to be pushing for its existence. That is what I meant to say by implication.

I think there is a very important and difficult question which relates to the precise distribution of power between statutory authorities, quasi-judicial bodies, ones that lie outside the domain of direct political constraint and political

institutions in the parliamentary state, because I think that one of the things that Public Choice has been able to tell us about political institutions, parliamentary majority rule and so on, is that it does not work particularly well. You constrain behaviour either of parties or particular political agents and therefore when one looks at the question of who should control whom, the issue is somewhat ambiguous, and of course the long tradition of the separation of the judiciary from the executive and the executive from the parliament is all at stake. I don't think making statutory authorities, including potentially the judiciary, accountable to parliament is necessarily something that one should simply assume is a good thing.

David Sharp, Barrister: As I understood Professor Brennan, he postulated that theory requires us to be more critical of regulatory agencies than perhaps empirical evidence might suggest. If that is so, it brings me to Professor Tullock's comment, which was to me tantalisingly brief, that on balance, relatively, some bureaucratic regulatory bureaucracies would seem to be good and on balance, relatively, some regulatory bureaucracies would seem to be bad. Those itemised as bad as I understood him were the railroad, trucking, airlines and on the other hand those that were relatively good the telephone or communications agencies. I wonder if Professor Tullock would care to elaborate on the bases on which he has formed these judgments or how, or what's been the course or passage of his reason.

Gordon Tullock: Firstly a minor clarification. I think you're correct in reporting what I said but not what I intended to say. May I now tell you what I intended to say. I think the telephone is a marginal case: I'm not sure in that case, therefore I used it that way.

I would say firstly that government itself should mainly be confined to areas where we have large externalities. For the benefit of those of you who are not economists that means situations in which private citizens going about their own business affect other people very severely. For example we dump smoke in the atmosphere which causes difficulties. The government should be confined to that kind of activity mainly because that's the only kind of activity (there are a few rare exceptions) we can hope it will do better than letting private citizens handle matters. Now the areas where regulation, in my opinion, is likely to work are areas of that sort, but there is a traditional natural monopoly

argument which Geoff Brennan gave quite properly: industries where there are declining marginal costs. I'm not positive there are very many examples of this, but if there are industries with declining marginal cost you certainly would consider the possibility of either regulation or government operation or something of that sort. But at that point you would have to make some careful analysis of whether the costs of just letting them run, without doing anything, are greater than the cost we would anticipate from government regulation. We have to learn more about government regulation, and we have been learning more about it quite rapidly in recent years. What you actually do here is attempt to construct a cost-benefit analysis of the two sets of institutions, and decide which one has the best payoff. This is of necessity an imperfect process and you are dealing with two imperfect processes, so the result can't be given a very high accuracy. But there are many cases which you see that are very plain. It does not seem likely that converting the entire road network, for example, into a private set of toll roads would be a good idea. On the other hand I think that most of us would agree that provision of food, with some restrictions on fraud and mislabelling, is probably something that the government should keep its hands off. Unfortunately the government doesn't. Government efforts to keep the price of food high have, over the last thirty or forty years, probably caused really quite a large number of deaths through malnutrition in the more poverty-stricken parts of the world.

Jim Carlton, M.P. I thought it would be worth making a comment on the feelings of some politicians about their impotence in relation to statutory authorities, and the way in which they thought they could overcome it; namely, that the best way is by being no longer responsible for them.

Now the best you can get on a bipartisan basis, and this is the approach adopted by Senator Rae's Committee, is to ask that they at least do that which they are currently required to do under legislation and that, I would think, is a minimum requirement. If that generates too many reports to be read then that in itself would indicate the absurdity of having so many authorities to look after. Therefore I think that what Senator Rae is doing is extraordinarily valuable.

It is suddenly dawning on more politicians in Canberra that they don't really want personally to be held responsible for whether a certain type of plane goes between Sydney and Melbourne, at what time it leaves and how much it will cost,

and whether tea will be served or not. Currently I am responsible for that and, as Professor Hogan has pointed out, the instrument through which I'm trying to ensure that those responsibilities are met couldn't organise a tea party in the Country Women's Association. Therefore there is a pretty powerful incentive to my mind for politicians to get the devil out of airlines.

Let me just mention one other example and that is Telecom. I've been a Member of Parliament for three and a half years and one of the first things that happened after I became a Member was that someone wrote to me complaining about his telephone bill. I happen to be responsible indirectly through the Parliament, through the Minister, through the statutory corporation, for telephone bills. It so happens that that corporation has made a decision somewhere along the line to put metering equipment that only charges but does not record, so there is no way to prove whether or not you're being charged the right bill. The process you go through runs something like this. The Member writes to the local manager of Telecom, who writes back saying, 'the customer did incur that bill and we are sticking with it'. The Member then writes to the Minister, the Minister writes back to the Member saying, 'I'll write to Telecom asking them to look into it.' It goes to a higher level, but you get the same answer back and there is a stalemate. So what do I do at that stage? I shove it onto the Ombudsman and he goes through the same procedure and finishes up with the same answer, and ultimately there is no way of proving or disproving the charge. About fifty percent of my constituents get a reduced bill and fifty percent don't and I've got no way of knowing whether any bill is correct or not.

What is really worrying about all this is that we're about to go into an era of vast expansion of communications. We are going beyond the basic telephone system which currently accounts for about 90 percent of Telecom's revenues; and, as things currently are structured, all the decisions for our communications future are in the hands of a tiny band of engineers who are not under Parliamentary or market control. The objective of some of us, who are terrified of this prospect, is to get Telecom out into the market. Market control may be imperfect but it's better than no control. We don't mind the basic telephone system remaining in public hands for the time being, but we are terrified of the thought of all these new and modern connections and satellites coming under the same area of impotence that we now have to suffer.

Graeme McNorton, Shell Company of Australia: The question I'd like to ask, having listened to the contributions made, relates to whether or not they are biased towards an Anglo-Saxon view of statutory authorities. I'm in the oil industry and I hear my colleagues in France and Japan talk highly of their bureaucrats in MITI and so on. Whereas reading the trade press and listening to my American colleagues, the American energy authority was a disaster. I can't really see that the energy authorities here are terribly much better. Are we suffering from an Anglo-Saxon disease or is economic man everywhere?

Gordon Tullock: This is patriotism. All Americans are convinced that we have the world's worst post office. The English are convinced they have the world's worst post office and since I've been in Australia I've heard what a terrible post office you have: we can do better at this kind of thing than you can. There is a strong tendency to recognise your own problems and not the other side of these things. The Anglo-Saxon techniques are somewhat different from the non-Anglo-Saxon, but not greatly.

Patrick Xavier, Swinburne CAE: What a lot of today's proceedings lead me to ask is, in cases where regulation might still be desirable, what hope is there that we might design a system of incentives and/or penalties which might reduce the inefficiencies of bureaucracies and regulation?

Gordon Tullock: There is hope. In some cases you can think of ways of doing it. There are sometimes ways to fix matters up fairly easily, so there is a straight-forward incentive. Unfortunately there is no general rule that I know of. What you should do obviously is to make a contribution to centres that study Public Choice so that we can continue with our research.

Colin Orr, Department of Finance: I'd just like to make one observation. It seems to be one that pretty well pervades all sorts of meetings and discussions of statutory authorities. That is that no one ever gets down to telling us exactly what they are. For some time now, I've been interested professionally in the subject. If you go and read Osborne's Law Dictionary, you will find out that an authority is merely a set of powers, and presumably a statutory authority is a set of powers given to a specific set of people who carry out specific functions on behalf of the public. We've heard it

mentioned that in Victoria there's something like nine thousand statutory authorities. Those statutory authorities are essentially legal creatures for carrying out specific purposes. There are also about twenty three thousand companies. Now, is there necessarily anything to be alarmed at?

Peter Swan: It's not the numbers of statutory authorities which necessarily causes alarm - I was pretty staggered to hear that there are so many - it's what they do or don't do, and it's not the fact that they're not subject to the political process as such, but they are not subject even to market competition or to any real scrutiny through the political process. In fact the political process itself works in such a way that it's generally the vested interest or concentrated interests that are going to dominate at the expense of the public interest. So while one can't necessarily be alarmed at the numbers of statutory authorities, although I do find it a bit disturbing, I think one must be very concerned about their result. *The Age* has been running a bit of a campaign lately headlining the results of the reports of Committees of the Victorian Parliament and pointing out that quite a few of these organisations, or members of these organisations, do nothing but write letters to themselves. There were a number of different positions where an incumbent would spend his days writing a letter to himself in some other position, and he in turn would reply to himself and so on. It seems to me that there are better ways of conducting our affairs than that.

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THE ECONOMICS OF BUREAUCRACY AND STATUTORY AUTHORITIES

Gordon Tullock • A.S. Watson • Peter L. Swan
Warren Hogan • G. W. Edwards • P.E. Rae • H. Geoffrey Brennan

The traditional approach to the study of government enterprises and regulatory agencies has tended to evaluate institutions in terms of the efficiency with which they allocate resources. More recently, explanations of the activities of these institutions in terms of the incentives and constraints facing their managers, has added a new dimension to understanding these agencies and has helped to create a greater awareness of the difficulties of prescribing and enforcing appropriate policies for them.

In this book, the edited proceedings of a public conference, both approaches are used in analysing a number of agencies including the Australian Wheat Board, Victoria's Gas and Fuel Corporation, the State Electricity Commission of Victoria, the Electricity Commission of New South Wales and the federal air transport regulating authorities. As well, some theoretical aspects of the economics of bureaucracy and statutory authorities are discussed.

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