

NEW ZEALAND BUSINESS ROUNDTABLE

**SUBMISSION ON THE COMMERCE
COMMISSION'S DRAFT DETERMINATION
FOR TSO INSTRUMENT FOR LOCAL
RESIDENTIAL SERVICE FOR PERIOD
BETWEEN 20 DECEMBER 2001 AND 30 JUNE
2002**

JULY 2003

1 Introduction

- 1.1 This submission on the Commerce Commission's *Draft Determination for TSO Instrument for period between 20 December 2001 and 30 June 2002* (draft determination) is made by the New Zealand Business Roundtable (NZBR), an organisation comprising primarily chief executives of major New Zealand businesses. The purpose of the organisation is to contribute to the development of sound public policies that reflect overall New Zealand interests.
- 1.2 Under part 3 of the Telecommunications Act 2001 the Telecommunications Commissioner is annually required to determine the net cost to Telecom New Zealand (Telecom) of services provided under the Telecommunications Service Obligations (TSO) Deed for Local Residential Telephone Service 2001. (Under this Deed the Crown requires Telecom to maintain a free local-calling option for all residential customers, charge a standard rental that is no higher in real terms than on 1 November 1989, charge rural users no more than the standard rental, provide a mandated directory service, and meet a number of service quality measures.) The Act defines net cost to be the unavoidable net incremental costs to an efficient service provider of providing these services. It also requires the Commissioner to allocate the burden of this cost within the telecommunications industry on the basis of revenue shares.
- 1.3 These provisions arise because of the government's concern to ensure the supply of these services to groups of end users that may not otherwise be supplied on a commercial basis or might be supplied at a price that the minister of communications considers to be unaffordable. (We observe in passing that this is a redistributive goal which is inconsistent with the government's top priority goal of achieving faster economic growth.)
- 1.4 In the draft determination the Commissioner has determined that there were 51,795 commercially non-viable customers, constituting 4 percent of all residential customer lines, and that the net cost to Telecom of the TSO obligation was \$38.84 million during the December 2001 to June 2002 period. This contrasts with Telecom's 20 September 2002 estimate of a net cost of \$226.5 million at a 13.2 percent per annum cost of capital and a subsequent estimate

on 4 April 2003 of \$85 million using a Commissioner-imposed cost of capital of 8.2 percent per annum.

2 The Commissioner's approach

- 2.1 To determine the net cost, the Commissioner identifies groups of commercially non-viable customers and estimates the difference between the additional revenue they are assessed to have actually generated for Telecom (see paragraph 229) and the incremental cost that the delivery of these services would have imposed on an "efficient service provider". The Commissioner defines an efficient service provider to be one that produces a given product level and quality at least cost, and sophisticated, but stylised, cost models are used to determine this incremental cost. Important elements in these calculations of net cost are depreciation (which depends on economic life) and the forgone rate of return on capital employed (the cost of capital) (see paragraph 573 of the draft determination).
- 2.2 The draft determination models incremental costs by assuming that the hypothetical efficient service provider would build a network that duplicated Telecom's large telephone exchange sites, but used modern practice and technologies to build the access network and smaller sites. It refers to this as a "scorched node" methodology. It uses optimised replacement cost to value the incremental capital required to meet the TSO and applies to this a weighted average cost of capital (WACC) of 6 percent per annum in order to calculate the opportunity cost of this capital. It uses 'tilted' rates of depreciation applied to the expected economic lives of assets and proposes to calculate the latter by taking the mid-points between information provided by Telecom and TelstraClear (see paragraph 115).
- 2.3 The 'tilt' factor reflects the possibility that new technologies could reduce the unit cost of replacement assets through time, raising the rate of economic depreciation. The issue of the treatment of assets that have to be prematurely written off because they have become stranded for other reasons is separate. It is taken into account in principle in the estimated asset lives rather than in the 'tilt' factor (see paragraph 114).

3 Key points at issue in the estimation of net cost

- 3.1 The comparative analysis in appendix 5 of the draft determination indicates that the assessment of the *annualised* net cost of the TSO varies by roughly \$200 million depending on whether the cost of capital is mechanistically assumed to be the 13.2 percent rate proposed by Telecom, or the Commissioner's proposed 6 percent rate. The difference between these two rates arises because: (i) the Commissioner's estimate of 6 percent per annum for the WACC is far below Telecom's estimate of 11.2 percent; and (ii) the Commissioner rejects Telecom's argument that the cost of capital needs to be higher than the WACC (by 2 percent per annum) in order to compensate Telecom for the additional risks and constraints arising from the TSO regulations.
- 3.2 On point (i), the major difference is due to Telecom's use of an asset beta of 0.8 against the 0.3 estimate used in the draft determination. The asset beta is a measure of the degree to which the value of the TSO business, if funded entirely from equity, would rise and fall with the sharemarket generally. A value less than one implies that it would fall by less than 1 percent if the sharemarket as a whole fell by 1 percent. If the draft determination had used Telecom's estimate of 0.8, and made no other changes, it would have calculated the WACC to be 10 percent, not 6 percent. In essence, the draft determination takes the view that the TSO levy should largely insulate the TSO business from economic fluctuations since levy payments from Telecom and others will rise when there is a recession and fall when there is a boom. On this basis the levy reduces the beta (but see below).
- 3.3 On point (ii), the draft determination accepts that the risks of stranded assets are relevant, but argues (reasonably) that they are best modelled in the cash flows through the asset lives rather than the discount rate (see paragraph 352). However, its approach here is to average Telecom's and TelstraClear's estimates of asset lives. This suggests that it has not itself analysed the stranded asset issue.

4 Assessment

- 4.1 The draft determination raises two key issues. The first is whether the Commissioner has reached a sound conclusion given the statutory

requirements. To foreshadow the discussion that follows, we argue that there is no way the Commissioner can reach an objective conclusion. Any conclusion is fundamentally arbitrary. Given that situation, the second issue is whether the Commissioner should draw the government's attention to what in our view should be regarded as an intolerable feature of any industry regulation (its arbitrary nature), as well as other problems with the TSO, and urge that it be fundamentally reviewed. We believe it is incumbent on the Commissioner to do so.

4.2 We discuss each of these issues in turn.

Evaluation of the Commissioner's findings

4.3 Simply a glance at the nature of the draft determination's findings suffices to indicate that no satisfactory basis for making a decision has been established. Despite sophisticated discussion, extending over 20 pages, no reliable way of resolving the large differences of expert opinion on the crucial issue of the asset beta emerges. The averaging of the estimates of asset lives is unacceptably random. But, given the methodology it has adopted, the Commission cannot be blamed for this. There is no objective, rigorous way of coming to reliable conclusions. The problem is that the methodology used is simply inadequate for regulatory purposes. It is essentially a technocratic central planning methodology which abstracts from market processors and from many commercial realities.

4.4 To see this, the key point to make is that the Commissioner is being asked to determine what subsidy would fully compensate Telecom for providing the services required under the TSO Deed. Expressed differently, the Commissioner has to determine what subsidy would be necessary to induce the company to invest in and supply those services voluntarily, in the absence of the imposed obligation. *This is fundamentally a question about subjective entrepreneurial judgments.* An entrepreneur's willingness to invest depends on views about how the future will evolve. Views about the future are *subjective*. For example, entrepreneurs will differ in their assessments as to how well copper wire will be able to compete with fibre or wireless in the future. They will differ in their ability to persuade investors to back their judgments. Views

about the future are particularly important when investments are specific and irreversible, as is the case in telecommunications. Such investments may have to be written off, largely or even entirely, if there are major changes in technology or uncompensated changes in government regulation, for example. These are real and substantial issues in telecommunications. There is *no* objective way of acquiring the information that is relevant to making judgments on them. The relevant knowledge is unknowable – it cannot be discovered by a central authority (eg the Commissioner.) To believe otherwise is one of the central conceits of central planning and reasons for its failure. (It is also one of the central insights of so-called Austrian economics.)

4.5 Several elements of the Commissioner's analysis can be highlighted to amplify the point that these issues simply cannot be reduced to a technocratic exercise:

- The theory on which WACCs are based is an idealised efficient market theory. According to the theory, only *systematic* (economy-wide) risk is priced. Few, if any, experts would dogmatically apply this to reality. The degree to which *non-systematic* risk is priced is likely to be highly uncertain and investor-dependent.
- Even such a technical matter as an asset beta can give rise to large differences of opinion, as noted. We see no way that the Commissioner could establish an objective basis for limiting the likely range for the beta to, say, 0.2 – 0.4, given the expert opinions to the contrary.
- Another indicator of the artificiality of the exercise arises from the concept in the legislation of a hypothetical "efficient service provider" whose incremental costs can be objectively determined. Opportunity costs are subjective, as are assessments of movements in future costs. They are a matter for the entrepreneurial judgment of investors, not the armchair assessments of those who are not backing them with their own money.
- Furthermore, the value of network assets is determined by the property rights that are attached to them, not by construction cost estimates that ignore entirely the issues of contractual assignments of risk, hedging strategies, option values, regulatory risks and market risks. Information

about the network configuration that minimises assumed construction costs while achieving the same revenues from the same customers as the existing configuration is remote from commercial decision making. Contrary to the chosen methodology, the minimisation of replacement costs is not the only consideration for an efficient supplier. This explains why, in the sharemarket, share prices commonly differ markedly from replacement cost.

- A related unfounded presumption is that the regulator can set the 'market value' of the regulated firm equal to the replacement cost of its assets by allowing it to price its products so that net revenues discounted at the administratively determined cost of capital equal an administratively determined replacement cost (see paragraph 234). However, consumers are not obliged to buy the required quantities of product at those permitted prices, and investors are not obliged to adopt the regulator's cost of capital and other assumptions about future costs and cash flows. What is particularly bizarre here is the notion that such a present value is a 'market value'. Market values are set by markets, not central planners.
- There is no positive incentive to invest if a regulator is intent on ensuring that the return on the investment matches the cost of capital, as appears to be the case with the proposed TSO (see paragraph 229). In this situation, entrepreneurs would be better off investing their money in government stock for the same risk-adjusted return. In reality, the risk-adjusted return from government stock would be much higher. This is because the draft determination would not achieve this neutral result because Telecom does not benefit from the proportion of the levy it pays. The net investment incentive effect for the Telecom shareholder is therefore negative.

4.6 Telecom has expressed a view that a subsidy of over \$200 million for the period under consideration would be necessary. To the extent that this genuinely reflects its assessment of its shareholders' willingness to invest, any derivation of this that decomposes it into a discount rate component is a technocratic interpretation of an independent finding. Any such decomposition is

somewhat arbitrary, as the debate over whether particular factors should be represented in the cost of capital or in the cash flows illustrates. Moreover, any given interpretation does not necessarily describe the processes investors actually use to reach the overall figure. But given the figure, a debate between technocrats as to whether the asset beta in the representation should be 0.3 or 0.8 would also be a debate as to what adjustments should be made elsewhere so as to retain consistency with the overall figure. Only if the technocrats or the Commissioner could persuade shareholders that their perceptions of risk were inaccurate could they hope to alter the value of the required subsidy. Otherwise, plugging a different value for the asset beta into the technocrat's calculation is simply an armchair exercise that is irrelevant to the issue of shareholder willingness to invest.

- 4.7 In this framework, to make a determination the Commissioner needs to assess the degree to which investors are concerned about all the relevant risks and costs and their actual willingness to invest. If the Commissioner thinks shareholders are misperceiving the true risks, the natural course would be to draw the counter-arguments to their attention and see whether this altered their assessments. The Commissioner could correctly reply that it would be extremely difficult to establish with any accuracy from Telecom's shareholders what level of subsidy would actually satisfy them. After all, an *ex post* discussion of this nature is hypothetical. This is exactly right, but there is no valid alternative methodology. A central planning methodology does not offer a way out.
- 4.8 Finally, little can be gleaned from looking at actual trends in investment telecommunications infrastructures as a guide. It seems beyond reasonable doubt that the current regulatory environment is having a negative affect on Telecom's willingness to invest in New Zealand generally. The gap between its position on the required return from TSO investments and the position taken in the draft determination is such that only the most cynical of observers would be optimistic about its willingness to invest in such assets in future. The government's treatment of Vodafone over mandatory roaming and cell site co-location must have made investors in infrastructural assets more risk-averse. But the impact of these factors cannot be assessed in any reliable way given the

myriad other factors influencing the telecommunications market. An attempt to study actual investment decisions therefore does not offer a way out either.

- 4.9 The bottom line is that the Commissioner has been handed an impossible task. Due to the deeply subjective and unknowable nature of the central issues at stake, there is no way of making a satisfactory objective point estimate of TSO subsidy requirements. Any estimate is inescapably arbitrary within wide bounds. The only way a determination can be made with any intellectual integrity would be to acknowledge openly that it is a rough guess. We naturally see this as an intolerable way to regulate a key New Zealand industry. We would much prefer that the Commissioner advised the government that a satisfactory determination simply cannot be made and that the TSO obligation should be fundamentally reviewed.

Review of the TSO Deed

- 4.10 We have long held the view that the costs of the TSO outweigh any benefits. By the time of the 2000 ministerial inquiry, this view was widely shared in the industry.
- 4.11 The best argument that could be made for the initial Kiwi Share contract was that it assisted the transition from a statutory monopoly. That transition is long since over. Competition is manifest. The TSO is inimical to efficiency in the industry and the government's growth objective is a number of ways. For example:
- competition and investment decisions are distorted by cross-subsidies between services;
 - new services such as internet which have come along since the obligations were drawn up greatly add to the distortions of the free local-calling option;
 - mispricing exacerbates interconnection difficulties and disputes;
 - the way the proposed levy will operate means that parties that are most successful in growing market share will be taxed more heavily because of their success; and

- the arbitrariness of regulation (the subject of this submission) increases investment uncertainty, which is damaging for dynamic efficiency.

- 4.12 While aimed at equity goals, the TSO also has perverse equity effects. It is likely, for example, that unsophisticated, low-income consumers are heavily subsidising technologically proficient users of the internet in well-off households. The income transfers are hidden and not being properly scrutinised by parliament. Such transfers should not be financed by other communications users. If they are to be maintained, they should be funded from general taxation. A better policy, however, is to assist low income groups through general taxation and social welfare policies.
- 4.13 We conclude that the time has come for a general review of the TSO with a view to scrapping it in whole or in part.

5 Concluding comments

- 5.1 We see no solution under current legislation to the problem that the assessment the Commissioner is required to make is fundamentally arbitrary. The Commissioner cannot be blamed for the weaknesses in current legislation. However, the final determination should, in our view, address the issue of shareholders' actual willingness to invest, as distinct from technocratic representations of the issue. We share in the scepticism that Telecom investors would be willing to invest irreversibly in network assets in New Zealand in today's regulatory environment at returns that are only marginally above the return on government stock. To the degree that the Commissioner's valuation relies on this assumption, we do not believe that it is credible. There is no way of escaping the fact that core elements of the assessment that has to be made are highly subjective. Levies are taxes and taxes should not be set on an arbitrary basis. If the Commissioner is intent on making a determination we believe it should be openly declared to be arbitrary.
- 5.2 However, we would regard such an outcome as highly unsatisfactory, and damaging to New Zealand's business environment in general. We would much prefer that the Commissioner concluded that it is impossible to make an objective assessment with any acceptable level of precision, and advised the government that the TSO should be reviewed. We and others have long

identified the Kiwi Share, and now the TSO, as an undesirable impediment to efficient investment and pricing structures. In our view the public policy case on equity grounds has never been satisfactorily made. In the absence of such a case, we believe the TSO requirements should be scrapped.