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Soeharto’s Indonesia: A Better Class of Corruption

Ross H. McLeod

Indonesia has a reputation as one of the most corrupt countries in the world (Transparency International, 1999). Unlike many others that are regarded as highly corrupt, however, this was not incompatible with rapid economic progress over three decades, and Soeharto’s New Order regime clearly brought considerable material benefits to the majority of the population. Some argue that endemic corruption was unsustainable and that it was responsible for the unravelling that has been seen since mid 1997, but while the nature of government-business relationships undoubtedly contributed in important ways to the crisis, the mechanisms by which this occurred have yet to be adequately described. The present paper attempts to fill this gap.

The Political Economy of the Rent-Generating Government

A quarter of a century ago, Anne Kreuger’s (1974) seminal paper focused our attention on the phenomenon of ‘rent seeking’ behaviour, and implied that much of the blame for corruption in developing countries ‘lies with the proliferation of economic controls following independence’ (p.293). However, apart from noting the possibility of a political ‘vicious circle’ in which intervention followed by rent seeking would generate more intervention, Kreuger had nothing to say about the reason for the initial intervention.

The notion that ill-advised intervention leads to rent seeking and corruption and that endemic corruption caused the crisis suggests that crises can be avoided by eschewing such intervention, and encourages the view that crises already underway can be cured by getting rid of it. The latter view seemed to motivate the long and inappropriate list of policy changes that the International Monetary Fund (IMF) demanded of Indonesia early in the current crisis (McLeod, 1998:45-7).

The following discussion turns the Kreuger notion of rent seeking as an unintended response to intervention on its head, however, seeing intervention instead as the means of deliberately generating and capturing rents. Thus the view to be explored here is that the substantial government intervention that existed under Soeharto was in no sense an accident, but was consciously put in place for the purpose of generating the rents that Soeharto presumably wanted for their own sake, and also needed in order to first attain and then maintain a position of virtually unchallenged authority.

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The Soeharto-Business Symbiosis

It is helpful to think of an autocrat such as Soeharto became as having the power privately to tax economic activity in general. In the chaotic period before he came to power (in the aftermath of the attempted coup against President Sukarno in 1965) the tax base had shrunk drastically, so the first challenge was to resurrect the economy from the crisis of hyperinflation it was then undergoing. Once the golden goose was again in good health, all that remained was to feed it well, collect the golden eggs it laid, and ensure that it did not escape from the owner’s backyard.

Although the economy was then in a calamitous state, it was endowed with an abundance of natural resources, a huge population and a cheap labour force, all of which made it attractive to investors, including foreign investors. At the same time, the West was anxious to consolidate the move away from communism, to which Indonesia had become uncomfortably close under Sukarno. Given these circumstances it proved possible to revive the economy in a relatively short time by opening it to largely unfettered foreign investment (Sadli, 1993:43), and by welcoming a large inflow of international aid (Hill, 1996:78-81). Indeed, Soeharto exploited both these sources of funds with great skill throughout his entire term in office.

Soeharto also inherited a large state enterprise sector involved in many fields of activity. This was useful in several ways. First, state-owned enterprises (SOEs) could be used to provide jobs for members of the armed forces upon their retirement from active duty, thus helping to ensure their loyalty to, and dependence on, the regime. Second, they could be used in similar fashion to provide jobs for relatives and friends of other Soeharto supporters, such as his ministers and senior bureaucrats. Third, they could be used to absorb high level military personnel who were potential threats to Soeharto’s authority. (Thus the SOEs came to employ ex-military men at all levels, from security guards to managing directors and commissioners.) Fourth, they could be used as cash cows — by way of overpriced contracts with suppliers and under-priced contracts with customers.

In one way or another, the private corporate sector provided the primary medium through which Soeharto generated his family’s enormous wealth and maintained his own power. Early on he realised the effectiveness of private sector monopoly privileges for generating rents. The earliest prototype emerged in 1968 — the first year of the New Order. It involved the restriction on imports of cloves — an essential component of Indonesia’s kretek cigarettes — to just two firms, one owned by Soeharto business associate and now Indonesia’s richest citizen, Liem Sioe Liong, and one by Soeharto’s half-brother, Probosutejo (Backman, 1999:114; McDonald, 1980:120-21).

Such monopolies usually had some spurious national interest rationale for the sake of appearances, but in the absence of a free press and an effective parliament, few voices were raised in opposition to them. Their purpose was to generate rents that were then shared between the favoured recipients and Soeharto and his
family, or his supporters and theirs. Although there may be little evidence of anything so crude as direct payments as *quids pro quo*, it is surely no coincidence that members of the first family came to be significant shareholders in the many firms that benefited from some kind of privilege granted by the government (Robison, 1986:343-50; Backman, 1999:255-99). Another technique for harvesting the rents generated by these privileges was for the favoured firms to ‘donate’ large sums to a number of foundations (*yayasan*) — tax-free entities cloaked as charitable institutions of one kind or another — controlled by Soeharto, and whose funds were deployed for purposes known only to himself.

**Aspects of the Soeharto system of rent generation**

Various important features of Soeharto’s Indonesia can be explained within the framework just outlined.

**Centralisation of power**

The Soeharto pattern of rent extraction at the commanding heights of the economy was successful, but for him to maintain his position as leader he would need plenty of support and not too much active opposition. Moreover, since the bulk of economic activity involved large numbers of relatively small firms, it would not be practicable for him to maximise the flow of rents unless rent generation and harvesting could be replicated at lower levels. The solution was a system akin to business franchising — or what Crouch (1979) has referred to as ‘patrimonialism’. Just as Soeharto used his position as head of the national government to bestow privileges on selected firms (‘cronies’, as they have come to be known), so he effectively awarded franchises to other government officials at lower levels to act in similar manner. This included many of his ministers and senior bureaucrats, government administrators at all levels — from provinces down to rural villages — and top executives in the state enterprises and special government bodies such as the food logistics agency, Bulog, and the Agency for the Study and Application of Technology.

These franchises were not awarded free of charge, of course: as with orthodox business franchises, there had to be benefits to both franchiser and franchisee. The payback could be in a multitude of forms: payment to a Soeharto-controlled *yayasan*; the provision of loans and award of contracts on favourable terms to first family members and business cronies by state banks, state enterprises, and government departments; a flow of information to the top regarding individuals or organisations that might threaten the existence of the system; a willingness to act against such individuals and organisations in order to protect it; and of course clear loyalty to the head of the franchise whenever there might be a public outcry about the way the country was being governed.

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1 Soeharto’s late wife, Tien, was popularly known as ‘Madame Ten Percent’, nevertheless, reflecting the widespread belief that an official signature on a contract could be bought for 10 per cent of the contact price.
This is not to suggest that all Soeharto appointees, all members of the bureaucracy, and all employees of the state enterprises played an active role along these lines. All that was necessary was that there should be sufficient people willing to play the game so that opportunities for harvesting rents could be optimally exploited, and that those who might otherwise have opposed what was going on would have a good deal to fear from stepping out of line — whether in terms of forfeited promotion prospects or loss of their positions. Moreover, there were those who knew clearly what was going on and wanted no part of it, but thought that they had a better chance of changing the system for the better from within. A small number of officials had the courage to take a principled stand on various occasions during the three decades of the New Order, and suffered as a consequence, providing a cautionary example for others of like mind (Kenward, 1999a:85; Schwarz, 1999:149). Thus the endemic corruption at all levels of the bureaucracy should not be interpreted as an unintended shortcoming of Soeharto’s Indonesia. Rather, it reflected a conscious effort to generate and harvest rents from business (and, to a lesser extent, from individuals) at all levels.

**Rule of law**

To say that the rule of law under Soeharto was weak would be a gross understatement. Black letter law was largely a relic of the colonial era, and little effort was made to bring laws up to date or to introduce new laws in areas where modernisation of the economy and polity made this highly desirable. But it was not the case that written law was useless: one can travel by horse-drawn cart, even if not with the speed and comfort of an air-conditioned car. The more serious problem was the ineffectiveness of law enforcement and the courts. Policemen rarely arrested or charged traffic offenders, supervisory officials rarely punished firms that violated regulations, and commercial disputes were rarely taken to the courts to be settled. Judges, public prosecutors, police and regulatory supervisors were all either Soeharto franchisees or else felt powerless to take a stand against the system.

None of this should be seen as an oversight, nor was the system anarchic. In the absence of properly functioning formal law, informal law naturally tends to take its place. The vacuum was filled by informal arbitration, with Soeharto and his civil service and military franchisees playing the role of arbitrators and enforcers. Just as judges could enrich themselves by selling their judicial decisions, so Soeharto and his other franchisees could do so by making ‘determinations’ outside the courts that put an end to all kinds of matters in dispute.

**Reliance on the military**

Soeharto made skilful use of the military, having demonstrated in 1965-66 that he would not hesitate to use it in the most brutal fashion against forces or groups that did not play by his rules (Crouch, 1979:575-6). Hundreds of thousands were murdered for the ‘crime’ of having supported the Communist Party (the main
political party to oppose the military in seeking to determine Indonesia’s political direction under Sukarno) while the military stood by and gave its tacit support (Cribb, 1990). (Similar behaviour was observed more than three decades later in East Timor, after a large majority of its population voted for independence in August 1999.) Thousands of others were recorded as having had links to the Communist Party, and were jailed or at least excluded from participation in the bureaucracy. Indeed, even the children of such people were so excluded, for decades to come. And at times when other groups threatened the integrity and continuity of the regime — separatists in Aceh, East Timor and Irian Jaya, university students, militant labour, thugs and extortionists working outside the franchise — Soeharto did not hesitate to unglove the iron fist of the military (see for example McDonald, 1980:127).

**Civil and military salaries**

One of the most obvious explanations for the immense and widely acknowledged shortcomings of the Indonesian civil service is its salary structure. By comparison with the private sector where wage and salary rates reflect supply and demand, this structure is extremely compressed, with salaries of the very top officials only a relatively small multiple of those of clerks and office assistants with minimal education and skills. At the bottom end wage rates have been, if anything, above market, meaning that there has never been any difficulty in recruiting individuals for these sorts of positions. Indeed, there has usually been an excess supply of applicants, and low level officials of personnel departments have not been slow to exploit the franchise right to harvest the rents from those keen to win secure jobs in the civil service and state enterprises.

At the top end, however, salaries have always been woefully inadequate — a small fraction of those available in the private sector for people with the levels of training and skills required in order to do these jobs properly. The result was not that there was any difficulty finding people to fill the positions, however. This could never be a problem, given the large numbers who made up the lower echelons, and who waited patiently for those at higher levels to retire or die and thus give them a chance of moving up the ladder. Rather, the problem has been that the people who moved up were to a large extent those who demonstrated by their conduct over many years that they were worthy of being awarded a Soeharto franchise — and, in many cases, who were willing to pay those who controlled promotions in order to be looked upon favourably.

In short, the system was designed precisely in order to attract and recruit people who were willing and able to play the game by Soeharto’s rules. The eagerness to opt for a lowly paid civil service or military career, to pay bribes (in cash or in kind) to get a foot in the door, and to pay bribes again in order to get promotions, is most easily understood in the context of a system in which everyone knew that the civil service, the military and the state enterprises were all part of a huge franchising operation, in which one could expect to become increasingly wealthy if one signed on to the implicit franchise contract.
Rent generation

As Harrison (1966) wrote in relation to the taxation issue in the UK in the 1960s,

\[
\begin{align*}
\text{If you drive a car I'll tax the street,} \\
\text{If you try to sit I'll tax the seat,} \\
\text{If it gets too cold I'll tax the heat,} \\
\text{If you take a walk I'll tax your feet ...}
\end{align*}
\]

In the search for new sources of rents — new components of the private tax base — few areas escaped unscathed. The granting of monopolies was by no means Soeharto's only means of generating and harvesting rents. Apart from smokers and consumers of noodles (that is, a large proportion of the population), rents were extracted from Haj pilgrims, cinema-goers, rattan producers, car drivers and motorcycle riders, travellers returning from overseas, small landholders and so on. Indeed, presidential grandson Ari Sigit came close to putting into effect the idea of 'taxing feet' by attempting to obtain a monopoly on the supply of shoes to all of Indonesia's schoolchildren, although the public outcry forced Soeharto to step in and abort the scheme (Backman 1999:281-2). The range of techniques, some of which have been mentioned already, included the following:

- **Protection from imports.** In conjunction with licensing to constrain domestic competition, favoured firms were granted protection from imports.
- **Awarding contracts without bidding.** Private sector firms were awarded contracts by government departments and state enterprises without any genuine bidding process involving competition with other firms.
- **Providing access to cheap loans.** Favoured firms had ready access to state bank or even central bank loans at highly subsidised interest rates — and were not forced to repay if investments did not turn out well.\(^2\)
- **Granting rights to exploit natural resources.** The award of rights to exploit natural resources without having to bid or to pay a reasonable level of royalties has been of immense benefit to the Soeharto franchise. Forest concessions are a prime example, as are the Freeport minerals concessions in Irian Jaya.
- **Designation as mandatory partners in foreign joint ventures.** Just as domestic firms could earn favours by donating shares in themselves to first family members, so foreign firms were willing to pay for the privilege of being permitted to establish new operations in Indonesia — perhaps with special facilities of various kinds — in much the same way.

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\(^2\) In the course of the crisis it became clear that the state banks were responsible for by far the bulk of bad loans (Pardede, 1999: 26), a large proportion of which were owed by Soeharto family and crony companies (*Dow Jones Newswires*, 15 June 1999).
- **Rights to take over land.** The grant of rights to take over land, in practice without payment of fair compensation to the original occupiers, has been a method often used to generate rents. This has occurred with land around major cities, and also with tracts of forest to be converted into plantations.

- **Purchase of inputs at artificially low prices.** In many cases firms have been favoured by being permitted to purchase inputs at artificially low prices from state enterprises — if they were paid for at all.

- **Favourable treatment by the tax office.** The business sector has always been able to reduce the amount of legitimate tax it paid through negotiation of mutually beneficial outcomes with Soeharto franchisees in the tax office. In addition, at various times the Soeharto government made tax holidays available to firms it wanted to favour.

- **Rights to collect taxes.** In the later years of the Soeharto regime, the rent generation effort at times became so blatant as to encompass the imposition of new taxes collected by first family companies — a small portion of which was supposedly turned over to the government.

### Privatising the Laffer Curve

The no longer fashionable Laffer curve describes the relationship between the tax rate applied to an economic activity and the tax revenue generated (McMullen, 1981-82). As the rate increases, revenue increases — but at a decreasing rate, because the tax discourages the activity in question. Beyond a certain point, this induced shrinkage of the tax base outweighs the impact of further increases in the rate, and revenue begins to decline. Roughly speaking, the trick for the tax gatherer is to find the rate that maximises revenue. The same principle applies to the private sector criminal activity of extorting 'protection money' from legitimate businesses — not surprisingly, if one takes the view that 'taxation is theft'!

An intuitive understanding of this fundamental principle of taxation and extortion differentiates Soeharto from political leaders in a host of other developing countries, who simply stole on a scale so grand as to bring about severe economic declines — usually with the result that they forfeited their hold on power (and sometimes their lives). Soeharto always took the long-term view, in which sustained growth was essential to the flow of rents and, consequently, to his hold on power. In this sense, Indonesia under Soeharto was 'blessed' with a better class of corruption than many other countries — and, indeed, than under his predecessor, Sukarno, whose regime came to be characterised by such excessive government intervention and corruption that entrepreneurship was largely stifled.

An important feature of the business sector is that it is heavily dominated by firms owned by Chinese Indonesians. This small group, only about two or three per cent of the total population, have always suffered the rancour of large sections of the *pribumi* (indigenous) community. The flagrant manner in which Soeharto and those around him promoted the interests of a few prominent Chinese Indonesian families only served to deepen resentment against this whole minority community, down to the smallest shopkeeper, and to others who had no business
at all. The legal system did little to protect their interests, and it suited Soeharto and his franchisees to maintain this state of affairs. Given the Chinese Indonesian minority’s vulnerability to outbreaks of mob violence and to extortion by neighbourhood thugs, they could always be expected to pay in various ways for protection. (Extortion of *pribumi* firms was not unknown, of course, but there is little doubt that Chinese Indonesians bore a disproportionate share.) On some occasions the violence that did occur was not spontaneous, but was deliberately engineered in order to create an artificial demand for protection. Nevertheless, Soeharto appreciated the importance of keeping extortion of the business community within tolerable limits.

For the favoured few, rents were generated by the franchise and the harvest shared with it. For the many, however — ethnic Chinese and *pribumi* alike — payments to the franchise were obligatory unrequited transfers. Licences and permits of all kinds were subject to trivially small legal fees and much larger illegal levies. Again, it is no accident that the legal fees were always kept small: this was precisely what was required if the illegal surcharge was to be maximised within the Lafferian constraint.

Soeharto could not safely assume that his own implicit understanding of the Laffer curve was shared throughout the civil service, however. From time to time ministers who became too greedy had to be pulled into line. And in one famous case, the President had to move against the entire Customs Service (Dick, 1985:10), since the scale of its rent harvesting from importers had become so large as to pose a serious impediment to growth of the economy (McDonald, 1980:116). The import inspection function for all shipments over $US5,000 in value was contracted out to the Swiss firm Société Générale de Surveillance in April 1985. This early example of privatisation (of a function rather than an enterprise) seems to have been a great success from the wider economic viewpoint, but from the perspective of the franchise it was too effective and, over a period of several years, more and more of the work being done by SGS was handed back to the Customs Service (Parker and Hutabarat, 1996:29). The lengthy interruption to the flow of bribes to Customs officials sent a clear message to franchisees throughout the bureaucracy, however, that excessive rent harvesting would not be tolerated.

**Why Did the System Collapse?**

It has been argued elsewhere (Fane and McLeod, 1999; McLeod, forthcoming) that the crisis that engulfed Indonesia from mid 1997 can be explained in terms of widespread concerns about the ability of the government to properly manage an adverse macroeconomic shock. Specifically, if it were widely believed that the government might react to such a shock in a manner that would lead to a significant increase in the money supply, then such a belief could turn out to be self-fulfilling, because currency depreciation is the inevitable consequence of a loss of monetary control.

In terms of this analytical framework, the initial shock provided by the unexpected devaluation of the Thai baht in July 1997 caused investors to fear a
breakdown of monetary control. Investors reacted to this by rushing to buy foreign exchange, and the government responded by allowing the rupiah to devalue. While many observers (including the writer) thought the extent of the early devaluation absurd since the fundamentals did not seem to justify it, others guessed that the pressures that had been unleashed would result in a monetary blow out. They maintained or increased their net holdings of foreign currency assets, and were soon proven correct. Base money doubled in the space of a few months, and the value of the currency plunged to previously unimaginable depths (Pardede, 1999:7, 15).

This quick summary provides a purely economic explanation for the crisis, ignoring the political context. How does it fit with the above outline of the Soeharto regime? With the benefit of hindsight, it can be seen that several aspects of the regime are likely to have contributed strongly.

First, the franchise was dependent to an extraordinary degree on a single individual in his late seventies, and there was every reason to fear a lack of leadership if Soeharto were suddenly no longer in charge. No matter how widely the system may have been despised, it had proven remarkably successful, and most Indonesians had known no other. And for all his genius, Soeharto had failed to arrange for the smooth transfer to a successor of the giant franchise he had built up over three decades. When he fell ill and was forced to cancel a planned overseas visit around the beginning of December 1997 it was the first time that this had happened, and it brought home to people the realisation that the end of the era could be very close indeed (Soesastro and Basri, 1998:20). It was not until this time that the crisis truly began to get out of hand.

To make matters worse, by this time the blatant nature of the first family’s rent harvesting activities had become less and less possible to ignore, even by a heavily muzzled press and a compliant parliament. Moreover, the longer Soeharto stayed in power, the more it seemed that he was intent on dynastic rule in which his position would eventually be taken over by one of his children or at least some strong supporter of the first family. His first daughter, Siti Hardiyanti Rukmana, had adopted a very high profile in the 1997 election campaign, and her brother, Bambang Trihatmodjo, already had become treasurer of the Soeharto election machine, Golkar. The notion that the regime might outlive its creator was sufficiently unpalatable as to boost significantly the groundswell of opposition to it, which was amplified by the students and a growing number of vocal individual critics.

Second, the crisis saw Indonesia turn to the international community for assistance — the first time since the mid 1970s it had felt the need to do so — and this punctured the aura of economic invincibility that existed in the mid 1990s. Moreover, having conceded (perhaps unwarrantedly) its inability to deal with the crisis itself, the government (under pressure from Soeharto) then did much that

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3 The central bank had been accumulating foreign reserves at a rapid rate for months beforehand in order to prevent appreciation of the currency (McLeod, 1997:22–3).
created the impression that it would not do all that it had promised its international 'saviour' it would do (Soesastro and Basri, 1998:20). This raised the prospect that financial assistance would be halted and that the loss of the IMF imprimatur would discourage investors from returning to Indonesia — even to purchase assets now available, in theory, at fire sale prices.

Third, there were clear indications that the delicate working relationship between Soeharto and the 'technocrat' group of economics ministers and advisors, including their colleagues in the central bank, was being heavily strained. These economic policy makers had successfully encouraged the international financial institutions to present a long list of demands for microeconomic reform in return for their assistance (Soesastro and Basri, 1998:10-11). These reforms struck at the very heart of the franchise, yet had only the most tenuous connection with overcoming the crisis. In retrospect it is obvious that Soeharto and his franchisees could not have been expected to acquiesce in the face of the wholesale dismantling of the system — the more so, given that there was little if anything to suggest that these measures would assist with recovery. Indications of the strength of resistance came with the mysterious, fatal fire that engulfed the top few levels of the central bank's brand new office building early in December 1997, shortly after the forced closure of 16 private banks, and the purge by the President of the entire Board of Directors of the central bank during the following three months (Kenward 1999b:121-22). Soeharto's appointment of his daughter, Siti Hardiyanti, and of one of his most notorious cronies, Bob Hasan, as ministers in his short-lived March 1998 cabinet, after the crisis was well under way, also sent a clear message that the IMF's attack on the franchise would be strongly defended.

Fourth, the multiple burdens of currency depreciation, very high nominal interest rates and falling private sector and government spending made it certain that widespread corporate distress would soon follow and, in turn, that loans from banks would not be repaid. In the case of the state banks, with their huge portfolios of loans to favoured firms, no one should have been in any doubt that in the time honoured tradition, taxpayers would be called upon to cover the losses, rather than the borrowers. And in the case of the private banks, the near universal practice — at least among the large, conglomerate-owned banks — of lending heavily to affiliated firms meant that their owners had no funds of their own effectively at risk. This can be illustrated with a simple example. If the bank's owners subscribe Rpl billion in capital, but then receive a loan of Rpl billion (or perhaps considerably more) from the bank, they have no funds directly at risk in it. If the bank fails, the only thing they have to fear is claims from its creditors — depositors, or the government, if it steps in and covers the bank's losses. Given Indonesia's weak legal environment and corrupt and ineffective bureaucracy, this would have given little cause for concern. Bank owners, therefore, had little reason to do other than walk away from their bank's losses, leaving them for the government to worry about. Thus the absence of the rule of law and the corruption of the state banks meant that banks would not foreclose on defaulters, making it almost inevitable that the central bank would bail them out, and that this would lead to a loss of monetary discipline. (Although it is possible to bail out
banks without increasing the money supply — see McLeod, forthcoming — such a policy option was overlooked or ignored.

Clearly then there were important aspects of the system that ultimately made it vulnerable to collapse. Soeharto had ensured that the only powerful institution was the armed forces. Political parties were emasculated; the parliament, the bureaucracy and the law were corrupted; the media were tightly controlled; the union movement was rendered virtually non-existent; and social organisations of all kinds (other than organised Islam) were never permitted to have a major impact. Individuals were drawn into the system or intimidated into accepting it as a fact of life. But although Soeharto could control most things, he could not control capital, which could vote with its feet in that most democratic arena: the global financial market. Capital could leave at any time, partly because of the government’s policy since the early 1970s of keeping the capital account largely open, and partly because Indonesia’s strong links with the overseas Chinese business community (especially in Singapore and Hong Kong) made it virtually impossible to do otherwise. It is interesting that the technocrats had persuaded Soeharto to adopt this policy far earlier than other developing countries did so, in order to provide a disciplining measure on macroeconomic management. The policy was all too effective: Indonesia was indeed ‘disciplined’ by the financial markets when ultimately they concluded that the regime was inherently unstable.

Looking to the Future

It is easy to point out the main areas of government-business relations in need of reform under the new presidency of Abdurrahman Wahid. In general, the government should cease acting in ways that generate rents for favoured firms. It should minimise its control and regulation of business activity except where there is a clear market failure justification, in order to limit the scope for extortion by government officials. It should minimise its own involvement in business activity, particularly in key fields such as banking and natural resources. It should provide a legal system, encompassing well written laws and a properly functioning court system and police force, to protect property rights. And it should require that banks are adequately capitalised, so that owners have a genuine stake in their prudent management.

To say that these kinds of reforms are highly desirable, however, begs the question as to whether they are likely to be implemented. The Soeharto franchise served its members well, and they will make every effort to maintain it. On the other hand, Indonesia completed the first genuinely democratic popular elections of parliamentary representatives for several decades in June 1999, culminating in the election of new speakers of the People’s Consultative Assembly (MPR) and House of Representatives (DPR), and a new President and Vice President. Successful completion of this process appears to signal the dawn of a new era in which the executive is accountable to the parliament and the parliament is accountable to the people. Prospects for the civilianisation of government and for expansion of the rule of law also seem to have improved by virtue of the failure of
the armed forces to capture any of these four influential positions, and by the considerable weakening of its position in Wahid’s first cabinet.

Reform, and the realisation of genuine and lasting democracy, could be hastened by radical change in the salary structure of the civil service and the military, combined with far greater emphasis on accountability and on reducing opportunities for corruption. As argued above, low salaries are bound to attract relatively many of the kinds of individuals who are willing to become active members of the franchise. Market related salaries, on the other hand, would attract many more people who would be satisfied with their formal remuneration, and therefore not use their time to augment it in the ways outlined here: in short, they would see themselves as employees, rather than franchisees. In contrast, former Finance Minister Mar’ie Muhammad has argued that greed, rather than low salaries, is the cause of corruption, so that raising salaries will not solve the problem (Kompas, 19 January 2000). This misses the point that, because of its low salaries, the civil service attracts disproportionately many individuals willing to engage in corrupt behaviour. He is correct, however, in arguing that raising salaries alone is not enough to have had much of an impact.

The suggestion that higher level salaries should be increased by orders of magnitude, while those at the lower level should be held constant if not actually reduced, is typically met with stares of incredulity: the budgetary consequences would be intolerable; it would be unfair to those in the lower echelons; and it would be contrary to the (greatly overstated) public sector ethos of sacrificing one’s personal interests in order to serve the people. But those who have supported the current salary structure while railing against the corruption, collusion and nepotism of the Soeharto regime would do well to ponder their own unwitting contribution to maintaining it.

In making value judgements about the ‘fairness’ of civil service salaries, presumably it is horizontal comparisons with private sector salaries rather than vertical comparisons within the civil service that should provide the focus. And the basis for the view that civil servants should be expected to sacrifice their own interests for the benefit of the wider public, many of whom are far better off, is difficult to discern. Moreover, a large part of the budgetary cost of civil service salary reform could be recouped by reducing the number of low level employees, who are widely regarded as being greatly underemployed. This reflects the fact that the civil service has been used to buy support by providing jobs, and that much of the work of the civil service is directed to generating revenues for the franchise, rather than promoting the interests of the general public. (Of course, reductions in civil service employee numbers would have the added benefit of reducing office accommodation costs.)

Thus if far reaching reform is to be achieved by the new government, it will need to effect very large salary increases for those at the higher levels of the bureaucracy and the military — while simultaneously making it plain, and acting to ensure, that the ways of the past are to undergo enormous change along the lines indicated. Unfortunately, however, in current circumstances in which the civil service and the state enterprises are reviled for their corruption, and the
military for having brought shame on the nation by its actions in East Timor, such a strategy is unlikely to commend itself.4

References


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4 The former regent of Padang Pariaman district and his assistant were imprisoned after being found guilty of swindling Rp1.1 billion (about A$230,000) of state funds from a project to build a bus terminal (*Jakarta Post*, 8 February 2000). Such an outcome rarely occurred under Soeharto, and so is to be welcomed, but it should be noted that the sentence of one year in jail is slight in comparison with the amount involved.


*This paper is a much shortened version of Ross H. McLeod, ‘Government-Business Relations in Indonesia During the Soeharto Era and Beyond’, in P. Drysdale (ed.), ‘Reform and Recovery in East Asia: The Role of the State and Economic Enterprise’, Routledge, (forthcoming). The author is grateful to two anonymous referees and to participants at a seminar at the ANU in September 1999 for helpful comments.*
Declaration of Telecommunication Services

Anne Daly and Natalie Stoeckl

The access declaration process, instituted by the Telecommunications Act 1997, requires providers of declared telecommunication services to provide competitors with access to those services on fair and equitable terms and conditions. The Act vests the Australian Competition and Consumer Commission (ACCC) with the powers to declare a service in situations where declaration is deemed to promote the long-term interests of end-users. This paper examines the recent declaration of three local telecommunication services — local carriage service, local PSTN originating and terminating service, and unconditioned local loop service.

When considering whether declaration will promote the long-term interests of end-users, s.152AB of the Trade Practices Act 1974 directs the Commission to consider whether declaration will: promote competition, any-to-any connectivity and ‘the economically efficient use of, and economically efficient investment in, the infrastructure ...’ (ACCC, 1999:6).

This paper focuses on aspects of that declaration process arguing primarily that the ACCC has been asked to apply an inappropriate set of tests. The discussion notes that parts of the declaration test are exceedingly difficult to apply and that the sequential nature of the test makes it almost impossible to investigate the sensitivity of results to changes in initial assumptions. The conclusion reached in the paper is that the current tests for declaration should be revised. The paper also notes that cost-benefit analysis can, in theory, overcome many of the problems associated with the current declaration tests. This is not to say that cost-benefit analysis is perfect. It too, suffers from its own set of problems. Nevertheless, it may be able to substantially improve current declaration tests and those involved in the up-coming review of Part XIC of the Trade Practices Act are urged to give it serious consideration.

The Tests

The ACCC has been given the power to declare infrastructure as essential under two parts of the Trade Practices Act. Under part IIIA of the Trade Practices Act, the tests for declaring access include that it ‘would promote competition in at least one market (whether or not in Australia), other than the market for the service; ... it would be uneconomical for anyone to develop another facility to provide the service; ... the facility is of national significance’ (Trade Practices Act section 44H). A different test of the public interest is applied to declaration in
telecommunications under Part XIC of the *Trade Practices Act*. Under this section of the Act, the ACCC can declare certain services where it is satisfied that declaration will ‘promote the long-term interests of end-users’ (Section 152AL). The intention was that in the future the test should be the same in telecommunications as elsewhere.

First, the telecommunications test for declaration appears ‘easier’ to pass than the test applied to other industries. If so, then a perhaps unintended, consequence is that declaration may occur more frequently in telecommunications than in other industries.

Second, the test only focuses on the prospective benefits of declaration without considering costs associated with the process. In particular, this test ignores the costs of regulation for parties involved in the industry and for the taxpayer. It also ignores the costs of the inquiry itself. End-users may face lower prices for local telephony services, but end-users also pay taxes. In considering the future ‘with and without’ declaration (ACCC, 1999:7), the ACCC should not be directed to focus solely on the implications for price and quality of service. They should also be directed to consider the costs associated with the process and implementation of declaration.

This is not a radical proposal; sixty-four years have passed since the 1936 United States *Flood Control Act* enunciated the principle of cost-benefit analysis. This Act stated that flood control projects were desirable if ‘the benefits to whomsoever they may accrue, are in excess of the estimated costs’ (Pearce and Nash, 1981:1). Admittedly, there is considerable controversy surrounding the use of cost-benefit analysis, but the underlying principle, namely that policy should endorse potential Pareto improvements, is widely accepted. Why, then, does the test for declaration focus only on benefits? Perhaps there is some valid reason for believing that the costs of declaration are small or irrelevant? If so, then these reasons need to be noted explicitly. If not, then the costs also need to considered to enhance the credibility of the process.

Third, the long-term interests of end-users will not necessarily be promoted if the ‘sub-tests’ of the declaration process are satisfied. The Commission’s report tests whether declaration will promote the long-term interests of end-users by asking: (a) whether declaration will promote competition; (b) whether declaration will promote any-to-any connectivity; and (c) whether declaration will promote the economically efficient use of, and economically efficient investment in, the infrastructure. It is noted that (a) and (c) do not by themselves, guarantee that the long-term interests of end-users will be promoted. It is a standard result that an improvement in economic efficiency does not necessarily benefit end-users. An extreme theoretical example is that of a perfectly price discriminating monopolist. Such a monopolist is economically efficient but there is no consumer surplus. That is hardly beneficial to consumers!

Also, the ACCC argument that end-users are likely to benefit from increased competition through lower prices and improved customer service (ACCC, 1999:6) is valid in some but not all situations. Standard neo-classical theory suggests a shift from a monopoly to a perfectly competitive industry will almost certainly
benefit consumers, but there is no guarantee that a shift from monopoly to oligopoly will do so. Cartels are an extreme example of this; with price and quantity corresponding to that which would prevail under monopoly.

Since there is no unique model of oligopoly — let alone multi-product oligopoly — there can be no unique conclusion about the effects of deregulation (or re-regulation) in such industries (Waterson, 1984:35). This is complicated by the fact that oligopolies may engage in strategic behaviour and/or adopt complex pricing strategies. Such strategies may be rational and predictable, but can lead to quite different results from those expected in a perfectly competitive industry. For example, in the short run, a subsidy directed at a perfectly competitive industry will raise output, lower consumer price, and raise firms' profits. This will not necessarily occur in a multiproduct oligopoly. Bulow, Geanakopolos and Klemperer (1985), for example, analyse strategic interactions in multimarket oligopolies and provide a numerical example of a situation in which a subsidy actually lowers a firm's total profit.

One possible example of strategic pricing in the telecommunications industry is given by Muir, Jennings and McAnally (1999:124), in their study of 'Price Competition in Australian Telecommunications':

The persistence of inter-operator price disparities of the magnitude observed for many timed services suggests either lack of interest or awareness on the part of consumers of the 'menu' of prices on offer, or the existence of real or perceived disparities in the quality of the services themselves or their supplier. Alternatively, consumers may believe that the effort involved in identifying and evaluating the increasingly complex 'menu' and the complexity of switching service providers or using more than one operator may exceed the benefits.

Admittedly, these 'complex menus' may have evolved accidentally. But they may reflect (rational) strategic behaviour on the part of an oligopolist. Randomised pricing is a widely recognised means of enhancing profits. This strategy works 'by increasing the uncertainty about where the best deal exists, [thereby reducing] consumers' incentive to shop for price information ... it [also] precludes rivals from knowing precisely what price to charge to undercut a given firm's price' (Baye and Beil, 1994:438-9). Clearly, consumers cannot benefit from the existence of lower prices if it is too difficult to decipher complex menus and/or if it is too difficult to switch service providers. Note also, that complex menus allow for two-part pricing and price discrimination, both of which raise profits (frequently) at the expense of consumer surplus.

Presumably, those with relatively elastic demand will spend time (and energy) seeking the best deals, and therefore pay — on average — lower prices. Those who do not spend time comparing the complex menus presumably have more inelastic demand and may therefore pay higher prices (on average).
Muir, Jennings and McAnally (1999:125) conclude that ‘because the generally reduced prices for newly competitive services have not been offset by increased prices for less competitive basic carriage services, there appears to have been unambiguous gain to consumers. The extent of this gain is, however, difficult to estimate’. Time-rich (or lucky) end-users may have benefited from the extra competition. However, the net benefit may be small, particularly if search costs are considered or if the deadweight losses attributable to monopoly are relatively small.

To reiterate: moving from monopoly to perfect competition will almost certainly lower prices and benefit end-users. But this does not necessarily mean that a move from monopoly to oligopoly will do so. One cannot predict price/output combinations without knowing the type of oligopoly.2 In the worst case (cartel), there will be no improvement in consumer surplus (compared to that of monopoly). In other cases, prices may fall, but the ‘side-effects’ of any strategic behaviour must also be considered. The example cited above concerns complex pricing menus. These impose costs on consumers which at least partially offset any benefits attributable to lower prices. Declaration sub-test (a) presumes that more competition necessarily benefits end-users. But, there are cases when this is not so.

Just as strategic behaviour serves to complicate the theory, so too, does regulation and this is particularly important in the telecommunications industry. The ACCC report documents a range of regulations in this industry. Among them are the requirement to supply untimed local calls, universal service provision throughout Australia, the CPI-X rule for pricing a bundle of services, the requirement that average pricing cannot vary between geographical areas, the customer service guarantees required of Telstra, the need for approval by local councils for rollouts and the need to consider the environmental implications of any such proposals. Telstra must even seek approval before it can charge for some services, for example directory assistance calls (Cleary, 1999). The presence of all these regulations and the continued political involvement in Telstra’s business decisions, make it difficult to conclude definitively that more competition will necessarily benefit end users. To state this more explicitly, one cannot analyse the declaration of local telecommunications services in a first best world.3 Regulations, economies of scale (discussed in more detail below), and

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2 Bulow, Geanakopolos and Klemperer (1985) contend that (in the case of multiproduct oligopolies) one also needs to know whether the products are strategic substitutes or strategic complements, and that this cannot be determined without empirically analysing a market.

3 This second best argument, namely that the removal of one restriction in a market where there are many restrictions may not lead to an improvement in consumer welfare, may also be relevant in the decision not to declare line-related services. The decision to declare parts of the local telephone services but not line-related services such as line rental and supplementary services, may distort marginal decisions and promote unexpected substitution between different type of services.
network externalities (Kahn and Shew, 1987:255) serve to complicate the
problem.

Fourth, the ACCC has a very difficult task in considering whether a
declaration would be in the interests of end-users when the price at which access is
granted is not under discussion. Presumably, part of the justification for doing this
is that there is a preference for letting the market decide upon a ‘fair’ access price
once (or if) a decision to declare is made. Yet the effects of declaration depend
crucially on the price at which firms are offered access. If, for example, the access
price is very high (low), then the benefit to end-users may be small (large). It is
not possible to assess the benefits of declaration without considering access rules
and price. The power of the ACCC to arbitrate on a fair price for access if the
parties negotiating on access cannot agree only partially addresses this issue given
the complexity of deciding on a fair price. Moreover, the incumbent may have an
incentive to delay reaching an agreement on price, so as to keep securing
monopoly rents. To the extent that this is possible, it is not clear that declaration
brings immediate benefits to consumers.

Finally, the presumption that more competition necessarily benefits end-users
may not be valid in the presence of economies of scale or scope. Simplistically, if
economies of scope are present, it will be cheaper for one firm to produce two
commodities, than for two separate firms to produce one commodity each
(Quiggin, 1998). Similarly, economies of scale indicate that it will be cheaper for
one firm to produce a large quantity of output than it will for two separate firms to
produce a little each. Evidence regarding economies of scale and scope in local
telecommunications is largely inconclusive. Spulber (1995) argues that local
telecommunications are no longer a natural monopoly. Albon, Hardin and Dee
(1997) conclude that there is no firm empirical evidence either supporting or
denying the existence of economies of scale in Australian telecommunications.
Given the importance of this issue, it is surprising that the ACCC did not consider
it in detail.

A related point can be made where there are economies of sequence, a term
used by Spulber (1995) to describe the benefits of vertical integration. In the case
where a monopoly is operating in two vertically integrated markets, the separation
of the monopoly into two parts and the introduction of further competition into
one of the markets may actually increase prices to the consumer. The empirical
literature on the effects of vertical separation of an integrated firm suggests that it
has had mixed results for consumer welfare.

The Productivity Commission’s (1999) report on benchmarking of Australian
telecommunication services against those of other countries concluded that the
costs of domestic calls in Australia were about average for the countries
compared, but that the cost of international calls in Australia was higher than in
the other countries included in the study. That is, the market with the most
competition (the international segment) had relatively higher prices. The results
have been subjected to a range of interpretations by different authors. The ACCC
uses it to establish that competition helps to lower prices (noting that prices have
fallen more rapidly in the international market than in the domestic market).
Quiggin (1996) argues that the reduction in the price of international calls is more closely related to technological change and regulation than to increased competition in the market. Either hypothesis is plausible. Neither has been definitively 'proven'. One cannot conclude that competition necessarily benefits end-users without having a better understanding of the sources of price changes in telecommunications.

Consequently, it is argued that the tests the ACCC has been asked to apply are much too simplistic for this complex problem. In making its decision, the Commission needs to be able to take a wide range of factors into consideration. Many of these are excluded from consideration in a simple pass/fail test. Such a test (with its implicit assumptions) may be appropriate in a world with no regulation and perfect competition in all markets. But the world is not perfect, the telecommunications industry is riddled with regulations, and perfect competition is not present in all markets.

It is likely that at least some of these problems could be resolved by changing the tests which the ACCC is asked to apply and it is suggested that cost-benefit analysis has much to commend itself. As noted earlier, this methodology is not without flaws. Yet the flaws, both theoretical and practical, are widely known and understood. In contrast, the declaration tests discussed here are neither widely known nor widely understood. This, in itself, is a good reason for using cost-benefit analysis (CBA) when considering regulatory reform; it improves the transparency of the decision process.

Further, CBA addresses each theoretical concern raised in this section. First, it standardises tests across industries. Second, it forces the explicit consideration of both the costs and the benefits of regulatory reform. Third, it does not require the assumption that more competition is always and unconditionally, better than less. Fourth, the benefits to end-users (via price reductions) will necessarily vary according to assumptions regarding strategic behaviour, access prices and/or changes to the average and marginal costs of production (via changes in scale, scope or regulation). CBA makes it relatively easy for policy makers to test the sensitivity of final estimates to changes in assumptions (for example, one can estimate the net benefits of regulatory reform across a broad range of 'plausible' price reductions).

Furthermore, CBA has some practical appeal. The next section discusses two situations in which the ACCC found it impossible to apply the tests as written. As a result, the Commission was forced into making some fairly questionable assumptions that could have been avoided with the application of CBA.

**Practical Advantages of a Shift to Cost-Benefit Analysis**

One cannot determine whether or not declaration will promote competition without first defining the market. This is, perhaps, the most important part of the inquiry. Having defined the market, the Commission must consider whether the existing level of competition is 'effective'. The Commission examines concentration levels, barriers to entry, the linkage between supply of the eligible
service and the supply of downstream services, and relevant behaviour features, such as price changes over time and service differentiation (ACCC, 1999:49). If the market is highly concentrated (ineffective competition), then it is easy to establish that declaration cannot do other than promote competition. As discussed in the earlier section, the tests assume that more competition necessarily benefits end-users. The sub-tests also generally assume that competition increases economic efficiency. Hence, if current markets are deemed to be relatively concentrated, it is almost impossible for the Commission to rule against declaration. If current markets are deemed to be relatively competitive, it will be almost impossible for the Commission to rule in favour of declaration. Clearly, market definition is of central importance, and small changes in the definition have the potential to reverse entirely any answer to the declaration test.

The relevant market for local telecommunications services is identified by the ACCC as having four dimensions; product, geography, function and time (ACCC, 1999:27). Formally, the test applied by the ACCC for the identification of a monopoly market is the ‘price elevation test’: ‘The resulting market is the smallest area over which a profit maximising monopolist could impose a small but significant and non-transitory price increase.’ (ACCC, 1999:27). Perhaps not surprisingly, the results of this formal test are not reported. Rather, the market is identified in the report in descriptive terms. After much discussion, the Commission identified four relevant markets, all ‘national’ and all exclusive of wireless communications. As these definitions are unnecessarily restrictive, a less restrictive definition might have changed the ACCC’s decision to declare.

First, the exclusion of mobile phones and other wireless services from the market for local telecommunication services seems hard to justify. There is an international debate as to whether the local telecommunications network can still be thought of as a natural monopoly (Spulber, 1995; Albon, Hardin and Dee, 1997). In addition to the traditional local loop, wireless and cable provide viable alternative services which may also be used in conjunction with the local loop. These important technological developments mean that competition in the local communications industry is increasingly important even in the absence of access by competitors to the local loop.

Defining the market to exclude alternative technologies seems unnecessarily restrictive. Mobile phones at the very least offer a cap on the prices that a fixed local service is able to charge. Casual empiricism suggests that for many people mobile phone services are a close (albeit imperfect) substitute for fixed phones. Cutler (1999:104), for example, argued that mobile, wireless and wired facilities providers are increasingly operating in the same market, that distinctions between these technologies are becoming difficult and that it will become increasingly dysfunctional to regulate by technology type. Further change seems inevitable. Technological change in this industry is taking place at such a rapid rate that it is very difficult to imagine what will be available in the ‘foreseeable future’. The uncertainty associated with these developments is not an adequate justification for the decision to exclude wireless services from the market for local telecommunications services and to declare the existing network a monopoly.
Second, while recognising that a local phone call in Perth is not a substitute for a local phone call in Melbourne, the ACCC argues that the market for local telephony services is a national one. This seems a difficult claim to substantiate and it seems more appropriate to think of the Australian market as a series of interconnected local markets. The Commission provides substantial evidence of growing competition in particular segments of the national market, notably the CBDs of Sydney, Melbourne and Brisbane (ACCC, 1999:52-4). Those entering these markets have specifically identified segments of the national market where they expect to generate a profit. They are not contemplating providing similar services to rural Australia. That the market for telecommunications services operates quite differently in different parts of Australia, is suggested by the necessity to legislate for a Universal Service Obligation (USO) and to apply the local call pricing parity scheme whereby the average price of untimed local calls cannot differ between metropolitan and non-metropolitan markets.

Third, the ACCC argues that there are substantial barriers to entry in this market as further evidence to support their argument that there is a monopoly in local telecommunications (ACCC, 1999:50). Barriers to entry might be important in the sparsely populated rural areas but the evidence of competing rollouts in the CBDs suggests that these barriers to entry may not be so important in metropolitan areas. This issue is crucially linked to that of the definition of the market. If the market is a national one, it is difficult to do other than conclude that barriers to entry exist. However, if each local market is considered separately, then barriers to entry may not be so important, particularly in some central business districts.

The definition of the local telecommunications market to cover the whole of Australia, the exclusion of wireless services and the emphasis on barriers to entry enable the ACCC to consider the market for local telephony services as a monopoly and therefore a prime candidate for declaration. However, the decision is highly dependent on the ACCC’s definition of the market. If alternatively, the ACCC had conducted its inquiry in a cost-benefit framework, it would have been possible to subject the decision in favour of declaration to a range of sensitivity tests regarding the possible effects of declaration on the price of local phone calls. The need to make contentious assumptions about the definition of the market would be avoided.

Finally, there are some reservations about the way in which the ACCC deals with the test of whether declaration will promote economic efficiency, which it links closely with the existence of competition. The ACCC should be required to consider not only whether declaration increases competition but also any additional costs imposed by the regulatory regime. For example, the report notes that ‘to supply the unconditioned local loop service to its competitors, Telstra will ... need to undertake changes to its internal systems and processes. These changes will involve costs and thus have implications for technical feasibility’ (p. 81). They also note that ‘in addition to the costs involved in supply and charging for the eligible service, there may be spillover costs in terms of network integrity’ (p. 83).
Rather than considering the costs of regulation, the report states that:

Where the Commission determines that it is 'technically feasible' to supply and charge for the eligible service, and it is of the view that declaration will promote competition, it will generally consider that declaration is likely to encourage the efficient use of the infrastructure used to supply the service unless this would discourage efficient investment' (p. 79).

The Commission, therefore, considers only one part, albeit an important one, of the efficiency problem.

It seems likely that declaration will affect investment. This is a major issue and would have benefited from a fuller discussion. For example, Telstra is only required to provide access to its local network as long as it does not prevent the company from meeting its contractual obligations. This may reduce their incentive to expand capacity to accommodate other providers. Similarly, declaration may alter incentives for research and development in newer wireless technology.

The Commission asserts that declaration 'will not have an impact on the initial investment in the infrastructure ... but may distort the access provider's maintenance, improvement and expansion decisions leading to inefficient investment that harms the long-term interests of end-users' (p. 89). The report is of the opinion that these problems can be overcome by including terms and conditions in the access contracts. Again, the ACCC fails to acknowledge one of the costs of declaration — that of drawing up complex contracts — and it is possible that at least some of these costs will be passed on to end-users. A fuller treatment of investment issues, allowing greater testing of assumptions, would be possible using CBA.

In summary, the fact that declaration can promote competition is not disputed. There are, however, concerns with the way this was established, namely by defining the existing market as one of monopoly. It could be argued that technological developments have by themselves created additional competition in the market for local calls and that the declaration of the local loop is unnecessary for the promotion of competition. The benefits of declaration may outweigh the costs, indicating that declaration is in the long-term interests of end-users but this needs to be formally established, rather than simply assumed.

CBA is not without its problems. As pointed out by one of our referees: 'If it is difficult to evaluate the long term effect on end users of a proposed declaration, how much more difficult is it likely to be to identify and estimate the much broader sweep of its costs and benefits? If the current declaration processes are lengthy and costly, how much more so might be a cost-benefit based approach which is likely to be even more information hungry and subject to even more uncertainty?' These are important questions that highlight the complexity of policy making in this area. However, just because the costs are hard to measure
does not imply that they are trivial and should be ignored. There is considerable experience in the application of CBA that may help in answering these questions.

Conclusion

The current test for declaration requires the Commission to determine whether there are long-term benefits for end-users. The primary concern here is that the test fails to consider any of the costs associated with the declaration process. When considering whether declaration will promote the long-term interests of end users, the Commission was directed to consider the likely impact of declaration on competition, any-to-any connectivity and economic efficiency. There are two major concerns with these sub-tests. First, competition and economic efficiency do not necessarily benefit end-users. Second, these tests are difficult to apply and sequential in nature. The sequential nature of the tests makes final conclusions extremely sensitive to changes in assumptions.

The choice of regulatory regime and its manner of operation are crucial factors determining the economic performance of the telecommunications industry. Rather than the simplistic tests focused on the benefits of declaration, which the Commission has been asked to apply, it would have been better to undertake a full assessment of both the costs and the benefits of declaration. Current tests do not allow for such comparisons, whereas cost-benefit analysis does.

While the practical problems associated with cost-benefit analysis are openly acknowledged, it is also noted that there are hundreds (perhaps thousands?) of experienced practitioners whose help could be sought when conducting inquiries. Could the same be said of declaration-test practitioners? It has been argued above that the Trade Practices Act should consider both the benefits and the costs of competition reform. But consideration should also be given to both the benefits and the costs of changing the current tests for declaration. This year’s planned review of the operation of part XIC of the Trade Practices Act provides an opportunity to do just that.

Not only does cost-benefit analysis provide policy makers with useful information when evaluating one-off decisions (such as whether or not to declare the local network), but it also allows one to compare regulatory regimes. In the context of telecommunications, it is noted that declaration is not the only way available to promote the long term interests of end-users. A full privatisation of Telstra (currently under consideration) is but one option. ‘Doing nothing’ is another: technological developments in the industry may, by themselves, promote competition and the interests of the end-users without the need to privatise and/or incur the costs of declaration and negotiation of access. Quiggin (1998) considers the option of returning to monopoly. Yet another option is to adopt the US model, where the national monopoly has been split into local units. Cost benefit analysis would allow one to evaluate a range of different regulatory reforms, selecting the one likely to generate the largest net benefits. While vitally important, benefits alone are but half the story.
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Charging for Memorable Phone Numbers

Vince Humphries and David Round

The demand for phone numbers is increasing rapidly in Australia, both for private and business use. Mobile phone use is growing fast, and increasing numbers of households are installing a second line for fax and Internet purposes. A phone number allocated to a subscriber is a unique product — a pure private good. In general, no other person or organisation can be assigned the same number at the same time (an exception is Telstra’s Homelink numbers, where the same number can be assigned many times, but the separate use by different people can be distinguished through the use of a PIN when calls are made).

Businesses derive marketing and commercial value from an easily remembered phone number. Commercial demand for such phone numbers is escalating, as businesses begin to follow the American phenomenon of offering easily-recalled numbers and phonewords for people to dial. Numbers like 1-800-800-800 or 13-13-13, because of their ease of recall, yield value to their owners. Similarly, numbers that form a combination of letters known as ‘phonewords’ when dialled on the alphanumeric keypad recommended for worldwide use by the International Telecommunication Union (see Figure 1), have a recognised and therefore valuable meaning.

Figure 1: Alphanumeric Keypad Recommended by ITU

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<tr>
<th>1</th>
<th>2</th>
<th>3</th>
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<tr>
<td>4 ABC</td>
<td>5 DEF</td>
<td></td>
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<tr>
<td>GHI</td>
<td>JKL</td>
<td>MNO</td>
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<tr>
<td>7 PQRS</td>
<td>8 TUV</td>
<td>9 WXYZ</td>
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There are three main categories of phonewords\(^1\) which could have commercial value:

- Numbers that correspond to the spelling of a product or service — for example, 040-PLUMBER, 1-300-VIDEOS, or 13-TAXI.
- Numbers that correspond to the spelling of a business name — for example, 1-800-ANSETT.
- Numbers that begin with a 4 (corresponding to the word ‘for’) and a 2 (‘to’) and end with a product, service or business name — for example, 1-800-4-LOANS, 1-300-4-PIZZA, 1-900-2-ORDER, or 0403-2-CLEAN.

Such value is found not only in subscriber numbers, but also in access codes and short numbers. Access codes (notably those used as a prefix to another number to override temporarily a customer’s pre-selected carriage service provider) and short numbers (typically less than six digits long, such as the Telstra 12456 operator-connect number) are increasingly viewed as having great marketing power (for ease of user familiarity or recall) and, hence, value. This value stems from a belief that certain numbers facilitate differentiation between the products of one carriage service provider and another, or between products of the same provider.

The increasing use of phonewords carries efficiency, revenue and administrative cost implications. An exploratory conceptual analysis of a mechanism for the efficient provision and sale of memorable phone numbers and phonewords at prices which reflect their true commercial value is presented in this paper.

The Current System of Number Allocation and Charging

Carriage service providers (like Telstra, Optus or One.Tel) are allocated subscriber numbers in large blocks by Australia’s numbering management authority, the Australian Communications Authority (ACA). They are then free to issue those numbers to any customer. Therein lie two problems.

Increasing demand for numbers to which value is attributed has resulted in these providers demanding more and more blocks of numbers, in the hope that they will secure valuable numbers that can be sold (or in other ways provided) to their customers. Unwanted numbers sit unused in their possession. The introduction in 1997 of an annual charge — payable to the Commonwealth — on non-geographic numbers held by carriage service providers provided some

\(^1\) Use of the ITU recommended keypad is assumed as the standard. Use of non-standard keypads would be problematical to callers, the organisation promoting the phoneword, and the entity receiving the misdialled call.
discouragement for this practice, but only for numbers for less profitable services (such as paging) or for numbers held by smaller carriage service providers. In other cases, applications continue to be submitted periodically to the ACA for allocation of blocks of numbers to meet a requirement from a carriage service provider’s customer for a particular number. The ACA is not always successful in identifying the very limited nature of the underlying requirement for numbers in these cases, and allocations of blocks of numbers have been made where it subsequently becomes evident that only one or a very few numbers were genuinely required. Such demand puts an increasing pressure on the remaining blocks of numbers available for distribution, as well as on the administration of these numbers. The current allocation system does not recognise that particular numbers have intrinsic value and it is unresponsive to demands for such numbers. As a result, Australia’s numbering resources are being used inefficiently.

Carriage service providers pay an annual charge for each number held on their books. These charges treat all numbers of the same length in the same way and hence they bear no relationship to the value attributed to particular numbers. To date, the charges have been calculated on an opportunity cost approach, based on the number of digits in each number, where the amount of charge varies according to the amount of theoretical numbering resource occupied by a particular number. Any price or other advantage which a carriage service provider can extract from a customer in excess of this mandatory charge is pure profit — it appropriates the scarcity rent which belongs to the Commonwealth as the ultimate owner of phone numbers.

This is not to say that the current charging system fails to recognise that generically, numbers have an intrinsic value. That recognition exists, but the system does not attempt to translate that recognition into higher or lower numbering charges which vary according to the perceived intrinsic value attached to a particular number. Phonewords or numbers which are easily memorable have value to those to whom they have been allocated, as well as to end-users who dial these numbers. In all these circumstances, subscribers may be prepared to pay significantly higher amounts (in the parlance of economists, they might enjoy considerable consumer surplus) than the current numbering charges, the extent of the premium depending on the perceived value of the number.

The practical problem is to get subscribers to reveal their true valuation of the phoneword or number which they seek. If they are to be charged according to this valuation, they will naturally seek to provide a lower valuation. An auction system could be used to derive a market value if a number has a memorable sequence of digits, or if it corresponds to more than one desirable phoneword,2 or

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2 For example, in the US American Express uses 1-800-843-2273, promoted as 1-800-THE-CARD, for its customer service number. It could also spell many other words, including: 1-800-THE-CAPE, 1-800-THE-BASF, 1-800-TIE-CARE, 1-800-THE-BARD and 1-800-THE-ACRE and therefore would likely be desirable to other businesses (see Dame, 1997:1235-6).
if a phoneword corresponds to a valuable generic name like 1-300-VIDEOS. But in the case of a firm or brand name, there is likely to be only one party interested in that phoneword, unless the name or brand is identical to that of other firms. However, speculative bidding, as has occurred with Internet domain names, is probably inevitable as bidders try to secure such a phoneword for eventual resale.

The Current Charging Model for Phone Numbers

Currently, the ACA charges carriage service providers for the numbers they are allocated via a two-part fee — a one-time relatively small application fee designed to achieve administrative cost recovery, and a recurring annual charge. How these providers then distribute the more valuable numbers to their customers, and whether the customers are charged for them, is generally not known to the ACA. One notable exception is Cable and Wireless Optus, which has identified various categories of freephone and local rate numbers depending on their perceived intrinsic value. Information provided in the Standard Agreement for the Supply of the Optus Total Access Services, dated 1 January 2000, indicates that monthly charges applicable to these numbers range between $300 and $1,000 per month for longer numbers and between $750 and $2,500 per month for shorter numbers. Numbers in the most expensive category are allocated to customers whose anticipated annual expenditure on calls to the number will be at least $1m. In contrast, at least one other carriage service provider appears to believe that it is socially more efficient to promote specific memorable numbers because of the greater chances of misdialling an alphanumeric number, the existence of non-standard keypads, and the extra marketing resources necessary for companies to promote phonewords.

The logic behind the charging model currently employed by the ACA is that the relative amount of charge captures the opportunity foregone in allocating shorter numbers. Telephone switches (except in mobile networks) do not process a call until all the digits expected for a particular number are dialled. For example, a switch waits for all ten digits of a freephone (1-800) number to be dialled before starting to process a call. If the switch began processing after only nine digits were dialled, the longer number would never be called. Hence the opportunity to allocate ten numbers is foregone for each less digit in a number. For example, using a 9-digit number eliminates the capacity to use ten 10-digit numbers in the same number ‘space’ and so a 9-digit number is charged ten times more than a 10-digit number. This principle can be expressed by the following formula:

\[ A_G = A_S \times 10^{(10-L)} \]

where: 
- \( A_G \) = amount of charge on a given number. 
- \( A_S \) = pre-determined amount of charge on a ‘standard’ 10-digit number. 
- \( L \) = length of a given number.
In 1999 the individual number charge levied by the ACA varied from the maximum charge currently permitted under legislation, $100,000 for any four-digit number (such as override code 1414), to $5,620 for any 6-digit number (such as local rate number 13-13-13), to 56.2 cents for any 10-digit number (such as freephone number 1-800-062-058). In general, all numbers of the same length were regarded as equal (thus, mobile numbers attract the same charge as 1-800 numbers), and no account was taken of the different values associated with numbers within a given range (thus, the freephone number 1-800-800-800 pays the same charge as 1-800-753-926). The revenue to be collected each year (which is paid into the Treasury) is determined by the Government. For 1998-99, the Government set a revenue target of $60m.

The Process of Allocating Phone Numbers

Carriage service providers issue numbers to their customers, and they may also retain numbers for their own use. These providers will generally respond commercially to demands from customers for certain numbers. They can deal with such demands by either charging their customers a premium, or by reserving numbers that they can identify as potentially possessing value for their high-revenue customers. The absence of any attempt by the ACA to charge according to a number's intrinsic value gives these numbers the status of a low cost resource to providers, in relation to the revenue that they can secure. These desirable numbers have in effect been acquired by the provider as part of a parcel of numbers, at a certain specific, relatively low average cost determined by the length of these numbers.

Numbers are allocated by the ACA to the carriage service providers in blocks of 100, 1,000, 10,000 or 100,000 numbers, depending on the length of the number. The allocation process involves the provider making an application to the ACA specifying its requirements, usually including an indication of the particular numbers it seeks. The ACA ensures that the proposed use of the numbers sought is in accordance with rules regarding the use of that type of number, and assesses the application against a set of criteria, the key criterion asking whether the allocation would represent an efficient use of the numbers. If two applications are made for the same numbers, the first application submitted will, other factors being equal, receive the numbers.

The growing popularity of phonewords and other numbers with intrinsic value among businesses encourages carriage service providers to apply for the allocation of blocks of numbers that contain specific numbers which they perceive as having value for existing or prospective customers. Where the ACA identifies that the primary purpose of such an application is to meet a demand for one or only a few numbers from that block, rather than being based on the overall level of demand for numbers by customers in general, it will normally be refused.

This simple administrative model of assigning numbers has a number of strengths. It is relatively quick (most allocations are made within a fortnight of
receipt), transparent and fair, as all allocations are made in accordance with a clear and consistent set of rules and on the basis of a ‘first-in, first-served’ principle. It is not expensive (the application must be accompanied by a fee of $322 which covers the processing costs), and many numbers can be allocated in the one application.

However, the system possesses a number of weaknesses. It lacks in its response to the value which carriage service providers and customers place on certain numbers, whether subscriber numbers or access codes or short numbers, and is unresponsive to the value which end users place on numbers. This is most frequently revealed in the frustrations expressed by business users about their inability to obtain particular numbers that are not contained in any blocks currently allocated to a carriage service provider.

Change is desirable so that numbers in general can be allocated efficiently from the existing number pool, and so that individual numbers can be issued to the parties that value them most highly. The current allocation system fails to recognise explicitly either market-driven demand for particular numbers or the value inherent in those numbers. Moreover, the current allocation system is not readily able to meet such demands.

**Trademarks and Phonewords**

A problem that arises from the increasing interest in phonewords is that the ACA, as well as providers, could be caught in the cross-fires of potential trademark disputes, and trademark owners could be subject to potential ‘ambush’ demands from a third party which has secured the corresponding phoneword. This is because a number which can correspond to a registered trademark could be allocated innocently to a party which does not hold the corresponding trademark rights (and which seeks to make a profit by possessing a phoneword known to be of value to another party). Difficulties for the ACA and trademark holders in identifying the numbers that could be used as a trademark are especially marked because of the multiple translations of a given phone number into phonewords (although there is a website at www.phonespell.org which purports to enable the determination of all alphabetic and alphanumeric translations of a given phone number, using the international standard keypad). This type of problem has already been encountered with Internet domain names and with US freephone numbers.

Even if phonewords are excluded from consideration, many companies invest heavily in promotion of their telephone numbers and are readily identifiable by those numbers. Thus, a company which is associated with a particular freephone

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3 In April 1999, the World Intellectual Property Organisation (1999) recommended, and subsequently established, a dispute resolution procedure for generic top level domain names (those ending in .com, .org, .edu, etc.). The procedure was used recently to resolve a dispute over the use of ‘telstra.org’ by an organisation unrelated to Telstra.
number may lose business if a rival obtains and uses a local rate (1-300) number which is identical except for the prefix, or if another firm seeks a phoneword which corresponds to that number. Legal action may be necessary to protect a firm’s interests in each case.

**Potential Solutions to Problems Associated with Value in Numbers**

With few exceptions, numbering plan administrators in most countries use a similar approach to number allocation as the ACA uses in Australia, involving:

- allocation of subscriber numbers in blocks, often very large blocks;
- allocation of numbers only to network operators and sometimes service providers;
- allocation of numbers via a simple administrative model, usually involving an assessment of applications against a set of specific assessment criteria; and
- allocation of numbers on a permanent basis.

There is an annual charge for the continuing use of numbers in Australia — a practice also followed by an increasing number of national numbering plan administrators. However, the discrepancy between the commercial value of certain numbers and the charge imposed on them has several consequences:

- there is an advantage in obtaining the most memorable or meaningful numbers, so that a valuable number will be obtained by the first carriage service provider or the first customer that recognises its value, and not necessarily by the party to which a number is worth most;
- there is some incentive for both providers and customers to obtain greater stocks of numbers than are required for immediate or medium-term use;
- over time, the numbers that remain available for allocation to new carriage service providers (or for new products of existing providers), and for issue by carriage service providers to new customers or to existing customers, will be the less valued numbers;
- the gap between what is paid for a number — whether the payment takes the form of an annual charge imposed on a carriage service provider, or a special number fee imposed on its customers — and what that number is worth means that the holder of a valued number derives a benefit from it in excess (possibly by a lot) of what is paid for it; and
- the gap between what is paid for a number and its worth to its holder means that there is potential for development of a trading market in which the additional value can be realised. If such markets are outside the ACA’s influence, these activities could place significant pressures on the management of the numbering resource.
In reviewing ways of better managing the limited numbering resource, the key issues appear to be whether numbers might be more efficiently managed, allocated and used if:

- subscriber numbers were allocated in smaller units;
- customers were eligible for direct allocation of subscriber numbers;
- market-based methods of allocating and charging for numbers were adopted;
- numbers were allocated for a fixed period of time.

Each of these is now considered in turn. An important factor to remember when addressing these issues is whether, in the pursuit of greater efficiencies in the allocation of numbers, significant additional costs might be incurred such that the changes may not on balance be worthwhile.

Units of Allocation

Numbers are allocated by the ACA in various block sizes. The block size for each type of number is determined on the basis of a range of factors relating to technical constraints, capacity, tariffing factors and practical considerations (see Schwarz-Schilling, 1997 for a discussion of factors that can determine block sizes). Access codes and short numbers are generally allocated as individual numbers. Most subscriber numbers are allocated in blocks of 10,000 numbers, with the major exceptions being:

- short freephone (1-80) and local rate (13) numbers (blocks of 100);
- geographic numbers for use in non-metropolitan areas (blocks of 1,000); and
- mobile numbers and personal numbers (blocks of 100,000).

Inevitably, because of the allocation block size, many carriage service providers find themselves holding stocks of subscriber numbers substantially in excess of the number of active services and expected medium-term demand. Improvements in the efficiency of use of numbers could possibly be achieved by allocating numbers in smaller blocks. For instance, carriage service providers are likely to issue valued numbers to their customers more quickly than numbers with no intrinsic value. In a value-aware market, a 10,000-number block might be stripped quickly of its recognisably valued numbers by astute customers (some of whom may have been waiting for particular numbers to become available). The carriage service provider holding the block may thus find itself holding thousands

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4 Regulators in other countries are also considering these issues (see, for example, Oftel, 1998 and 1999).
of numbers in which prospective customers have little interest. Smaller number blocks would reduce the size of these number inventories.

Ultimately, the greatest efficiencies in managing the numbering resource would potentially come from allocating individual numbers, although this would depend, obviously, on the costs of implementing this method of allocation. To route calls successfully to the carriage service provider responsible for supply of service on a particular number, telecommunications networks must be able to work out the correct carriage service provider from the called number. This is a relatively expensive process, and it may be easiest to move to such an approach together with the introduction of number portability (see later). The introduction of individual freephone number allocation in the US, Germany and the Netherlands has been aligned closely with the introduction of number portability.\(^5\)

The case for individual number allocation is more straightforward where:

- the implementation of number portability relies on the establishment of a centralised number database;
- the quantity of numbers involved is not very large; and
- value is attributed to the numbers.

It could be expected that value would be only relatively infrequently attributed to eight-digit geographical numbers, in recognition of the distinction between the value of intrinsically attractive numbers and that of ordinary numbers whose owners undertake their own efforts to make them well-known.

**Eligibility for Specific Numbers**

At present, carriage service providers are the only entities in Australia eligible to be allocated numbers. They assign subscriber numbers either directly to their customers or else to intermediaries (such as mobile service providers or premium rate service providers) who further assign the numbers to their direct customers. By contrast, a single-step allocation process would allow the ultimate customer to apply for and be allocated numbers without any involvement by providers. A single-step allocation process could achieve a high level of efficiency in managing numbering resources as it would eliminate the stockpiles of numbers inherent at each step of a multi-step allocation model. If individual number allocation is adopted, demand for particular numbers (but not numbers in general) may increase substantially as their individual value becomes more readily capable of being realised, as has happened in the US since 1993 for freephone numbers. A hybrid allocation process might open up eligibility for allocation of numbers to content service providers, major corporations and government bodies, while

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5 In May 1999 the ACA announced its intention to allocate local rate and freephone numbers individually when portability is introduced in November 2000.
requiring all other customers to obtain numbers from carriage service providers. However, in theory, this could run into problems on competition and equity grounds.

Another factor that may support expansion of eligibility is the increasing specificity of customer requirements for numbers. For example:

- **Content providers** have requirements for premium rate numbers that are determined by the number of their services, the means by which these services are delivered, the level of call charge, and marketing strategies. As marketing of content via phonewords increases, it will become more important to content providers to be able to exercise choice directly over the numbers they obtain.

- **Large corporations and government bodies** with freephone, local rate and premium rate number requirements usually dictated by their marketing and client contact strategies, increasingly demand marketable numbers.

- The numbering requirements of **small businesses and retailers** are primarily influenced by the extent of the association of a particular type of number (geographic, freephone, mobile, premium rate or other) with the name of the business and the use of that number in connection with the business. While choice of number can be important for this type of user, it is not often critical, although anecdotal evidence suggests that their numbering requirements are becoming more sophisticated and closer to that of large corporations.

- The numbering requirements of **the general public** are more modest than that of small business: the types of numbers concerned would rarely extend beyond geographic numbers and mobile numbers (and, potentially, personal numbers). Choice of number is regarded as desirable but is rarely important.

The disadvantages of implementing any form of single-step allocation include the extra administrative burden placed on the ACA through the multiplicity of organisations with which it would need to interact, and any new issues which may arise in protecting the rights of customers to the continued use of their numbers.

**Methods of Allocation**

A simple application process would be the most efficient for numbers for which no other demand is foreseen. Ideally, the ACA could apply a contingent valuation process to discover the true worth of the number to the applicant, and charge accordingly. But it would constitute an enormous administrative burden to try and discover true valuations for a large group of numbers. Would-be customers could not be relied upon to declare the true worth of the number to them. Rather, a pre-determined fee should continue to be charged which reflects in some way the scarcity value of the desired number, and which allows for the opportunity cost
(lost revenue) of that number precluding the future use of any other phonewords corresponding to that set of digits.

Another possibility for market revelation of the true valuation of a number would be for the ACA to announce the availability of a certain series of numbers and invite parties to express interest in particular numbers or their phoneword equivalents. A further alternative would be for the ACA to identify through data mining techniques a pool of numbers and implied phonewords corresponding to trademarks and company names, and progressively dispose of them according to their expected value. It would, however, be difficult to identify reliably such attributions of value in advance. Attribution of value to a number generally appears to be subjective. Consequently, identification of particular numbers that are highly valued by customers may not be straightforward. This problem is likely to be greater for phoneword numbers, such as 1-800-GROCER and less severe for numbers containing memorable sequences of digits, such as 1-800-888-888. With block, rather than individual, number allocation, the challenge in identifying blocks to which value is likely to be attributed would be even greater. One of the following methods could be used to value and allocate numbers.

Lotteries

Lotteries are a competitively neutral and non-discriminatory method of assigning numbers, and involve applying a chance generator to determine the assignment of a number, without any recovery of its value. (The descriptions in this section are drawn from Schwarz-Schilling (1997). See also Organisation for Economic Cooperation and Development (1995)). The different forms of lottery are:

- **Raffling of numbers** in a pre-determined order, while the participant to whom a number is assigned is determined randomly. The lottery proceeds until all numbers are assigned or there are no more participants.
- **Raffling the right to select a number**, where a ranked order of participants is randomly generated and each participant, in order of ranking, chooses a number from those remaining. Participants waiting to exercise their choice are able to adapt their preferences to align with the remaining numbers.

The first form would be best applied where there is an excess demand for particular numbers and there is no wish to allocate numbers via a method that relies on price. In this type of lottery the preferences of participants for particular numbers is ignored, and so this form of lottery would likely lead to subsequent trading of numbers. The second form of lottery has the advantage of taking account of the preferences of participants. The highest ranked participants have the greatest freedom in exercising their preferences. This type of lottery is not suited to situations where there are many participants or if the quantity of numbers to be allocated is very large, as the conduct of the lottery becomes unwieldy.

The benefits of allocating numbers via lotteries would apply mainly to situations where, although there may be many persons or organisations interested
in a particular number, there is little difference between the amounts they would be willing to pay to secure the right to use the number. Lotteries may also make sense where it is a matter of policy not to utilise price-based methods of allocation in order to reduce obstacles to market entry, and where trading of numbers is tightly controlled. However, given the maturity of the Australian telecommunications market, price-based allocation is not regarded as likely to be a significant obstacle to market entry.

Although the design and conduct of lotteries is generally simple (and can be simpler than some auctions), they may be impractical or cause undesirable outcomes if participants regard the numbers subject to the lottery as valuable. In such circumstances, the winning participant gains a ‘windfall profit’ which may be quickly realised if the commodity is immediately traded for profit. Such an outcome could not be regarded as consistent with an efficient allocation process.

Tenders

Two forms of tender are regularly used to assign rights or commodities: highest bid tenders, and ‘beauty contests’. In highest bid tenders the number would be assigned to the tenderer who nominates the highest monetary bid. Beauty contests differ in that the monetary bid is only one of several factors deciding which tenderer is assigned the particular number (and may not even be a factor at all). They are adopted when it is considered necessary that the assignment be decided on the basis of the use to which the number will be put or on the basis of the qualities of the tenderer. Although it is important for reasons of transparency that the criteria on which a decision to award the tender is made are clearly and precisely stated in advance, it is often difficult in practice to avoid subjectivity in the application of the stated criteria.

Beauty contests are useful when it is considered that financial factors should not constitute a major factor in deciding the outcome of an allocation. Their use may involve an implied subsidy. They can provide a solution to a shortcoming of auctions (their inability to take account of ability to pay) by introducing criteria which attempt to measure through non-financial factors the value of the use to which a number will be put. These same criteria make it difficult to achieve transparency and efficiency in the allocation process. This lack of transparency can result in legal challenges to a regulator’s decisions, because bidders are not aware of the details of how their bids were judged. Beauty contests do not generally involve disclosure of price information to the market, and so there is a strong chance the winner of a tender will pay a considerably higher price than the market would expect (the ‘winners curse’). Beauty contests also become very complex to administer as soon as there are many applicants. Their time- and resource-consuming nature make them best suited to allocations of resources where those allocations are somewhat infrequent.
Auctions

Allocating numbers by auction enables the market to determine the value of a number via bidding. Auctions are increasingly used world-wide to assign radiocommunication spectrum rights, but their use to allocate phone numbers would be quite different. Perhaps the most important practical difference is that spectrum sales are relatively infrequent and attract high dollar bids from relatively few bidders, while individual phone number sales open to customers would, in comparison, be frequent, of relatively low value, and could be expected to involve many potential bidders. This could well involve a great administrative effort and hence proportionately higher costs.

The use of auctions to allocate numbers has, however, been considered in the United States, Germany and the United Kingdom, and is under active consideration in the Netherlands. Auctions are generally regarded as non-discriminatory in that each participant has an equal opportunity to bid and be the successful purchaser. Auctions are best suited to circumstances where the seller (often in a monopoly position) does not know how much potential buyers are willing to pay for a particular commodity. Auctions may provide a means of realising the value carriage service providers and customers place on particular numbers and which is otherwise difficult for the ACA to determine. Economic theory regards the person who is most willing to pay for a commodity as the person who values the commodity most highly, and holds that a commodity will be put to the most efficient use by the party who values it most highly.6

The introduction of auctions as a means of allocating numbers would be likely to affect the perceptions that allocatees have regarding their rights and responsibilities in respect of numbers they hold. The Australian numbering plan currently sets out responsibilities that carriage service providers have in relation to numbers they issue. These responsibilities can be regarded as corresponding to a set of rights which customers have in relation to the numbers. Payment of money for a particular number is likely to increase the allocatee’s perception of its rights to the number and lessen perception of any responsibilities.

Duration of Allocation ‘Rights’

Placing a limit on the duration of an allocation is an option used in the assignment of various commodities (including, in Australia, certain radiocommunications spectrum), and would apply a ‘franchise’ concept to the use of numbers. Limited duration allocation would mean that a number would again become available for allocation at the end of a specified period. The particular merit of this option is the elimination of any permanent monopoly that an allocatee obtains over a

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6 For a consideration of which of the many possible auction types might be most suitable for auctioning phone numbers, see Nett (1998).
particular number, especially a number to which value is attributed. At the expiry of a fixed duration allocation, a new auction would permit a new assessment of which person or organisation values the number most. This could include rivals who might want to use the number to 'switch' the previous owner's customers who continue to use the number out of habit. One possible way to overcome this problem would be for the ACA to take the number out of service for a stipulated period prior to re-allocation.

Adoption of allocations with limited duration, however, would have the effect of wiping away any investment made by the holder of a number at the end of the specified period, such as in promotion of a number. This deficiency would have less impact if the limited duration on the use of a number is understood at the time of allocation, and if it is not applied retroactively. The ACA would need to model carefully the optimum period of duration, as this would critically affect the time pattern of revenues that a customer is prepared to pay, and this would affect the net present value of receipts from the number allocation process. But this procedure should result in the highest net present value of receipts — allocating the number 'forever' may well extract lower revenues than a process which charges for the revealed incremental value of a number over time.

The Determination of Charges

Currently, the charging regime employed by the ACA involves a simple annual charge, as well as a small once-only application fee, imposed on the carriage service provider. Should phone numbers and phonewords be subject to individual allocation to customers, there remains the task of determining the optimal charging procedure.

From a revenue raising perspective, it would be desirable to extract from the customer as much of the surplus associated with a phoneword or memorable phone number as possible. The aim should be to maximise the present value of the net revenue stream (that is, after allowing for all the costs associated with the process) accruing to the government as a return to its ownership of each unique number, although it should not be forgotten that other concurrent government objectives such as geographic and social equity, and the timely provision of numbers, also need to be taken into account.

It needs to be considered whether payment should be in one initial lump sum, or whether a multi-part tariff is optimal, in which an initial fee is charged together with an annual charge which might reflect more than annual administration costs. The current annual charges do not reflect and are not used to reimburse the ACA’s administrative costs. In advocating such a scheme, care is needed to ensure that any efficient charges are not added to any other pre-existing or new non-efficient numbering charges which can act like taxes and produce their own distortions and efficiency losses. It should also be considered whether the right to use the phoneword or number will be in perpetuity or for a limited term, and whether it can be sold privately or whether it must be returned to the number pool if no
longer required. If private trading is permitted, it needs to be determined whether on-sales should be taxed at some rate by the ACA in order to recoup the additional value not revealed at the first sale, or whether — if an allocation is limited in duration — this additional value will be realised when the allocation expires and a new auction is held.

A less satisfactory charging method which could be employed under the current allocation system for each number of a given length, would be to charge all phonewords and other memorable numbers at their calculated average value. How the ACA could determine this, however, is difficult to predict, and it is possible that the average would be so affected by a few highly desirable numbers that many customers would drop their demands for these special numbers — a sort of adverse selection process.

Cost of a New Allocation System

As indicated throughout this paper, the introduction of individual number allocation would not be without set-up and continuing incremental operating and administrative costs which could exceed those currently being incurred. The per-number average cost of allocation will always be less if it is possible to bundle many numbers into the one application, as occurs with the present-day allocation of subscriber numbers in blocks. Thus, regardless of the method that is used to allocate numbers individually — whether via price-based means or administrative means — there is likely to be less work, and hence less expense, in allocating numbers in blocks.

There is an additional important incremental engineering systems cost to be considered. When numbers are allocated in blocks, rules for routing of calls between interconnected telecommunications networks are based on a presumption that calls to all numbers in a particular number block should be sent to the network to which that number block has been allocated. This is achieved by examining the first few digits of a number to determine which network is responsible for the corresponding number block. Individual number allocation means that these rules can no longer apply, since the network responsible for one particular number is not likely to be the same as the network responsible for the next number in sequence. Instead, calls must be routed by working out the appropriate network to which to send the call on a number-by-number basis. This means that a database listing every number and the corresponding network must be consulted on every call. This approach involves establishment and maintenance of very large databases which can be consulted without noticeably delaying the progress of a call. Although routing of calls in this manner is expensive to introduce, it is, however, identical to that required for the more sophisticated implementations of number portability.
Trading in Numbers

Greater economic efficiency in the use of numbers will be achieved when parties to which a number is worth most can obtain the particular numbers they seek. This objective can be achieved via trading in numbers, separately from the adoption of any market-based method of allocation. Trading means that an entity to which a number is assigned is able to transfer the number to another entity which has a greater interest in possessing it, usually in return for some financial benefit.

While the Australian regulatory environment now places no restrictions on trading in numbers, there is no evidence at present that number trading is extensive. Most exchange of numbers appears to occur between customers, usually small businesses, in situations where an established business, whose goodwill may include the numbers it has used, is liquidated or sold. Anecdotal evidence in Australia suggests that there is a significant level of transfers of mobile numbers between members of families (often extended families) and between friends. There is very limited evidence of speculation in numbers, where a number with special qualities is obtained by a customer from a carriage service provider with the intention of offering it for sale at a premium to an organisation which is prepared to pay for the number.

Trading of numbers is unlikely to be popular in the absence of portability for tradeable numbers. This is because, without portability, a buyer of the right to a particular number would be 'locked in' to the provider supplying service on that number, an outcome which could reduce the attractiveness of the transaction. It is probable that the volume of trading in freephone and local rate numbers will increase after portability and individual number allocation commences for these numbers, and would increase further if the numbers were to be directly allocated to customers via price-based methods.

Conclusions

The procedures for allocating phone numbers in Australia have not responded to new patterns of demand and new types of numbers. It is highly likely that numbering resources are being used inefficiently and consolidated revenue is missing out on securing a share of the monetary value many customers attach to their phone numbers (although it is conceded that some carriage service providers or customers might be paying more than the intrinsic value they place on the number allocated to them). With the increasing commercial popularity of phonewords and numbers with memorable characteristics, it is suggested that appropriate steps be taken to issue these numbers in a more efficient and revenue-enhancing way. The benefits of market-based allocation procedures, especially by permitting customers to 'buy direct' from the ACA, would be great, both to government revenue and to business marketing strategies.
There would, of course, be additional costs in administering sales of numbers in this manner, compared with the current system of the ACA allocating blocks of numbers and letting the carriage service providers ‘mine’ these blocks for any desirable numbers for which their customers or potential customers would be prepared to pay a significant yearly price premium. Changed allocation procedures would need to be carefully screened to ensure that the costs of seeking to reduce inefficiencies did not outweigh the expected gains in allocation efficiencies. The administrative process would, at least initially, be inherently controversial and would need to be implemented carefully, especially to ensure that the costs of implementation did not negate the benefits to subscribers. But, if the incremental costs of introducing price-based allocation are relatively low, there is a potential for the creation of a significant positive increment to social welfare.

References


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Improved Selling of Treasury Bills

Flavio Menezes

There is a renewed interest in studying the optimal procedure to sell Treasury Bills. This debate, which has its roots in Milton Friedman's proposal to use uniform-price auctions (Friedman, 1960), has concentrated on the advantages of the uniform versus the discriminatory-price auction. In a uniform-price auction, bids (which include both price and quantity) are ordered by price, from the highest to the lowest. The auctioneer accepts quantities up to the amount it is selling, but all winners pay the price equivalent to the highest losing bid. In a discriminatory-price auction, bids are ordered similarly, but each agent pays the price she bid. Alternatively, we can describe this mechanism using yields instead of prices. In this case bids are ordered by yield, from the lowest to the highest and the auctioneer accepts quantities up to the amount it is selling. Each winner pays the (discounted) price she bid.

A recent study by Bartolini and Cottarelli (1994) reports that discriminatory-price auctions are used in over ninety per cent of the 42 countries surveyed by them. For example, Denmark, Nigeria and Switzerland are among the few countries that use uniform-price auctions to sell their debt. Belgium, Tanzania, France, Gambia, Mexico and Italy had used uniform-price auctions in the past but have switched to discriminatory price auctions recently.

The Reserve Bank of Australia runs weekly auctions of Treasury Notes with maturities of five, thirteen and twenty six weeks. Bonds are auctioned off every two or three weeks. These notes and bonds are sold through discriminatory-price auctions. In the 1998-99 financial year, the Reserve Bank sold Treasury Notes in excess of $44 billion with average yields varying from 4.66 to 4.99. Thus, a reduction in the average yield of a few basis points might represent a reduction in the cost of financing the government's debt of several million dollars. This is clearly an important issue and, therefore, this paper aims at jump starting the debate on how the Australian government should sell its debt. This debate is stated in its original form below. By using the insights from a new theory of auctions, this article seeks to explain why the original debate is misleading and explore the implications for Treasury bill auction design.

A Brief Account of the Salomon Brothers Scandal

The source of the renewed interest in auction formats can be traced to the Salomon Brothers scandal of 1991, when this large dealer was accused of manipulating an

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auction for two-year notes. This section, which draws on Bikhchandani and Huang (1993), provides a brief account of the Salomon Brothers scandal, illustrating fears of market manipulation that are shared by most central banks around the world. For example, manipulation issues may raise concerns in Australia given the small number of primary dealers.

Treasury securities are issued and handed to the winners a few days after the auction. These securities are then resold in secondary markets. One such market is the when-issued market that works as follows. After an announcement of the amount of securities to be auctioned, primary dealers begin trading forward contracts on these securities. The seller of a forward contract guarantees to deliver and the buyer guarantees to take delivery of a certain quantity of securities. On delivery, the buyer pays the forward price set at the time the forward contract was sold. The delivery date is the issue date — that is the reason why this market is known as the when-issued market. Trading in the when-issued market continues after the auction and up until the issue date of the security.

A 'short squeeze' occurs when some of those who sold when-issue contracts fail to buy the securities in the auction. They are then forced to pay more to buy the when-issued contracts back. If many bidders hold positions on the when-issued market and one bidder successfully bids for a large amount at an unusually high price in the auction, then this bidder can obtain a high price in the when-issued market. All those who took short positions are forced to buy from the bidder who owns most of the units sold at the auction. Those short sellers have to service a demand for bonds issued at that particular date. This is what Salomon Brothers was accused of doing in an auction for two-year notes in 1991.

This episode has revived a debate that dates to the late 1950s and early 1960s on how to sell Treasury securities. This debate is summarised below. In addition, as a result of the scandal, a Joint Report on the Government Securities Market (Department of the Treasury, Securities and Exchange Commission, and Board of Governors of the Federal Reserve System, 1992) proposed two alternative auction formats for the sale of Treasury securities, namely, an ascending-price uniform-price mechanism and a sealed-bid uniform-price auction along the lines described in the previous section. Most of the debate has ignored the former mechanism and focused instead on the latter mechanism. Both mechanisms are discussed below.

The Debate

The debate on how to sell Treasury Bills has mostly been based on an imperfect analogy between single-unit and multiple-unit auctions. This erroneous view suggests that the discriminatory-price auction is a multiple-unit version of a first-price auction, and that the uniform-price auction can be viewed as a multiple-unit version of a second-price auction. In a first-price single-unit auction, the bidder with the highest bid wins and pays the amount of her bid. In a second-price single-unit auction, the bidder with the highest bid wins and pays the amount of the second highest bid. Under some circumstances the second-price auction is equivalent to the familiar English oral auction.
One can understand why economists and policy makers alike have used this analogy: the theory of single-unit auctions is well developed and its predictions well known to economists. For example it is well known that, because the amount bid affects only the probability of winning and not the amount paid, bidders bid their true private valuations in a second-price single-unit auction. It is this feature which leads to an efficient outcome. The erroneous analogy then suggests that bidders bid their true valuations in a uniform-price multi-unit auction.

Friedman, for example, suggests in an article in the Wall Street Journal (28 August 1991) that 'A [uniform-price] auction proceeds precisely as [a discriminatory-price] auction with one crucial exception: All successful bidders pay the same price, the cut-off price. An apparently minor change yet it has the major consequence that no one is deterred from bidding by fear of being stuck with an excessively high price. You do not have to be a specialist. You need only know the maximum amount you are willing to pay for different quantities.'

Merton Miller (New York Times, 15 September 1991) also suggests that '[In a uniform-price auction] you just bid what you think it's worth.' Along the same lines, the Joint Report on the Government Securities Market (1992) states that 'In the case envisioned by Friedman, the uniform-price awards would make the auction demand curve identical to the secondary market demand curve.'

It is also known, from the theory of auctions of a single object, that when bidders' values are affiliated — roughly speaking, this means that if one bidder thinks that the values of the other bidders are high then her own value is also high — the second-price sealed-bid auction generates more revenue than the first-price sealed-bid auction. If the analogy were correct, then the uniform-price auction would generate more revenue than the discriminatory-price auction.

Finally, Chari and Weber (1992), argue that 'While the theory has not been completely developed for that situation [when bidders have demand schedules], the economic logic of the arguments for the single-object environment seem likely to carry over'.

It is worth noting that the US Treasury experimented with a particular type of uniform-price auction during 1992-1993 with inconclusive results as to revenue generation (see, for example, Malvey, Archibald and Flynn, 1996). Later we will review some of the empirical and experimental literature on this controversy.

The next section summarises some of the findings of the new theory of auctions and explains why the analogy between single-object auctions and multiple-object auctions is incorrect.

**The New Theory of Auctions and its Implications**

Why are auctions where multiple objects are sold different from auctions of a single object? When competing for a single object, it suffices for a bidder to outbid the opponent with the highest bid. (Only standard auctions where the winner is the individual with the highest bid are considered here). Now suppose there are \( n \) bidders who are competing for \( k \) identical objects \( (n > k) \) and let me focus on auctions where the winning bids are the \( k \) highest ones. For the special
case where each bidder only wants one object, then it also suffices for an agent to forecast only one bid, namely, the bid of the opponent with the \( k \)th highest bid. If this individual outbids the opponent with the \( k \)th highest bid then she receives one of the \( k \) identical objects. In this case, analysed in detail in Menezes (1999), the single unit auction logic does carry over.

Now suppose each bidder wants up to \( k \) objects. In this case, each bidder has to forecast the bids of the opponents with the \( k \) highest and think about all the possible implications. For example, a bidder may have the two highest bids and, therefore, this bidder wins two objects. Or a bidder may have the \((k-1)\)th highest bid, winning only one object. This is a very difficult problem that economists have not yet been able to solve in general. Therefore, there is no reason to believe that the results of the theory of auctions of a single object that were used to support the choice of a uniform-price auction to sell Treasury securities will hold with multiple-unit demands.

Although a general theory of auctions of multiple objects does not exist, economists know enough today to realise that the results from single-object auction theory will not hold in general when multiple objects are sold. In what follows some of the results from the new theory of auctions of multiple units are outlined.

Menezes and Monteiro (1995) consider a private-independent-value model where \( Y \) divisible objects are sold, agents have demand curves for the objects and are allowed to bid any amount in the interval \([0,Y]\). One can think of the demand curves as the demand curves of individual traders in the secondary market. Menezes and Monteiro assume full information. However, their work may be extended as to the case where each bidder knows her own demand but only the distribution of her opponents' demand functions. Bidders submit pairs \((p,q)\), where \( p \) denotes a price-bid and \( q \) a quantity-bid.

In this framework, a bidder's expected profits, conditional on winning a certain quantity \( q \) at a certain price \( p \), is simply the difference between the consumer's surplus up to \( q \) and the payment \( pq \). For the simple case where there are only two bidders, there are three possibilities. If a particular bidder has submitted the highest bid-price, then she receives the amount of T-Bills requested. Otherwise, she receives the smallest of the residual demand or her bid. It is assumed that in the case of ties in the price-bid, the bills are awarded proportionally to the bid-quantities.

By exploring these features of the Treasury bill auctions, it becomes clear why the analogy of the uniform-price auction to the second-price single-unit auction is flawed. In a second-price single-unit auction, an individual's bid does not affect her profits conditional on winning since she pays the second-highest value if she wins; it only affects her probability of winning. Thus, bidding her true private value is a dominant strategy. In a uniform-price auction, however, her bid can affect her prices. Her bid for a second unit can affect how much she pays for a first unit. Therefore, in equilibrium, bidders may shade their bid-price in a uniform-price auction whereas they bid their true valuations in a second-price auction of a single object.
The realisation that such analogy between single-unit and multiple-unit auctions is false has led to a renewal of interest in the area. Among others, Back and Zender (1993) compare the revenue generated by a uniform-price auction and by a discriminatory price auction when values are common — that is, when each bidder draws an independent signal from a fixed distribution regarding the true value of the objects — and demands are flat. Engelbrecht-Wiggans and Kahn (1998) examine uniform-price auctions where each bidder desires up to two identical, indivisible objects. They find that a bidder generally has an incentive to bid sincerely on her first object but to shade her bid on the second object.

Katzman (1995) and Tenorio (1997, 1999) provide examples where the discriminatory-price auction may generate more revenue than the uniform-price auction. In Katzman bidders desire up to two objects and in Tenorio there are two bidders, three objects and bidders have to demand two or three units so that excess demand is assumed in equilibrium.

Ausubel and Cramton (1996) consider the case where agents have constant marginal values for the good (that is, flat demands). They show that bidders have an incentive for bid shading and demand reduction in both uniform-price and discriminatory-price auction. In the uniform-price auction, the ‘basic idea is that when a bidder desires multiple units of the good being auctioned, there is a positive probability that her bid on a second or later unit will be pivotal, thus determining the prices that the bidder pays on other units that she wins. Given this, she has an incentive to bid less than her true value on later units in order to reduce the price she will pay on the earlier units.’ When goods are divisible, this intuition suggests a bidder submits a demand schedule similar to a monopolist’s marginal-revenue curve: the vertical intercepts of the two curves coincide, but at all positive quantities the bid curve lies strictly below the true valuation curve. This phenomenon generates inefficiency in multi-unit auctions: large bidders reduce demand for additional units and so sometimes lose to smaller bidders with lower values.

The example that follows, drawn from Ausubel and Cramton, shows how the demand reduction phenomenon causes inefficiencies in both discriminatory and uniform-price auctions. Suppose there are three identical objects and four buyers and that all buyers except Buyer 4 only want one object. Buyer 4 wants two objects and she values the identical objects the same. Suppose the objects are sold through a uniform-price auction where winners pay the fourth lowest bid. It is convenient to think of buyers 1, 2 and 3 making a bid for one object and Buyer 4 making two bids, one for each of the two objects she wants.

Buyers 1, 2 and 3 find that their bids cannot be pivotal in any state of the world where they win a unit — that is, their bids do not influence the price they pay but only the probability of winning one unit. Therefore, they bid their true valuations. Suppose that buyers’ values are distributed such that Buyer 4 has a unique optimal bid for each possible realisation of her private information, then there is a unique equilibrium in which Buyer 4 bids her true value on the first unit but shades her bid for the second unit. By doing so she reduces the price she pays on the first unit! This equilibrium is inefficient because she may not win the
second object even though there was another buyer with a lower valuation who
won it.

Thus, in the uniform-price auction a bidder may bid below her true
valuations, as it has been pointed out above. A similar example can be
constructed to show that the discriminatory-price auction is also inefficient.
Wolfram (1998) provides evidence for this phenomenon in bids to supply
electricity in the UK, showing that bidders (sellers) offering more than one unit
have an incentive to increase their bids at high quantities. In the context of
procurement auctions, this phenomenon is manifested by a supply increase rather
than a demand reduction as in the context of Treasury bill auctions.

Finally, Heller and Lengwiler (1998) argue that the Swiss government should
continue using the uniform auction in selling government bonds. Their
conclusion, however, is based on the assumption that buyers are uncertain about
the amount being sold and believe that their actions cannot affect the
government’s decision of how much to sell.

In summary, there is no theoretical case for the choice of a uniform-price
auction over a discriminatory-price auction for the sale of Treasury securities. In
the next section we review some of the empirical and experimental literature that
compares the two auction formats in terms of revenue and possibility of market
manipulation or collusion.

A Review of the Empirical and Experimental Literature

As mentioned above, the recent US Treasury experiments with uniform-price
auctions in the sale of two and five-notes have been apparently inconclusive
(Malvey, Archibald and Flynn, 1996). Simon (1994) examined a similar
experiment by the US Treasury when a small number of uniform-price auctions
were conducted. He finds that the uniform-price lowered Treasury revenues by 3
to 4 per cent of the face value of the auctioned bonds vis-a-vis the revenue
generated by discriminatory-price auctions.

Tenorio (1993) examined the revenue generated by uniform-price and
discriminatory price auctions in the Zambian foreign exchange market. Zambia
used first uniform-price auctions and then discriminatory-price auctions on a
weekly basis from late 1985 to early 1987. Tenorio shows that the uniform-price
auction generated, on average, more revenue than the discriminatory-price
auction. The difference is explained by a higher participation rate under the
uniform-price auction. Additional results suggest that representative agents who
consistently bid high showed delayed adjustment to the regime change. Therefore,
it is not clear that one should expect similar results in Treasury bill
auctions with experienced bidders.

Furthermore, some laboratory experiments have tended to favor slightly the
uniform-price auction as proposed by Friedman, except when bidders’ demands
are sufficiently steep (see, for example, Smith 1967, 1982). However, more recent
experimental studies examining the role of communication among bidders prior to
the auction obtain opposite results.
In particular, Goswami, Noe and Rebello (1996) provide experimental evidence that the existence of preplay communication between bidders facilitates the adoption of collusive strategies in uniform-price auctions. In contrast, preplay communication induces the competitive equilibrium in the discriminatory-price auction. This evidence suggests that uniform-price auctions may result in lower revenues than the currently used discriminatory auction.

In conclusion, the existing empirical and experimental evidence is not sufficient to make a strong case for the use of a uniform-price auction over a discriminatory-price auction for the sale of Treasury securities.

The Ascending-Price Auction

The alternative ascending-price uniform-price mechanism proposed by the Joint Report would operate as follows. The auction would open with Treasury announcing a low price (high yield). Bidders would then submit bids simultaneously (by a computer) for the amounts they wish to purchase at the announced price. If the sum of the demands is less than the total being sold, then each bidder would receive the amount they requested at the announced price. If demand is larger than supply, then the auctioneer keeps increasing the price (reducing the yield) until the total quantity bid falls below the amount being sold. All bids at this last price would receive awards at the previous lower price (higher yield).

Menezes (1996) analyses strategic behaviour in a simultaneous ascending auction under complete information — that is, when bidders know each other's true demand functions — where bids are restricted to being nonincreasing. (As in the auction format proposed by Ausubel (1997)). The bidders' game playing means there are many equilibria. Applying a natural way of selecting one of the equilibria, Menezes shows, remarkably, that the sale takes place at the opening price. Bidders forecast how much they will eventually purchase and shrink the amounts they demand in the first round to this level, resulting in immediate sale. Although this result rests on the assumption of complete information, it provides a warning about the peculiar possibilities in simultaneous auctions. Durham, LaMaster, Smith and Van Boening (1994) find experimental evidence that such manipulation may occur. However, consistent manipulation was not observed, as it required stable coalitions, which bidders were typically unable to sustain.

Ausubel (1997) proposed an ascending-price auction mechanism that differs from the one examined above in its pricing rule. Whereas every winner pays the same price in the auction described above, the proposed auction is such that objects are awarded to bidders at the current price at which bidders are 'guaranteed' to receive a particular object given the opponents' bidding behaviour. The idea is to generalise Vickrey's insight — that a bidder should pay a price equivalent to the value of the bidder that she displaced — to ascending-price auctions (see Vickrey, 1961). Ausubel shows that this auction has an efficient equilibrium where the bidders with the highest valuations win the objects.
Perhaps an example could be instructive. Assume full information about individuals' demands. Suppose there are three objects being sold to two bidders who value the objects as follows. Bidder 1's values are given by \((1,1,0.1)\) and Bidder 2's values by \((0.3,0.3,0.2)\). First consider the type of equilibrium pointed out by Ausubel. Suppose the seller starts the bidding at his reservation value, say zero. Player 1 is the first to reduce his demand from three to two units at price \(p = 0.1\). Thus Bidder 2 is guaranteed to win one of the objects at \(p = 0.1\). At \(p = 0.2\), Bidder 2 reduces his demand from three to two but Bidder 1 has not guaranteed an object yet. Finally, at price \(p = 0.3\) Bidder 2 reduces his demand from two to zero and Player 1 receives the two remaining objects at this price. The seller's revenue is equal to 0.7 and this equilibrium is efficient.

Note, however, that this equilibrium is not unique. Consider the equilibrium where Player 1 bids two units as long as the price is less than 1 and Player 2 bids one unit as long as the price is below 0.3. It is easy to verify that this is an efficient equilibrium where the seller's revenue is equal to zero — the seller's opening price. Clearly, additional research is needed fully to characterise the equilibria of this auction and their properties.

Conclusions

Improved auction design could be extremely valuable both in terms of the government's revenue and market efficiency. A small decrease in the average yield obtained in the sale of Treasury notes and bonds could represent a decrease in the cost of financing the government's debt on the order of several million dollars. Perhaps this is a particularly appropriate time for policy makers to be innovative in the way they sell government securities and to experiment with new auction formats as the size of the stock of debt is declining.

Although the debate on how to sell government securities has not yet been resolved, we know that there is no basis, either from a theoretical or from an experimental/empirical perspective, for the replacement of the discriminatory price auction with a uniform-price auction. However, the government may favour instead the use an ascending-price auction along the lines suggested above.

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Aesthetics, Economics and Conservation of the Endangered Orange-Bellied Parrot

Harry Clarke

The Orange-bellied Parrot (\textit{N. chrysogaster}), or OBP, is an exceedingly rare Australian parrot and, indeed, one of the world’s rarest birds. The genus \textit{Neophema} to which it belongs comprise small, graceful grass parrots in the family \textit{Psittacidae} that include both parrots and lorikeets. They are ground dwelling and southern-based Australian parrots. Apart from the OBP, members include the Turquoise Parrot (\textit{N. pulchella}), the Scarlet-chested Parrot (\textit{N. splendidida}), the Blue-winged Parrot (\textit{N. chrysostoma}), the Elegant Parrot (\textit{N. elegans}) and the Rock Parrot (\textit{N. petrophila}). Members of this genus are described by Trounson (1996:54) as ‘among the most beautiful of birds’. All are endemic to Australia and none, except the Blue-winged Parrot, are common with the OBP being by far the most rare. Bourke’s Parrot (\textit{N. bourkii}) formerly classified with this genus, is now placed in a different genus (Christidis and Boles, 1994).

The OBP breeds in summer on the south-west coast of Tasmania in hollow-bearing eucalypts which grow adjacent to the buttongrass plains where it feeds. On completion of its breeding season, the population migrates north across Bass Strait via King Island during March-April. Most OBPs then reside in the south-east region of Australia between Gippsland, eastern Victoria and The Coorong in south-eastern South Australia. Particular concentrations of OBPs are found in the saltmarshes of Port Phillip Bay (Forshaw (1989:284) claims up to 70 per cent live in this habitat) where they feed on salt-resistant plants restricted to this habitat (Loyn et al, 1986).

The population of OBPs in the wild has been variously estimated at between 150-500 birds (Blakers, Davies and Reilly, 1984; Schodde and Tidemann, 1993). Garnett (1993), in an authoritative survey on rare and extinct birds, estimates total numbers at 150+ while the Higgins (1999:561) survey estimates numbers at less than 200 with a breeding population of about 100 birds. Using International Union for the Conservation of Nature (IUCN) criteria the species is classified as ‘endangered’ rather than ‘critically endangered’ since although the population numbers are very low they have been stable in recent years and there is no evidence of continuing habitat decline (Garnett, 1993:90-92; Collar, Crosby and Stattersfield, 1994:103; Clarke, 2000).

Uncertainty about numbers is compounded by the possibility that during its non-breeding season, the OBP may be making a change in its use of habitats, from traditional saltmarsh country toward more open countryside (Starks, 1997:9).
During the breeding season human access to all potential breeding sites in Tasmania is limited so monitoring of population size is difficult. The population seems to have been stable in recent years but, as it is small, the species remains sensitive to catastrophes such as disease, bushfires and storms that can occur during migrations. The small population also raises the prospect of reduced 'safety in numbers' during migrations and reduced genetic variability although this is offset by the fact that large flocks of OBPs are seldom observed — the birds migrate in small groups. Some conservation biologists advance a '50/500 rule': animal populations, it is argued, need to have a genetically effective population of at least 50 members to conserve genetic diversity in the short-term (several generations) and numbers of 500 or more in the longer term to avoid serious 'genetic drift'. (Genetic drift refers to the loss of genetic variability when, by chance, certain characteristics are not be sampled in the next generation when the current generation is small). These figures, the genetic drift argument and the validity of the '50/500 rule' are disputed (Meffe et al, 1997:194).

The OBP was one of the first birds described by the white colonisers of Australia. It was first collected in 1773 or 1774 during Captain Cook's second or third voyage (Silva, 1989:67). At the turn of the century, and even as late as the 1960s, the species was considerably more numerous than at present and occupied a larger, less fragmented range. In earlier times, during the winter months, the OBP was claimed to occur as far north as the western suburbs of Sydney and around Sydney Harbour (Cayley, 1968; Crome and Shields, 1992; Silva, 1989). It was also more widely dispersed, during the summer months, in Tasmania. Numbers in the early nineteenth century are uncertain but references were made to 'thousands' (Morgan, 1918). While this is only a rough guide, the OBP seems never to have been common. The reasons for its decline in numbers and restriction/fragmentation in range include destruction and alteration of vegetation, competition from other species (particularly introduced seed-eating birds), predation by feral animals (cats and foxes) and trapping for aviculture, particularly in South Australia (Garnett, 1993:90-2).

Choice of the OBP for specific analysis here is partly a symbol for more general species conservation concerns and partly because the OBP recovery effort is the longest-running national individual species recovery effort in Australian history. The OBP Recovery Plan was the first of its kind for an endangered Australian species. It began in 1984 (Stephenson, 1991). Longstanding interest in the OBP makes it an intrinsically interesting case study in individual species conservation economics.

**Conservation Prospects**

OBP live a specialised lifestyle in terms of food requirements and the annual migrations undertaken. Following legislative protection in 1960, it has become difficult (and illegal) for the caged-bird trade to persecute OBP, so the main issue governing survival is habitat conservation. An additional survival factor
comprises the financial (and intellectual) resources going into programs to ensure the protection of the OBP, including captive breeding programs.

In economic terms the main cost of conserving the OBP is the opportunity cost of using the land the OBP now utilises for feeding and reproduction for its next best purpose as well as the cost of resources specifically directed towards OBP conservation.

A captive breeding program has been conducted by the Tasmania Parks and Wildlife Service in Hobart since 1985. In 1994, a second colony of OBP was founded at Healesville Sanctuary (near Melbourne) with breeding stock from Hobart. During 1997-98 breeding in the captive groups resulted in the successful fledging of 34 juveniles although survival of nestlings has been poor. A third colony has now been established in Melbourne. A total of over 50 young were reared in 1998-99. Mortality in adult captive birds has been high due to disease. From 1985-86 to 1997-98 a total of 318 OBP have been bred in captivity of which 68 have been released into the wild. The breeding stocks at the end of 1998 were about 40 in Hobart and about 29 in Healesville (Smales et al, 1999).

Land utilised for breeding in western Tasmania is entirely protected national parkland. Most areas utilised by the OBP on the mainland are reserved for conservation or subject to cooperative conservation agreements with landowners. The main conservation difficulties however still occur in Australian mainland areas where the OBP spends the winter. Here, because of the close proximity of habitat to concentrated urban areas, there have been repeated threats from development over the years. In the Port Phillip Bay area, these have included expansion of the Avalon Airfield and construction of a new port at Point Lillias (Brown and Wilson, 1984; Menkhorst, Loyn and Brown, 1990, Edgar and Menkhorst, 1993).

Recently, Point Lillias was proposed as an alternative to the Coode Island chemical storage facility. This would have been a marginal intrusion on OBP habitat but could have had a strategic significance of initiating conservation problems by opening the door to further ‘marginal’ developments and thereby, eventually, promoting ‘death by one thousand cuts’ of the species. The Point Lillias proposal was eventually shelved by the then Victorian State Government. The leader of this Government, The Hon. Jeffrey Kennett, in debunking proposals to forego development of Point Lillias to preserve the OBP, gave the bird a memorable common name — the ‘Trumped-up Corella’. This puts the OBP into the wrong family of Psittaciformes namely the Cacatuidae, which include the cockatoos and corellas. Mr. Kennett subsequently abandoned these development plans though his reasons for doing this — valuable information for conservationists — remain private.
Conservation Arguments

In recent years substantial effort has gone into preventing extinction of the OBP. The World Wildlife Fund has sponsored an intensive survey of the species and a Recovery Plan has been adopted. The OBP Recovery Team has representatives from Federal and three State Governments as well as bird conservation organisations and universities. It has operated since 1984 with expenditures averaging something less than $100,000 annually.

Over the seven years 1984 to 1990, the Recovery Program cost $589,000 — an average of $84,140 per annum. This included staff salaries, travel and material costs of land management and protection ($300,000), maintenance of captive bred birds ($44,000), recovery team meetings ($22,000), winter survey costs ($44,000), the captive breeding facility ($80,000) and research and recovery plan costs ($78,000) (Rounsevell, 1990). Since 1991, the Federal Government has provided $496,000. The current proposed plan is costed at $1.5m over five years (Menkhorst, 1998, personal communication). To the various costs mentioned are also often added ‘in kind’ costs. In 1995 ‘in kind’ costs of $22,275 were estimated for labour and transport services provided by volunteers (Starks, 1997).

What rationale (economic or other) can be given for this effort? We consider arguments that motivate conservation effort from six (not independent) viewpoints that describe various species conservation concerns.

Aesthetic

These are probably the strongest arguments but they are often poorly articulated. Defining ‘aesthetic’ narrowly to mean ‘visually colorful and attractive’ to human beings, the OBP is definitely handsome but probably not more so than its close relatives — particularly the spectacular Scarlet-chested and Turquoise Parrots. The OBP is visually similar to the Blue-winged and Elegant Parrots, which are genetically related and more common (Christidis et al., 1991). The OBP is of interest, in terms of broader aesthetic criteria that account for its peculiar and difficult migratory life cycle. However, the OBP is not unique in this respect. The Blue-winged Parrot which it closely resembles, also migrates seasonally across Bass Strait and is one of several Neophema genetically similar to, though more abundant than, the OBP. Also the Swift Parrot, Lathamus discolor, follows a similar migration pattern and is exceptionally attractive, although genetically and phenotypically very different from the OBP.

Commercial

Bird observers attach a high value to observing rare birds. Valuation of rare species by those with an interest in birds will be high simply because the birds are
There are problems for private firms in recovering such value because viewing birds is a non-rival and often non-excludable public good (see Clarke, 1999). Ignoring congestion, birdwatching is a non-rival activity with high transaction costs of enforcing excludability.

With excludability — so access to OBP locations can be priced — and in the absence of congestion, social efficiency is achieved by levying a zero access charge. Costs of conservation at such sites can then be recovered by managing them as club goods. Under such an institutional arrangement a fixed licence fee is charged and, upon payment of this fee, unlimited access permitted. This is the charge system used at the important Western Treatment Plant site for observing the OBP and other birds. A fixed biannual fee of $20 is charged and thereafter entry is free.

Without excludability there is an argument for public provision of birdwatching access because of its high implicit value and because interest in avifauna is substantial. In the US, there are 61 million birdwatchers of which 300,000 are considered serious in the sense that they can identify more than 100 species. Total US expenditure on birdwatching in 1990 was more than $20 billion US. The Canadians and British are more ardent than this (Gill, 1995). Information on Australia is patchy but major birdwatching organisations (the Bird Observers Club of Australia (BOCA) and Birds Australia) have significant and growing memberships: BOCA has about 4,000 ‘family member’ units and Birds Australia about 5,250 members.

Apart from specific birdwatching interest, the tourism values of the OBP are low on mainland Australia although there is growing inter-state and international recreational birding tourism. Furthermore, the OBP does not occupy mainland habitats regarded as having high tourism values. Sewerage farms and saltmarsh are distinctive environments for various flora and fauna but do not have mass appeal to humans.

There are more tourism values associated with the OBP in Tasmania. At its main breeding location in Tasmania (Melaleuca in the south west) an exceptional bird observatory (hide) is provided for observing OBP. This includes live video footage of activities inside a nest box used by a wild pair of OBP. Two small airlines (Tasair and Par Avion) run charter flights to Melaleuca several times per day throughout the summer and OBP viewing is an advertised highlight of these trips. The Melaleuca area has high tourism value — thousands of people travel to it each year spending large amounts of money to do so.

Finally, the possibility of using the OBP as an avicultural output by farming it can be considered. The OBP’s rarity means it has high value in avicultural markets. A political economy argument raised against such sales is that the

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1 As an observant referee notes, increasing the numbers of rare species might reduce their scarcity value to those bird observers who value rarity. We assume here that such losses will be outweighed by the gains other sections of society enjoy from knowing that the survival of a species is more assured.

2 I thank Peter Menkhorst for these observations.
prospect of successfully selling the OBP might reduce incentives to continue public conservation effort. This could be damaging if private breeding programs failed. In addition, it is currently illegal to own privately an OBP so marketing OBP requires a change in law. Moreover, making birds marketable provides incentives for poaching from the wild, which offset arguments for marketing.

Ignoring poaching, the case for privatisation is based on the theory that private agents will act to maximise OBP survival (in captivity) to maximise profits. However, if property rights are ineffectively enforced on wild birds—so poaching is possible—privatisation may encourage a self-interested annihilation of the species in the wild by poachers. This is undesirable if conservation in the wild is an objective. In addition, private purchasers will underbid for legally-supplied OBP if illegally supplied birds are available at low cost.

Some have suggested building up a large OBP stock via captive breeding to ‘flood the market’ prior to commercial marketing to reduce poaching incentives. Resulting revenues could then be used to fund OBP conservation. However, incentives to poach will be eliminated only if returns from poaching are low. Therefore, this policy succeeds only if returns from legal sales of OBP are low. Thus, the policy is of limited use for funding OBP conservation in the wild even though it might provide an additional basis for ensuring overall survival.

**Diversity**

Social choice theorists express the idea of individuals having a preference for diversity via the idea of convexity. Convex preferences imply that mixtures are preferred to extremes. Applied to species conservation, those with convex preferences prefer to protect a mix of a large number of species rather than larger numbers of a smaller ranging mix. Alternatively, birdwatchers have convex preferences if they prefer to observe a mix of species rather than a single species. A preference for natural diversity is claimed to satisfy a human need for sensory and intellectual stimulation termed *biophilia* (Wilson, 1984).

On the basis of convexity ideas and biophilia there do not seem to be strong biodiversity reasons for favouring preservation of the OBP along the lines of, for example, Weitzman (1998). This approach uses genetic distance data to determine conservation strategies to maximise biodiversity. With respect to the OBP there are other parrots in the *Neophema* group which are genetically similar and which are more abundant and easier to preserve.

Plants and animals have evolved from a single origin of life and have a unique evolutionary history or phylogeny. Of the attempts to establish the phylogeny of the world’s 10,000 bird species, that due to Sibley and Alquist (1990) using DNA comparisons across 1,700 species has substantially influenced modern taxonomies. One way of assessing species distinctiveness is to establish the ‘genetic distance’ of particular species from others as suggested in Weitzman (1998). Within the *Neophema*, Bourke’s Parrot (*N. bourkii*) historically was the most distinctive in terms of behavioural, ecological and morphological characteristics. It has therefore recently been segregated into its own monotypic
genus — *Neopsephotus*. Unlike *N. bourkii, N. pulchella* and *N. spendida*, the remaining 4 *Neophema* (including the OBP) have a coastal distribution rather than one in the dry interior — they are therefore referred to as ‘coastal Neophema’ (Eades, 1998). The OBP has close relatives in this coastal group.

Also, while the OBP is possibly not a suitable cage bird species (Silva, 1989 cites contrary arguments that are discussed further in Brown (1984). See also Smales *et al* (1999) for a related literature on captive breeding.) it is being raised in captive breeding programs and being released into the wild where it apparently behaves like wild-raised stock by, for example, undertaking biannual migrations (Starks, 1997). Conserving the bird as a caged bird, in this way, helps ensure its survival. Clearly however, what many conservationists hope to conserve is not OBP-related DNA but a composite good — the OBP in its natural environment. For many, the caged-bird trade is an undesirable, long-term conservation outcome.

Species distinctiveness, as taxonomists agree, is partly a subjective characterisation. There is no widely agreed approach to defining what a species is let alone to measuring the distinctiveness of a species from others within a genus (Meffe *et al*, 1997:60-85; Mallet, 1996). This is important issue if one is attempting to prioritise conservation decisions at the species level since then species demarcations need not have been established in terms of a common norm. Taxonomy and the prioritisation of biodiversity conservation then involve inevitable subjectivity. This subjectivity however bites in each direction. In particular, taxonomic arbitrariness does not always work against the conservation of species with apparently close relatives as is the case for OBP. Much biodiversity is below the species level so conservation (of populations) below the species level is important. Given subjective taxonomic boundaries there may be an increased case for risk-averse conservation managers, to preserve at a doubtful taxonomic boundary.

Finally, using genetic arguments it has been suggested that conservation efforts for OBP should be abandoned because of the OBP’s low population. Brown *et al* (1985) consider this possibility but reject it based on qualifications to the ‘50/500’ rule discussed above. However, the small OBP population size may bear on the issue of survival prospects. Post Sibley-Alquist DNA work is throwing new light on species uniqueness issues. It may be that *both* small population size and genetic uniformity are conservation problems. Even if a large OBP population can be replenished from a small stock of only 150 birds, the population may have low genetic diversity and therefore a uniform, vulnerable immune system. Such vulnerabilities may be discovered even in large populations as DNA research proceeds.

**Joint conservation**

Habitats, certain economic activities and a considerable number of other species are simultaneously preserved if the OBP is preserved. There are complementaries in conserving the OBP with other bird species. The Western Treatment Plant (WTP) at Werribee for example, is a significant wintering location for the OBP.
WTP is also an economically viable (sewage) waste disposal centre for more than half of Melbourne’s residents and is an economically viable commercial sheep and cattle property as well. The lagoons and countryside of WTP are a major Australian environmental resource — the wetland is listed by the International Union for the Conservation of Nature as a *Wetland of International Importance*. This wetland is protected by an international agreement signed by the Australian Government. Over 250 bird species have been recorded at WTP (this is about one third of the known bird species in Australia) and the WTP’s management authority claims that the area supports more than fifty per cent of the world population of OBP. At WTP, there are also significant concentrations of migratory waders from the northern hemisphere during summer and many migratory and resident waterbirds. There are also mammals (for example, the Common Dunnart: *Sminthopsis murina*) and significant flora (WTP, undated).

Conservation of the OBP at WTP does not conflict significantly with its economic role as a waste disposal facility and farm. Moreover, conservation of the OBP simultaneously advances other conservation benefits. This suggests that the opportunity cost of OBP conservation at WTP is low. While the land value of the 10,851 hectares at WTP is high because of the site’s proximity to urban Melbourne, this proximity boosts its conservation value and the economic value of its sewage disposal capability.

Finally, one should recognise that the WTP is not a homogeneous conservation zone. Particular parts of the area have special significance to the OBP. The Murtcaim Wildlife Reserve (including the Spit Wildlife Reserve famous among bird observers) is an area of land jointly managed by Parks Victoria and Melbourne Water which is crucial to the OBP and which faces particular management problems. The Spit is a fragile and vulnerable environment. Other well-defined areas in neighbouring Port Phillip Bay are also of importance. We should also recognise that there are specific issues in terms of habitat conservation and protection from feral animals (particularly foxes) that impinge heavily on the OBP. Thus, while there is ‘jointness’ in conservation effort which improves the economic case for conservation, there are also reasons for promoting the conservation of specific species such as the OBP.

*Existence and option values*

Australians who know of the OBP may seek to preserve it in order to retain the option to view it at some time in the future — there is an option value on its conservation. Other Australians will never have heard of the OBP but, if its rarity and consequent extinction vulnerability is explained to them, then the high contingent valuations that have been obtained for mammal species (for example, Leadbeater’s Possum: *Gymnobelideus leadbeateri*) suggest they will attach a high value to simply knowing that the OBP will survive — they would attach a high existence value to the OBP. Jakobsson and Dragun (1996) obtained two contingent valuation estimates of the value of protecting Leadbeater’s Possum of between $29 (and $20) to $75 (and $60) per Victorian household annually. These
imply perhaps implausibly substantial aggregate desired conservation expenditures of $40-160m annually in Victoria. People derive this benefit from knowing that the OBP will survive even should they have no desire to ever see it. This benefit can be linked to the guilt they would otherwise feel were they to allow the OBP to become extinct.

In addition, individuals may display altruism by seeking OBP conservation so future generations may have the option of observation. Such altruism can be motivated by the view that our children might hate us for the world we took away from them.

While these are compelling arguments in some respects, they are not arguments distinctively applicable to a particular species such as the OBP. Virtually any living matter, even an intermediate form of ‘life’ such as the smallpox virus, should ‘almost never’ be made extinct if costs of controlled conservation are small enough (Clarke and Shrestha, 1987).

Other non-economic arguments

Aesthetics alone can imply a case for conservation although it is difficult, with respect to the OBP, to categorise sources of aesthetic virtue (qualities that excite an admiring pleasure) other than rarity combined with a fortuitous cheapness to conserve. This might not seem a problem to biologists or conservationists who, in any event, often categorise economist attempts to pin down sources of aesthetic value as tedious philistinism. However, this criticism represents a misunderstanding of the objectives of economic inquiry. Economists search for the reasons that people value things in odd areas — snob goods, addictive drugs, existence, option and other values. In these terms why is the OBP so socially valuable?

To say that a concerned group of people seeks the OBP’s survival for non-economic reasons without specifying these reasons is an empty case. Moreover, it poses the difficulty that it is not necessarily the concerned group that funds the outcome. Is funding therefore an unmotivated and unfair redistribution toward those with elitist, conservationist preferences? Do such individuals have more ‘refined’ preferences than the majority who pay preservation-ensuring taxes so that this elite therefore have the right to claim public funding on the basis of an irrefutable (and probably nearly empty) merit good argument?

Some content can be assigned to the merit good view, without invoking elitist preferences, by supposing that while individual preferences are respected in making decisions, these preferences should be informed and should rely on expert views of, for example, conservation biologists. Thus if it can be argued that if the community generally seeks species conservation there might be a non-elitist role for expertise in assigning dollars to those conservation areas known to yield a high potential conservation payoff.

Finally, are public choices regarding species conservation, as revealed in surveys or in political choices, subject to such strong biases that they are of limited prescriptive value in social decision-making? It is argued, for example, that while
minorities have strong motivations to preserve species the majority is unconcerned either way. Alternatively, special interest groups may promote a case for species destruction based on concentrated economic interests while the majority have low unfocused preferences favouring conservation. In these instances, concentrated views favouring conservation (or destruction) will dominate social decision-making for political economy reasons — specifically because of the high transaction costs of giving weight to more diffuse viewpoints.

There are other arguments for conservation of the OBP that are less important for the specific OBP case than those cited. One is that continued existence of bird species provides important signaling indicators of general environmental health. Here birds have an instrumental role in signaling preservation of a healthy environment. This is a general argument supporting preservation of many species. It provides no specific motivation for conserving OBPs. A related argument is that the continued OBP survival signals preservation of environmental authenticity. This is both a general and a questionable argument. Dubos (1980) emphasises how human beings have transformed environments in a positive way: the ‘wooing of the earth’ requires both the conversion of wilderness into humanised environments and the preservation of natural environments. The case for pursuing authenticity is therefore questionable and, even if accepted, largely irrelevant for the OBP on mainland Australia given the highly-altered character of much (though not all) OBP winter habitat.

Conclusions

There is a strong, partially non-economic, aesthetic argument for conserving the OBP and this author would be disturbed if he understood that any reader went away with any other impression after reading this paper. The case for conserving the OBP based on economics alone however is uneasy in its details when subject to careful analysis. In the main, it is based on the low cost of increasing the survival prospects of the OBP. The argument seems unrelated to specific OBP characteristics and, in this sense, is uneasy.

While an economic argument for conservation, based on aesthetics as a public good, can be constructed this is irrefutable and therefore unscientific unless aesthetic criteria are specified which could potentially be shown, using data, to not apply to either the OBP or other species. With respect to the OBP, relevant aesthetic criteria based on beauty, lifestyle or genetic distinctiveness are either not obviously apparent or else weak. There exist comparably beautiful birds that are morphologically and genetically similar. In addition, preservation could perhaps be achieved by commercialisation of OBPs via captive breeding and possibly even the caged bird trade. That nature lovers might collectively despise the caged-bird trade could suggest devoting resources to the liberation of factory chickens rather than conserving OBP. There are similar (and different) parrot species with similar migratory lifestyles to the OBP.

The main economic argument for preservation is that, fortuitously, the cost of conservation is low relative to alternative economic uses of land. This low cost
reflects the fact that OBP conservation helps preservation of other flora and fauna because of habitat overlaps.

The essence of our argument can be set out as an application of Weitzman's (1998) use of diversity theory to analyse choice in biodiversity decision-making. This approach prioritises species candidates seeking conservation effort and assigns to species i the cardinal ranking:

\[ R_i = \left[ D_i + U_i \right] \left( \Delta P_i / C_i \right) \]

where:
- \( D_i \) = distinctiveness of i (a measure of how different i is);
- \( U_i \) = direct utility of i (how much it is liked);
- \( \Delta P_i \) = measure of how much survivability of i can be enhanced; and
- \( C_i \) = cost of improving survivability of i by \( \Delta P_i \).

The higher is \( R_i \), the higher the ranking. Provided \( \Delta P_i \) is small, for all species i, use of this measure to prioritise conservation efforts approximates the optimal policy of maximising biodiversity subject to budget. Given substantial efforts in Australia to conserve the OBP, this ranking measure is revealed high in the minds of cost-minded conservationists. Our argument is that OBP distinctiveness is low so \( D_i \) is low. Also, aesthetic arguments for conserving OBP seem difficult to set out precisely so, ignoring south-west Tasmanian tourism values, \( U_i \) is also low. The reason therefore for assigning a high ranking to OBP is that \( \Delta P_i \) is high relative to \( C_i \). Specific OBP attributes are irrelevant — the main argument is that extinction prospects for the OBP can be reduced at low cost. If costs of reducing extinction risks were more substantial then the case for conserving the OBP (or other species) based on its intrinsic characteristics would be less strong.

Existence and option value arguments confirm a case for conservation although we have not uncovered versions of such arguments specific to the OBP. Finally, the apparently strong economic argument that a species like the OBP should be conserved because it is scarce and has high marginal value to those who value bird life is correct but has surprising implications. It implies, for example, that all rare species should be conserved irrespective of their uniqueness properties or the possibilities for conservation effort to reduce their survival probabilities. Basing conservation value on claimed rarity hinges on subjective taxonomic issues, which is unsatisfactory if conservation funding has to be indivisibly allocated among competing ends.

The economic case for conserving the OBP is partly fortuitous and fairly compelling but uneasy in several respects.
References


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REVIEW

Gambling Policy


Reviewed by John Quiggin

Reading the reports of the Industry Commission (previously the Industries Assistance Commission) was always an odd experience. The reports were invariably well-argued, followed extensive public hearings, and frequently included useful empirical studies. But the policy conclusions could be predicted before the first data point was collected — almost invariably they favoured less government intervention. It seemed reasonable to expect reports of the Productivity Commission to follow the same pattern. The Commission's report on gambling belies this expectation. Although the Report cannot easily be placed on a simple policy spectrum with central planning at one end and laissez-faire at the other, it clearly rejects simplistic free-market solutions.

The first part of the Report consists of an assessment of the welfare effects of gambling, a topic which has been the subject of numerous errors. The easy part of the Commission's work is the demolition of various forms of the 'materialist' fallacy — the view that value arises solely from the production of physical goods. One form of this fallacy is the view that gambling necessarily yields negative net social output, since physical resources are consumed but no physical output is produced. A related, but opposite, error counts all the resources used in the gambling industry, plus multiplier effects, as a net contribution to social output.

Problem gamblers pose a more substantial challenge. Although only two per cent of the adult population (defined by self-reported behaviour such as going into debt to gamble), they contribute about one-third of the gambling industry's revenue. 'Problem gambling' is the core policy problem of gambling.

To respond satisfactorily to this issue, it is necessary to deal with the theory of rational addiction, put forward by ACIL (1999) on behalf of several major gambling enterprises in an attempt to deny the existence of problem gambling. The idea of rational addiction, first put forward by Becker and Murphy (1988) has had a surprisingly easy ride in the economics literature, although its claims to empirical accuracy have been criticised by Ferguson (1996). Moreover, it is the kind of idea that would certainly have appealed to the Commission's precursor bodies in their crusade against what they saw as economic irrationalism.

Rational addiction theory is based on a model in which demand for addictive goods rises with previous consumption. The standard empirical test presented in studies cited in support of the model consists of the estimation of a demand equation in which anticipated future price increases are shown to affect future
demand. As the Commission observed, such a test is very weak, since it relies on the assumption that the only alternative to perfect rationality is complete irrationality, or even, according to ACIL (1999), 'insanity'. The theory also fails a basic reality check, in that it is obviously inconsistent with the self-reports of addicts, and the fact that they often seek to have themselves excluded from gambling venues.

Another aspect of behaviour associated with addictive commodities is the phenomenon of ‘kicking the habit’. Many addicts undergo substantial pain in order to cure themselves of their addiction, and many others undergo pain in unsuccessful attempts at a cure. No doubt, with a suitably complex pattern of discounting it might be rational to build up an addiction and then break it, but this is intellectual tennis with the net down. Given suitable discount rates and preferences, Russian roulette would be rational.

The debate on rational gambling is of interest for the light it throws on the views of ACIL's sponsors (Crown Casino, Jupiters, Star City, TABCorp, TAB Limited and Tattersalls). While they do not deny the large proportion of revenue derived from problem gamblers, they deny responsibility for such behaviour and defend their right to promote it without significant regulation. Such an irresponsible attitude brings into question their suitability to hold a licence to provide gambling services, let alone their retention of the monopoly privileges they now enjoy.

The Commission assessed the welfare effects of current gambling policies by weighing the consumer surplus associated with gambling (including that accruing to problem gamblers) against estimates of the social costs associated with the adverse effects of problem gambling, including suicide, crime and divorce. The estimates, summarised in Table 1, show that lotteries yield substantial consumer benefits but are not associated with significant problem gambling. This is scarcely surprising, since, unlike most other gambling forms, the revenue from lotteries is derived from the relatively small expenditures of a large numbers of consumers rather than large expenditures from small numbers of gamblers. The contrast with gaming machines, the other large source of gambling revenues, is striking. Even with the Commission’s relatively conservative estimates of social costs, it seems likely that the social costs of gaming machines exceed the benefits.

<table>
<thead>
<tr>
<th>Gambling form</th>
<th>Costs</th>
<th>Benefits</th>
<th>Net benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wagering</td>
<td>267-830</td>
<td>629-885</td>
<td>-201-618</td>
</tr>
<tr>
<td>Lotteries</td>
<td>34-106</td>
<td>1232-1498</td>
<td>1126-1464</td>
</tr>
<tr>
<td>Scratchies</td>
<td>24-74</td>
<td>219-266</td>
<td>145-242</td>
</tr>
<tr>
<td>Gaming machines</td>
<td>1369-4250</td>
<td>1617-2491</td>
<td>-2633-1122</td>
</tr>
<tr>
<td>Casino games</td>
<td>48-150</td>
<td>580-769</td>
<td>430-721</td>
</tr>
<tr>
<td>Other</td>
<td>57-176</td>
<td>103-184</td>
<td>-73-127</td>
</tr>
<tr>
<td>All gambling</td>
<td>1799-5586</td>
<td>4380-6093</td>
<td>-1206-4294</td>
</tr>
<tr>
<td>All except lotteries</td>
<td>1765-5480</td>
<td>3148-4595</td>
<td>-2332-2830</td>
</tr>
</tbody>
</table>

Source: Productivity Commission (1999:Tables 5.13 and 9.4) and author’s calculations.
The final row of Table 1 shows the effect of excluding lottery gambling from the Commission's estimates of costs and benefits. The range of estimates of net benefits is large, from -$2.3 billion to $2.8 billion, but is centred near zero. On these estimates, the question of whether the expansion of gambling over the past few decades has been, on balance, beneficial or harmful remains open.

This agnostic conclusion does not, however, apply to gaming machines, where the centre of the range of estimates is negative. Given an aggregate benefit less than or equal to zero, the marginal benefit of gambling expansion (contraction) will be negative (positive), under the standard assumptions that marginal benefits are decreasing (and hence less than average benefits), while marginal costs are constant or increasing. Hence, a policy which reduces aggregate expenditure on gaming machines will be beneficial, provided that the consumers excluded are marginal and that the reduction does not bear disproportionately on non-problem gamblers.

Gambling policy

The second part of the Report deals with the complex topic of gambling regulation. Until the 1960s, wowserism ensured that legal gambling in Australia was confined to the rich. Various forms of gambling were legalised in subsequent decades, mostly as public monopolies (TABs and State Lotteries) or licensed private monopolies (casinos and, in New South Wales, licensed clubs). These monopolies were originally justified as controls on the adverse effects of gambling, but residual wowserism contributed to a view that it was legitimate to exploit 'sinful’ gamblers to provide revenue for state governments.

From the 1970s, governments stopped trying to protect gamblers and began to exploit them. Steady cuts in Commonwealth grants to the States ensured that the demand for exploitation became greater and greater. From being barely tolerated, gambling was encouraged and then vigorously promoted. On reaching the limit of their own capacity to exploit the monopolies they had created, the States sold them off to private entrepreneurs (a practice almost unknown since the days of the Tudors and Stuarts, and even then correctly regarded as an abuse of power.) Thus State governments not only gained a powerful financial interest to perpetuate the flow of taxation revenue from the gambling, but also created powerful private enterprises critically dependent on the monopoly rights.

Even if it could be assumed that government was motivated by public interest, gambling would still pose difficult policy problems. The standard response to an externality problem is a Pigouvian tax. Taxes also discourage addictive behavior such as drugtaking, whether or not addicts are fully rational. Hence, taxes reduce the physical harm and negative externalities caused by addictions.

The harm caused by gambling, however, results from the financial losses incurred by gamblers. Assuming, as seems plausible, that problem gamblers exhibit inelastic demand, a tax-induced increase in the price of gambling services will exacerbate the harm caused by gambling.
The Commission's consideration of options to reduce the harm caused by gambling reflects these difficulties. A simple policy of reducing the number of gaming machines, for example, would increase demand for the use of the remaining machines. Owners would rationally respond by reducing the frequency and size of payouts, thereby increasing the effective price of gambling. Machines could also be reconfigured to conform more to the preferences of high-return gamblers, who are more likely to be problem gamblers. In either case, the net social loss arising from gambling could increase.

It follows that a policy to reduce harm arising from problem gambling must combine a number of elements. It must include both a binding maximum price (minimum payout ratio) and a reduction in the total supply of gambling services. In addition, it must include changes in the conditions imposed on gambling providers that are designed to reduce the proportion of revenue derived from problem gamblers. Examples of conditions that seem likely to reduce problem gambling more than recreational gambling include prohibition of locating automatic teller machines in gambling venues, a requirement for gambling venues to act on attempts by patrons to self-exclude, restrictions on 24-hour gambling and enforced breaks from gambling.

Although the Commission provides a useful and balanced treatment of the strengths and weaknesses of alternative policies aimed at reducing the harm associated with gambling, it generally resiles from recommending policy options that would significantly disrupt the existing structure of the industry. On the whole, the Commission fails to follow the welfare analysis through to its logical policy conclusions.

Nevertheless, these criticisms should not be overstressed. The Report combines rigorous economic analysis with careful attention to the broader range of social issues that must be taken into account in the formulation of economic policy. It is to be hoped that future reports will live up to this high standard.

References


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NON-AGENDA

With the view of causing an increase to take place in the mass of national wealth, or with a view to increase of the means either of subsistence or enjoyment, without some special reason, the general rule is, that nothing ought to be done or attempted by government. The motto, or watchword of government, on these occasions, ought to be — Be quiet...Whatever measures, therefore, cannot be justified as exceptions to that rule, may be considered as non-agenda on the part of government.

— Jeremy Bentham (c.1801)

Taxi Industry Reform: Should There Be Compensation?

Alan Johnston

Across Australia, the taxi and hire car industries have long operated within a web of regulations governing price, quantity and quality. Throughout much of this period, there have been concerns about the consequences of regulations which mandate fares and numbers of taxis and enforce market segmentation through restricting competition from close substitutes (eg hire cars). More recently, an Industry Commission (IC, 1994) report on urban transport, that recommended deregulation of taxi fares and entry restrictions, stimulated renewed interest in taxi regulation.

The IC report built on a tradition of policy analysts seeking to reveal, to decision-makers and the community, the costs of taxi regulations which have been premised on often well-meaning grounds such as public safety and ensuring fair prices and adequate quality for consumers. Today, the focus of the debate has shifted. Increasingly governments are being required to grapple with difficult questions about how much reform is warranted (the end point) and how it can be achieved (the reform path).

A critical event in the transformation of concerns about taxi regulation into more reform-oriented action occurred in April 1995 when the Commonwealth and all State and Territory governments signed off on the National Competition Policy (NCP) agreements. As part of NCP, all jurisdictions agreed to review their regulations with an eye to the guiding principle that legislation should not restrict competition unless it can be demonstrated that the benefits of the restriction to the

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community outweigh the costs, and the objectives of the legislation can only be achieved by restricting competition (NCC, 1997).

When the States and Territories trawled through their statute books, regulations governing the taxi industry quickly achieved 'prime suspect' status warranting close scrutiny. As a result, across each of the jurisdictions, reviews are either in progress or have been forwarded to government for consideration. In one jurisdiction — the Northern Territory — the process has been completed.

The Reviews

The Northern Territory (NT) Government’s taxi reform program commenced in January 1999. It involved the deregulation of entry into all sectors of the industry (taxis, hire cars and minibuses). Taxi licences were cancelled and compensation was paid to licence holders. Ministerial control of taxi fares (apparently for an interim period) was retained.

In Western Australia (WA), the final report of the taxi industry review (WADT, 1999) recommended a gradual easing of entry restrictions, compensation for existing licence holders and the retention of regulated fares. In response, the Western Australian Government has established another review group to monitor developments in the taxi industry over the next two years (Criddle, 1999).

In New South Wales (NSW), the Independent Pricing and Regulatory Tribunal (IPART, 1999) recommended progressive liberalisation of entry restrictions in Sydney by increasing licences by five per cent per annum for the next five years and that maximum fare regulation continue. It also recommended that entry restrictions for hire cars be removed. IPART called for a further review after five years. A government decision is pending.

The Tasmanian Taxi Industry Act 1995 already provides for liberalisation of entry restrictions. Additional licences are made available annually in each area by a call for tenders. The number of new licences is either five per cent of the number of licences in an area, or one (whichever is the greater). The Tasmanian taxi industry review (TTIRG, 1999) did not recommend significant changes to the Act apart from the replacement of set fares with regulated maximum fares. A government decision is pending.

Confidential review reports are also with the South Australian, Victorian and Queensland governments. The Australian Capital Territory (ACT) taxi industry review has not yet been completed.

The general tenor of these reviews is that some reform is warranted. However, the potential winners are diffuse and not well organised unlike the potential losers who can be expected to campaign for retention of the status quo. While governments may find it easier to opt for policy inaction, NCP requires that any failure to act on review recommendations must be supported by a demonstrable 'public interest' rationale. Jurisdictions that do not comply with this requirement put at risk some of their competition policy payments.
Impacts of Taxi Regulation

In light of the available evidence, a 'public interest' case for retention of the status quo in most jurisdictions would be difficult to sustain (Table 1). Most reviews have identified entry restrictions as a pervasive form of regulation — particularly the capitalisation into taxi licences of the economic rents flowing from restraints on competition.

Table 1: Licence Values, Lease Costs, Taxi Densities and Licence Ownership, by State, 1998

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Licence value ($)</th>
<th>Annual lease cost ($)</th>
<th>Taxis per 10000 people (%)&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Licence owning investors (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales</td>
<td>260,000</td>
<td>18,700</td>
<td>8.6</td>
<td>50% of licences are leased to operators of taxi businesses.</td>
</tr>
<tr>
<td>Victoria</td>
<td>265,000</td>
<td>na</td>
<td>8.5</td>
<td>na</td>
</tr>
<tr>
<td>Queensland</td>
<td>267,000</td>
<td>na</td>
<td>7.9</td>
<td>na</td>
</tr>
<tr>
<td>South Australia</td>
<td>158,000</td>
<td>na</td>
<td>7.4</td>
<td>na</td>
</tr>
<tr>
<td>Western Australia</td>
<td>210,000</td>
<td>19,760</td>
<td>7.2</td>
<td>60% of licences are owned by absentee investors.</td>
</tr>
<tr>
<td>Tasmania</td>
<td>100,000</td>
<td>na</td>
<td>12.9</td>
<td>In Hobart, 8 owners hold 31% (65) licences.</td>
</tr>
<tr>
<td>ACT</td>
<td>280,000</td>
<td>26,000</td>
<td>6.9</td>
<td>Not specified, but leasing is common.</td>
</tr>
<tr>
<td>Northern Territory</td>
<td>230,000</td>
<td>26,000</td>
<td>6.9</td>
<td>Before deregulation, 80% of licences in Darwin were held by 'absentee' investors.</td>
</tr>
</tbody>
</table>

<sup>a</sup>Estimates are for 1995.

Sources: IPART (1999); ORG (1999); WADT (1999); TIRG (1999).
By 1998, regulation-induced scarcity meant that the cost of taxi licences exceeded $200,000 in NSW, Victoria, Queensland, WA and the ACT. In parts of the NSW central coast, licence values as high as $350,000 have been reported (IPART, 1999). In South Australia (SA), liberalisation of entry restrictions into the hire car industry has provided significant competition for the taxi industry and this is reflected in lower taxi licence values.

These prices have put ownership of taxi licences out of the reach of most taxi drivers. Half of Sydney’s taxi licences are owned by investors with no further active involvement in the industry. The corresponding figure for WA is 60 per cent. Prior to deregulation in the NT, around 80 per cent of licences in the Darwin area were held by investors.

Given regulated fares, the high cost of entry into the industry has a major bearing on the returns that investors can achieve from leasing taxi licences. For example, the Productivity Commission (PC, 1999) estimates that the current income stream from leasing a Sydney taxi licence equates to the value of the licence at a discount rate of around seven per cent in perpetuity. This is only equivalent to the (risk-free) long term bond rate.

In 1998, the annual cost to lease a taxi licence was highest in the ACT at around $26,000 per annum, the same as for the NT. Consistent with this, these two jurisdictions had the lowest taxi densities at around seven per 10,000 people. (This stands in stark contrast to taxi densities in the deregulated New Zealand market — for example, Auckland has around 29 taxis per 10,000 people.) Lease rates in Sydney, which has similar licence values to the ACT but a higher taxi density, are much lower at around $18,700. This implies a cost to users of Sydney taxis of around $75m per annum (PC, 1999). In WA, increases in licence values have led regulators to mandate lease rates at $380 per week ($19,760 per annum). This imposes a cost on consumers of $20m. per annum or $3.00 per average fare (WADT, 1999).

Lease costs are probably recouped through higher fares. Findlay and Round (1995:64) consider that, because the cost of entry is so high, it ‘leads owners to press, through the regulatory system, for higher fares in order to provide a higher return on their investment in the plate’. Throughout Australia, mandated maximum fares have become the operative norm.

That said, it is important to posit what outcome might arise if regulators have somehow set the maximum fare at the level that would prevail in a free market. In this instance, the higher throughput per taxi enabled by the restricted number of licences would allow operators to absorb the high licence and lease costs impost. In this case, the loss of consumer surplus would be manifested through longer waiting times and non-availability of taxis, particularly at peak times.

Most analysts have concluded that the entry barriers lead to both higher (regulated) fares and longer waiting times. For instance, Gaunt and Black (1996:57) attempted to measure the transfers and deadweight losses associated with regulation of the Brisbane taxi industry. In 1993, taxi regulation had resulted in a Brisbane taxi licence having a value of $190,000, reflecting 228 fewer cabs
than would arise under a competitive regime and an increase in fares of $1.47 for a standard 8km trip. Gaunt and Black concluded:

The public or consumer interest has suffered an estimated $20.67 million annual loss of wealth in 1993, while between $11 million and $19.1 million of this loss has been picked up by the politically powerful licence holder lobby and between $1.48 million and $9.55 million has been lost to society with no group directly benefiting [the deadweight loss].

These costs are borne most heavily by low-income households (Soon, 1999; IC, 1994). Moreover, the restrictions on competition reduce incentives for taxi operators to explore new ways of better providing services to meet users' needs. For example, the regulations work against the development of budget cabs to provide a lower cost service (eg non-air-conditioned budget 'shopping shuttle' services). Such quality-cost trade-offs are evident in less regulated markets such as in the United Kingdom, Sweden, New Zealand and many Asian markets.

Most of the reviews have expressed little difficulty with existing 'quality' based regulation. However, the PC (1999) considered that regulations mandating vehicle types and age are overly prescriptive for meeting safety and quality objectives.

Overall, regulation of the taxi industry leads to reduced supply and consumption of taxi services, higher prices, a stifling of innovation, forced transfers from consumers and significant deadweight losses.

**Sequencing of Reforms**

The review material in the public domain point to a need for less restricted access into the industry. One option would be to adopt the New Zealand approach of simultaneous deregulation of entry and fares. However, given that the industry and consumers have, over many decades, become accustomed to a tightly regulated environment, some reviews have proposed that reform should be sequenced by concentrating, initially, on the elimination of entry restrictions before tackling deregulation of fares.

In terms of such sequencing of reform, current thinking is essentially the obverse of that advocated by the Industry Commission (1994). The IC recommended immediate deregulation of fares in association with progressive liberalisation of entry. This approach was criticised by Gaunt and Black (1994) who consider that, in taxi markets subject to strong growth and/or with low taxi densities, the combination of fare deregulation and only a progressive easing of entry restrictions could lead to fare increases and even short term increases in licence values.

Liberalisation of entry restrictions should be the first port of call for any progressive reform of the taxi industry. Indeed, the Productivity Commission (the
successor to the IC) considers that there is a strong case for retention of maximum fares as a transitional measure if entry restrictions are progressively removed.

In the long term, the best approach for fares may differ according to the characteristics of particular taxi markets. At airports, for example, allowing consumers to ‘shop’ up and down taxi ranks for their preferred cost-quality combination could create congestion problems. In markets, where phone bookings dominate and hence, search costs are low, full deregulation of fares could allow consumers to negotiate prices in an unpressured environment. Conversely, if the proportion of rank and hail trade is high, fare competition through the mandatory posting of prices on taxis, similar to the system which operates in New Zealand, may be appropriate. Posted prices can overcome problems for consumers uncomfortable with haggling and reduce the scope for price gouging arising from the market power a taxi may have because of potentially high costs in locating another taxi (particularly during inclement weather). It is also likely that with the removal of entry restrictions, a regulated maximum fare would no longer be binding and discounting could emerge.

Issues revolving around the sequencing of progressive deregulation of the taxi industry pale in comparison to the most difficult issue occupying the minds of many in State and Territory governments — the vexed question of compensation.

The Case for Compensation

As the value of taxi licences is essentially the embodiment of scarcity created by the entry restrictions, their value would fall substantially — possibly close to zero — if entry restrictions were abolished. Reform therefore potentially imposes very large losses on a small group of individuals. This may be regarded as unfair.

To ameliorate such difficulties, economic reforms are often phased. This can cushion the extent of the adjustment shock and minimise transitional losses which may be magnified or endure longer in the absence of phasing. Phasing can also provide activities with the opportunity to make further use of sunk assets. However, unlike most physical assets, taxi licences tend to appreciate. The market value of licences reflects the present value of expected future excess profits from a continuing constrained competitive environment. Thus, the phased liberalisation of entry restrictions would have an immediate negative impact on licence values.

The only way in which a phased approach to freeing entry restrictions would not result in significant losses for existing licence holders would be if it occurred over an inordinately long period — for example, an announcement that a program of liberalising entry restrictions would commence in 20 years time. Clearly, such an approach would defer the achievement of the efficiency gains. Herein lies a key trade-off between transfers and efficiency.

Phasing means that the efficiency gains are delayed and are fully achieved only when the entry restrictions are completely liberalised. Moreover, transfers from taxi users to licence holders continue over this period. Relative to a phased
approach, compensation brings forward the achievement of efficiency gains, but increases the size of transfers from taxi users to licence holders.

The political response to this situation is mixed. In New Zealand, full deregulation was achieved without any compensation (albeit that licence values, at around AUD$20,000, were significantly lower than those prevailing in Australian markets). On the other hand, the NT government provided a compensation package based on the full market value of licences. The Western Australian review proposed compensation of a similar magnitude, but accompanied only by progressive liberalisation of entry restrictions. The IPART report on the NSW taxi industry recommended a phased increase in taxi licences and removal of entry barriers into the hire car industry where licences sold for over $140,000 in 1998. If implemented, these reforms would have an immediate negative impact on licence values, as has occurred in SA. Yet, IPART is silent on the question of compensation.

Key considerations that bear on whether or not to compensate relate to the nature of the property right attached to taxi licences, perceptions of fairness, and pragmatic considerations such as the ability to progress reforms in the absence of compensation.

The question of property rights

A taxi licence is an asset that has been created by government policy but without an explicit guarantee that it would continue in perpetuity. For example, all governments have periodically increased the number of taxi licences which has affected their values. However, while most taxi licences have been freely allocated, governments have allowed them to be traded and some have recently captured the economic rent through licence auctions. These factors could be construed as governmental recognition of the status of licences as a property right. Indeed, had all licences been auctioned, a case for compensation would seem to be quite powerful.

Fundamental to this issue is whether a change in regulation governing entry is an attack on the property right in the licence. For example, the Australian Constitution provides that landowners have a right to ‘just compensation’ should their land be compulsorily resumed, whereas other government actions which also affect land values, such as changes in zoning and land use regulations, typically do not attract compensation. Liberalisation of entry restrictions into the taxi industry, while diminishing the value of licences, would not involve a resumption of the property right — licences would continue to operate.

In terms of precedents, the responses by governments when they have created ‘property rights’ and subsequently eroded their value or removed them is mixed. For instance, when the NSW egg industry was deregulated, compensation for the loss of value of egg quota was paid to egg producers. On the other hand, many other activities in similar situations have not been compensated — for example, the loss of income for members of the legal profession when some governments removed their exclusive right to engage in conveyancing of property.
In sum, the nature of the property right inherent in a taxi licence is at best equivocal.¹

**Fairness**

As liberalisation of taxi entry restrictions would impose large losses on some individuals, it may be regarded as inequitable or unfair thereby warranting some form of restitution. Perceptions of fairness vary markedly depending on a particular individual's values — for example, a reform which subjected some individuals to large uncompensated losses would be regarded by many as unfair, even if it redistributed income from wealthy households to a group of disadvantaged individuals. In this instance, equity and fairness would not be synonymous.

Forsyth (1999:235) observes that 'economists are uncomfortable with the notion of fairness or justice ... but it is not something they can ignore. Others in society do have concepts of what is and is not fair, and may expect fairness to be taken account of when decisions are made'. While one person's perception of fairness is no more valid than another's, economists have a role to play in informing decision-makers about the losers of reform and the extent of their losses.

For this purpose, it is important to note that the values which derive from barriers to entry in the taxi industry are appropriated by licence owners — that is, investors (who have little further involvement in the industry) and owner-drivers (licence owners who drive taxis). Lessee-drivers (drivers who lease the licences from owners) and casuals have no claim over the value of the licence. Thus, they would not experience a capital loss if licence values fell. On the contrary, they would face a significant reduction in lease costs of around $20,000 per annum. Moreover, as an expansion in activity would follow the removal of entry restrictions, employment opportunities for drivers should increase. In this instance, equity is unlikely to be adversely affected because reform would not appear to have a particularly regressive distributional impact.

The proportion of licence-owning investors varies across taxi markets but is generally substantial (Table 1). It is valid therefore to ask whether investors, particularly those leasing many licences, should be expected to understand the risk associated with an asset based purely on government fiat, and have a stronger financial capacity to 'wear' losses. Argy (1999), for example, considers that the case for compensation is stronger when the change is an unexpected breach of long standing tradition and those who are hurt are relatively poor. Of course,

¹ Interested readers are directed to Posner (1992) for a general discussion of property rights; Epstein (1985) and Clegg (1995) on the extent to which regulatory actions that diminish the value of property constitute a compensable 'taking' in the United States; and Kenny and McNutt (1998) on legal reasoning from the United Kingdom which argues that a change to a taxi licence condition that reduces its value cannot be regarded as an attack on the property right in the licence.
some owner-drivers may be people who have invested their severance pay ‘nest egg’ in a taxi licence.

It is also pertinent to consider the differential impact of deregulation upon new licence holders, who paid current market prices to enter the industry, and long term incumbents in the industry — many of whom received a freely allocated licence. Newcomers would unequivocally be worse off. For long term incumbents, it can be argued that, depending on their time of purchase and the price they paid (possibly zero), they could have paid off their initial investment and are only facing the loss of a potential capital gain. That said, the IC (1994) rejected this view on the basis that newcomers and long term incumbents lose the same amount.

Finally, the possibility of government policy changes is simply a feature associated with buying a licence in this sector. Failure to understand risk, whether sovereign or market related, does not constitute a case for compensation.

**Buying reform**

A pragmatic rationale for compensation may sometimes be based on judgements that community support for reform may need to be secured through the provision of compensation or other forms of assistance. For governments, this can mute adverse criticism from the losers thereby helping to progress politically unpalatable reforms.

However, this approach carries a degree of risk. It can encourage others facing losses to agitate for compensation, thereby stalling beneficial reforms or forcing the introduction of modifications which reduce the benefits. Moreover, rent-seeking behaviour, leading to excessive resources being diverted to lobbying, would be encouraged — an unproductive activity from a national perspective. The risks of this occurring can be seen in the context of many reforms where currently compensation is not a normal part of policy (eg introducing poker machine restrictions, removing cross subsidies which have advantaged some users of goods and services, and reductions in tariffs which devalue sunk assets such as textile plant and equipment).

Thus, the decision by governments on whether to compensate will be determined by value laden criteria on a range of matters such as perceptions of fairness, the possibility of reform not proceeding in the absence of compensation and the nature of the taxi industry in each jurisdiction.

On the basis that some governments may elect to provide compensation, it is useful to canvass how it could be delivered, who should receive it and factors determining the magnitude of payments.

**Delivering Compensation**

There are two major means of funding taxi industry compensation — from taxi users or taxpayers in general.

A beneficiary pays approach would involve compensation being paid by taxi users through mechanisms such as a levy on taxi journeys or an increase in taxi
licence fees passed on to users through higher fares. The latter approach was adopted by the Northern Territory Government which provided up-front compensation that is to be recouped through taxi licence fees over nine years.

Delivered in this form, compensation represents an advance payment to licence holders of the capitalised value of the stream of transfers from consumers. Consumers continue paying these transfers up until the compensation package is fully funded, but, assuming the supply of taxis increased, some benefits (eg reduced queuing, more product innovation and consumer choice) commence immediately.

The extent and timing of price benefits for consumers is dependent upon the nature of the measures to recoup the cost of the compensation package. For example, if compensation is funded through licence fees, a fee set between zero and current market lease rates for taxi licences would be expected to deliver some early price benefits, but the full price benefits would not eventuate until the compensation was fully funded and the licence fee ‘surcharge’ removed. Conversely, a fee set higher than market lease rates would initially increase fares, but the transition to a deregulated price would be achieved more quickly. Of course, the higher the licence fee, the greater the barrier to entry.

Taxpayer-funded compensation spreads the costs over all taxpayers including those who may not use taxi services. If it was paid up-front, the efficiency gains and consumer price benefits would accrue immediately. However, governments would need to be mindful of the opportunity cost of revenue transferred to licence holders (ie money no longer available for other goods and services). Moreover, if revenue to fund the compensation program needs to be raised, the deadweight costs of taxation enter into the calculus. Currently, the States and Territories are reliant upon a range of relatively inefficient and, often regressive, taxes (Gabbitas and Eldridge, 1998).

Governments should ideally evaluate the relative efficiency of raising funds from a tax on users versus one on taxpayers in general.

Setting a Ceiling on Compensation

To the extent that licence costs embody more than their value in pure investment terms — that is, the security value of ‘buying a job’ (Swan, 1979) — and there is any goodwill component in the value of licences, then, compensation based on current market values would exceed the losses experienced by licence holders. Thus, any compensation package should be discounted by any goodwill and security value in the licence.

Compensation for all licence holders based on market value of licences, even if discounted by any goodwill and security value, would impose a large (initial, in the case of the beneficiary pays approach) call on the budget. The compensation package for the NT taxi industry cost around $27m. A similar approach would cost well over $1 billion in Sydney alone.

Policymakers may opt for a combination of phasing and partial compensation in order to reduce the budgetary impact of reform. If compensation is to be paid
in tandem with the phasing of reform, then the net present value to licence holders of that phasing should be discounted from any compensation package.

Other factors which could have a bearing on the level (and distribution) of compensation are considered below.

First, full compensation would provide the realisation of a windfall gain for the many long term incumbents — in particular, those who have benefited from the receipt of freely allocated licences. Consequently, compensation could be restricted to recent entrants who have not had sufficient time to amortise the cost of the licence. One approach would be to base compensation on the purchase price of licences indexed to the consumer price index (CPI). This would mean that recent licence holders would be compensated for the loss of the entire value of their purchase (ie the current market value). On the other hand, long term incumbents, having been compensated for their purchase price only, would face the loss of a potential capital gain (ie the current market value less the indexed purchase price). Those who received a freely allocated licence would not be compensated.

Second, the market value of licences reflects licence holders’ ‘speculative’ assessments — based on past trends — about the net present value of expected increases in future earnings from a constrained regulatory environment. In this context, it may be considered that compensation based on market values would mean that those paying for compensation (ie taxi users or taxpayers) would have to bear the burden for future expected rents that may, or may not, have arisen — akin to paying a winning bet before the race is run. Compensation could be capped at the net present value of the stream of income given by the current lease rate (thereby excluding any provision for capital appreciation).

Finally, some government social welfare payments (eg the age pension) are subject to an income and/or asset test to demonstrate the need for government support. A form of this approach could be applied to any compensation provided to licence holders. This would tend to direct compensation payments to individuals with relatively few assets and/or income sources rather than to ‘professional investors’.

Conclusion

Reform of the taxi industry is long overdue. For too long, consumers have been taken for a ride. Governments throughout Australia have now been presented with the opportunity to use National Competition Policy as a ‘whipping boy’ for reform of the taxi industry.

If reform is to be sequenced, there is a case for concentrating, initially, on freeing up entry restrictions. Once a more competitive regime is in place, fare reductions should emerge even under a regulated maximum.

For consumers, the greatest benefits lie in immediate and uncompensated reform. However, this would impose large and disproportionate losses on a small group of individuals. Phasing the liberalisation of entry restrictions is unlikely to mitigate the losses that will be experienced by owners of taxi licences, unless the
phasing is over an inordinately long period. Thus, compensation emerges as a key issue.

The decision on whether or not to compensate is inexorably tied up with perceptions of what constitutes fair treatment and also judgments about whether reform can be secured without restitution for the losers. Compensation has the attraction that the efficiency gains from reform are delivered earlier than would arise under phasing. The downside is that the quantum of transfers from consumers to licence holders will be larger than would arise under non-compensated and phased approaches, unless the basis for compensation payments is significantly less than current market values for taxi licences.

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Public Consultation: Adding Value or Impeding Policy?

Bill Kerley and Graeme Starr

There is a growing expectation among interest groups of all kinds that they will be consulted at relevant stages of public policy development. It is now an accepted fact of Australian political life that organisations will consult their stakeholders at crucial stages in their key decision-making processes. There has also been a trend towards the institutionalisation of such arrangements.

This trend has not been peculiar to Australia. When governments consider new forms of regulation, delegated legislation or public rule making, sophisticated consultative arrangements have become a dominant feature of the process. In this respect Australia has followed overseas trends. The Organisation for Economic Cooperation and Development (OECD) has noted that 'a strong trend towards renewal and expansion of public consultation in regulatory development' (OECD, 1995) is under way in its member countries. The OECD has expressed strong approval of this trend and has championed it with the adoption and wide publication of a set of six propositions extolling the benefits of public consultation:

- Proposition 1 ('Quality Regulations') — through the provision of a wider range of information, public consultation can encourage the development of better quality legislation and regulations;
- Proposition 2 ('Increased Options') — public consultation can contribute to the identification of more acceptable and viable policy options;
- Proposition 3 ('Lower Costs') — public consultation can lower costs to business and administration;
- Proposition 4 ('Concurrence and Compliance') — public consultation can promote concurrence and compliance with the resulting laws and regulations;
- Proposition 5 ('Responsiveness to Change') — with a public consultation strategy in place, government agencies are better placed to respond to changing circumstances and to review laws and regulations accordingly; and
- Proposition 6 ('Credibility and Legitimacy') — public consultation can improve the credibility and legitimacy of governmental action, win the support of the groups involved in the decision process and increase acceptance by those affected.

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The first step in evaluating consultative processes is to analyse how they have become so widespread. First, communications technology has made consultation both more feasible and potentially more effective. Secondly, in both the public and private sectors, the trend towards more sophisticated strategic management based on careful analysis of stakeholder interests and the general external environment has promoted an increasing inclination and better capacity among most organisations to consult their publics. Some areas of business and industry have exploited the opportunities inherent in the expansion of the available opportunities for policy consultation with government agencies. Business interests, especially small business organisations, have been active participants in the growing demand to be consulted by government, and this has tended to lead to new lobbying structures and strategies, driven by the attempted manipulation of consultative arrangements to achieve desirable policy outcomes.

Small business groups were especially active in seeking to manipulate government sponsored consultative processes in the 1980s and early 1990s. Their influential lobby groups, including the Small Business Coalition and the Australian Chamber of Commerce and Industry, dominated high level discussions on policy developments affecting the small business sector. They were experts in the well-timed media release, which usually called for more consultation and regard for the 'little person'. Their high media profile helped to enmesh governments and policy makers in lengthy debate. This produced the political momentum for the creation of additional structures for consultation to reduce the political pressure on government and officials.

This produced a more sophisticated political bargaining process but not always better policy outcomes. There was little interest from small business groups in the promotion of such policies as reduced subsidies to inefficient producers, which many economists see as being more beneficial to those that the groups purport to represent (Revesz and Lattimore, 1997). Instead, export incentives and other government subsidy schemes were actively supported at the same time that competition policy reform was downplayed. Not surprisingly, even with the new consultative structures in place, such approaches by active and visible lobby groups did little to maintain their influence among frustrated government officials and policy makers.

Broader changes in the Australian political environment have also expanded the scope of group consultation. Electoral reforms, for example, enabled Independents and minor parties more easily to win sufficient representation in the Senate and the upper houses of some State Parliaments to force governments to consult much more widely on the details of their legislative programs. One effect of this was the growing role of parliamentary committees, which previously carried out little more than housekeeping tasks, but which — through their powers to control the timetable for the passage of legislation, conduct hearings and invite submissions — have developed key consultative and policy formulation functions.

The decline of the effectiveness of the traditional policy conduits — the political parties and the established business associations and related interest groups — has also redefined the processes of policy consultation. The parties can
no longer effectively carry out their roles as conduits between the government and the governed, or as instruments for interest aggregation. Thus, those seeking to influence policy outcomes have had to look elsewhere for agencies of brokerage, information, and communication. The escalation over the past decade in the numbers of individuals and organisations whose activities can be described broadly as ‘lobbying’ was one of the more visible signs of the changing Canberra policy-making environment.

With such developments as the centralisation of government departments and the major interest group headquarters in the national capital and the more cluttered but increasingly accessible nature of the policy agenda, Canberra has come to resemble Washington as a focus for the lobbying industry. Also like Washington, however, as one observer described it, there are more lobbyists, but they have ‘less clout’ (Salisbury, 1990). Both the former Labor Government (Gruen and Grattan, 1993:62) and the Coalition Government have displayed an inclination to bypass the lobbies and seek the input of individual companies and their executives in their policy consultations. New waves of managers are emerging, attuned to these realities by experience and training, and more firms are adopting strategic issues management approaches, prefaced by the need to develop open and direct channels of communication with the government, thus contributing to the climate of consultation. This has been reflected in the increasing status of public affairs management as a new profession and of public affairs managers within most corporate hierarchies.

Along with these developments governments have sought actively to secure stakeholder input into their decision-making processes through direct invitation and public advertisements. All levels of government in Australia have emphasised their recognition of a need to improve service delivery, to treat citizens as customers, and to devolve authority and decision-making. The trend towards a managerial outlook in the public service has meant that government departments and other executive bodies have had to be more transparent in their decisions and more sensitive to their stakeholders and other environmental forces in the development and maintenance of their management strategies. Their annual reports and specific policy documents now customarily include detailed descriptions of the structures and procedures for public consultation, although they rarely contain useful indicators of the effectiveness of the consultative processes.

Some of the regulation review processes created by state governments have been highly innovative and deserve more detailed scrutiny and evaluation. The Victorian State Office of the Regulator-General, for example, was established in 1994 to regulate and promote competition in those industries where government business enterprises have been privatised or otherwise restructured. To ensure that customers benefit from this competition, the Office is advised by a Customer Consultative Committee, which draws its membership from a wide range of peak bodies representing: customers generally; rural and remote customers; recipients of community service obligations; environmental interest groups; and industry and commerce. Relevant government departments and agencies (in such areas as electricity, water, environment, Treasury, energy, and the business portfolios)
serve with the Committee as observers. The consultation processes with major stakeholders have been progressively strengthened and communications links have been increasingly formalised as the Office has become more heavily engaged in implementing key regulatory projects (Office of the Regulator-General, 1997).

At the federal level, consultative processes have been administratively incorporated in the legislative process. A requirement to prepare a ‘Regulation Impact Statement’ (RIS) to be attached to any Cabinet submission involving new or amended regulations affecting business has existed for some years. Compliance with this requirement was minimal until the introduction of comprehensive competition law and policy in 1994-95 provided a new impetus for regulation. Each RIS must contain details of consultation processes undertaken and the views elicited from the main interested parties (Productivity Commission, 1999).

Many of the fields where public consultation has been most widely used are in instances where NIMBY (not in my backyard) and LULU (locally unacceptable land use) phenomena are common. These tend to relate to matters of local or State responsibility such as land zoning, utilities, highways, service provision and similar domains of policy for which public meetings and other low levels of consultation might be used as substitutes for responsible political decision making. Although this has occurred at all levels of government, including the Federal on questions like airport developments and post office closures, it has had its most dramatic impact at the State and local level.

While consultation of this nature is often little more than a public relations exercise, there have been some cases where it has had the effect of focusing government attention on the need to train officials in effective consultation techniques. The growing demand for public consultation has changed the role of many public officials in policy positions. In many cases the interest group advocates are better trained and considerably more experienced in the public consultation processes than are the public officials, and this has created a need for skills not traditionally found in public administration. Officials need to develop skills that will enable them to:

- identify relevant stakeholders and assess their legitimate demands;
- organise research techniques such as focus groups, and communications opportunities such as public meetings;
- facilitate conflict management; and
- generally manage the consultation process and its output.

The State and local governments have responded positively and many have produced useful manuals (NSW Cabinet Office, 1997) and training programs with the result that the management of public consultation has greatly improved.
Are Consultative Processes Improving Policy Outcomes?

Although the increased use of public consultation in the policy process has met some cynicism (Lederman, 1995), there have been few rigorous attempts to evaluate these processes. In fact, increased public consultation at both the government and business levels of policy-making has been accepted largely uncritically. This may be because propositions are put forward by the supporters of particular consultative arrangements that do not encourage challenge or debate. These propositions generally support the view that public consultation creates a climate for the exchange of ideas, views and information, and thus improves public policy and the relationships among the diverse players in the policy process. This view should not always be accepted without scrutiny by policy makers.

Communities and interest groups directly affected by a proposed policy have a commonly recognised right to obtain relevant information and to express their views. However, it is an extremely difficult task to identify all those affected by major government policy proposals. In practice, it is only organised interests that can be readily identified and contacted, and can readily respond to complex policy proposals. As a result many consultations on social equity and regional impact issues have been inconclusive and have led to the parties retreating to fixed rent-seeking positions, claiming that the other participants in the process had been unreasonable.

Many major consultation exercises have been dominated by arguments over compensation, especially where structural reform is at issue. Kasper, amongst other economists, has observed that this is likely to result in governments attaching higher weights to the (organised) interests of the losers than to the (often unorganised) interests of the winners from reform proposals (Kasper, 1999). Under such circumstances, governments can lose the will to introduce high growth policies and reform. Kasper suggests that the equity impacts of new policy proposals are probably unknowable in advance and unprovable (Kasper, 1999:146). Extended consultative processes on tariff reform and industry policy in recent years (especially in the automobile and textile sectors) appear to demonstrate how difficult it is to gain any general acceptance of the likely outcomes of reform proposals.

Such inconclusive consultative processes have only worn away the limited political capital for fundamental reform and produced even greater calls for compensation. In many cases, a detailed government information campaign together with a focused series of discussions over a limited period would have produced better policy.

Some of the more complex areas of government policy, such as environmental issues and Aboriginal Affairs, where international treaty obligations are a key element, have been subject to a process of consultation through exhaustion. Because they are based on 'top-down' consultation models, these processes are too unwieldy to do much more than provide a media platform
or world stage for organised interest groups and activist participants, many of whom were the actual architects of these mechanisms in the first place. These processes tend to be designed to suit the professional negotiator and can be easily dominated, if not captured, by articulate and well-resourced groups and individuals whose interest in a strategy of consultation lags well behind their interest in a strategy of publicity.

Very little of the progress in Aboriginal affairs policy in Australia, moreover, has come about as a result of the exhaustive consultative processes and the creation of elaborate administrative and regulatory machinery. The more successful change processes in this and in other areas of social affairs have usually involved small communities where locally-based groups and their leaders have been able to create an agreed and widely understood approach to change. Credit for these successful change processes at the local level is too often claimed by the more media-wise representatives of nationally-based lobby groups, and the local participants often fail to win the recognition they deserve.

Similarly, in the field of industrial relations, the elaborate consultative processes established in the 1980s and early 1990s to reform industrial relations and introduce workplace change processes were of little more than cosmetic value. Any worthwhile initiatives at a workplace level were often derailed or overshadowed by higher level moribund consultative processes dominated by full-time union and employer representatives. These structures were swept away with the introduction of the Workplace Relations Act 1996 and very few representatives of either side of politics can be found who regret their passing.

The failure of consultative processes to improve outcomes damages the political process in Australia. Because there is often a strong public relations component in these exercises, their real or perceived failure can result in cynicism and a lack of trust on the part of those affected, undermining credibility and legitimacy and doing little to promote concurrence and compliance. It might well be, moreover, that, because public consultation takes time to conduct properly, it increases rather than lowers costs. The time factor would appear to be worthy of more consideration. Time is a luxury that is not always available to the policy maker. In such circumstances, decisions might best be left to the political process, which is essentially about making decisions (and taking the consequences) on the basis of inadequate information, rather than building expectations through lengthy but inherently flawed consultative processes.

Recent Australian experiments with co-regulation relieve business of some of its concerns about bureaucratic compliance burdens, by using Parliament in a backstop position and putting pressure on relevant industries and groups to manage the processes and deal with quality and other issues. In effect, the Government is saying to business and other interest groups: 'Okay, you can write your own regulation and control the process, but the price for doing so is to take responsibility for making it effective because you can no longer blame the bureaucracy.' This greatly elevates the role of a more credible form of consultation and stakeholder involvement.
The case for consultation of this type in policy areas that are highly technical and require sophistication and expertise is strong, especially where there is reasonable consensus on the public interest, and where relatively long time-frames can be tolerated. In these circumstances, high level consultation and co-regulation arrangements might be appropriate. As there is always a risk of policy capture in such approaches, however, there is a need for continued sensitivity to the possibility that the output might simply reflect the demands of well-financed and highly organised experts. Risks can be minimised through training programs and other measures to build a habit of consultation into the culture of regulatory agencies and to build a continuing dialogue with a wide range of interests.

There is a public expectation, driven to some extent by media and other community pressure, that governments will maintain and intensify consultative processes. There is good reason, therefore, to give more attention to subtleties in the meaning of consultation, the relevance of comparisons across systems, the development of flexible guidelines for new forms of cost-effective consultation, and to training programs in effective consultation for all participants in the policy and regulatory processes. Policy makers and their political analysts must re-examine consultative mechanisms more critically. They must ensure that they are adding value to the policy development process and that they are not simply adding impediments to the policy process without improving policy outcomes.

References


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