RRSUBMISSION

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RADIOCOMMUNICATIONS INQUIRY

SUBMISSION TO THE PRODUCTIVITY COMMISSION

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Radiocommunications Legislation and its Administration

Legislation

As a general observation the Radiocommunications Act 1992 has clear and sound objectives with an appropriate emphasis on overall public benefit. Although commercial use is mentioned in Section 3(e), it should also be included in the broader statement in Section 3(b) which tends to emphasise non-commercial use. Extensive commercial use of the spectrum is fundamental to the operation of a modern economy and this should be clearly recognised.

The associated taxation acts require fundamental re-examination as to their objectives and effects on the use of radiocommunications. This aspect is covered further below.

The Productivity Commission has already considered spectrum use in relation to broadcasting and datacasting in a recent inquiry. It may wish to consider whether spectrum management in relation to these activities should over the next few years become part of the ACA mainstream spectrum management activities. The advent of digital TV transmission is rapidly removing the justification for administering the TV broadcasting spectrum as if it were a particularly scarce resource requiring the current restrictive rules.

Administration

Again as a general observation, the ACA manages the spectrum efficiently. It has motivated staff, consults users extensively and is responsive to representations. Its public information activities through operation of its website and provision of publications are on the good to excellent scale.

However there are a few holes in this otherwise excellent fabric, for example:

- the total radiocommunications data base, which industry pays for many times over, is not available for free public access over the Internet (an expensive monthly CD ROM is available),

- the spectrum auction system is increasingly suspect as to the overall public benefit achieved, and

- there appears to be little connection between industry demand for services, for which it pays, and staffing levels required to deliver those services, possibly because there is no connection between licence fees paid and the funding of the ACA.

Radiocommunication Licence Fees

Radiocommunications Licence Fees had their origins in administrative charges levied under the Wireless Telegraphy Act 1905 for the issue of licences and management of the radio frequency spectrum.

Before about 1980, the issue of a licence was regarded as an exceptional privilege to operate communications outside the monopoly of the Postmaster General's Department, later Telecom Australia. Pressure from the private land mobile industry, organisations wanting to use microwave links, paging companies and a few others led to policy changes and a rapid expansion of radiocommunications in Australia. Radiocommunications were in the vanguard of reforms leading to the abolition of the Government telecommunications monopoly.

With the change of government immediately following the 1983 Federal election, the usual budget black hole was discovered and the call went out to Departments for more sources of revenue. Taxing spectrum use was a new idea. The Government determined that a tax of around 16% above cost recovery would be imposed on radiocommunications licences. This was introduced with the new Radiocommunications Act 1983 and associated taxing legislation.

Radiocommunication licence taxes are now an example of uncontrolled, runaway, inefficient taxation which occurs typically in an area not felt directly nor understood by the general public. Radiocommunications taxes have grown from 16% above cost recovery in 1983 to around 250% in 2001. The insatiable appetite of government in this area continues with a completely unexpected rise of 150% in one year on fees for use of GSM spectrum. This is mentioned in more detail below in relation to sovereign risk.

There is no fundamental or defensible reason why those industries using the spectrum should be taxed in a different and additional way from other industries, which pay normal income tax and collect GST. A spectrum tax is an input cost, which should be minimized like any other cost in the production of goods and services. Otherwise it flows invisibly and unaccountably into the whole cost base of the national economy.

Spectrum taxes are often based on the notion of spectrum scarcity. There is an element of truth in the notion that spectrum is scarce, but it is vastly overstated. History has proven that continuing efficiencies in equipment and operational techniques in effect "create" spectrum. In practical effect, spectrum is no scarcer now than 50 years ago.

Alternative Radiocommunication Licence Fees

There is no doubt that cost recovery in spectrum management justifies the levy of licence fees. It also seems rational in balancing supply and demand to charge more for:

- spectrum in high density areas
- greater bandwidth used (denied to other users), and
- lower frequencies (where there is less spectrum available) than higher frequencies (where there is more spectrum available)

However some aims of spectrum management can equally be achieved through mandatory technical standards rather than higher pricing, which makes some pricing arguments suspect.

The ACA has developed what appears to be a rational mathematical model for working out fees (see Apparatus Licence Fee Schedule July 2001 Appendix A). In fact it is built on judgments, weightings and other factors which can be changed at the stroke of a pen.

It purports to be an " exact" system where, for example, a licence fee can be calculated to eight significant digits!

See Table 2 >5.0 to 8.5 GHz >200 MHz the fee is $527 289.83.

This, by the way, is then rounded on the annual renewal notice and an additional renewal charge plus GST added, getting back to cents again.

The system is due for a major overhaul along the following lines:

- revision of Section 3(e) of the principle Act on the objectives of charging for spectrum use,

- inclusion of an objective of providing industry with long term certainty on the extent of levels of fees (perhaps related to CPI),

- simplifying the presentation of licence fees in the schedule and on the licences, and

- adjusting all fees to either fully include or exclude GST (at the moment there is a hybrid system which is an accounting nightmare for business).

It is notable that the Government has imposed CPI-X% on many telecommunications prices while at the same time applying CPI+X% to licence fees.

Any "overhaul committee" requires strong external business input. Implementation of the GST has shown that commercial pricing and accounting systems are not well understood by Government officers.

Use of Radiocommunication Licence Fees

Radiocommunication Licence Fees are not hypothecated taxes, except de-facto for the cost recovery element. Not a cent goes back to the ACA, which is budget funded, to meet specific needs of the industry paying the taxes.

These taxes should formally fund the radiocommunications element of the ACA with any balance going to services and projects specifically requested by industry through ACA consultative committees.

Sovereign Risk

Many commercial activities rely on use of the spectrum as a fundamental requirement of the business. Many of these activities involve substantial capital expenditures on assets which effectively cannot be redeployed if spectrum use is denied. They are a sunk cost.

PMTS Example

Public mobile telephone systems (PMTS) are a prime example, with at least $6B in sunk costs in Australia. In 2001, without consultation or warning, the radiocommunciation licence fees for the three major PMTS operators were increased from around $20M to around $50M per annum. Further, this increase ignored the fact that Optus and Vodafone paid the Government an up-front premium of around $350M (1992 prices) for use of this spectrum. They had a reasonable expectation of a stable licence environment in their 25-year business plans.

The mobile operators were obviously targeted because of the perceived high margins in this industry, regardless of the fact that each of these networks internally cross subsidises its regional and rural operations from its dense-area operations and regardless of the fact that the associated revenue is already subject to the Universal Service Obligation levy of around 1.5%.

Implications for Other Systems such as Satellites

The adverse flow-on from the PMTS decision is a perception of substantial sovereign risk, for example in the satellite business.

Depending on the payload and beam configuration, a single communications satellite for Australia may cost $250M in orbit. Its design is usually tailored and the satellite is usually not economically re-deployable in orbit. The annual licence fee for a major communications satellite is $320 000. There is now a risk that this will suddenly become, say, $1M with no warning and no reason other than revenue gouging.

Except for Telstra, the majority of investment in the past decade in Australian telecommunications services has been from foreign sources. This kind of governmental behaviour places a question mark over business plans associated with Australia. In other words Australian sovereign risk has risen perceptibly.

Length of Apparatus Licences

The provisions regarding the maximum term of licences and their renewal are the most anomalous feature in the Act. At the moment:

- apparatus licences have a maximum term of 5 years (with some exceptions) with a presumption but not a certainty, of renewal, and

- spectrum licences have a maximum term of 15 years with no presumption, but a possibility, of renewal, provided that a new up-front premium is paid.

There appears to be a confusion of policy aims in both the legislation and its administration, although the Government has indicated that the 5-year term will be increased to 10 years. Some examples follow.

The Optus and Vodafone PMTS licences were originally issued as apparatus licences with 1-year terms. This was obviously unsatisfactory for investments measured in billions. In parallel with those licences were 25-year contracts with the Commonwealth. In effect, the unsuitable licensing system was purported to be over-ridden by contractual agreements.

When Australis went into liquidation in 1998 the liquidator wanted to sell its MDS infrastructure with associate apparatus licences, which had a year or so to run before renewal was due. These licences had been "sold" by the Government with a substantial up-front premium.

The ACA would not renew these licences in advance nor would it commit to their renewal on the basis that the Government policy regarding that spectrum was not settled. This was a contradictory stance in that the licences almost certainly would have been renewed if the company had not gone bankrupt.

Of the two commercial bidders for the Australis assets, one risk-averse bidder pulled out, one risk-taker proceeded. In fact the licences were later renewed and the risk taker "won his bet". However there was no competitive tension in the bidding and the creditors missed out, indirectly through opaque government policy.

The most recent example is the failed auction process (October 2001) of apparatus licences for two broadcasting satellite service (BSS) orbital positions. Initially there were four or more interested parties. Eventually only one applied to enter the auction. One of

the sticking points was the lack of binding assurances of renewal of the apparatus licence after 5 years. This is covered further in the spectrum auction section below.

Perhaps the solution for the legislation is to:

- provide for similar maximum terms for apparatus and spectrum licences,
- recognize additional contractual instruments between the Government and the licensee when major investments rely on the availability of spectrum, and
- provide more specifically for use-it-or-lose-it conditions in licences and associated contracts.

Spectrum Auctions

Many spectrum auctions have been resoundingly successful around the world – for Governments.

Australia was at the forefront, not far behind the USA. Australian spectrum auctions have been conducted with great technical efficiency with competent staff and reliable computer systems. There is little doubt that the simultaneous multiple round ascending auction system is theoretically sound. It provides all bidders with a continuous transparent view of the options available to them and the actions of all other bidders with whom they are competing.

However one large and long-term problem has now emerged, particularly in Europe but also in Australia. The bidders have often paid too much by a wide margin.

Market theory would say this is the inevitable penalty of bad business judgment. The fact is that Governments have taken large up-front premiums out of the industry while telecommunications operators have been weakened financially, some terminally. The end result is that the economy generally and the consumer specifically loses through higher pricing or loss of service.

The practical question is how to allocate scarce spectrum resources fairly and efficiently while protecting the consumer from really bad (not just bad) judgments of business. In this context the spectrum is a different resource from most business inputs. It has been alienated for 15 years. More of that particular spectrum cannot be built or dug up as can inputs to other goods or services.

The answer may be to return to a combined “beauty contest and auction or bid”, such as was used for the Optus and Vodafone licences in 1991/92. The bidder had to produce a business plan and broad commitments, a contractual obligation to produce services. The services to be produced were formulated by the bidder, not the Government.

Such interference in a commercial process can be justified when a substantial chunk of a public resource such as the spectrum is to be used for a substantial period. The first trick is to conduct the "beauty contest" in a way in which the definition of beauty is not too prescriptive. The second trick is the conduct of the auction or bid to prevent wild over-bidding. Usually a rational business plan will act as a natural brake on those who have bothered of forced to do one.

This 90s concept obviously needs to be re-examined in the light of current developments, even though market purists may not be comfortable with the idea.

Australian spectrum auctions also need to be re-examined in the light of:

- complexity for bidders (the recent BSS auction documentation comprised over 350 pages),
- uncertainty on key features such as licence tenure, where even 10 years is far too short for a new communications satellite with planning and construction time of 3 years and an operational life of up to 14 years,
- double-dipping by the Government, for example in the current BSS auction requiring full annual licence fees (and corresponding exposure to the sovereign risk mentioned above) in addition to the up-front bid premium, and
- payment of full licence fees for spectrum during start-up of major investments, typically taking 3 years, when little or no revenue is earned by the business.

In short, the auction process needs a major review of policy, conditions and documentation.

Summary

This submission acknowledges the many achievements in spectrum policy, management and administration, including those of the current ACA and its staff.

However there are significant items requiring substantial review, namely:

- the basis and practice of spectrum taxation,
- sovereign risk,
- licence tenure, including the possible addition of contractual arrangements to the legislation to cater for major systems,
- the spectrum auction system,

- industry access to the complete ACA data for planning purposes (excluding national security matters),
- relation of demand and supply for ACA services, and
- integration of broadcasting spectrum planning and administration with the ACA.

Annex A Background on Submitter Ross Ramsay

Annex A

Background on Submitter

Ross Ramsay

Ross Ramsay is the managing director of Bramex Pty Ltd, a private company consulting in telecommunications, radiocommunications and broadcasting. He has degrees in commerce and engineering.

He has worked for over four decades in these fields in the military, in government and in industry. He led operational Army Signal Corps units using radiocommunications in the 1970s including service in SE Asia. For 6 years in the early 1980s he was head of Australia's spectrum management organization in the former Department of Communications.

He has an intimate knowledge of spectrum technical and commercial matters, for example working with BellSouth Corporation as one of the successful bid team for the Optus mobile licence in the early 1990s. He has assisted clients bidding in later "simultaneous" spectrum auctions conducted by the Australian Communications Authority. He has attended many ITU meetings overseas representing first the Australian Government and later industry members of the organization.

Current Bramex clients comprise a range from large companies with revenue measured in billions to small new innovative companies planning new ventures in these fields.