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**TOWARD COMPETITION IN
NEW ZEALAND TELEPHONY**

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ABSTRACT

Dramatic changes have occurred in the telecommunications sectors of most industrialised countries over the past decade. So too have their regulatory and government policy environments in the worldwide trend towards deregulation and open competition. The New Zealand market is now claimed to be the most deregulated, open, and competitive in the world with all government-imposed barriers having been removed.

An economist's Utopian vision for telecommunications would be a set of highly competitive markets, subjected to very minimal interference, to enable the full impacts of technological change or demand variation to be reflected in market adjustments. Ideally, telecommunications would be a dynamic and demand-responsive industry subject only to the restrictions of capital and consumer markets.

Progress towards a fully competitive telecommunications industry was *never* anticipated to be simple. The effectiveness and appropriateness of New Zealand's general competition legislation, namely the *Commerce Act 1986*, has regularly been called into question. One is often reminded of the Commerce Commission's gloomy conclusion in 1992 that reliance upon the *Commerce Act* "may be of some help - but of a protracted, expensive and uncertain kind, and with definite limitations on its scope" (Commerce Commission, para. 437, 1992). The battle towards open competition in New Zealand telecommunications has clearly been impeded by the application of 'light-handed' regulation with primary reliance on the country's general competition legislation. New Zealand's experiences provide valuable lessons for other countries, in particular, the danger of placing too heavy a reliance on the judicial system operating under the country's general competition legislation, as industry regulators. In New Zealand, competition has become something akin to an ideology - a complete faith that if a market is structured so as to involve multiple participants, competitive conduct will result to bring about superior, efficient performance. We can but hope, that as competition becomes more widespread in all telecommunications markets, its real benefits in terms of overall economic efficiency, will indeed accrue to all sectors within society.

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INTRODUCTION

Over the past decade, dramatic changes have occurred in the telecommunications sectors of most industrialised countries. Explanations for such changes include a surge in demand for new, more sophisticated and enhanced communication tools combined with general advances in and the convergence of telecommunications technology.

Throughout that decade, the industry both within New Zealand and overseas, has experienced major reforms in both its regulatory and government policy environment. The worldwide trend towards deregulated and openly competitive telecommunications markets has been led strongly by New Zealand. There have been claims that the New Zealand market is now the most deregulated, open, and competitive in the world, with all government imposed barriers having been removed.

The changes made to the regulatory environment governing telecommunications in New Zealand markets have been radical, but have been consistent with the economic reforms undertaken by government since 1984. New Zealand government policy has assumed an entirely new direction with a shift away from strict interventionism towards a more liberal approach, with the main aim being to "create a more open, competitive, market-led economy and hence establish the necessary conditions for faster economic growth, a higher level of employment and ultimately a more secure and equitable social welfare system" (Boston and Holland, 1987, p 7).

The extent to which such dramatic changes in the environment impact on the industry's organisational structure and degree of competition is an interesting and crucial issue. Such importance has prompted interesting and controversial questions of whether the regulatory framework and structural characteristics present in New Zealand telecommunications actually facilitate or obstruct the economic forces of competition from having their full impact on the market.

An economist's Utopian vision for telecommunications would be of a set of highly competitive markets in which very minimal interference exists. This structure would be expected to enable the full impacts of technological changes or demand variations to be reflected in market adjustments. Ideally then, it would be a dynamic and demand-responsive industry, subject only to restrictions imposed by capital and consumer markets. However, the situation encountered by the New Zealand telecommunications industry diverges greatly from this ideal, and as a result has presented various problems for which solutions are crucial if real competition is to thrive and bring benefits to all. Instead of aspiring to, and achieving the competitive ideal, New Zealand's telecommunications industry faces one fundamental problem. Telecom, as the incumbent industry monopolist, has essentially assumed the role of de facto regulator since it owns and controls the essential inputs, and by and large, despite its claims to the contrary, makes the rules under which competition is permitted to take place. This problem raises issues with regards to the effectiveness of New Zealand's legislation governing competition, calling into question the role of s.36 of the *Commerce Act 1986* in resolving disputes concerning the use of a dominant market position.

The purpose of this thesis is to explore the changes to the economic and regulatory environment and their impact on the New Zealand telecommunications industry over the past decade, including an historical survey of the progress towards open competition. One of my objectives in undertaking this research is to present a clear and accurate account of the developments in telecommunications to date, and of the problems and impediments to that development which have been experienced. It is important to bear in mind that although this work is specific to the New Zealand telecommunications industry, it examines issues and problems, mainly with regards to access, which are not unique to this country but are faced by telecommunications and other similar network industries worldwide. Where that network has the characteristics of an 'essential facility' whereby duplication of that facility is not economic, if competition is to emerge it may be necessary for entrants to gain access to the incumbent's network, but the incumbent has an obvious incentive to place difficulties in the way of entry.

This research into the New Zealand telecommunications environment is of great value, for although it has been claimed that this market is nominally the most deregulated, open, and competitive in the world, events to date have cast doubt on how much competition there actually is. For example, the lengthy litigation between Telecom and Clear has not yet resolved the terms for Clear's access to Telecom's network for local service, and the government has issued a last warning to the parties that it may be forced to intervene to broker a settlement. Instead of the industry restructuring which has occurred facilitating the development of competition, what appears to have evolved is an industry still confronted by underlying impediments and constraints on competition. This research will explore these issues and problems, their impact on competition, and what policy options are available to the government to overcome them.

In essence, the overall objective of this thesis is to present an historical survey of the deregulation of the New Zealand telecommunications industry, and to examine the difficulties which have impeded the emergence of competition. This objective is to be accomplished by an examination of each step on the path towards deregulation in telecommunications, viewed against the background of the economy-wide liberalisation programme.

A brief outline of the contents of each chapter is as follows:

Chapter 1 sets the scene for New Zealand's economic policy 'revolution' and outlines the economic reforms which were introduced in virtually all sectors in New Zealand during the 1980s. The new free market philosophy behind those reforms present a stark contrast with the previous highly interventionist economic policies followed during the Muldoon era and before. The reforms were characterised by the removal of statutory barriers to competition, the corporatisation of public sector trading activities, and a reliance on 'light-handed' regulation as a means of deterring anti-competitive behaviour by dominant firms.

Chapter 2 then proceeds to account for the widespread State involvement historically in trading activities in the New Zealand economy, ranging from airlines to banking, and from steel to forestry. A major factor was that the State was viewed as an important agent for economic development.

Particular attention will be paid to the development of telecommunications under exclusive State ownership prior to 1987, in order to provide the background for the analysis of subsequent developments in the industry.

Chapter 3 focuses on the Government's policy of corporatisation and the various rationale for its implementation. The structure of State trading enterprises shall be explored here to highlight the specific characteristics thought to be impeding their performance.

Departments were made into corporations owned by the Crown, with managers responsible to largely independent boards of directors and the prospects for improved performance are discussed. The process of policy implementation through the *State Owned Enterprises Act 1986* is described. This Act was implemented to put State trading departments on a commercial footing in the pursuit of business objectives.

It was intended that the restructuring of State enterprises would remove the characteristics, as identified in the previous chapter, which were thought to be impeding their performance. In the forefront were 'principal-agent' problems, which arose because of the lack of clear objectives and management accountability inherent in the government department structure. Former departments were run by State servants as agents of the State, but multiple and conflicting objectives, hidden subsidies and constraints, political interference, and other factors reduced their effectiveness. It is likely that the corporatisation alternative solved many, but not all, of these problems.

Chapter 4 examines the specifics of how corporatisation was implemented in telecommunications, and its impact on the former State monopolist. The concurrent programme of industry deregulation designed to progressively remove barriers so as to phase in competition is also outlined..

Subsequent attempts to enter into the market, not all successful, are described here. Telecom's adjustments to the prospect and actual new rivalry are explored, including the company's strong improvements in productivity and responsive to consumer demand.

Chapter 5 contains an examination of the general rationale for privatisation, such as the benefit from eliminating residual 'principal-agent' problems inherent in the State corporation model. The implementation of the privatisation of Telecom is then considered.

The 'Kiwi Share Obligation' (KSO), under which specific obligations for supply and price are imposed upon Telecom, is outlined here. This Obligation presents an important stumbling block in Clear's negotiations for local access with Telecom.

The organisational structure and policy changes made by the new owners are detailed here, as well as the initial effects of the privatisation on Telecom's operations.

Chapter 6 considers the extent of the natural monopoly characteristics of telecommunications and the regulatory problems to which this gives rise.

The emergence of 'light-handed' regulation of dominant firms in New Zealand is discussed. We define the key elements of this form of regulation, and then contrast it other forms of regulation of utilities or essential facilities. A contrast is drawn between light-handed regulation and the more 'heavy handed' regulatory approach of an industry-specific regulator, Austel in the case of telecommunications, as adopted in Australia.

The three elements of light-handed regulation in New Zealand are:

- reliance on the *Commerce Act 1986* to promote competition;
- information disclosure regulations to make transparent the operations of dominant firms; and
- the threat of price control for non-compliers under *Part IV* of the *Commerce Act 1986*.

Each of these elements shall be examined in order to assess their effectiveness in the New Zealand telecommunications industry.

Chapter 7 presents an overview of the experience of the 'light-handed' regulation of telecommunications in promoting entry of competitors during the period 1990-95. This will cover the litigation and arbitration to date, together with the Commerce Commission Report on Telecom of 1992 and will also introduce the combined Ministry of Commerce and Treasury Discussion Paper on this issue published in August 1995. I also mention the long-awaited agreement between Clear and Telecom regarding local service interconnection which will be further addressed in Chapter 9.

Chapter 8 delves into the contentious issue of obtaining access to an incumbent's network, which has been the major constraint on the development of competition in New Zealand local telephony. The key issues are the price and terms of interconnection. The technical aspects of interconnection are also addressed in order to give the background required for assessing these issues.

The 'Baumol-Willig rule', or the Kahn 'Competitive Parity Principle' is one pricing rule offered to provide theoretical guidance on the issue of interconnection to the network. The rule is assessed in terms of its ability to promote efficiency, fairness and competition. This rule is favoured by Telecom but opposed by Clear, which has suggested alternative pricing formulae. The rule was recently upheld on appeal by the Privy Council, New Zealand's highest court, but the courts are not price fixing authorities, and so the onus remains on the parties involved to negotiate the terms and conditions of access.

We examine the three principal criticisms which have emerged concerning this pricing principle to provide the balancing opinion and assess their sustance.

Both Baumol and Kahn have questioned, in light of New Zealand's 'light-handed' regulatory framework, whether the rule can work effectively in a market lacking price control to moderate monopoly profits. The government's concern at the delays in reaching a settlement, has culminated in a report from officials about the options for further regulation, particularly under the provisions contained within *Part IV* of the *Commerce Act*.

Chapter 9 presents the major conclusions and recommendations of the August 1995 combined Ministry of Commerce and Treasury Discussion Paper on vertically-integrated natural monopolies. We then proceed to examine, perhaps motivated by the threat of those recommendations, the interconnection agreement for local service between Clear and Telecom concluded on 4 September 1995. This eventual agreement provides the ideal conclusion to this thesis but of course, the success and commercial feasibility of it remains to be seen over the next five year contract duration.

Chapter 10 presents a final Summary and Conclusion, and overviews the salient findings in each of the preceding chapters, assesses the extent to which competition has been promoted by the reforms in this industry, and comments on likely future development.

CHAPTER 1 *BACKGROUND TO THE ECONOMIC POLICY 'REVOLUTION'*

1 INTRODUCTION

In this first chapter I present an overview of New Zealand's economic policy during the late 1970s and early 1980s. Section 2 outlines the (economic reforms) which were introduced in virtually all sectors in New Zealand during the 1980s which could be labelled as an 'Economic Revolution'. In Section 3 I discuss the freemarket philosophy behind those reforms, which represented a stark contrast to the previous highly interventionist policies followed during the Muldoon era and before. The conclusions are drawn together in Section 4. Overall, we find that the 'Economic Revolution' was motivated by a widespread dissatisfaction with the traditional interventionist approach; it (was realised that if New Zealand was to experience long-term economic growth and prosperity, virtually all sectors would require major restructuring.) It was never doubted that such restructuring would produce some detrimental effects in the short term, such as high unemployment, but these were seen as a small price to pay for anticipated sustained growth in the future.

2 (THE 'ECONOMIC REVOLUTION')

What has become known as New Zealand's 'Economic Revolution' commenced in early 1984 with the accession of the fourth Labour government. Piecemeal attempts at restructuring had been made as early as 1979 with the removal of price controls, transport industry reforms and the introduction of import licensing. This Revolution in economic policy which has borne various titles including 'liberalisation', 'more markets',

'deregulation' and 'Rogernomics'¹ represented a dramatic reduction in both the selection of policy instruments and the general aim of economic policy. The formulation of economy-wide policies has always entailed the careful balancing of desirable distribution, efficient resource allocation, and economic stability. Policy redirection during the 1980s sought to tilt this balance away from economic stability and desirable distribution, and towards efficient resource allocation (Blyth, 1987). This shift has been labelled an 'Economic Revolution' because it represented a drastic u-turn in the aims of New Zealand's economic policy since the Post-War period.

The corporatisation policy implemented since 1984 became not an end in and of itself, but rather a means to eliminate past practices which were thought to be inefficient and wasteful, and to expose the economy and society to the external and internal pressures of a more market environment. In this sense, corporatisation was a crucial step on the path towards eventual privatisation. Easton (1989) suggests that the government did not foresee the establishment of the corporatisation programme as an intermediate step towards privatisation, but experience has shown that this has been the end result in many cases. Treasury, however, did foresee this path and in its 1984 post-election briefing, presented the proposed structure for corporatisation policy as a means to facilitate its ultimate proposal for eventual privatisation.

Deregulation within many sectors of the economy was seen as an important step towards successful privatisation. New Zealand's approach was unique in this sense in comparison to, for example, Thatcher's Britain. The British government has received much criticism for its use of privatisation as an instrument without first undertaking a programme of deregulation in order to create conditions which would complement the privatised economic environment.

Deregulation first appeared under the National governments in the late 1970s and early 1980s, largely motivated by a United States-initiated international trend. To begin with, the emphasis was on ways to reduce inflationary pressures and curb growing government

¹Named after its key proponent, Sir Roger Douglas, 'Rogernomics' represented a major shift in emphasis from interventionist policies to more free market alternatives.

expenditures, and to encourage more dynamism in New Zealand's small, dependent economy, in order to lessen the impacts of external shocks such as the oil crises. Also of importance was the development of suitable competition policies, regulatory price guidelines in monopolised industries, and the removal of obstacles to market entry. Concerns were mounting that many forms of government regulation and intervention possessed the strong potential to cause economy-wide inefficiencies and distributional inequity. The first steps in deregulation were taken in the transport and international trade sector with the foundations for the removal of strict quantity and participant controls in the transport sector and the establishment of machinery to abandon the import licensing system. However, progress was very slow and eventually the wheels of change ground to a halt during the price and wage freeze of 1982-1984, and the financial sector intervention, during the latter part of the National government era.

With the onset of the 'Economic Revolution', deregulation took place in a wide variety of industries, from transport to energy and from agriculture to telecommunications. Such regulatory changes have varied from industry to industry due to the wide nature of actually defining regulation. Viewed very broadly, regulation can be defined as (Kahn, 1975):

government commands having effects on resource allocation. The degree of regulation ... depends on the extent to which government specifies in detail what would otherwise have been left to voluntary decision.

Hence, this definition covers controls over both potentially competitive industries as well as those displaying natural monopoly characteristics, and impacts upon both private and public provision of goods. It can include controls such as those governing industry entry, degree of competition, property rights and pricing, and also the government's fiscal and monetary policy stance. Therefore, if we are to view regulation in this very broad sense, deregulation is the term used to represent "a removal of some (but not necessarily all) direct government regulation" (Bollard, 1987).

(The hallmark of the Revolution was a shift away from strong government intervention through the regulation of markets, to an environment subject only to minimal regulation and dominated by free market dynamics.) The emphasis shifted towards removing

constraints on competition and ensuring a 'level playing field' for private and public enterprises.

a) Private goods sector

In the private goods sector, the preferred environment of greater economic liberalism was pursued by a general reliance on individual free markets and minimal regulation such as health, safety and environmental regulations. Regulatory reforms in this sector have been multi-dimensional and their impacts have been widespread. The main focus was the reduction of protection, in particular in the manufactured goods industry, and the reduction in subsidies, particularly in the farming and other export industries.

Much has been written on these reforms as they applied to specific industries², and the conclusions drawn have varied in their support for their success in achieving growth in specific industries and stronger economy-wide performance.

b) Private service sector

Private service industries were also on the government's Revolution agenda, in particular the financial service sector, which experienced major reforms in its regulatory environment. Deregulation of the banking industry and the removal of virtually all government controls on industry participants has allowed New Zealand's financial industry to emerge as one of the world's most open and competitive. The simultaneous floating of the New Zealand dollar and removal of capital flow restrictions had a significant and complementary impact on the finance industry. However, the most severe impact of the float has been on other sectors within the economy due to the increased degree of uncertainty which is 'part-and-parcel' of a more liberal economy.

²See, for example, the papers by Vautier on Competition Policy and Competition Law in New Zealand and Regulatory Change and Guria on the Transport Sector, in Bollard and Buckle (1987)

c) The public sector

A major restructuring programme of public enterprises operating in such sectors as communications, transport and energy was also initiated at this time.

The restructuring was motivated by a general dissatisfaction with the overall performance of state traders and their significant drain on government resources and major reforms in this sector were identified as being crucial to the success of the economy-wide restructuring being undertaken because state traders were important suppliers of inputs to the private sector, for example, electricity, and accounted for a significant proportion of investment.

New Zealand's reform of the public sector, which will be examined in Chapters 2 and 3, differed from that of other countries such as Britain and France. The governments of those countries opted for a widespread programme of state enterprise privatisation. In contrast, New Zealand's approach has been one of stages aimed at the gradual achievement of a more market-led and demand-responsive economy.

The first major step was the passing of the *State Owned Enterprises Act 1986* which endeavoured to increase the efficiency of each enterprise by restructuring them into public corporations, and requiring them to conduct their business in an unprotected and unsubsidised environment, comparable to the environment faced by private enterprises in the New Zealand economy. The corporatisation programme was widespread, including a range of state enterprises in banking, energy, forestry, health, and tourism. For example, the New Zealand Forestry Corporation Ltd and the New Zealand Railways Corporation were established.

This approach culminated out of Treasury's concerns over state business performance and the widespread agreement (Clarke & Sinclair, 1986):

that public enterprises had tended to perform relatively poorly in comparison with private sector counterparts; that they had used labour and capital inefficiently and had been less profitable.

These specific characteristics shall be explored in detail in Chapter 3. It was upon these Treasury findings, that the government moved to implement changes in the growing recognition of major problems in public sector businesses.

d) Other sectors

One sector which escaped major reforms at this time was the labour market which was faced by problems associated with distributional equity, stabilisation and efficiency, and claims that centralised wage bargaining was inflexible and took no account of local conditions. However, despite avoiding major reforms at this time, policy initiatives in more recent years, for example the *Employment Contracts Act 1991*, indicate that perhaps the reforms of the 1980s in virtually all other sectors necessitated complementary restructuring of the labour market in order to create an economic and social environment more conducive to the quest for greater efficiency.

The Labour government which assumed office in 1984, contained a small group who favoured rapid and radical restructuring in all sectors, including industry. Their campaign for regulatory reform gained further strength from three major sectors within the New Zealand economy.

One such sector was that which comprised consumers who sought to gain access to the prices and products which were available in the international arena. In so doing, consumers were in many ways reacting to and perhaps rebelling against, the widespread economic and social restrictions which had dominated New Zealand since the 1930s Depression.

The second supporting sector was the group of potential entrants to various industries, who had encountered severe constraints imposed by regulatory barriers. For example, potential road transport industry participants who were subject to the restrictions imposed by the *Urban Transport Act 1980*. Such restrictions were simply becoming less tolerable in a country whose people were seeking greater freedoms in all aspects of their lives.

Thirdly, pressure for regulatory reform was inspired by some existing industry members who, because of the regulatory barriers they faced, were being denied the opportunity to reach their ultimate business and financial potentials (Bollard, 1987).

The reforms which actually occurred in response to the pressures from the above-mentioned sectors together with the 'New Right' ideology of the new government, were perhaps more radical than expected but followed very closely, the recommendations contained in Treasury's *Economic Management*.

3 THE NEW PHILOSOPHY BEHIND THE 'REVOLUTION'

By the latter part of the Muldoon era in the late 1970s, tensions between the old power structure based on international trade and protected domestic activities, and the evolving one which favoured diversification, had become acute. Support soon shifted toward the Labour opposition who were realising the crucial role of the financial sector in the wider economy.

By 1981, those Labour caucus members concerned with economic policy, concurred that the New Zealand economy was in serious need of major and widespread restructuring. The government's commitment to restructuring was coupled with an equally powerful commitment to consensus politics. The label 'corporatism' is used to represent the formulation and implementation of government policies through the mechanism of a negotiated and consensual alliance of labour, capital and the state (Oliver, 1989).

However, the concurrent development of the restructuring and corporatist themes encountered great pressures which eventually resulted in the abandonment of corporatism and a shift toward a free market version of restructuring. Despite the consensus theme featuring predominantly in Labour's 1984 election campaign, it was immediately abandoned in favour of a more liberal approach for the remainder of its term in office.

a) Economic Policy 1981 to 1984

A highly interventionist and regulatory theme dominated Labour's economic policy in the early 1980s. In his paper of 1982, Labour's Roger Douglas argued that private sector small business in New Zealand was being discriminated against and attributed this to the failure of the financial sector to provide the capital required for small business development. He claimed that small business was being 'driven to the wall' at a time when finance was plentiful for large companies (Douglas, 1982). The Labour caucus in the early 1980s advocated intervention in the economic policy arena on the tenet that the free market would allow development which was detrimental to the national interest and common good of society (Oliver, 1989). Therefore, throughout 1982 and most of 1983, Labour's policy proposals, led by Douglas, contained a strategy for providing easier access to capital to promote promising new industries, and influencing the exchange rate, taxation and protection policies in order to establish a commercial environment which would encourage business and foster growth.

Economic policy proposals continued along these lines until late 1983 when it was realised that a new direction was needed for the lead-up to the 1984 election.

b) The Free Market Alternative

At the end of 1983 strong arguments for the encouragement of small business emerged which were practically identical in substance to those presented by Douglas in 1982. The Caucus Economic Committee responded that "The arguments that small businesses require special assistance because they are small have little economic content either theoretical or empirical" (Caucus Economic Committee, 1 December 1983). The alleged discrimination against the small business sector was justified on the grounds that greater risk was involved in providing funds to them. The Committee instead attributed their problems to a lack of management and entrepreneurial skill rather than to a shortage of capital.

Douglas's new policy package, which eventually formed the basis of Labour's economic policy for the 1984 election emphasised a shift away from government-funded industrial

development due to his view that government intervention was the root of all economic evil.

His new policy was formulated on the grounds that government funding was no longer required for positive economic development. Rather it should assume a major role and be directed to special cases where the government already owned the resources that would be used by the industries to be established, and/or where market failure would prevent private capital investment in a particular area.

Two documents produced in 1983 detailed Douglas's apparent shift in emphasis. Firstly, *Objectives and Priorities* in May 1983 followed by the *Economic Policy Package* in November 1983 which later became the core of Labour's economic stance for the 1984 election. These two papers purported very different approaches with the November one arguing for rapid reductions in trade protection while recognising and accepting that initially, output and employment levels would fall (Oliver, 1989). This approach differed greatly to that presented in the May paper which had emphasised caution in removing import restrictions for the fear of increased unemployment.

Labour's election economic policies had as their foundations, the *Economic Policy Package* document which in retrospect, could be interpreted as being clearly on the same 'wavelength' as the Treasury. Albeit, some discrepancies did remain, for example, Douglas's advocacy of currency devaluation to restore the external balance, an approach vastly different to that which the Treasury would have recommended. Instead, the Treasury identified that although the key role rested with the import-export sector, the more appropriate means of achieving balance and economic growth was to let free trade prevail.

The other obvious area in which Labour's policy approach contrasted with that of the Treasury, was that the former did not reveal any intention to shift to a floating exchange rate regime. Labour's package favoured a strict regime with the aim being to use, in a more flexible manner, the exchange rate in the medium term, to assist in achieving external balance (Douglas et al, 1983).

Labour's approach to funding sectoral industrial groups in order to promote industrial growth also contrasted with Treasury preferences for neutral economic policies which did not favour any sector over another.

Therefore, although Douglas's policy stance was similar to that of the Treasury, and despite obvious convergence between the two during 1983, there still remained some key areas of disharmony. Several factors have been proposed as rationale for Douglas's new direction. These included (Easton, 1987): the 1982-84 experience of the wage and price freeze; international trends, especially the policies of the Australian Labour Government; a general fashion for monetarism; the debate over 'Think Big' projects; and the political problems associated with implementing economic policies for planned change on the basis of consensual and negotiated agreements with businesses and unions.

These arguments have been criticised on various grounds and superseded by the argument that what was more important was the underlying intellectual framework which gave those experiences their particular meaning and significance. Oliver (1989) argues that Douglas's previous characteristics of thinking laid the foundation for his eventual conversion to a deregulatory and anti-interventionist policy stance. In this sense, his shift from interventionism to liberalism was more of a logical development than a huge conceptual leap.

His transition towards more free market economic policies was uneven with interventionism retained in some areas. However, those areas also faced significant changes in line with Douglas's policy shift. Of most significance were the changes to proposals for state-planned and funded economic development as a result of reflections on National's 'Think Big' programme. Instead of abandoning the idea of state-funded investment, there was motivation to redesign both the criteria proposed for the state's involvement and the proposed administrative form for the programme. Douglas's main suggestion was that the government had a distinct role to play in financing industrial development without causing the same financial difficulties that had resulted from 'Think Big'. He sought to remove the political influences from the investment programmes in favour of more appropriate technical criteria placing the major emphasis on the economic

rate of return on capital invested. Thus, Labour's *Economic Policy Package* stated that (Douglas et al, 1983, p.38):

Evaluation would be on the basis of forecasted rates of returns. This would often require considerable business judgement, as well as use of analytical techniques.

Other criteria like employment creation and regional development were relegated as they sought to remove political influences from the investment programme. An independent body directly responsible for investment decisions was favoured in order to avoid the possibility of government officials directing development capital for electoral purposes.

Administration of the fund would be by a board of capable private and public sector people. It would be serviced by a small team of experts, business analysts etc from public and private sectors. (Douglas et al, 1983, p.38)

The fund would be responsible to a Minister of the Crown, and be overseen by Cabinet Economic Committee. Thus Government would be responsible for general policy, staff, and the criteria by which the fund would evaluate investment proposals. However, the fund is not intended to assist pet projects or to favour particular sectors. (Douglas et al, 1983, p.41)

Therefore, one of the major changes to Douglas's thinking and perceptions of the environment, did not involve a radical abandonment of interventionism *per se*, but rather an attempt to remove political influences from the economic policy arena. The potential for the goal of economic growth to conflict with the fulfilment of social goals provided strong impetus to remove any political influence. Although Douglas was not against intervention *per se*, he was against intervention that was motivated or conditioned by electoral pressures and by the desire of politicians to earn votes (Oliver, 1989).

Two decades of policy formulation in response to political and social pressures had restricted productive investment and led to national economic decline (Douglas, 1980). Of major concern was that governments behave irresponsibly if economic policy is influenced by society's demands for more secure living standards and social provision. As such, a role was identified for a small elite group who were external to social and political pressures, to be responsible for policy formulation and implementation. This alternative rested with the ideology of the free market and hence provided the general

rationale for his later successful efforts to completely exclude any social and political pressures from the economic policy arena.

c) The Policy Turnaround 1981-84

Prior to the 1981 general election, Douglas had criticised Labour's policy approach on two main grounds (Oliver, 1989):

- i) that it made extravagant promises of higher social spending in a period when this could only be counter-productive in terms of economic growth; and
- ii) that the electorate had grown tired of the unkept promises of political parties and no longer trusted them.

Douglas instead sought to gain votes by promising the public little on the grounds that they would greater respect such honesty.

Upon losing the election, the Labour Party undertook a review of the voters' reactions to its policies and overall campaign. Much of the criticism clearly highlighted that their focus on social welfare policies had earned little public support which corresponded with the widespread agreement within Caucus that the policy focus was too strong.

A leadership struggle emerged at this time whilst a new strategy for the next general election was gaining support. This new strategy was based on the failure of Party promises to earn votes which justified a crucial role for postponing the pursuit of social welfare objectives until economic growth began to produce the desired increase in national wealth required for income redistribution.

Changing public perceptions of Labour's policies provided the motivation to prioritise economic restructuring over welfare concerns. The Party's strategic plan was released in November 1982 and identified the following major problems (Henderson, 1982):

- i) public perception of weak leadership;
- ii) Party disunity; and
- iii) a lack of economic credibility.

Early 1983 signalled the accession of David Lange as Labour's new leader and the turning point for the Party's future strategy. His speeches were dominated by the theme of constraint and the avoidance of political influence in investment decision-making. The connection between Douglas's proposals and the new Lange leadership was strong with regards to both policy approach and electoral strategy. Douglas's reform proposals, more commonly known as 'Rogernomics', provided a mechanism to improve a key organisational problem that had hindered the Party's 1981 election campaign. That campaign had rated all areas of policy with roughly the same importance, and hence led to competition and conflict for position in the overall policy, in turn leading to significant problems in the dissemination of policy (Oliver, 1989). This concern was echoed in the Caucus sub-committee report on Labour's 1981 election campaign (Caucus, 1982):

MPs, spokesmen and the like whose job it was to vet the proposed contents of pamphlets showed total irresponsibility in delaying the productions, in some cases for as long as three months. In most cases the delay was the result of the intention of the MP to either alter by a backdoor method decisions made by the Publicity Committee, or to sabotage a decision of the Publicity Committee.

Under this new leadership, the Party established a strict hierarchy of policies which it envisaged would avoid the confusion and disbelief of the 1981 election. The Caucus Economic Committee was promoted to the position as 'watch-dog' of the general policy-making process with all policy committees being required to have their policy costings checked. Such a sanctioning process thus served to reinforce the Party's overriding emphasis and commitment to economic policy.

d) Support for Economic Restructuring

One of Douglas's other key concerns was the need for economic restructuring if the New Zealand economy was to reap the benefits of long-term economic growth. His proposal

was widely accepted within the Caucus and a distinct role was identified for state support of industrial development via the Development Finance Corporation and the Reserve Bank in the form of cheap credit. Specific lending criteria were established, namely projects aimed at:

- i) employment creation;
- ii) contributing to economic growth; and
- iii) contributing to export earnings.

Generally, the support was directed at small to medium-sized enterprises. The importance of the international trade sector was also highlighted, in particular, with regards to closer economic relations with Australia.

Hence the growing support for new industries emerged, but not without the realisation that there would be adverse effects as some enterprises would not survive in the changing environment. Unemployment was predicted to increase and the country would suffer from reduced business confidence in an unstable economic environment.

Mike Moore attempted to explain the Caucus's enthusiasm for restructuring and trade liberalisation by developing the connection with the socialist principle. Trade protection, he argued, had once been crucial to the country's industrialisation and employment growth but that it had now begun to exert monopoly control resulting in inflated prices to domestic consumers. This produced a 'snowball' effect which filtered through other sectors of the economy. Therefore, continued protection would continue to allow large businesses to behave in a manner contrary to consumer welfare. The loss of jobs that would result in the liberalised sector were considered a small price to pay when weighed up against the longer term effects of stunted economic growth. Free trade would encourage domestic competition, foster infant industries and lead to a reduction in consumer prices.

The growing support for widespread economic restructuring after 1981 was immense. The subsequent conflict and division over economic policy by late 1983 failed to alter the

fact that within the Caucus, there was an overriding consensus for restructuring, and it was not disputed that the country and its people were ripe for radical change.

e) Exchange Rate policy debate

One of the major issues facing the Party was the specific role for currency devaluation in the restructuring plan. This issue prompted extensive debate within the Labour Caucus and many divisive forces emerged. The Caucus majority had been opposed to Douglas's devaluation proposals since as early as 1980, on the grounds that it would have a severe inflationary impact and hence further exacerbate the hard time facing consumers. However, support now grew for devaluation as part of the restructuring process.

f) The Corporatist tendency

There still remained one area in which Douglas's views starkly contrasted with those of the Caucus majority. The political theory of corporatism envisaged a pact between capital and labour and the government to allow the implementation of a negotiated and agreed upon economic policy. It was expected that this process would encourage a sense of national unity and common purpose, thus promoting harmony between employers, employees, and society in general. This corporatist desire for a broadly based consensus on social and economic policy formed an important part of the Party's proposal for the Economic Summit Conference of sector groups in September 1984. Upon election to power, the Labour government's tripartite consensus would be implemented by establishing a 'New Zealand Economic and Industrial Council' to allow all sectors to be represented in the formulation and implementation of economic policy.

Despite the added support which resulted from the Australian Federal Labour Government and its 'Accord' with the Australian Council of Trade Unions, the corporatist tendency lost credibility as serious questions emerged concerning its political practicability.

g) The Attack on Corporatism

Within the Caucus Economic Committee, the corporatist approach received strong criticism from those who doubted its political practicability. Such criticisms centred around the political difficulties associated with weak central labour organisations as it was identified that the desired consensus would apply only to peak bodies but not to their constituent organisations, whose compliance could not be compelled if necessary (Oliver, 1989).

Economic policy debate between 1981 and 1984 focused on two key proposals, which were seen as mutually reinforcing, namely corporatism and restructuring. Restructuring was considered an important part of the desired economic policy, and corporatism as the desired means of implementing that policy. Restructuring by way of consensus was intended to produce policy which was indicative of the whole nation in order to enable society to better accept the detrimental side-effect of widespread job losses. Some saw the two ideas as contradictory and thought that the fragility of tripartite consent would pose a major problem. The Union movement still doubted the ability of an open domestic economy to produce sustainable and economy-wide benefits.

As an alternative, 'Rogernomics' was not based on corporatist agreement because it could allow certain groups whom he would rather have excluded, into the economic policy arena. 'Rogernomics' instead focused on the independent government policy of currency devaluation. In this sense, it was an instrument which could be applied by a select group who were removed from social pressures represented by such groups as trade unions.

Growing support emerged for Douglas's *Economic Policy Package* by the end of 1983 including the acceptance of the Caucus Economic Committee. However, a few objections did remain and saw two polarities of opinion emerge which focused on the contradictory nature of corporatism and restructuring. Urgency arose as the election drew closer and the public became increasingly aware of the internal factions. A compromise was finally reached with the most significant change being the relegation of devaluation and the promotion of prices and incomes policy in the Caucus's policy

ranking.

Devaluation was clearly unacceptable and hence encouraged Douglas to remove it from his revised *Policy Package* in March 1984. However, the original Package remained as the basis of economic policy for the 1984 *Policy Document*.

4 CONCLUSION

When the snap election of 1984 occurred, the Labour Party was dominated by liberalised economic policy. The new proposals described economic restructuring characterised by a non-corporatist, and highly elitist political approach. A successful economic restructuring programme that would bring long-term benefits to all sectors, could only be implemented by a government who did not face the restrictions imposed by consultation and negotiation. Therefore, the demise of the corporatist tendency was a crucial strand of 'Rogernomics'.

The implementation of the new strategy has, however encountered many obstacles and its failure to produce investment in infant industries led to yet further redesign with a leaning back toward the corporatist approach in the latter part of the 1980s.

CHAPTER 2 STATE INVOLVEMENT IN TRADING ENTERPRISES IN THE NEW ZEALAND ECONOMY

1 INTRODUCTION

The purpose of this chapter is to account for the heavy state involvement in trading activities in the New Zealand economy prior to the reforms of the mid-1980s, and to background the historical developments of telecommunications.

Section 2 seeks to explain the traditional heavy state involvement in trading enterprises in New Zealand. I examine the reasons for their establishment and briefly consider their performance.

Particular attention is paid in Section 3 to the development of telecommunications under exclusive state ownership prior to 1987 in order to provide the background for the later analysis of developments in the industry.

The conclusions are presented in Section 4 and overall we find that greater independence, together with the growing complexity of the New Zealand economy developed the philosophy that there was a need for the government to adopt a greater role in order to maintain stability and promote economic growth.

2 THE POLICY ON PUBLIC ENTERPRISES IN NEW ZEALAND

Public enterprise has constituted a major part of government intervention in New Zealand. This intervention has traditionally been in the form of business enterprises

whose goods or services are sold in a market for a price, fee or charge. A crystal-clear definition of public enterprise has proven difficult but here, I shall adopt the broad definition as assigned by the New Zealand Standard Institutional Sector Classification (NZSISC) as follows:

those organisations of government which act as financial intermediaries or which carry out commercial or industrial activity, selling their products on the market on a substantial scale and which are distinguished as separate institutional units.

The criteria adopted in the classification are:

- a) the economic function; and
- b) the type and degree of control by the government.

Two broad categories of public enterprises are thus identified:

- a) Government producers which consist of substantial government owned and/or controlled enterprises engaged primarily in producing and selling goods and services. They may be in the form of government departments, public corporations or limited liability companies in which the state retains effective control.
- b) Financial intermediaries (Mascarenhas, 1982).

According to Mascarenhas (1982), the development of public enterprises in New Zealand has essentially occurred in three distinct phases:

- i) Initially in the early 1900s, their establishment was intended to develop the infrastructure and to assist economy-wide development.
- ii) During the second phase between 1920 and 1950, major concerns for social welfare emerged, and therefore shifted the emphasis towards avoiding the prevalent cyclical economic fluctuations.
- iii) The third phase, 1950-1984 has been labelled that of the 'managed economy' (Mascarenhas, 1982). This phase was characterised by the

government's efforts to direct the economy through various forms of intervention as well as by expanding its stabilising role with increased outlay on goods and services.

Examples of most of these motivations can be found in the history of the New Zealand government's involvement in business throughout the past 150 years. That involvement has been widespread, and has ranged from total government ownership of large infrastructure industries like electricity and telecommunications, to the ownership of hotels. As at 31 March 1987, the government's investment in public enterprises had a book value of \$12,223 million (Mascarenhas, 1991). A breakdown of that figure by enterprise is given in Table 2.1 below.

TABLE 2.1
Investments in Public Enterprises in New Zealand
as at March 1987

SOURCE: Mascarenhas, 1991

	Capital \$(000)	Capital \$(000)	Total \$(000)
<u>Financed Wholly by New Zealand Government:</u>			
Air New Zealand Ltd.	200,000	7,500	207,500
Broadcasting Corporation of New Zealand	38,900		38,900
Development Finance Corporation of New Zealand Ltd.			
Shares acquired nominal value \$55m.	53,275		53,275
Energy Account			
Electricity		2,556,911	2,556,911
Geothermal		10,021	10,021
Mines		599,632	599,632
Oil and Gas		361,181	361,181
Housing Corporation of New Zealand		2,064,440	2,062,440
Housing Account		1,026,477	1,026,477
NZ Export-Import Corporation	4,000		4,000
NZ Railways Corporation	595,720	22,492	618,212
Petroleum Corporation of NZ Ltd and subsidiaries	450,000		450,000
Post Office		1,383,689	1,383,689
Reserve Bank of NZ	139,615		139,615
Rural Banking and Finance Corporation of NZ		2,265,430	2,265,430
Shipping Corporation of NZ Ltd.	37,210		37,210
Tourist Hotel Corporation of NZ Ltd	17,000	12,511	29,511
<u>Financed Partly by New Zealand Government:</u>			
Bank of N.Z.	359,880		359,880
Other	13,880	3,921	16,801
Total	1,909,480	10,314,205	12,213,685

a) Reasons for Establishing Public Enterprises

The New Zealand government played not only a significant role in the development of a large number of industries, but also created state monopolies with competition excluded by law in a significant number of these. Various reasons have been identified as to why governments might choose to enter the commercial arena. The following reasons have been advanced by Hawke (1992) and others to explain the widespread state involvement historically in trading activities in the New Zealand economy:

i) *Accidents of political personality*

In New Zealand's context, this generally refers to Julius Vogel who established such government enterprises as the Post Office Savings Bank, the Government Life Insurance Office and the Public Trust Office during the 1860s and 1870s. The same could be said about Richard Seddon who was responsible for the emergence of State Coal Mines and the State Fire Insurance Department, and William Pember Reeves who established the Bank of New Zealand, and in more recent times, Sir Robert Muldoon who was responsible for the 'Think Big' projects. These people's motivation arose out of their strong individual beliefs in the utility of government involvement in business (Muir, 1953).

ii) *Pioneer government*

New Zealand's pioneering society was characterised by an unusual affinity between people and government. Such affinity encouraged the people to ignore the traditional ideas of the role of the state and prompted them to define their own. This redefining identified a supporting role for government and so called on it to assist wherever and whenever it was thought to be useful to counter a problem facing society (Hawke, 1992).

iii) *Protection against foreigners*

A strategy often adopted by governments is to promote domestic industry or enterprise to protect against the influences of foreign

involvement. The New Zealand government assisted domestic concerns to compete with foreign businesses, for example, one reason for the establishment of the Government Life Insurance Office in 1869 was to counter the influence of foreign (particularly Australian) life insurance companies (Hawke, 1992). Fostering immature local business is another element of this protection for example, Tasman Pulp and Paper and New Zealand Steel are two industries in the private sector which were initially promoted by government.

iv) *Provision of services otherwise unavailable*

For example, the Public Trust Office was established by government in 1872 due to the limited availability of management services for estates in trust for children in early New Zealand (Hawke, 1992). The State Advances Corporation, set up in 1874, is another example which was initially established to provide financial support to farmers for land developments, but its functions were later extended to include the urban housing sector as well (Mascarenhas, 1982).

v) *Public suspicion of monopoly pricing*

Society's belief that they will be overcharged by a private monopoly, whether justified or not, can prompt a government to establish a competing business as a means of imposing constraints on the monopolist. For example, the establishment of State Coal Mines in 1901 was in response to claims of high coal prices and that because the government-owned railways required large supplies of coal, it would be prudent to set up its own mines for coal supplies (Hawke, 1992; Mascarenhas, 1982).

vi) *Borrowing ability*

The New Zealand government exercised its ability to borrow funds more cheaply than individuals due to their taxation abilities by establishing the 'Advances to Settlers Scheme' in 1894. It borrowed

funds from international sources and diverted these, in the form of advancement funds, to farmers for agricultural development (Hawke, 1992; James 1992).

vii) *Infrastructure development*

Public enterprises which have played a large role in the economy's development have been the Railways, Post and Telegraph and the Electricity Department. These enterprises were established to open up the country to settlers. For example, some of the railway construction involved high costs and no private enterprise could have been expected to invest in them. Such investment was necessary in order to quickly develop the infrastructure that was needed to foster economic development (James, 1992).

viii) *Support for important businesses*

Some businesses were adjudged to be too important to the national economy to be permitted to fail, for example, the Bank of New Zealand (Hawke, 1992) and therefore, the government assumed responsibility for them out of a moral or social obligation.

ix) *Issues of national strategy, sovereignty and culture*

In early New Zealand, there was a strong reluctance to allow private enterprise to exploit the country's natural resources, such as water or scenic areas, hence providing motivation for public ownership of such activities as electricity generation (James, 1992; Mascarenhas, 1982).

x) *Assuming uniform public access to essential services*

It has frequently been argued that natural monopolies are better structured as public monopolies than private monopolies, even regulated private monopolies (Hawke, 1992; Mascarenhas, 1982).

xi) *Economies of scale*

Services can be provided reasonably cheaply only if they are produced on a large scale in order to benefit from increasing returns to scale.

Hence, because such scale economies do not usually arise in most private enterprises, there is justification for state ownership of public utilities such as postal and telecommunication services and electricity generation (Mascarenhas, 1982).

xii) *Mixed economic and social objectives*

Some industries whose services are deemed essential, and where it is considered that customers must have equal access to those services regardless of location or demand, the government may opt to provide the service in order to ensure its provision to all parts of the country at reasonable cost. Often, this provision has necessitated cross-subsidisation of uneconomic portions of the service, for example, in the postal services and rail freight markets.

xiii) *Project size*

Some major developments are considered too large and too risky to be attractive to private interests. For example, the government felt compelled to participate in and provide guarantees for the major oil, steel and gas developments of the 'Think Big' projects of the late 1970s and early 1980s (Hawke, 1992; Mascarenhas, 1982). Another example was the establishment of the main trunk line in the late nineteenth and early twentieth century.

xiv) *Revenue*

The government considered participation in some industries as a means of raising revenue in preference to taxation. This predominantly occurred in industries where the government perceived that large windfall profits would be made, for example, in mining and oil exploration (Mascarenhas, 1982).

xv) *Displacement effect*

There are widespread claims that governments have an inherent tendency to diversify and expand their activities. In normal times this tendency has been restrained by public opposition to tax increases, but in times of national emergency, especially in war-time, those restraints are relaxed so that expansion occurs and is subsequently retained (Peacock and Wiseman, 1961) However, Hawke (1992) argues that there is no evidence of this as an explanation for increasing New Zealand government involvement in public enterprise.

The government's attitude towards allowing private sector competition with government enterprise has also varied between industries. Many were granted complete monopoly status, for example, airways, broadcasting, railways and telecommunications. Others were exposed to competition, including, for example, banking, fire insurance, life insurance and shipping.

The New Zealand government's extensive involvement is not doubted and Pope (1982) found that in 1981, government production of goods and services accounted for 10 per cent of GDP, having increased from 8.5 per cent twenty years earlier. Pryor (1960) had earlier found that 96 per cent of the jobs in public utilities were provided by government and 77.5 per cent of jobs in transport and communications.

b) Performance Assessment

Assessment of the commercial performance of government trading enterprises proved to be far from simple. One reason was the general mix of trading and regulatory functions performed together with the existence of social obligations of various kinds; another was the tendency to view the products of these businesses as public services, to be priced according to political or social requirements instead of on the basis of market or cost principles.

By the early 1980s the performance of many government businesses was far inferior to that achieved by private sector businesses. Over the twenty year period to 1985/86, the government had invested \$5,000 million (in 1986 dollars) of taxpayer's funds trading activities of Airways, Coal Mines, Electricity, Forestry, Lands and Survey and Post Office, so that by 1986 these organisations managed total assets valued at over \$20 billion, yet they returned no net after tax cash return to taxpayers (Douglas, 1986). For example in 1983/84, the Electricity Division's return on funds calculated at 3 per cent compared to an average of 12 per cent in the New Zealand corporate sector in that same year. The public did not need performance figures to be aware of the inefficiencies and poor service that bedevilled the likes of the Post Office, Railways and Air New Zealand (Jennings and Cameron, 1987).

We have seen that public enterprise as a form of government intervention was used by the New Zealand government with varying emphasis. The early phase was characterised by government's involvement in competition with private enterprise as a means of keeping a check on prices. In this sense, government business enterprises were a positive means of providing consumers with an alternative to private enterprises. During the second phase, as the economy became more developed and the channels for intervention widened, the emphasis shifted toward government controls and regulations, and the government enterprise was used as one of the channels. In the post-World War II period, as the government's role in all aspects of socio-economic life - including managing and planning the economy - increased, the desire for public enterprises grew.

3 DEVELOPMENT OF TELECOMMUNICATIONS IN NEW ZEALAND

In order to provide the foundations for the later examination of the New Zealand telecommunications industry, we set the historical scene here.

Telecommunications began in New Zealand with the construction of telephone lines in the 1860s, and the first telephone exchange was opened in Christchurch in 1881. From

then until 1959 all telecommunication services were provided by the Post and Telegraph Department which, with the passing of the *New Zealand Post Office Act 1959*, later became the New Zealand Post Office.

From that date the Post Office became solely responsible for the provision of telecommunication, mail, agency and banking services; in other words, it became a statutory monopoly in the provision of the postal and telecommunication services in New Zealand. The operations of the Post Office were subject to the direction of a Cabinet member, namely the Postmaster General. By the mid 1980s, telecommunications had become the dominant revenue-generating activity, as shown in Table 2.2.

TABLE 2.2

Table of Revenue, Expenditure and Profit
for the New Zealand Post Office, 1987

SOURCE: 127th Annual Report of the Post Office for the year ending March 31, 1987 (cited in "Restructuring and Managing the Telecommunications Sector", World Bank Symposium, USA, 1989).

	<i>Revenue</i>	<i>Expenditure</i>	<i>Profit after tax</i>
Government agency	35.6	59.5	-24.5
Banking	409.3	455.0	-51.0
Mail	322.3	333.4	-13.4
Telecommunications	1,528.8	1,089.1	327.0

The New Zealand Post Office had, like other state trading organisations, emerged as a substantial element in the New Zealand economy. It, like most state traders was characterised by statutory protection from competition; faced confused and usually conflicting social, political and commercial objectives; benefited from unconditional guarantees of financial viability by the taxpayer; suffered from imperfect information concerning the costs of operation; had limited accountability regarding performance; and faced strict controls over resource allocation, and a general lack of autonomy.

Against this background, and because of a growing concern amongst politicians, the Postmaster General commissioned a performance review of the Department and its three divisions of postal, banking and telecommunications in 1986 (Mason and Morris, 1986). This review sought to identify ways of ensuring that the organisation would function with greater efficiency and cost effectiveness, charge commercially viable prices for its products and services, and be responsive to customer needs in terms of both quality and product range. From the review came the realisation, which had perhaps been ignored for some time, that restructuring of this top-heavy organisation was urgently required. The distortions caused by strong political and social influence on objectives was a major concern. Moreover, even if the establishment of quantitative objectives had been possible, the ability to actually measure performance presented further problems because of the lack of data and because the separation of operating costs posed difficulties.

By the mid 1980s, the demand for high quality telecommunications services was growing rapidly, and the explosion in computer use in a modernised economy substantially increased the use of communication networks and developed a demand for new, up-to-the-minute products and services. The introduction of new and innovative products and services, and the replacement of manually operated switchboards, faced bureaucratic delays coupled with state funding constraints and therefore the state department structure was effectively inhibiting progress. The telecommunications network was severely overloaded and problems and delays in call connection became common. The single inefficiency in installing new telephones and slowness to repair breakdowns became an important concern.

Additionally, because service prices were set by the government as statutory monopolist in order to fulfil social and political objectives, significant cross-subsidisation distorted prices such that they failed to reflect the actual costs of provision. For example, the rural customer subsidy meant that despite the higher costs of providing that service, the price charged was required to be identical to that charged to the urban customers. The burden of cross-subsidisation was also borne by business customers whose line rentals were inflated in order to enable residential customers to enjoy lower line rentals.

From the conclusions of this Departmental review in conjunction with the prevailing environment which desired greater economic liberalisation, the stage was set for reform, and the journey towards competition in telecommunications began.

4 CONCLUSION

From the discussion in this chapter, we see that the greater independence and the growing complexity of the New Zealand economy developed the philosophy that the government needed to assume a greater role in order to maintain stability and promote economic growth. To do so, the New Zealand government entered into the commercial arena to induce, stimulate or direct certain actions which would be unlikely to occur under the 'invisible hand' of the free market. Such actions have included strict controls, regulation, promotion, protection and public ownership. Irrespective of the political party at the helm, some form of intervention has proven inevitable in order to avoid economic fluctuations which cause unemployment and inflation.

However, in 1984, the growing pressure for change was duly effected as part of a wide ranging economic restructuring programme brought about the election to office of the fourth Labour government. The changes were to be of such magnitude as to justifiably be termed a revolution.

CHAPTER 3 CORPORATISATION

1 INTRODUCTION

In this chapter, I shall examine the structure of State trading enterprises to highlight the specific characteristics which were thought to be impeding their performance in the early 1980s. I shall then explore how these impediments to good performance provided the focus for the public sector policy changes of the new Labour government mainly in the period from 1984 to 1987. These changes were of two main types:

- a) Corporatisation: this involved putting the internal structure, organisation and accountability of State trading activities into a corporate framework with commercial objectives.
- b) Regulation: changes were made to the external operating environment by removing statutory and other barriers to competition, and by introducing a novel form of regulation called 'light-handed' regulation.

Changes in the regulatory environment are discussed later in Chapter 6. Here we focus on the process of corporatisation. Standard Agency theory analysis will be used in the discussion of the theoretical rationale underpinning these reforms, which were designed to overcome the principal-agent' problem.

Section 2 describes the beginnings of the economic reforms from the accession of the Labour government in July 1984 and Section 3 examines New Zealand's state trading sector. Section 4 uses standard Agency theory to discuss the problems which arise under the traditional government departmental structure. In Section 5 the State Owned Enterprise policy formulation process is described, and its implementation by means of the *State Owned Enterprises Act 1986* is explained in Section 6. Section 7 details the corporatisation process and Section 8 draws together the conclusions.

2 THE BEGINNINGS

The accession of the fourth Labour government in July 1984 signalled a crucial turning point in New Zealand's economic policy. It would be misleading to propose that a desire for increased competition and more broadly, the use of market forces in the New Zealand economy, was the sole motivating force behind the dramatic and abrupt changes which occurred in the years 1984-1990 under both the Labour and National leadership.

Undoubtedly, greater competition was an important goal in the new Labour government's recipe for change, but the core of their strategy was to question the role of the State. Their vision for the future of New Zealand necessitated a shift away from the ideology of the post-war period characterised by intervention and centralised decision-making, to the more liberalised regime of market-based solutions that were gaining ground worldwide.

The justifications for State involvement in commercial activities have varied over time and between different activities with continued doubt as to whether such government intervention is either appropriate or necessary. The period from 1880 onwards saw the extension of the State into service-oriented business enterprises, and from 1900, the development of public corporations which existed as statutory corporations under their own legislation. By 1984 the State trading sector covered a wide range of business enterprise in both goods and service markets.

The major policy changes directed at State trading activities grew out of several concerns, broadly involving the poor performance of those activities, and of the economy as a whole. Specific problem areas included the following:

a) Slow growth

The New Zealand economy was characterised by very slow growth which created serious concerns for the prosperity of current and future generations.

b) Poor investment decisions

\$8 billion of investment in the 'Think Big' projects of the Muldoon era, such as extensions of the Marsden Point Oil Refinery and the building of the Motonui Synthetic Fuels Plant which were aimed at moving New Zealand towards self-sufficiency, had been borrowed or guaranteed by the New Zealand government between 1981-1984. Much of this investment was subsequently written off. This prompted serious doubts about the government's credibility as an investor, and its ability to 'pick winners'.

c) Role of the state sector

The size and scope of the activities performed by State trading departments were also a matter of concern. According to Treasury estimates, State owned businesses accounted for 12.5 per cent of Gross Domestic Product (GDP) and 20 per cent of total investment in New Zealand in 1984. In contrast, New Zealand's traditionally strong agricultural sector accounted for only 8 per cent of GDP (Treasury, 1984). Since their participation spanned most sectors of the economy, the efficiency with which they used resources, their pricing behaviour and investment policies, all had a major impact on the performance of the economy as a whole. The fact that they often produced inputs for private sector industries meant that the inefficiencies were passed on to downstream markets, hence having a cumulative effect on overall economic performance. "Because of their combined sizes and roles throughout the economy, State owned enterprises have a major effect on national performance via their pricing policies and the efficiency with which they use resources" (Treasury, 1984, p 286). Substantial evidence supports the concern voiced by both the business community and the Treasury about the performance of state sector trading activities at that time.

d) Financial deficits

The incoming Labour government was faced with an economy in an unhealthy financial position. Problems included fiscal deficits of 9 per cent of Gross Domestic Product (GDP); an inflationary economic environment; and sharply rising public debt. For example, throughout the 1960s, public debt was

approximately 60 per cent of GDP with most of it borrowed domestically. By 1974 it had fallen to just over 40 per cent with the domestic component that year being about 35 per cent of GDP. It was movements in overseas public debt which accounted for the dramatic increase since 1974. From just under 10 per cent in 1974, overseas debt rocketed to over 60 per cent of GDP in 1987 (Dalziel & Lattimore, 1991). In this environment, the government trading activities in sectors such as banking, electricity, forestry and telecommunications, were identified as being drains on government revenues, rather than as a source of income. Added to this was a concern as to the financial viability of State traders, which prompted questioning over whether State involvement in these activities was still necessary or appropriate.

e) Business environment

The Labour government was ultimately concerned about economic performance, and in particular the performance of enterprise in both public and private sectors. There was a need to develop a framework for the reform of the business trading environment in general, to remove statutory barriers to entry, hidden subsidies, and other impediments to competition. These included unproductive government assistance and production subsidies; import protection (e.g. to sheep farming); and export subsidies (e.g. to manufactured exports which were heavily protected by high tariffs and restrictive quotas); complicated regulations and entry restrictions (e.g. in the meat industry and land freight transport); and distorted investment incentives. The desire was for a more competitive and dynamic business environment which would foster economic growth into the future.

3 STATE TRADING SECTOR

New Zealand's traditional approach which favoured heavy state involvement in various business activities, was fraught with problems. Regardless of whether the organisations were structured as state departments with policy advice and regulatory functions as well

as trading functions (e.g. the Post Office); as statutory corporations with specific obligations and privileges (e.g. Railways); or as registered companies (e.g. Air NZ), they all posed difficulties in terms of their performance.

The activities of state traders had always had a major effect on the country's economic performance due to their aggregate size and role in the economy. For their overall effect to be beneficial, there was a need for two efficiency conditions to be met:

- i) their output must be worth at least as much as the resources used; and
- ii) that output must be supplied with the least consumption of resources.

Whether these requirements are met, is determined mainly by the pricing of the enterprise's output and the way it uses resources (Treasury, 1984).

a) Impediments to Performance

The Treasury identified the following three key elements which were adversely affecting the performance of state traders, resulting in them contributing less to overall economic performance than they were really capable of. The above-mentioned problem areas were in addition to the problems inherent in State Owned Enterprises which were highlighted by the Treasury and which will now be explored in the following section. To briefly summarise, these included:

- i) lack of clear, non-conflicting objectives;
- ii) protected operating environment; and
- iii) lack of management accountability and performance monitoring.

We now examine each in turn.

i) *Lack of clear, non-conflicting objectives*

Public sector enterprises were required to pursue a varied range of commercial and non-commercial objectives, in contrast to private enterprises whose objectives were largely commercial. These non-commercial objectives, many of a 'social service' nature, included:

- a) maintaining services, such as rural postal and telephone services;
- b) increasing employment by 'job creation' such as funded work schemes;
and
- c) artificially holding prices below the cost of supply as part of their 'social service' function by engaging in cross-subsidisation.

These objectives were presumably designed to achieve equity goals within the economy, such as helping to maintain full employment and providing equal access for all, to services at uniform prices. However, major conflicts can result where enterprise management are responsible for the combined role of fulfilling a social obligation without compensation for costs involved, and of achieving an adequate rate of return on resources employed.

The following consequences arose from such conflicting objectives which the government never sought to resolve:

- a) The enterprise's management lacked any real means of resolving the trade-off between commercial and non-commercial objectives. Their authority to do so was greatly limited anyway as the major decisions were still made by politicians. It was difficult for them to identify and separate costs and hence this duty would be more appropriately performed by the government;
- b) The use of cross-subsidisation as a means of funding the costs associated with fulfilling non-commercial objectives distorted market signals and concealed the true costs associated with goods or service provision. For example, the Post Office used cross-subsidisation by overcharging for business services in order to subsidise residential services;
- c) An enterprise responsible for both commercial and non-commercial objectives makes performance monitoring with regard to efficiency objectives very difficult unless the two are carefully separated.

ii) *Operating Environment*

The environment within which state trading organisations operated was one in which they benefited from numerous special privileges, and also suffered from inhibiting constraints.

In terms of special assistance, state traders were assigned a number of commercial advantages which all had the effect of detaching the costs faced by the organisation from the true costs of the resources used. Such cost detachment thus served to weaken the organisation's incentives to operate efficiently. Most significant of these commercial advantages were:

- a) subsidised finance which distorted input choices, causing organisations to use more capital and less of other inputs. However, they were often starved of funds by having to seek them from the state;
- b) lack of pressure to realise a return on investment where equity finance is provided without dividend and related requirements;
- c) lack of exposure to taxation, hence also effectively reducing the cost of finance;
- d) an implicit or explicit state guarantee which reduced the risk element in the cost of finance.

The presence of such commercial advantages enabled the state organisations to maintain prices at artificially low levels with adverse effects such as excessive expansion.

Commercial advantages also further exacerbated the problem of performance monitoring as the ability to benchmark state organisation performance against private sector performance was weakened.

Many State traders were statutory monopolies and the absence of competition for their activities meant that there was real potential for those organisations to continue producing poor quality, high cost services with no threat of losing customers. In this

sense, the presence of competitive pressures, or merely the threat of such, can be an effective way to ensure that management does perform. It does so by encouraging more cost effective production processes, and helping to ensure that prices are kept to a minimum. Competitive markets also exert pressures for firms to be efficient because of the threat that customers will switch their demand to an alternative, more efficient, supplier able to offer the commodity at a lower price. Moreover, without such market pressures in some statutory monopoly sectors, industries undergoing dynamic changes, such as telecommunications, adoption of new technologies is likely to be slowed, thereby jeopardising the efficient development of the industry over time.

Those state organisations which performed both a trading function as well as a control or regulatory function had the potential power to reduce competition by restricting entry. For example, the Post Office had the responsibility to provide policy advice to the government and regulation of telecommunications, whilst at the same time holding the largest commercial interests in that industry.

Overall, the fact that most State businesses operated in a sheltered or protected environment meant that they were not exposed to the normal pressures of the market. This served to distort pricing signals and resulted in inefficient resource allocation.

iii) *Incentives facing management*

The Treasury analysis emphasised that a number of the existing arrangements for performance monitoring were inappropriate for a variety of reasons;

- a) Control departments had concentrated their attention on inputs rather than on outputs, and on proposals rather than on results. State organisations had traditionally paid little attention to past performance monitoring, hence making it well-nigh impossible to institute corrective measures where there were deficiencies.
- b) The control measures of both the Treasury and State Services Commission imposed significant compliance costs on the organisation,

hence constraining its ability to take advantage of opportunities and to react to counter any problems that arose. For example, the State Service Commission's prescribed terms and conditions for employment may have made it difficult to attract staff with the abilities to improve performance. However, these types of controls were necessary in situations where there was state ownership, non-commercial objectives, and protection from competition, which rendered market-based monitoring and accountability methods ineffective.

- c) The near-absence of benchmarks against which to assess performance, the different accounting practices used and the wide variety of advantages and disadvantages faced by each organisation, frustrated any attempts at comparison with the private sector. Any effort to establish performance benchmarks, together with strict financial objectives were thwarted because they, in and of themselves, would be insufficient to monitor the efficiency of organisations whose business activities are not subject to competition due to a lack of private sector firms in the same industries. Of overriding importance if improvements were to be made, was the development of specific procedures for responding to failures to achieve any prescribed objectives.

To summarise, a number of factors within State trading organisations, and their operating environment, served to impede their performance and to inhibit the development of appropriate incentives to achieve efficiency. The Treasury recognised that the state business sector's contribution to overall national economic performance could be significantly improved by removing the above-mentioned obstacles, and to replace them with objectives and an environment which would provide the appropriate incentives.

4 AGENCY THEORY APPLICATION

The problems of unclear, conflicting objectives, together with the lack of management accountability and performance monitoring, were considered the most significant factors in explaining the weak performance of the traditional government department structure. It was envisaged that the creation of State Owned Enterprises, with the enterprise being given a corporate structure, and with managers given the independence to pursue commercial objectives, would attack these problems and enable each enterprise to improve performance.

At the heart of the problem was the 'principal-agent' relationship. In most organisations and enterprises there is a separation of ownership and control. The public sector organisation conforms to this framework in that 'ownership' rests with the State, whilst day-to-day control is exercised by the department's management. What emerges is a 'principal-agent' relationship, whereby the management fulfils the role as agents by operating the department on the principal's, namely the State's, behalf. It is therefore appropriate, to examine the implications of this relationship for the efficiency of the departmental organisation.

Agency costs are defined by Jensen and Meckling (1976, p.307) as "costs that arise in every relationship where one party is entrusted with the power to act on behalf of others". Agency theory analysis is not limited in its application and can be applied to any team relationship wherever someone fulfils a role which entails the expectation that they will act in the interests of somebody else.

A simple household example reveals the essence of the problem. Consider the situation where you are entrusted to do the weekly grocery shopping. In giving you this responsibility, your flatmates assume that you will spend their combined budget in such a way as to further their combined consumption interests. However, it is not unreasonable to suppose that when faced with difficult trade-offs, your choices may put your preferences ahead of those of your flatmates.

Such a 'principal-agent' problem arises because the interests of the principal and the agent are not identical, and agents have the incentive to further their own interests. Yet it is from the agent's activities and decisions that the principal hopes to reap some surplus, and will only countenance the relationship where such a benefit is expected. On the other hand, the agent may seek to capture the 'lion's share' of the surplus which his or her activities and decisions generate. The principal may thus have no option but to incur further costs to ensure that instructions to the agent are followed.

Such problems can be generated from a wide variety of self-serving behaviour by agents. For example, if the agent's demands for higher remuneration to extract a greater share of the surplus are not successful, the agent may alter his or her behaviour so as to gain various non-pecuniary 'on-the-job' benefits, to the disadvantage of the principal. Tasks may be completed more slowly than if the agent was working for him or herself. The agent may also 'shirk' by completing less than his or her share of the work. Pilfering of employer resources is another possibility. These costs to the principal are what Jensen and Meckling call the residual cost, which comprise only one component of agency cost.

In order to reduce the residual cost component, the principal may use additional resources, and thereby incur additional costs, to implement measures designed to ensure the compliance of agents with the principal's interests. Jensen and Meckling identify two components of such compliance costs. The first is called 'bonding cost', which covers such measures as performance-related pay. The aim is to introduce incentives to bring the behaviour of agents more closely into alignment with the interests of principals. Of course, the principal will be aware that bonding costs should only be incurred if they will be at least offset by a reduction in residual cost, thus producing a net benefit.

Additionally, 'monitoring costs' may be incurred, where the principal introduces measures to monitor the agent's performance, in order to deter them from engaging in activities which would incur residual cost. Once again, such measures should only be undertaken if the resulting fall in residual cost is large enough to more than offset the 'monitoring costs', thereby reducing overall agency costs. A vast array of monitoring measures can be used by the principal, and today's company structures incorporate a

number of these. Obvious examples are the independent auditor facility, the board of directors, and the requirements on that board to report annually to the shareholders. Such measures are crucial in the battle to reduce agency costs.

These internal measures are supplemented by the presence of external monitors for residual cost control. Commercial entities are typically subjected to various markets which serve to constrain residual costs. For example, all entities need to convince consumers to purchase their output, in order to sustain their market share. To this end, Posner (1992, p.419) argues that "where the product market is active and competitive, it disciplines the managers of the enterprise." This argument is formulated on the basis that if managers fail to manage effectively and to contain the firm's costs, resulting in inefficiency, a competitive product market may put the survival of the firm in doubt. Therefore, Posner's argument suggests that a competitive product market, by helping to reduce agency costs within the enterprise, provides a strong rationale for competition.

The residual cost component of agency costs is also affected by the operation of other external markets. Arguments have emerged in support of the significant role played by the market for managerial services by writers such as Fama and Jensen (1983). They argue that the relative scarcity of management positions in this market, imposes a severe constraint upon the behaviour of managers. If they are able to show their individual skills and abilities to strive for and attain efficiency in their management function, then they will hold a strong position in the relatively scarce market place and therefore command greater rewards. However, there are information problems here in that it would be difficult for a successful manager to convince outside employers when he or she is a member of a management team.

Yet another constraint on commercial enterprise is that which is imposed by the capital markets as each enterprise requires debt and equity capital to function. Enterprises which suffer from high levels of residual cost will encounter investor resistance due to inefficient management, and therefore will find it more difficult to raise finance.

The added threat of takeover also confronts company managers as management efficiency will be demanded in order to avoid new ownership which would bring with it, new management. Such a threat works through movements of the share price and hence encourages management to be more concerned with performance.

Agency costs were likely to have been high under the traditional organisational structure of State trading activities for various reasons. Firstly, as identified in the previous section, a lack of management accountability and performance monitoring meant that the decision making process and resource allocation allowed some discretion to managers, and so the outcomes did not necessarily reflect the wider interests either of the principal, or of society in general. Manager's non-pursuit of the principal's objectives could also arise from the lack of clear and non-conflicting objectives. Obviously, it is impossible to pursue objectives if those objectives are not clearly outlined. Hence, this created the real potential for a divergence between the principal's ill-defined objectives and those of the agent. Thirdly, agency costs would likely have been high due to the participation of many State businesses in protected markets, and that they were state-owned, thus reducing the effectiveness of the constraints usually imposed by free markets. For example, the fact that the New Zealand Post Office was the monopoly provider of telecommunications products and services, meant that those product markets were unable to impose the usual discipline on management.

Corporatisation of government trading departments was expected to reduce agency costs, and thereby to improve the efficiency of the enterprises. The imposition of internal monitoring measures which would theoretically promote greater independence from political influence should result in the reduction of residual cost, thus leading to reduced total agency costs. However, strong doubts remain as to the ability of these measures to be as effective as those in the private sector.

5 POLICY FORMULATION

The Treasury's findings, as set out in *Economic Management*, led to their conclusion that "the contribution of State owned enterprises to national economic performance could be substantially improved by removing these obstacles and replacing them with objectives and an environment which provide appropriate incentives" (Treasury, 1987, p 284).

The reform programme was intended to:

- * put State owned producers back in touch with their markets by removing State assistance or constraints;
- * make State traders dependent on returns from the markets in which they participated;
- * improve resource employment by State traders in order to ensure efficiency;
- * improve the incentives faced by management with regards to their effort and innovation.

By these means, the reform programme was to address a major and inhibiting performance problem in the economy.

Treasury therefore recommended the following policy approach to the State businesses problem:

- * the 'commercialisation' of non-commercial functions conducted by State businesses;
- * the removal of special assistance in factor markets and the dismantling of regulatory barriers to competition in product markets;

- * the establishment of measurable performance targets based on private sector norms of profitability;
- * the development of corporate plans and information systems;
- * increasing the accountability of management by using boards of directors, requiring the regular reporting of actual performance against targets, linking management remuneration to performance, and providing for the replacement of under-performing management.

The general policy thrust of the proposed State sector reform programme was clear from the outset, but the programme for implementation would have to be tailored to meet the circumstances of each business (Treasury, 1984, p 286):

“... for each enterprise a programme would be required to apply the general solutions to their individual circumstances. Ministerial commitment to the exercise and the co-operation of the management involved would be needed for success.”

6 STATE OWNED ENTERPRISE REFORM

Both the Treasury's recommended approach, and the requirement for 'ministerial commitment', were manifested in the policy reforms initially introduced in Labour's first budget on November 8, 1984, and in its second budget on June 13, 1985. This statement contained a set of principles for State Owned Enterprises responsible for the provision of goods and services:

- a) Responsibility for non-commercial functions were to be separated from major State Owned Enterprises.
- b) Managers of State Owned Enterprises were to be given a principal objective of running these organisations as successful business enterprises.
- c) Managers were to be given responsibility for decisions on the use of inputs and marketing of their output within the performance objectives

agreed with ministers so that managers can be held accountable to ministers and Parliament for their results.

- d) The advantages and disadvantages which State Owned Enterprises have, including unnecessary barriers to competition, were to be removed so that commercial criteria will provide a fair assessment of managerial performance.
- e) Individual State Owned Enterprises will be constituted on a case by case basis in a form appropriate for their commercial purposes under the guidance of boards comprising, generally, members appointed from the private sector.

Underlying these reform principles was the governments's concern to "establish a set of appropriate objectives and incentives, and an operating environment for State Owned Enterprises which will improve their contribution to national economic performance, and ensure that they are treated on a consistent basis" (Treasury, 1986, p.284).

These principles represented a revolution in regard to the organisation and operation of the State business sector, completely at odds with the traditional ideology of protection, the meeting of social obligations, and subsidy from taxes.

The transfer of the trading activities of various government departments into corporate structures was implemented on April 1, 1987 following the enactment of the *State Owned Enterprises Act 1986* which covered the following State Enterprises:

- Air New Zealand Limited
- Airways Corporation of New Zealand Limited
- Coal Corporation of New Zealand Limited
- Electricity Corporation of New Zealand Limited
- Government Property Services Limited
- Land Corporation Limited
- New Zealand Forestry Corporation Limited
- New Zealand Railways Corporation
- Petroleum Corporation of New Zealand Limited
- New Zealand Post Limited
- Post Office Bank Limited
- Telecom Corporation of New Zealand Limited
- Tourist Hotel Corporation of New Zealand Limited
- The Shipping Corporation of New Zealand Limited

Section 4 of the Act states that the principal objective of every State Enterprise is “to operate as a successful business”, which requires that each enterprise be:

- a) profitable and efficient like private sector counterparts;
- b) a good employer; and
- c) a business enterprise that exhibits a sense of social responsibility with regard to the interests of society by endeavouring to accommodate these when practicable.

There is obvious potential for conflict to arise between these requirements, similar to those which arose under the traditional government department structure. In particular, it is not clear how conflict between the pursuit of business and social objectives were to be resolved in practice.

Section 7 of the Act requires non-commercial activities to be accounted for separately, and sets out the correct performance monitoring and accountability mechanisms to apply. This provision alone represented a major step forward from previous requirements under which each business was only under the general surveillance of Parliament and its sub-committees. This Section provided that:

Where the Crown wishes a State enterprise to provide goods or services to any persons the Crown and the State enterprises shall enter into an agreement under which the State enterprise will provide the goods or services in return for the payment by the Crown of the whole or part of the price thereof.

In practice, these social obligations were sometimes funded by cross-subsidisation (eg. Telecom local services), or by protection (eg. NZ Post’s basic postal services). Such cross-subsidisation causes distortions in resource allocation and/or creates impediments to the development of competition.

The accountability provision contained in *Part III* required that the statement contain:

- a) The objectives of the group;
- b) The nature and the scope of the activities to be undertaken.
- c) The ratio of consolidated shareholders’ funds to total assets, and definitions of those terms.

- d) The accounting policies.
- e) The performance targets and other measures by which the performance of the group may be judged in relation to its objectives.
- f) An estimate of the amount or proportion of accumulated profits and capital reserves that is intended to be distributed to the Crown.
- g) The kind of information to be provided to the shareholding Ministers by the State enterprise during the course of those financial years, including the information to be included in each half-yearly report.
- h) The procedures to be followed before any member of the group subscribes for, purchases, or otherwise acquires shares in any company or other organisation.
- i) Any activities for which the board seeks compensation from the Crown (whether or not the Crown has agreed to provide such compensation).
- j) The board's estimate of the commercial value of the Crown's investment in the group and the manner in which, and the times at which, this value is to be reassessed.
- k) Such other matters as are agreed by the shareholding Ministers and the board.

In addition, an annual *statement of corporate intent* was required to be presented to the shareholding Ministers of each Enterprise by the board of directors containing information in respect of the year in which it is presented and each of the two following years.

7 THE CORPORATION PROCESS

It is one task to create the legislative framework for implementing corporatisation policy, but a very different and complex one to carry that implementation through. The corporatisation process encompassed essentially two phases. Firstly, the 'set-up' phase, which involved identifying the business and commercial objectives to be pursued, asset

valuation as the basis for business and financial projections, and the transfer of assets to a newly formed limited liability company.

Following this establishment phase came the 'reorganisation' phase, in which both ownership and management structures were reformed. The key elements which were restructured in the corporatisation policy were the following:

- * Management structures and performance management systems in order to satisfy the provisions of s. 7;
- * Ministerial reporting procedures so as to make the relationship between Enterprise and Minister one of 'arms-length';
- * The various protections and regulations in order to remove any statutory monopoly advantages or disadvantages;
- * Finance arrangements to create an environment whereby each enterprise was subject to similar constraints of financial markets as those faced by private enterprise;
- * The mix of commercial and non-commercial and regulatory and trading functions in accordance with the provisions of s. 7.

By changing the above-mentioned elements, the provisions of the Act attempted to restructure the State trading enterprises to match as closely as possible private companies, with management entrusted to professional managers responsible to boards of directors, and the government's influence limited to that of a shareholder. That influence is however, potentially very powerful as there is no dispersion of share-holding as exists in many publicly listed companies. In addition, the removal of protective barriers and special advantages, which had existed under the statutory monopoly structure, was aimed at adding pressure from competition for improved performance and efficiency.

For example, the differing incentives of the government, in particular, its desire to avoid political scandal, may compel it as principal to demand higher standards of accountability. Since higher standards are associated with higher monitoring costs, this raises the possibility that monitoring costs may outweigh the saving in residual cost, leading to a net negative benefit.

Another example of overly restrictive internal governance arrangements may arise from social considerations. An auditor's role in upholding society's best interests in the way that public funds are used in State Owned Enterprises, may compel them to adhere more strictly to rules and regulations when performing routine audits. The cost of the audit, including its stifling impact on enterprise behaviour, could exceed the benefit gained.

Regardless of the effect of these internal measures, it is the public sector's lack of exposure to low-cost external (market) monitoring which is likely to inflate agency costs. The effectiveness of the product market to contain residual cost is doubtful, because many State Owned Enterprises are dominant firms, and so face little competition in the markets in which they operate. Even when an enterprise does experience competition, it may not be subject to all of the consequences of failing to compete effectively; for there may be an implicit government guarantee that ensures their survival. The government may not be willing to countenance the failure of such a large enterprise, as happened when it was part-owner of the BNZ.

With regard to the constraints imposed by the debt and capital markets, the perception of an implicit government guarantee once again seems to distort the risk assessment process, and therefore mitigates the effectiveness of capital market pressures in reducing agency costs. Public ownership gives rise to a 'free rider' problem - everyone stands to gain a little from improved performance, but no-one wants to incur the monitoring costs. Moreover, private investment and market analysts have no incentive to undertake their customary monitoring role. Therefore, this is replaced by monitoring by the relevant Minister and government staff, and by Parliamentary Select Committees. However, the adequacy of such monitoring to produce the desired outcome is questionable.

In addition, ownership by the Crown means that there is no market for corporate control in State Enterprises. Managers do not face the threat of company takeover, and so this arguably effective constraint on managerial agency costs does not operate (Jensen and Ruback, 1983, p.5). To compensate for this problem, the State Owned Enterprises are required to invest more heavily in costly internal monitoring measures, such as employee assessments and monitoring.

To conclude, agency theory analysis of the cost advantages of the corporatised model suggest that the potential does exist for efficiency gains to be made through the containment of residual cost. However, any gains which may accrue are likely to be limited by the absence of significant external monitoring. This suggests that changes to the organisational structure on their own, are not enough.

Ownership is also important, as the monitoring costs in State Owned Enterprises are unlikely to be as low as they would be in private enterprise. This provides one ground for the privatisation of State Owned Enterprises, although other factors (e.g. social obligations) may favour their retention in public ownership.

8 CONCLUSION

The State enterprise reforms which were implemented by the *State Owned Enterprises Act 1986* were mutually reinforcing and given the relative significance of the State sector in the economy, reform was clearly well overdue if improvements were to accrue in New Zealand's overall economic performance.

Despite these wide-ranging reforms, there is always room for further improvements.¹ However, it remains clear that without this corporatisation policy in 1986, much of New Zealand's industry would still be experiencing weak performance and financial difficulty.

¹See for example Jennings and Cameron for evaluation of SOE reform

The reforms implemented under this Act, were undertaken in the government's concerted effort to reorganise both the internal and external environments in which the State traders had traditionally functioned. Such reorganisation was pursued with the ultimate goal being to demolish the organisational characteristics which had proved, under the government department structure, to be severe impediments to successful performance, as examined in Chapter 2. The success of the *State Owned Enterprises Act* in achieving its objectives to remove these characteristics remained the crucial question. Although the government did not initially intend for corporatisation policy to be an intermediate step towards privatisation, State Owned Enterprise performance was later to demonstrate and support the view that further reform was required. Treasury, however, did foresee this transition as reflected in its 1984 pre-election briefing which detailed a structure for corporatisation policy as a means to facilitate its ultimate proposal of eventual privatisation.

The reforms created an environment which was anticipated to be more conducive to the pursuit of stronger, economy-wide performance. Such an environment was to enable the development of widespread and effective competition in a wider effort to promote overall efficiency.

Implementation of the Act was also confronted by strong dissatisfaction among many sectors within society, for example, the employment sector suffered due to organisational restructuring in the pursuit of efficiency gains, which resulted in widespread job losses.

In this chapter, Agency cost analysis has been used to explore the impeding role of the ownership and management structure implemented under corporatisation policy. The main conclusion drawn from this analysis is that corporatisation of State businesses, despite possessing the potential for substantial reductions in agency costs, still does not replicate that which could be achieved under privatisation. In essence, "changes to organisational structure are not enough: ownership is also important. As a result, corporatisation cannot necessarily be treated as a substitute for privatisation" (Farrar and McCabe, 1995, p.47).

The next chapter explores the implementation of the *State Owned Enterprises Act 1986* as it applied to the functions of the New Zealand Post Office, and in particular, to the telecommunications division.

CHAPTER 4 CORPORATISATION IN NEW ZEALAND TELECOMMUNICATIONS

1 INTRODUCTION

The purpose of this chapter is to examine the implementation of the government's corporatisation policy in telecommunications, and its effects on the formerly protected monopolist. We start in Section 2 by presenting the historically-poor performance of the New Zealand Post Office which arose from the existence of characteristics which impeded the performance of almost all State activities. In Section 3, the role that industry deregulation played in the progression towards open competition is discussed. The process of market entry is described in Section 4 and the incumbent's adjustment to that new rivalry, including improvements in their performance is discussed. Section 5 discusses the emergence of competition and describes the entry of Clear Communications to the industry.

In Section 6 we draw together the conclusions and find that corporatisation did achieve its key objective of improved performance, but not without severe consequences in some areas, such as employment.

2 BACKGROUND

One Government business enterprise allegedly suffering from poor performance, inefficiencies and financial difficulties during the early 1980s, was the New Zealand Post Office.

This entity had existed since 1881 when it was set up as the Post and Telegraph Department, and was responsible for providing mail, agency, banking and telecommunications products, services and facilities to all sectors in the economy. Its operations were subject to the direction of the Postmaster General, a position of Cabinet rank in the government. By 1986, the Post Office had become the largest organisation in New Zealand, employing 39,000 people and having assets valued at \$5.5 billion (Telecom Resource, 1994).

Rapid growth in demand, both demand- and supply-led, for high quality telecommunications services, together with the explosion of computer use in both private and public sectors, placed increasing pressure on communication networks and prompted greater demand for the new services which were becoming available. The New Zealand Post Office was unable to respond fully to the increased demand for new services and technology because of the organisational structure, government constraints, and other problems faced by State traders as discussed in Chapters 2 and 3. Bureaucratic resistance and delays due to lengthy and conservative decision-making processes, together with a shortage of investment funds due to rising public debts, meant that government control was effectively limiting the dynamic development of the industry. This posed the real threat of the New Zealand telecommunications industry being left far behind its overseas counterparts, whose development in this market was essentially dictated by consumer demands.

a) The Poor Performance Link

Let us now consider each of the problems faced by the telecommunications division of the New Zealand Post Office in order to provide the rationale for the ensuing policy reforms in this industry. Each of the three major factors which adversely affected the pricing policies and resource management of all State owned enterprises, as highlighted by the Treasury report (Treasury, 1984), also applied to the telecommunications division of the New Zealand Post Office.

i) Lack of clear, non-conflicting objectives

One problem which hindered good performance by the Post Office was the lack of clear, non-conflicting objectives. The conflict between objectives was the result of a lack of explicit payment for, and accountability in, the non-commercial activities performed by the Post Office.

The bundling of commercial and non-commercial activities meant that the Post Office was operating in an environment where its management had no clear guidelines about how to balance the usually conflicting objectives which arose; difficulties when assessing and monitoring performance due to often immeasurable standards; and imperfect information about the true allocation of costs and benefits of the various commercial and non-commercial activities it performed.

Contributing to this lack of clearly defined benchmarks against which to measure performance, was a lack of authority assigned to managers to enable them to make decisions and be held accountable for the outcomes. Without this assigned authority and autonomy, managers had become unresponsive to any opportunities which arose, for example, reorganisation in response to new competition from substitute products or services in some of its markets.

In essence, this demonstrates the standard 'principal-agent' problem inherent in the government trading enterprises. This problem occurs because although it is assumed that the managers, who possess the necessary information and act as 'agents' for the government as 'principals', will act in a manner to ensure the best use of enterprise resources, they may in fact lack the motivation and incentives to do so.

This non-compliance of management to perform their role as 'agents' occurs because it is not they who directly bear the consequences of their actions and hence this lack of accountability in decision-making posed a real threat to overall performance.

The telecommunications function whilst operating as a government department, possessed a wide array of objectives, in comparison with other enterprise structures.

The fact that its operations were subject to the Minister of that department and ultimately to Parliament, meant that it was most vulnerable to political pressure and unclear objectives. This 'principal-agent' problem was indeed evident in the New Zealand Post Office prior to 1987 and was a contributory factor in the rationale for the enterprise restructuring which followed.

Also of major concern was the Post Office's combined role as both regulator and provider of telecommunications, giving rise to a real threat of conflict of interest. Certainly a body which was assigned the responsibility to provide policy advice and regulation in an industry where its largest commercial interests lay, would face a major dilemma as to how to reconcile its own commercial interests with those of wider society and other players, once barriers were removed.

ii) Operating Environment

Prior to 1987, the telecommunications industry in New Zealand had operated in an environment of statutory protection under the *New Zealand Post Office Act 1959*, and was answerable ultimately to Parliament in accordance with the provisions of that Act. Until April 1 1987, all domestic and international telecommunications services were provided solely by this division of the Post Office.

The business of the Post Office in general operated, like other State trading departments, in an environment characterised by numerous special privileges, regulatory protection, and constraints, which made it even more difficult to judge performance. The provision of telecommunication services, products and facilities was conducted in an environment of both commercial advantage and disadvantage which thus distorted resource costs and weakened any incentives to operate efficiently. Pricing and service provision were ultimately determined by Parliament through the Minister of the department. Finance and investment decisions required political approval and all expenditure was subject to the scrutiny of the Treasury. Statutory protection of their natural monopoly position also exacerbated the problems discussed earlier, of unclear and conflicting objectives, when attempting to monitor and assess the goals and objectives underlying management

decision-making. The statutory protection provided by the Act meant that this industry was not subject to competition and therefore there was a lack of competitive stimulus to efficiency. This effect was also strengthened by the inability to 'benchmark' performance against other firms.

Such absence of actual and potential competition allowed its operations to be conducted in a very sheltered and protected environment which may have enabled the enterprise to continue producing poor quality and high cost services without concern that its customers would simply go elsewhere. For example, the lengthy time delays for the installation of new equipment and services.

Actual competition, or merely the threat of the same, "is a very effective means of ensuring that managers are performing [and] stimulates more cost effective methods of production and helps ensure prices are kept to a minimum" (Treasury, 1984, p 282). The threat that customers in a competitive market will switch their demand to other providers offering a better product or service for the same or a lower price should provide an incentive to strive for greater efficiency of production and quality of product or service.

The New Zealand Post Office was perceived to be unresponsive to consumer demands, and slow to adopt innovations and new technologies which were taking the international markets by storm. It had become increasingly obvious that the consequence of statutory protection from competition was a weakening of efficiency, both static and dynamic. Such concern about the lack of competition contributed to a questioning of the traditional justifications for State control of the telecommunications function on the grounds that, rather than the State fulfilling a 'watchdog' role with regard to the potential for abuse of natural monopoly power, it had instead taken on a supportive role which maintained that protected and sheltered position.

However, on the flipside of statutory protection and commercial advantages was a major restraint on the New Zealand Post Office as sole provider of telecommunication products, services and facilities, namely that pricing policies came to be subject to the

approval of the Postmaster General, and ultimately, of Parliament.

Appropriate pricing of output in any commercial enterprise is crucial to ensuring that inputs are employed in their most efficient uses. Essential to this goal is that total revenue should cover all costs to ensure the organisation's survival and to ensure that the value derived by the user is at least equal to the value of resources employed in its production. However, in telecommunications, there existed major discrepancies between these two values which arose from the 'essential facility' characteristics of this industry. The government's implicit value judgement that telecommunications services possess a value to the community as a whole, over and above its value to each individual consumer provided grounds for reducing the end user price in order to increase service consumption. The government's argument was based mainly on the notion that it was socially desirable for every household to be able to afford a telephone. Essentially, what this involved was a group of subsidies used to 'top-up' the difference to ensure that purchases were made such that the user's private value plus the additional value to the community as a whole would sum to the total value of resources employed.

This desire to provide telecommunications services for the community arose from a conflict of social and political objectives and motivated the government to suppress price increases for political reasons and to require significant cross-subsidisation, resulting in prices bearing little relation to true costs of supply. This presented yet another conflict, this time between socio-political goals and economic goals. Regardless of whether the government's argument for cross-subsidisation did indeed have merit, from an economic welfare perspective, account would have to be taken of the distortions caused by the taxes needed to fund the subsidies.

One example of such cross-subsidisation, occurred in the rural residential telephone market and is shown in the table below. Despite the costs being substantially higher to provide service to this group, the actual prices charged failed to reflect this and instead, residential urban customer prices were inflated and used as a 'top-up' or subsidy in order to ensure that both markets had equal access to telephone services. Telecom was able to engage in this because of the lack of competition from other suppliers.

TABLE 4.1
COMPARISON OF LINE MONTHLY RENTAL CHARGES
URBAN vs RURAL
SOURCE: Telecom, 1994

	1986
Local urban residential line rental charge, per month	\$18.98
Class 7 Exchange (80,000 or more subscribers)	
Local rural residential line rental charge, per month	\$13.48
Class 2 Exchange (automatic exchanges up to 200 subscribers)	
(manual exchanges up to 3,000 subscribers)	

TABLE 4.2
COMPARISON OF MONTHLY LINE ACCESS CHARGES
RESIDENTIAL vs BUSINESS
SOURCE: Telecom, 1994

	1 May 1988	1 January 1988
Business	\$89.37	\$60.42
Residential	\$17.83	\$30.25

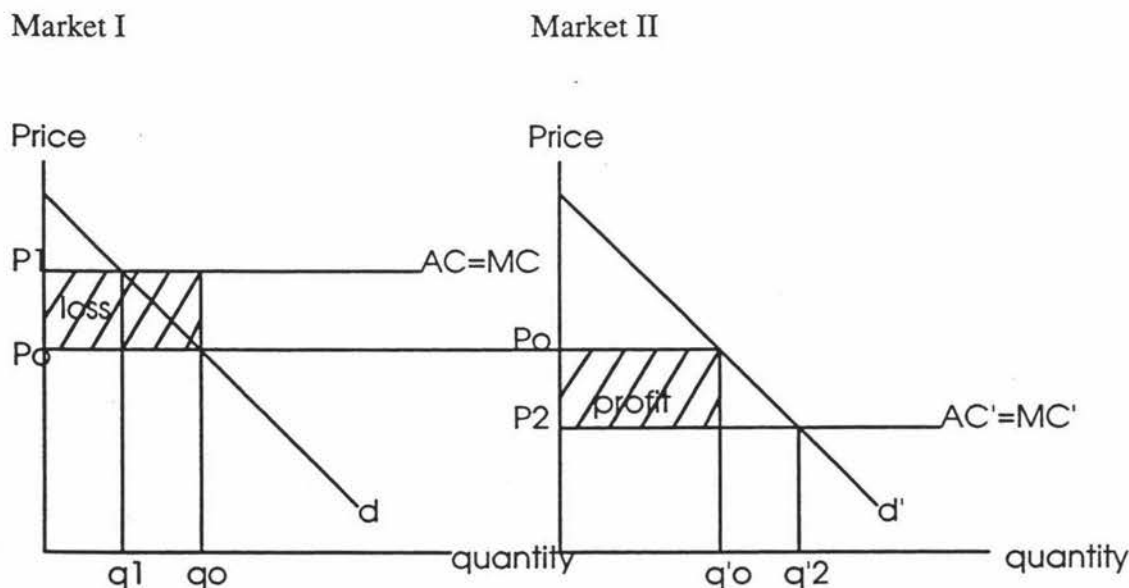
*prices quoted are an average charge and not the actual price charged to any customer

On the other hand, it was argued that some telecommunications service charges did not reflect actual costs but instead were priced above them, a situation made possible by the protected statutory monopoly environment. The lack of actual or potential competition allowed output to be priced above the true supply costs, which brought with it the adverse effects of denying services to customers who would indeed be prepared to pay for them. For example, if the Post Office over-charged for some national or international toll calls for which the consumers were prepared to pay the true supply costs, then there would be substitution to another means of communication such as mail, which fulfils the consumer's need to transfer information but in a far less efficient manner.

This combination of under-charging for some services and over-charging for some others resulted in much distortion of pricing signals, which led to allocation inefficiency in the markets concerned. The allocation inefficiency from cross-subsidisation can be demonstrated with the aid of graphical analysis. Recall that cross-subsidisation occurs when two or more markets are supplied, and the economic profit earned in one is used to subsidise a loss incurred in another. For example, economic profit earned in the provision of business telephone services is used to subsidise economic losses made in rural telephone service provision. For simplicity, we assume that the price charged by the New Zealand Post Office is the same in both markets at - P_0 , but the true supply cost in Market 1 ($AC=MC$) is higher, and the true supply cost in Market 2 ($AC'=MC'$) is lower than P_0 . The resultant economic loss incurred in Market 1 must be subsidised by the economic profit earned in Market 2.

FIGURE 4.1
THE EFFECTS OF CROSS-SUBSIDISATION

SOURCE: Pickford, 1994, p.280



The price P_0 charged in both markets results in q_0 units being demanded in Market 1 whereas the optimal or efficient output would be q_1 at the optimal or efficient price P_1

where $(MC=d)$. Therefore, Market 1 is over-supplied with output relative to the allocatively efficient amount. Conversely, q_0' units are demanded at the uniform price P_0 in Market 2 but the optimal or efficient output is q_2 at the optimal or efficient price P_2 (where $MC=d'$). Therefore, Market 2 is under-supplied relative to the allocatively efficient amount. To pursue the goal of allocation efficiency would require that prices be set where $MC=d$, such that P_1 would be charged in Market 1 and P_2 in Market 2.

Allocation efficiency requires that prices are set equal to MC , with subsidies being abolished. However, if a particular service is to be encouraged for social reasons, it should receive a specific subsidy for the purpose out of government income.

iii) Incentives and Performance Monitoring

Another contributory factor to reforms in telecommunications, was the issue of performance assessment and monitoring.

In addition to the New Zealand Post Office's strong political connection as a government department, it also faced different efficiency incentives to those faced by non-government enterprises. It was subject to the Public Service Commission's terms and conditions of employment and to the operational rules of departments designed partly for monitoring purposes.

The near-absence of benchmark standards against which to assess performance ruled out the making of any definitive and useful comparisons with other enterprises. Differences in accounting practices and operating environments made it impossible to monitor performance and efficiency. Even if there had been quantitative objectives, measurement of performance would have proven difficult because of both a lack of balance sheet data, and the virtual impossibility of separating costs within the Post Office divisions. However, these costs have since been separated which suggests that there may have been a gap between what was done, and what could have been done.

b) Summary

In summary, these three factors - a lack of clear, non-conflicting objectives; a sheltered operating environment; and a lack of incentives and performance monitoring - combined to present large obstacles to the development of suitable incentives for efficiency within the telecommunications division of the Post Office. It was these factors which provided Government with the impetus to include the New Zealand Post Office in its corporatisation policy agenda. In doing so, various advice and recommendations were taken into account, such as those contained in the Mason and Morris Report which detailed the findings of an inquiry commissioned by the Hon. Jonathan Hunt, Postmaster General, that "the Post Office should be divided into three state corporations of Telecommunications, Post and Agency, and Banking, following the completion of the recommended management organisation" (1986, cited in Telecom Resource).

3 CORPORATISATION

Let us now proceed to examine the implementation of corporatisation in telecommunications, the role of industry deregulation, and the phasing in of competition.

On April 1 1987, the telecommunications business historically performed by the New Zealand Post Office was corporatised. It became a State Owned Enterprise as defined in the *State Owned Enterprises Act 1986*, and was renamed Telecom Corporation of New Zealand Ltd (hereafter, Telecom). The *Telecommunications Act 1987*, which provided a schedule for the phasing in of competition in this industry, first opened the customer premise equipment market and part of the consumer wiring market to competition from alternative suppliers. Then in 1988 the government moved to almost fully deregulate the telecommunications industry with the enactment of the *Telecommunications Amendment Act 1988*. This *Act* opened the door for competitors to enter the remaining statutory monopoly markets, and provided access for consumers to all forms of telecommunications service from April 1 1989.

Support for this plan to deregulate came from both the Mason and Morris Report (1986), and later from the Touche Ross Report (1988). This last report contained recommendations that government deregulate the telecommunications industry in order to reap the potential rewards of competition. Underlying their recommendations, however, were strong reservations concerning the affect which the natural monopoly characteristics associated with parts of that industry, especially the local loops, could have on the ability for alternative carriers to enter. These reservations provided much of the motivation for the government to reform the regulatory environment in the economy in order to ensure that it would conform to, and be conducive to, the market liberalisation policies. The *Commerce Act 1986* was the government's ultimate response to these concerns, and this Act sought to establish guidelines and limits to govern the market power of dominant firms.

The deregulation of telecommunications services was complete by early 1989, with the terms and conditions of connection to the Telecom network subject only to the provisions of the economy-wide legislation of the *Commerce Act 1986*. The key features of this legislation are s 36, which relates to use of a dominant market position, and *Part IV* of the Act, which provides for price control by government. The emergence of this new regulatory environment shall be examined in detail in Chapter 6.

4 RESTRUCTURING

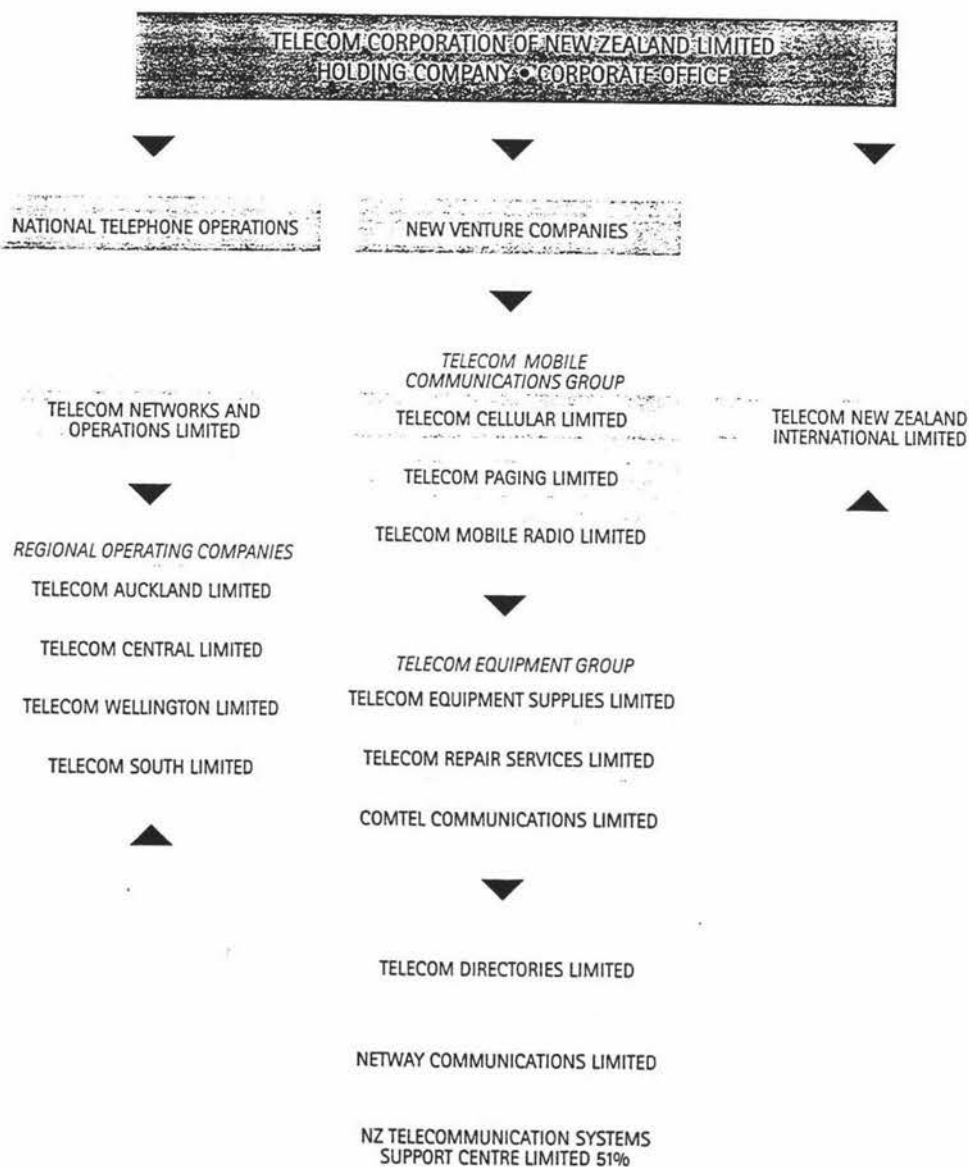
The changes brought about by deregulation and competition have had an ongoing effect on Telecom's internal organisation, operations and performance.

Telecom initially chose a decentralised organisational structure and in accordance with the principles of the *State Owned Enterprises Act*, restructured its management organisation and adopted a new business philosophy similar to those which existed in private enterprises.

Subsidiary companies, including four Regional Operating Companies (ROCs), were allocated their own assets, managers and operational systems to provide local telephone services on a regional basis. Each company was responsible for customer service within its operating region, and was accountable for its own customer satisfaction and financial performance. A fifth company, Telecom Networks and Operations Limited, provided network services, equipment and technology to each of the Regional Companies. The company's new, more decentralised structure is illustrated in the diagram below.

FIGURE 4.2
TELECOM'S NEW STRUCTURE

SOURCE: Telecom, 1994



However, in 1992, a centralised structure was deemed more efficient and was expected to enable more effective decision making, and therefore restructuring occurred once again to merge all Regional Operating Companies with Telecom's other functions.

First attempts at entry began in late 1990, by two separate consortia, who soon merged their interests to form Clear Communications Ltd. Telecom had come to realise that to be an efficient competitor it had to provide an adequate basic service to all customers. To do so, its first step was to mount an intensive capital expenditure programme over the period from 1988 to 1994 which resulted in \$4.2 billion being invested in the implementation of new technologies such as digital switches.

To compete effectively, Telecom had to undertake a price rebalancing programme to reduce cross-subsidisation and allow prices to more accurately reflect the real costs of services. The incumbent faced a real threat of new entrants attempting to enter purely with the motivation to 'cream skim'. In other words, new entrants could establish themselves in the more profitable markets whilst ignoring to provide the basic, low-profit services. Hence, this danger provided much of the impetus for Telecom to undertake a stringent price-rebalancing programme. The schedule for, and elements of this price rebalancing programme, are presented in Appendix 1.

In summary, the major impacts of the programme for the residential service markets was the continual reductions in toll call charges. However, on the down side, these reductions were offset by continual increases in line rental charges. For example, in November 1988, the standard residential line rental charge increased by 30-40 per cent followed by a further 7 per cent increase only one year later. The price rebalancing programme also had a significant impact within the business service markets. For example, in February 1990, local call charging for businesses began in Wellington.

This accorded with the intentions for corporatisation, as reflected in the statement by the then Minister of State Owned Enterprises, Richard Prebble that: "State-owned Telecom Corporation of New Zealand Ltd will lose its monopoly over New Zealand telecommunications by the end of 1988 or early 1989 [and] this would make Telecoms

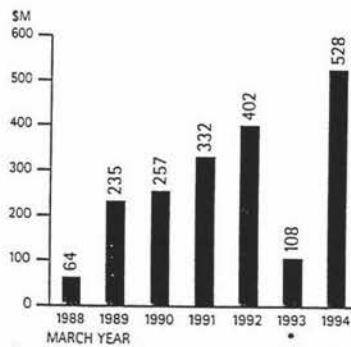
more efficient and responsive to market needs" (Reuter News Service, 17 December, 1987).

Evidence shows that there has been significant improvements in net earnings, productivity and reductions in employee numbers, as reflected in the following graphs:

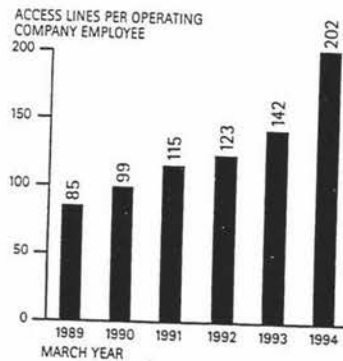
FIGURES 4.3, 4.4, 4.5

SOURCE: Telecom, 1994

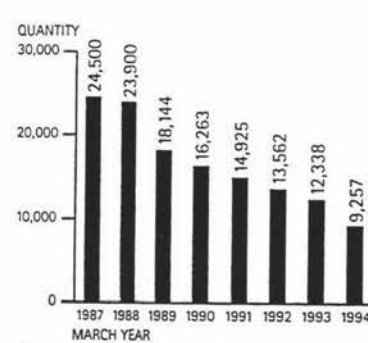
Net Earnings



Employee Numbers



Productivity



*Note: the 1993 figure includes \$350 million after tax of abnormal costs due to the restructuring programme.

These massive restructuring measures were aimed at building a solid and competitive foundation for the company's future growth in its efforts to meet the competition which was emerging. The entry of new competition has definitely had an immense impact on Telecom's performance since its days as the New Zealand Post Office incumbent monopolist and the early days of Telecom Corporation of New Zealand.

5 THE EMERGENCE OF COMPETITION

With the New Zealand telecommunications industry being one of the most deregulated and open in the world, opportunities have emerged for competitive entry to occur. Because of the industry's critical importance in both domestic and business life, any exploitation of market power by Telecom could potentially cause significant economic damage from inefficient use of resources, thus seriously disadvantaging both individual consumers, businesses, and society as a whole. In its Report on Telecom in 1992, the Commerce Commission argued that "the safeguard against such detriments is vigorous and widespread competition wherever economically feasible" (Commerce Commission, 1992). This notion clearly reflected the government's sentiments and motivations for the industry deregulation of the preceding years.

Entry into a previously monopolised industry, where the incumbent owns the network which exhibits the characteristics of an 'essential facility', is likely to pose problems for new competitors. This section examines the emergence of competition in the New Zealand telecommunications industry. Later in Chapter 6, we explore the regulatory issues involved.

a) Clear's Entry

Majority ownership of Clear Communications Ltd (henceforth, Clear) is held by the three New Zealand companies: Television New Zealand Limited, Todd Corporations Limited and New Zealand Rail Limited, with the remainder held by Bell Canada Enterprises and MCI International. After lengthy negotiations, Clear began offering leased line services in January 1991 and toll services in May 1991.

The original interconnection agreement between Clear and Telecom allowed Clear customers access through the Telecom network to Clear, and for Clear to complete calls through the Telecom network. This agreement enabled Clear to enter into competition in toll services with Telecom, the previous monopoly provider of all services.

Undoubtedly, this emergence of a new provider was initially viewed as conforming to the government's intentions for an openly competitive telecommunications industry but Clear's entry was not as simple as had been hoped.

The initial interconnection agreement in March 1991 contained the provision that access to Clear customers could only be achieved by dialling the prefix code "050". It was indicated in this agreement that non-code access would be introduced once Clear had gained a 9 per cent share of the market, but dispute later arose between the two regarding exactly when that share was reached. Negotiations for non-code access finally crystallised in an interim agreement in late 1993.

From the outset, it was recognised that interconnection would be the critical competition issue. This is reflected in the following undertaking in July 1989 by the then Chairman of Telecom, Sir Ronald Trotter, that "Telecom's policy is to ensure that interconnection will be provided to competitors on a fair and reasonable basis, ... to not disadvantage competitors". The government envisaged that all parties would act in good faith, and expedite negotiations and any court actions.

Use of New Zealand Rail's fibre optic cable between Auckland and Wellington was the first stage of Clear's fibre optic backbone, which was subsequently extended from Wellington to Christchurch with the shared use of the Trans Power fibre optic cable. Broadcast Communications Limited, a subsidiary of Television New Zealand, now provides 100 per cent digital microwave radio facilities from Auckland to Christchurch via Wellington together with spurs to other centres. Plans for a second fibre optic cable are currently under way, which will provide even greater capacity.

For international services Clear has its own facilities, consisting of a 7.5 metre Intelsat satellite dish commissioned in December 1991, with a second dish of 15.5 metres diameter being added in June 1992. Clear is a partner in the Tasman 2 fibre optic cable between New Zealand and Australia, and in the Pac Rim East cable between New Zealand and Hawaii which commenced service in June 1993. For access to those countries which Clear does not reach directly, it provides service via international

transit arrangements on the basis of reciprocity. Up-to-the-minute digital switching facilities sourced from Northern Telecom of Canada have been installed in Auckland and Wellington with a third switch to be installed in Christchurch.

The primary obstacles to the development of competition facing Clear or any new entrant, as identified by the Commerce Commission include:

- * **interconnection points and fees:** interconnection between separate networks is necessary to allow all users to communicate with each other and therefore, for effective competition to develop, a new entrant must reach an agreement with the incumbent network operator about the physical connection of their networks.
- * **numbering/directory access:** it is necessary for a new entrant to provide telephone numbers which are as easily accessible as those offered by the incumbent network operator and therefore they must have access to the incumbent's numbering plan.
- * **access codes:** a new entrant will be disadvantaged if its customers are required to dial additional digits than those dialled by customers of the incumbent's network.
- * **bundling of products and services:** the new entrant would be disadvantaged if the incumbent network operator was to practice bundling of its products and services as consumers would potentially be better off to remain solely as a customer of the incumbent's network.
- * **Kiwi Share Obligation:** the obligations imposed on the incumbent network operator, for example, providing service to residential customers at a standardised rate regardless of whether they are in rural or urban areas, poses a problem for the incumbent with regards to whether or not a new entrant is required to contribute in order to assist with fulfilling those obligations. (Commerce Commission, 1992)

These were considered as obstacles because they "prevent competition developing at all, or have the ongoing ability to adversely affect competition where it is developing or has developed, or apply to the supply of most products and services" (Commerce Commission, 1992).

Interconnection access charges have presented the major hurdle with regard to Clear's entry into the lucrative local service market, which essentially arises from the insufficient

volume of traffic to justify the expensive and involved replication of a parallel Public Switched Telephone Network (PSTN). Therefore, because replication is not feasible, interconnection between the separate service operators is necessary to allow all users ubiquity of access, thus necessitating any new entrant to reach a legally binding and commercially realistic agreement with the incumbent operator for physical connection to facilities. Failure to interconnect would inevitably inhibit the development of effective competition in various service areas, including local telephony which is under scrutiny in this research.

6 CONCLUSION

This chapter has detailed the process of corporatisation and deregulation in the telecommunications industry in New Zealand as intended by the *State Owned Enterprises Act 1986*. The changes that resulted were very significant and had widespread effects throughout the economy. Telecom soon came to realise its position of vulnerability in an industry which was very attractive to potential rivals due to its critical importance in modern life.

The foundations for the process of new entry essentially began in 1990 with the emergence into the arena of Clear Communications, owned by three New Zealand companies: Television New Zealand Limited, Todd Corporations Limited and New Zealand Rail Limited, with the remainder held by Bell Canada Enterprises and MCI International.

Overall, the government's corporatisation policy did achieve its key objective of improved performance in the State Owned Enterprise of Telecom, but not without severe and unpopular consequences in some areas, such as employment, due to the widespread restructuring and the redundancies which resulted.

The above-detailed policies of corporatisation and deregulation were soon followed by the privatisation of Telecom, all of which were aimed at creating a more competitive telecommunications environment. The motivations behind privatisation and its implementation are the focus of the following chapter.

CHAPTER 5 PRIVATISATION IN NEW ZEALAND

1 INTRODUCTION

In this chapter, I shall detail the general rationale for New Zealand's privatisation of State enterprise and examine its implementation in the telecommunications industry.

Section 2 examines the general rationale and in Section 3, I discuss the privatisation of the Telecom Corporation of New Zealand Ltd. The 'Kiwi Share Obligation' (KSO) is outlined here as it is this Obligation which has presented a major hurdle in negotiations for competitive entry.

The changes which have occurred under Telecom's new ownership structure are also examined in Section 3 in order to assess the initial effects that privatisation had on the industry.

Finally, in Section 4, an assessment of the estimated economic welfare gains which have resulted from the privatisation of Telecom is presented.

The conclusions in Section 5 confirm the major doubt as to whether the New Zealand telecommunications industry really has emerged as one of true and effective competition.

2 PRIVATISATION

a) The General Rationale

The corporatisation policy of the mid 1980s via the *State Owned Enterprises Act 1986*, together with the new regulatory framework provided by the *Commerce Act 1986* went a long way towards restructuring public sector enterprise towards comparability of performance with private enterprise. The New Zealand Business Roundtable (NZBR)

was a major proponent of privatisation of State enterprise in New Zealand and identified significant limitations with the policy of corporatisation. Despite the various gains in productivity, product quality, and profitability along with lower real prices for consumers, these were always vulnerable to the constraints imposed by the accompanying difficulties of (NZBR, 1992):

- “* applying full commercial disciplines when State industries do NOT have to succeed to survive;
- * providing risk capital to State Owned Enterprises when fiscal constraints and/or political considerations may conflict with commercial goals;
- * making the competitive environment genuinely neutral, when continuing government ownership brings with it the possibility of future State bail-outs; and
- * maintaining the early gains in the face of the political pressures to weaken the commercial disciplines which were put in place when the State Owned Enterprises were first formed”.

These difficulties that the NZBR considered to be inherent in corporatisation as a structure, cast strong doubts upon the ability of the corporatisation policy and its processes to successfully achieve its original goals. The opinion of the NZBR is that, “the New Zealand experience (post 1986) with the SOE process does indeed confirm the reality of such difficulties, in that continuing public ownership has clearly been associated with (NZBR, 1992):

- “* a degree of instability and disruption, reflecting the inability of political processes to resolve key strategic questions definitely given the ongoing conflict between commercial goals;
- * periodic friction between some SOEs and the government about commercial decisions;

- * a tendency for some appointments to the boards of the State Owned Enterprises to owe more to their political connections than to their commercial expertise;
- * an apparently growing tendency for direct political intervention in commercial pricing decisions for reasons unrelated to commercial considerations; and
- * a political focus on remuneration levels in SOEs, without regard to either performance considerations or the effects of this focus on the ability of the SOEs to recruit and retain high quality, commercially oriented staff.”

It may of course be argued that social objectives are easier to attain if an enterprise remains under State control. However, once business objectives and efficiency are made paramount goals, it seems difficult to resist the movement to full privatisation.

Essentially, while the reforms had made a major step forward, it was perceived that certain problems remained with the State Owned Enterprise model. The difficulties experienced with the model, as identified by the NZBR, vary between each enterprise and have impacted on some far more severely than on others. Let us discuss each of these difficulties which have tended to arise because of the general instability of the State Owned Enterprise model and the inevitability of restrictive influences to re-emerge over time.

i) *Inability to resolve questions of strategic direction*

In Chapter 4, we saw that the motivations for corporatisation stemmed from the problems inherent in government trading enterprises, one of which was the presence of conflicting objectives. The fact that their ownership remained vested in the Crown, meant that there was always the risk that they would be directed to pursue conflicting commercial and social objectives. This risk, when combined with the knowledge that a change of government may bring yet another change in State Enterprise structure, forced

the enterprises into an unstable and unpredictable environment. A good example of this instability in direction concerns the Housing Corporation over the period 1984-1992. The incoming Labour Government of 1984 had initially included this Corporation in its agenda for corporatisation but internal rifts in 1988-1989 saw this intention reversed in favour of the government department structure. However, when the new National government assumed office in 1990 and presented its first budget in 1991, this decision was partially reversed in respect of the Corporation's rental operations. What can be viewed as perhaps a compromise was finally reached in April 1992, with the government's announcement that the Corporation's rental operations would be set up as a 'housing rental enterprise' rather than as a State Owned Enterprise.

ii) *Ongoing friction between State Enterprise boards*

The unstable and unpredictable environment within which the State Owned Enterprises existed often presented the boards and management with a trade-off situation when faced with issues not directly related to output decision. Such lack of security concerning their actual existence only added fuel to the already 'burning fire' of ongoing friction between the boards and government and did nothing to strengthen the performance or credibility of the Enterprise.

iii) *Board appointments*

Some claim that State Owned Enterprise decision-making still remained subject to residual government interference due to the directors being political appointees. Undoubtedly then, if there was conflict between the commercially-oriented boards and management, the temptation to appoint politically sympathetic board members would indeed be very strong.

It is important to bear in mind that simply legislating that the State Owned Enterprises operate in a commercial manner, would not in itself make them do so.

iv) *Direct political intervention in commercial decisions*

Some commercial decisions of the enterprises had been strongly influenced, or directly made, by the government, which essentially mitigated the basic intentions for corporatisation.

For example, government pressure on the Electricity Corporation in 1991-92 led to a pricing policy backdown. Whilst the Prime Minister acknowledged that pricing policy was ECNZ's responsibility, ECNZ's two shareholding Ministers were publicly reported as exerting pressure on the Corporation by guaranteeing that the government would accept a decreased rate of return to subsidise the pricing backdown (National Business Review, 6 March 1986).

Such political interference in the commercial activities of the Corporations could potentially reduce management accountability for performance and serve to distort the pursuit of previously agreed-upon financial objectives.

Similar pressures have been exerted on other State Owned Enterprises, such as to maintain cross-subsidisation in telecommunications and postal service provision, all of which clearly necessitate departures from the provisions contained within the *State Owned Enterprises Act 1986*.

v) *Politicisation of remuneration decisions*

Remnants of the old government department structure with regards to employee remuneration meant that instead of packages being directly tied to performance, there was still the potential for the employment of people without strong commercial skills, thus further weakening the incentives facing management. What emerged then was a set of State Owned Enterprises which lacked the knowledge and abilities to perform successfully which existed in the private sector.

vi) *Commercial neutrality and the implicit government guarantee*

Since the ownership rights in State Owned Enterprises were diverse and non-transferable, with ownership being vested in the Crown, managers lacked the

performance incentives which would normally be provided through the share market. There existed no threat of takeover, and the possibility of bankruptcy was minimal because of the perception that the government would assist in times of financial difficulty. By reducing risk, these elements had the potential to distort the cost of capital in a downwards direction creating a commercially advantageous environment for the Enterprises. Therefore, the implicit government guarantee essentially rendered redundant the original intention to create a competitively neutral environment.

From this discussion we can see that some of the strong arguments against corporatisation voiced in the mid-1980s, did contain credibility as many of the predicted difficulties indeed arose. Although these acted to water down the gains achieved through corporatisation, they did provide strong motivation for further reforms of public sector enterprise. Having now presented a discussion of the general rationale behind further reform, let us proceed to examine the design and implementation of those reforms.

b) Privatisation as a Policy Instrument

At this point, it is useful to consider the nature of the privatisation process. Crucial to this is to realise that “privatisation is an instrument used to implement the policy of bringing market forces to bear on areas of the economy not previously exposed to them” (Economic Development Commission, 1989, p 11).

The New Zealand government’s justifications for moving towards privatisation as an instrument to foster economic growth and competition, were essentially the difficulties encountered in the State Owned Enterprise structure, as earlier discussed.

In comparison to the State Owned Enterprise model, the gains from privatisation would be expected to stem from (NZBR, 1988, p.15):

- i) reduced uncertainty about strategic directions;

- ii) the elimination of board appointments based on non-commercial considerations;
- iii) reduced political interference in investment, pricing and internal remuneration decisions;
- iv) the imposition of the commercial disciplines which are implicit in monitoring by debt and equity holders, company takeovers and the ability of existing owners to replace management teams, and the ultimate sanction of bankruptcy;
- v) the removal of non-commercial constraints on new capital raising and diversification (including into offshore operations); and
- vi) the ability to benefit from the managerial, financial and technology resources of new owners.

It was, however, predicted that on the flip side of these potential gains would be the detriments of having to resort to legal processes for dispute resolution. Also, the potential existed for less-than-ideal outcomes to arise if an imperfect regulatory framework was followed.

The lesson learned from corporatisation policy was simple, according to the ideologues: the public sector will always tend towards inefficiency, since it is unable to be declared bankrupt and therefore had no compulsion to compete or to excel. Ultimately, the achievement of financial targets was ignored and even where industries had been deregulated or liberalised, there still lacked real accountability for performance. Perhaps a more reasoned view would be that inefficiencies do tend to prevail in the public sector but for a wider number of reasons than solely the immunity from bankruptcy.

The recommended solution to the problems encountered seemed just as simple, at the

time, and basically involved letting the private sector roll back the frontiers of the State. Privatisation was recommended as being fundamentally superior to corporatisation for both society and the economy in the longer run. The new National government's prime motivation in proposing this instrument was the pursuit of efficiency and the avoidance of risk. Concerns mounted that without privatisation, the growth of many State Owned Enterprises would be stunted by a shortage of capital which would in turn, stunt the growth of the wider economy.

The privatisation process began in New Zealand in 1987 and involved an undertaking of the following:

- a) the predetermination of the regulatory environment which would apply to each enterprise with the aim of maximising the gains to the economy. Ideally, this entailed removing all monopolistic advantages that the enterprise may have enjoyed;
- b) the maximisation of asset sale proceeds via open and competitive tendering.
- c) the employment of commercial advisors and public servants at 'arms length' to supervise the preparation for, and process of asset sales. This was intended to avoid the risk of government bias in the sale process.

Despite the growing worldwide enthusiasm for privatisation, the government's moves did not meet with widespread satisfaction. Given the ideological opposition to privatisation amongst a significant segment of the public, on the grounds that it is simply an excuse for raising money, strong pressure was exerted to abandon these reforms. However, the government pressed on and by and large, successfully resisted the public pressures.

Hence, the process of privatisation was under way and was to have far-reaching impacts on the New Zealand economy.

3 THE PRIVATISATION OF TELECOM

a) The Sale Process

The Telecom Corporation of New Zealand Ltd was one such State Owned Enterprise which was scheduled for privatisation at an early stage. This section details the privatisation of Telecom and discusses the initial organisational and policy changes made under private ownership.

In line with the government's intentions to make the telecommunications industry subject to competitive elements, preparations were made for the sale of Telecom Corporation of New Zealand Ltd. This crucial sector of the economy did not undergo the process in isolation but was one of a group of State Owned Enterprises to be offered for sale.

In September 1990, the publicly-owned Telecom Corporation of New Zealand Ltd was sold to the consortium of two American companies, Bell Atlantic and Ameritech, for NZ \$4.25million. It was the biggest deal in New Zealand history and the sixth biggest deal in the world that year. The American consortium agreed to sell a combined 10 per cent share to a company controlled by two New Zealand companies, namely Freightways Holdings Ltd and Midavia Holdings Ltd, and were required to further reduce their combined ownership of the renamed Telecom New Zealand to no more than 49.9 per cent by September 1994.

The sale took place under the assumption that by selling the telephone network to private business interests, in a competitive and deregulated environment, consumers would be better off. The revenue from this sale would go a long way towards paying off the public debt which had been on the rapid incline in preceding years.

b) 'Kiwi Share Obligation' (KSO)

Conditional to this sale was that the Minister of Finance on behalf of the New Zealand government, should hold one special rights convertible preference share, namely, the 'Kiwi Share', to which are attached certain rights. The Company's Articles of Association contain provisions that require Telecom to observe certain principles relating

to the provision of telephone services set out in Article 11.4.2. Unless the holder of the Kiwi Share otherwise consents, these constrain Telecom in the following respects:

- i) **Local Call Charging** - A local free-calling option will be maintained for all residential customers. Telecom may, however, develop optional tariff packages which entail local call charges for those who elect to take them, as an alternative;
- ii) **Price Movement** - Telecom will charge no more than the standard residential rental for ordinary residential telephone service and from 1 November 1989 the pre-GST standard residential will not be increased in real terms provided that overall profitability of the subsidiary Regional Operating Companies, as evidenced by their audited accounts, is not unreasonably impaired;
- iii) **Standard Prices and Availability** - The line rental for residential users in rural areas, will be no higher than the standard residential rental and Telecom will continue to make ordinary residential telephone service as widely available as it is at the date of adoption of these articles, 11 September 1990.

It is this KSO which has remained at the heart of industry problems today. The constraints which come with this government-imposed obligation for everyone in New Zealand to have equal access to a telephone, are argued by Telecom to constitute a heavy burden on its operations and ultimately on its profitability. It argues that the requirement for it to cross-subsidise, for example, between business and rural residential customers, means that although the company may earn a very handsome sum for connecting up a business customer in central Auckland, it loses a significant sum supplying and maintaining lines to a farm in rural Southland.

In essence, the KSO retains one of the major problems that was inherent in the archaic New Zealand Post Office structure, that being, that prices bore little relation to the true costs of supplying those services. Therefore, in necessitating such cross-subsidisation, the government could once again be seen to be strongly influencing prices for telecommunications services with the aim of fulfilling social and political objectives. Surely this influence was stepping beyond the bounds of government authority in a theoretically privatised and deregulated industry and would serve only to mitigate much of the achievements and progress made during the corporatisation and deregulation phases whilst also failing to conform to the general aim of greater economic liberalism being pursued in other sectors of the economy.

Hence, the KSO had the real potential to distort the pricing of services which would undoubtedly present a major hurdle when it came time to meet competition by any new entrants in its now open and deregulated markets.

c) Reorganisation of the new Company

The sale to private interests of the Telecom Corporation of New Zealand Ltd launched the now renamed Telecom New Zealand into a new dimension with regards to its organisational structure and policies.

At this time, Telecom was virtually the telecommunications industry as there were no competitors as yet in its monopoly markets, and privatisation necessitated various changes to Telecom's organisational structure and policies in order to prepare for inevitable market entry. The major capital investment programme in network infrastructure, which began under State Owned Enterprise structure in 1987 continued under private ownership permitting the expansion of existing, and the introduction of new, services.

Widespread price-rebalancing continued, for example, a further 5 per cent increase on standard residential line rental charges, and the need to promote their products and services in a privatised and deregulated market was recognised in the undertaking of an

extensive advertising and marketing programme. Improvements in service quality have also accrued since privatisation, in particular, the waiting period for a new telephone connection has fallen from 6-8 weeks to 48 hours (on weekdays), and all residential telephone faults are guaranteed to be repaired by 5.00 pm on the next working day (Datapro, 1994).

Further restructuring took place in February 1993 which saw Telecom announce a new company structure to enable it to more effectively meet the demands of the competitive marketplace which had emerged. This programme was aimed at improving customer service and efficiency, as well as reducing operating costs. On 1 April of that year, the business and assets of its subsidiaries were merged and acquired by Telecom Wellington and renamed Telecom New Zealand Ltd. In addition, the business and assets of Telecom Mobile Radio and Telecom Paging were acquired by Telecom Cellular, and renamed Telecom Mobile Communications Ltd.

Telecom's sales and service provision were launched on a new mission which was to focus on customer needs and four specialised groups were created to deal with the development of new business and the management of non-core activities.

The pursuit of international business activity was also prioritised as it became recognised that further development was crucially dependent on keeping pace with international standards and technologies.

4 ECONOMIC WELFARE GAINS OF PRIVATISATION

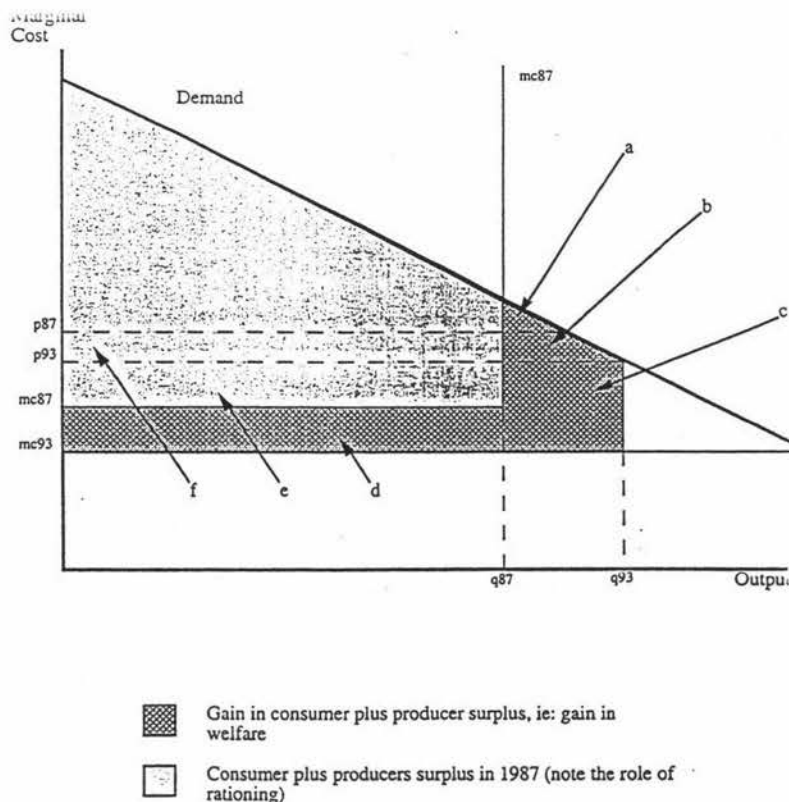
The major issue for consideration is whether real efficiency gains have resulted from the restructuring of the New Zealand telecommunications industry. This issue must surely be the crucial one when it comes to assessing whether or not the government's initial intentions in corporatising, then deregulating, and finally privatising the industry, have indeed been fulfilled.

Here we rely heavily upon de Boers and Evans, 1995 and apply the standard economic welfare model to this market, to present a comparison of the consumer and producer costs and benefits between the years 1987 and 1993. Such an analysis allows an assessment of the overall change in total welfare which has been generated over this period.

In this model, we assume a stable demand function over the six year period and also that it is possible to separate that function into residential and business sectors. Demand and supply solely for telecommunications underlie the welfare calculations and for simplicity we assume constant costs, implying a horizontal MC curve in 1993. The position of the MC curve in 1987 is represented by a vertical line due to the excess demand for the network at that time which was reflected by an inability to make calls during peak periods, and in waiting times for the connection of new services.

FIGURE 5.1

SOURCE: de Boer and Evans, 1995, p.18



It is important to bear in mind that these welfare calculations ignore the transmission of costs and benefits to other sectors of the economy. For example, restructuring in Telecom resulted in many redundancies which saw employee numbers fall from 26,500 in 1987 to 11,550 in April 1993, which undoubtedly would have had a severe impact on other sectors in the domestic economy.

From the diagram, area $a+f+b$ is the Consumer Surplus gained from the reduction in real prices from 1987 to 1993 and area $c+d$ represents the increase in Producer Surplus as a result of improved productivity. Area f is merely a transfer of welfare from producers to consumers and therefore does not constitute any overall loss or gain in total welfare. The overall welfare gain is $a+b+c+d$, and we can note that a further gain would accrue if p_{93} was set equal to mc_{93} .

By drawing upon unpublished studies of New Zealand telecommunications markets demand estimates over this period, the demand function is assumed to have a constant price elasticity of -0.5 (de Boer and Evans, 1995). The expansion in output over this period is entirely attributable to the price reductions and removal of the supply bottleneck and a lowering of the marginal cost.

Let us now summarise the results which are depicted by this graphical analysis. The benefit to consumers has been the gain in Consumer Surplus of areas $a+b+f$, which has stemmed mostly from the price reductions over this period. Such reductions have transferred Producer Surplus in the case of areas $a+b$ to Consumer Surplus.

Whilst this shows that there have been definite gains in Consumer Surplus between 1987 and 1993, it is also important to point out that these gains may too have been underestimated by examining Telecom's position individually. Recall that in the latter part of this six year period, particularly in 1992 and 1993 when new competitor Clear Communications gained a substantial market share, assuming that they were at least breaking even, then additional gains in Consumer Surplus would have accrued from consumers switching in the newly deregulated environment. Therefore, it could be

estimated that total welfare gains would actually have been greater than shown. In addition, the low price elasticity suggests that $a+b$ will be relatively small.

From this graphical representation of the actual estimated welfare gains in the telecommunications industry, we see that they are indeed significant and are indicative of the government's initial visions in restructuring this sector. These welfare gains have stemmed mostly from price and cost reductions and less significantly, from output expansion.

On the surface, it would appear that this outcome conforms with that which was envisaged by the government when initiating its reforms. However, despite the welfare gains which have resulted, doubts have arisen concerning the actual extent of competition in the industry and, therefore, indirectly of the potential for greater welfare benefits to be achieved. Regardless of the claims that the New Zealand telecommunications industry had emerged as the most open and competitive in the world, major industry problems have served to impede the process and operation of effective competition. It is these problems which essentially relate to the incumbent monopolist's conduct in the event of market entry, which have resulted in many human-hours and dollars being spent on attempts at their resolution. The conditions for competitor access to the incumbent's network have been at the heart of these proceedings and this issue has prompted strong interest and debate both within legal and economic circles. Today, after many lengthy and expensive proceedings, it still remains a contentious issue and calls into question the real progress towards competition in New Zealand telephony.

The role of New Zealand's regulatory framework has taken centre stage in this dispute. The effectiveness of that framework to foster competition in this industry, as well as in other network industries, has been called in to question throughout the attempts at resolution. Let us now proceed to Chapter 6 where this framework shall be examined as well as the characteristics of the telecommunications industry which give rise to problems when attempting to strive for the ideal competitive industry.

5 CONCLUSION

This chapter has presented the general rationale for the privatisation of the Telecom Corporation of New Zealand Ltd as part of the government's wider plan to establish a more open and competitive economy.

The 'Kiwi Share', held by the Minister of Finance on behalf of the New Zealand government, which placed three major constraints on Telecom in respect of pricing, has presented a major hurdle in negotiations for competitive entry. Telecom's claim is that compliance with that Obligation imposes a substantial financial burden on it and thus provides new entrants with a substantial benefit.

Since privatisation, Telecom has undergone major internal restructuring and price rebalancing aimed at improving its ability to succeed in the emerging competitive environment.

We saw in Section 4, the potential for economic welfare gains from price and cost reductions, as estimated by de Boer and Evans (1995). It was demonstrated here, that despite the welfare gains which have resulted, they may not have been as significant as could be achieved if a more openly competitive and easily accessible telecommunications industry had emerged. Hence, this calls into question, the actual presence of competitive pressures in the New Zealand telecommunications industry, despite the major reforms over the past decade.

CHAPTER 6 THE REGULATORY FRAMEWORK

1 INTRODUCTION

The purpose of this chapter is to describe New Zealand's 'light-handed' regulatory framework, which contrasts with the more 'heavy-handed' approach of other countries, such as Australia. A working knowledge of this framework is crucial to the subsequent discussion of its application to the New Zealand telecommunications industry.

In Section 2 the extent of the natural monopoly characteristics of the telecommunications network, and the regulatory problems to which this gives rise are considered. The term an 'essential facility' is defined, and applied to the telecommunications network in New Zealand.

In Section 3, we detail the emergence of New Zealand's 'light-handed' regulatory framework and briefly define its elements. This framework is then contrasted with other forms of utility, or 'essential facility' regulation, such as the more 'heavy-handed' approach used in Australia, in Section 4. Finally, the conclusions are drawn together in Section 5.

2 ACCESS TO 'ESSENTIAL FACILITIES'

a) 'Essential Facilities'

Instead of the term 'essential facility' being defined or incorporated in New Zealand statute law due to the practical difficulties in clearly defining such a concept, what has evolved instead is a working definition which has enabled the application of this term when studying such network industries. 'Essential facility' is now accepted as the term

to conveniently describe facilities which (Arnold, 1994, p.2):

- i) cannot practically be duplicated; and
- ii) to which access is required by those who wish to compete in up or downstream markets.

This working definition appeared in the case *Auckland Regional Authority v Mutual Rental Cars (Auckland) Ltd* (1988) 2 NZBLC 103,041 in which the airport facility was defined as a:

facility which is incapable of duplication and circumvention and to which others must have access if they are to compete in a given market.

b) The Vertically-Integrated Natural Monopoly Problem

Interconnection issues arise where:

- i) a firm seeking to compete in an upstream or downstream market requires access to a natural monopoly good or service to do so; and
- ii) the provider of that monopoly good or service also competes in the same upstream or downstream market.

Such an industry structure is referred to as a ‘vertically-integrated natural monopoly’ and occurs in many industries such as telecommunications, electricity distribution and gas transmission and distribution. Economic theory purports that natural monopolies with significant market dominance can prompt public policy concerns because of their potential to incur higher production costs, potential to charge higher prices; and tendency to innovate less quickly than firms subject to the normal pressures of a competitive market. The natural monopoly facility owner also possesses the potential to vertically-integrate into upstream or downstream markets with the purpose of restricting or eliminating competition in those markets. Therefore overall, the natural monopoly facility owner has the real potential to increase its prices to the obvious detriment of both consumers and overall national economic welfare.

c) Forms of Utility/Essential Facility Regulation

Regulation by means of competition law, of private firms or groups of firms who hold a dominant position in a market, can be considered an attempt to restore market forces, especially competition, in industries where the efficient outcome does not occur due to the existence of such features as externalities or monopoly.

However, it has long been recognised that in certain industries which exhibit natural monopoly or 'essential facility' characteristics, the maintenance or restoration of competitive forces may not be feasible due to the economies of scale in production. The resultant policy dilemma is how to promote those cost benefits while at the same time ensuring that the monopoly supplier is prevented from exploiting its dominance.

The problem of the excessive use of a dominant position is exacerbated by the fact that most of the industries in which natural monopoly characteristics exist, are central to the economy. For example, natural monopolies such as electricity transmission provide services which are used by virtually everyone in an economy, and necessitate a direct physical supply connection. It is clearly evident that the regulation of such public utilities as communications, energy and transport poses far more complex issues than the application of general competition policy in the private sector, or the regulation of other, non-utility State Owned Enterprises. These differences arise because public utilities combine a number of characteristics which serve to reduce the number of industry members, and to erect significant entry and exit barriers, both of which can reduce or totally eliminate the existence of actual or potential competition in a market. Examples of such characteristics are substantial economies of scale; large investments in sunk assets (eg. railway networks); relatively low marginal costs of expanding output to full capacity combined with high fixed costs associated with that capacity (eg. hydro-electric dams); potential for production externalities (eg. pollution and land erosion from power stations); and in some markets, the existence of significantly inelastic demand curves (eg. for electricity due to widespread appliance ownership) which serve to inflate the gains to monopoly pricing.

Isolated from regulatory pressures, such industry characteristics have the potential to

lead to significant resource misallocation and inefficiency from the exercise of monopoly power. On the other hand, though, the imposition of direct regulatory control brings its own inefficiencies including the operating costs of regulatory bodies, compliance costs on the part of the firm, and information supply costs. Therefore, what was called for was a regulatory regime which would create a balance between the costs and benefits associated with each option.

Thus, the question arises as to the role of regulation in New Zealand's deregulated economy, to improve performance in such industries. The crucial issue surrounds the vertical relationship which can emerge after deregulation and privatisation when some segments are opened to competition. Whilst some parts of the system may become potentially open to competition, one or more parts may remain naturally monopolistic. This element then makes it possible for that monopolist to prevent competition by denial of access to the 'essential facilities'.

The issue therefore, in the industries which exhibit natural monopoly characteristics, and where access to an 'essential facility' is crucial for suppliers who compete in downstream markets, is whether it is desirable to intervene in these markets to create more competition than would otherwise come about (Forsyth, 1992).

The problem of firms obtaining access to 'essential facilities' possessed by an incumbent monopolist is a growing concern in today's global trend towards deregulated industry. Essentially, the question is whether or not new entrants should be required to negotiate access with the incumbent monopolist, or whether the terms of access, especially the price, should be regulated. If regulation is preferred, the main problem is determining the specific regime which should apply. Obvious information and incentive problems arise in price setting, whether it be in input or final product markets. Cost information to the regulator can be limited and confused between different production stages and there is potential for disincentive problems, depending upon the regulatory mechanism adopted. The dynamism of many industries can also present a pricing dilemma making it impossible to precisely regulate prices on a day-to-day basis. For example, when prices are capped, there will be problems of quality since the monopolist stands to gain by

reducing quality of inputs supplied to competitors (Forsyth, 1992).

The other major, and obvious problems with any form of regulation, is the cost for all parties involved. Quite simply, the costs may not be worth incurring and regulation may fail in its efforts to correct for market failures but instead create other problems and distort incentives.

Additional to the above-mentioned problems associated with regulation, recent developments in economic theory suggest that market failure from excessive use of market power can be avoided or at least mitigated. 'Contestable Markets' theory proposes that even in the face of significant economies of scale and the prevalence of natural monopoly characteristics, there are strong tendencies which produce efficient pricing and output decisions. This theory has been developed by theorists such as William J Baumol and advocates that when entry barriers are low, the natural monopolist will be constrained by the potential entry of competitors who would contest the monopolised market unless output were kept high and profits kept low. It is indeed these ideas which lie behind 'light-handed' regulation.

Contestable markets theory also argues that potential rivalry can enforce a strong discipline on the monopolist to maintain a high level of research and development and to undertake rapid innovation to protect their market dominance. In this sense, the threat of potential competition may have a similar effect to actual competition.

Such new theory has recognised that where increasing returns exist, various types of government intervention to correct for monopoly market failure, can depart from a theoretically efficient outcome, whilst actually seeking to approach it. It is widely accepted that stronger competition, whether through new entry or the abandonment of previous anti-competitive arrangements, has a significant impact in the strive towards greater efficiency in the long term (Johns, 1992). However, many perplexing issues remain unresolved. Some industries may require some form of regulation to remain, if only during a transitional phase to avoid a small number of either publicly or privately owned incumbent firms retaining much of the market power they previously enjoyed.

The core problem then, is how to design efficient regulatory mechanisms which will foster progress towards greater competition and improved efficiency. Resolution of this problem entails further consideration on issues such as vertical separation of productive inputs and price-cap and rate of return arrangements. The transition towards deregulation has brought with it a serious reconsideration of the functional role of competition policy in regulatory reform and has led to a questioning of the need for regulation in 'essential facility' industries.

d) Telecommunications access in New Zealand

New Zealand's path towards deregulation of telecommunications networks is unique. The transformation from a State owned and regulated monopoly, to an industry subject to full and unrestricted competition in all areas has occurred rapidly, as discussed in Chapter 4. Such a transformation is unprecedented by other countries.

Although it has been almost a decade since deregulation of the industry, many impediments and constraints to the development of open and effective competition have been encountered. These arose essentially because although deregulation removed existing statutory entry barriers associated with State ownership, the industry became confronted by existing non-statutory constraints on competition due to the 'essential facility' network being sold with Telecom to private interests. It is crucial to this research to now examine the concept of 'essential facility' as it applies to the telephone network. It is the fact that the local telecommunications network does possess 'essential facility' characteristics which forms the core of the access problems and difficulties in that industry due to the difficulties associated with a vertically-integrated natural monopoly.

In the telecommunications context, the 'essential facility', over which access is sought, is the 'local loop' which is owned by Telecom. Any competitor who seeks entry to the New Zealand telecommunications market also wishes to provide service in the same downstream market as Telecom. Competition issues subsequently arise because the new entrant is essentially a customer for access to the 'essential facility', that is, the 'local

loop', whilst at the same time being a competitor with Telecom in a downstream market for the final good or service. In other words, a competitive dilemma arises because any potential competitor could in theory, be at the mercy of the owner of the 'local loop' with regard to the conditions for access to that vital input.

Although it is indeed technically possible for a competitor to construct a parallel system to Telecom's PSTN, there is insufficient traffic to justify the investment and hence the PSTN can be defined as an 'essential facility' for the purposes of competition law. The PSTN is therefore vital in the sense that a user is solely dependent upon access to that facility or input, in order to operate in business.

It was recognised at the time of deregulation that certain parts of the telecommunications industry exhibited, at least to some degree, elements which characterised natural monopoly due to the non-feasibility of duplication. A natural monopoly is said to exist in an industry when it is more economic for one firm to produce total industry output due to the existence of technological and demand characteristics which would not permit financially feasible and long-term sustainable entry by other firms. When considered in the context of the telecommunications network, substantial parts of the local loop, servicing both rural and residential markets, can be considered as natural monopolies due to the dependence upon access by competitors to these natural monopoly parts of the network.

The government's initial desires for open competition in New Zealand telephony were threatened by these natural monopoly characteristics. Real potential existed for technological advances and changes in demand to erode much of the natural monopoly environment but these alone would not permit long-term effective competition to develop. The government recognised from the outset its regulatory role in the promotion of competition and hence undertook to provide protection of consumers in monopoly markets, and to ensure the prompt development of competition in non-monopoly markets. This endeavour is explained in the Ministry of Commerce's statement that (Ministry of Commerce, 1989, p.11):

Elements of natural monopoly are evident in the provision of local services for residential and small business consumers. Economies of scale and scope act as a barrier to facilities-based entry because there is insufficient traffic to justify the sunk investment, which is primarily cables in the ground. The lack of competition in many other areas of the telecommunications market in the absence of fair and reasonable interconnection.

The most vexing issue of the typical competitive access problem thus arises in New Zealand, as well as overseas, when new competitors have attempted to enter the industry after deregulation and privatisation. This problem occurs when competitors seek to utilise an 'essential facility', denial of access to which would constitute a foreclosure to competitors and render fruitless, any attempts to compete.

Obviously, the price which is set for access is a strong determinant of the quality and nature of competition between the user and the owner in the downstream market. If the access price is too high, the user's ability to compete solely on the basis of its relative merits will be impeded. Conversely, if the access price is too low, the owner's ability to compete solely on the basis of its relative merits will be impeded. Therefore, this dilemma dictates that the new entrant cannot simply enter the industry and expect the competitive process alone to determine who is the more efficient supplier. It is this dilemma which has emerged as the crucial issue to be addressed by the regulatory framework.

3 'LIGHT-HANDED' REGULATION

a) The Background

For over a decade now, New Zealand has been involved in a process of corporatisation, deregulation and privatisation of State owned businesses, part of a general market liberalisation programme which has succeeded in transforming the economy from one of the most heavily regulated, to one of the least regulated in the world. 'Light-handed' regulation was described by New Zealand's Minister of Communications in December 1991 in the following terms:

The Government sees competition as the best regulator of telecommunications markets. Accordingly, there will continue to be no statutory or regulatory barriers to competitive entry into telecommunications markets in New Zealand.

To maintain the conditions of effective competition, the Government places primary reliance upon the operations of the Commerce Act 1986. In particular, it relies on the enforcement of the statutory prohibitions against anti-competitive practices, including misuse by any person of a dominant position in a market and the prohibition against business acquisitions which create or strengthen dominance. The following supplementary measures will continue to apply:

- a) Telecommunications (Disclosure) Regulations 1990; and
- b) Telecommunications (International Services) Regulations 1989¹.

If it proves to be necessary, the Government will consider the introduction of other statutory measures or regulation. It will take particular care to ensure that it is not seen to be acting merely to enhance the commercial position of one firm or group within society at the expense of others.

A crucial feature of the State Owned Enterprise programme was the government's intention to subject each State Owned Enterprise to competition. Statutory protection for each State Owned Enterprise was removed, for example, s.3 of the *Telecommunications Amendment Act 1988* repealed the provision under the *Telecommunications Act 1987* which made it illegal for any person other than Telecom Corporation to establish or operate a telecommunications network. Removal of all protection was considered as an essential pre-condition to the subsequent privatisation of the State Owned Enterprise.

Any possibility of private monopoly abuse was intended to be statutorily controlled by the country's competition or anti-trust legislation. It was on the strength of the government's expectation that competitive forces in the market would prevent monopoly abuse and their general dislike of heavier forms of regulation, that the politicians sought to dispense with all but 'light-handed' regulation. Support for this came from the claim that competition or anti-trust policy originates from the basic assumption that competitive forces are superior to other mechanisms in allowing more efficient allocation of resources.

¹These have subsequently been replaced by the Telecommunications (International Services) Regulations 1994

b) Commerce Act 1986

The enactment of the *Commerce Act 1986* was simply a continuation of the government's pursuits to create a fully competitive market place and seen as necessary to safeguard competition in the newly deregulated economy, and to provide a basis for 'light-handed' regulation. In his introduction of this Bill on 11 June 1985, the Minister of Commerce, David Caygill, said (NZ Parliamentary Debates, Vol.463, p.4681):

The Bill represents a key part of the Government's policy to improve performances in the economy and to restore and maintain long term growth. As its long title states, the purpose of the Bill is to promote competition in New Zealand markets. By doing so the Bill will ensure that when New Zealand moves away from Government regulation of markets, that position will not be replaced by anti-competitive behaviour by individual companies or groups of traders. The Bill is part of the Labour Government's programme for economic recovery. It will ensure that the conditions for workable and effective competition exist and that the benefits of increased economic efficiency and growth are enjoyed by all members of the community, including consumers.

Despite opposition from both the National Opposition and the New Zealand Business Roundtable, the *Commerce Act 1986* came into force on 1 May 1986. Whereas the earlier *Commerce Act 1975* had been modelled largely on British competition legislation, the new Act closely followed the *Australian Trade Practices Act 1974*, which itself embodies many of the principles of the United States *Sherman Act 1890*.

It is evident in the Act's long title which pronounces it to be "An Act to promote competition in markets within New Zealand", that competition is to be pursued as an end in and of itself, and not only as a means of achieving some further end such as consumer welfare or economic efficiency. Although it says that, as the interpretations have evolved, the ultimate goal is now clearly economic efficiency. Competition is only preferred if it promotes economic efficiency, otherwise competition can be overridden for mergers and restrictive practice through an authorisation.

As noted by the Court of Appeal, "It is based on the premise that society's resources are best allocated in a competitive market where rivalry between firms ensures maximum efficiency in the use of resources" (*Tru Tone Limited v Festival Records Retail Marketing Limited* (1988) 2 NZLR 352, p. 358).

Both the New Zealand *Commerce Act 1986* and its Australian counterpart are designed to prevent:

- i) competition being artificially constrained by industry participants through restrictive trade practices;
- ii) the acquisition or strengthening of an undesirable degree of market power through business acquisitions; and
- iii) the use of a dominant market position for the purpose of lessening competition.

This Act then, essentially evolved out of the widespread concern about the potential for anti-competitive conduct of large firms in the small New Zealand economy. In response, it sought to provide a framework for competition in all markets, including those composed - until deregulation - of government owned monopolists. Such firms are required not to behave abusively towards others (see iii above).

The Act made significant changes both to the substance of New Zealand trade practices law and to the machinery for its enforcement. In essence, it adopted a more unequivocal competition and market philosophy, simplified enforcement procedures through the Commerce Commission, and provided direct court access to anyone who wished to ensure the enforcement of its anti-competitive conduct prohibitions. In addition, it introduced a general prohibition on arrangements which substantially lessened competition, replacing the multi-faceted objectives by the promotion of competition as a goal.

c) 'Light-handed' regulation of public utilities

The New Zealand government's response to the challenge of public utility regulation was its pioneering 'light-handed' regulatory framework which encompasses a mix of the following elements, not all of which are applied in any particular industry at any one time (Bollard & Pickford, 1995):

- i) The reduction or elimination of statutory entry barriers which had existed under the traditional government department structure, in order to encourage the entry of new participants in a monopolised industry.

- ii) The separation of the core natural monopoly network from the contestable portion of the market combined with the general encouragement of competition in that portion. For example, in electricity generation, the transmission network has been separated from the wholesale and retail sectors.
- iii) With regards to the networks which were sold complete with their original owners instead of being separated, an obligation exists under s.36 of the Act for the incumbent monopolist operator to provide access to 'essential facilities' on reasonable terms. To fail to do so would place the incumbent at risk of breaching s.36 by restricting competitors.
- iv) The promotion of competition from technological innovation or substitute goods. Industries that were traditionally characterised by regulated monopoly, for example NZ Rail who once monopolised the long distance transport industry, have been subjected to increasing competition from road and air freight. In other industries such as telecommunications, the emergence of new technologies such as videophone, and more recently cable television, is gradually undermining the advantages of network ownership.
- v) The imposition of specific operating and social obligations, for example, safety requirements and equal access guarantees, has occurred in some of the privatised companies such as Telecom and electricity distribution companies. The government has, in some cases, retained a 'Kiwi Share' which it uses to prevent changes to the company's Articles of Association. This enables the government to exert a certain degree of pressure with regard to commercial operations. For example, the Kiwi Share Obligation requires Telecom to supply both urban and rural residential services at the same price.

- vi) The government imposition of price control measures is also a possibility upon the recommendation of the Commerce Commission in order to encourage competitive behaviours. However, despite the availability of this measure under *Part IV* of the *Act*, its imposition would essentially represent a reintroduction of government controls at odds with the pursuit of economic liberalism and is thus seen as a last resort if all other measures described above fail to achieve the overall goal of effective competition in the market under consideration. The threat alone of such may be useful, as in the recent Clear and Telecom local access interconnection agreement.
- vii) The imposition of information disclosure regulations on operators of natural monopolies, initially in electricity and telecommunications, to enable the private monitoring of participant behaviour, and hence action under the provisions of the *Commerce Act*. The disclosure regulations are designed to facilitate transparency, benchmarking and industry entry.

The New Zealand government has chosen to deal with access to such 'essential facilities' or natural monopolies by relying primarily on *s.36* of the *Commerce Act 1986* in combination with the threat of the price control mechanism contained in *Part IV* of the *Act*.

These elements have enabled the government to encourage the pursuit of competition in deregulated, and in many cases fully privatised industries. This regime characterised by the government's 'arms-length' influence has been classified by many writers, for example, Patterson, Savin and Davies (1995), as 'non-regulation' and has led to the widespread dismissal of the term 'light-handed' regulation as a misnomer. Its success or failure is influenced strongly by the ability of *s.36* to achieve effective competition.

The dealing with the unilateral use of excess economic power is provided by *s.36* which specifically prohibits a firm that is dominant in a market from using that dominance for

anti-competitive purposes whether it be in that or any other market. Prohibited purposes cover:

- i) Restricting the entry of any person into that or any other market; or
- ii) Preventing or deterring any person from engaging in competitive conduct in that or any other market; or
- iii) Eliminating any person from that or any other market.

This last provision is the Act's principal safeguard against the exercise of monopoly power to the detriment of existing or potential competitors as it forms the key element in 'light-handed' regulation.

d) The goal of competition policy

In instituting the *Commerce Act 1986* as the major element of New Zealand's regulatory framework, it was presumed that litigation and arbitration would resolve disputes where negotiation fails. This approach remains unique in the world because in all other jurisdictions a specific industry regulator is relied upon for dispute resolution.

In May 1988, a review of the *Commerce Act* was initiated by the government which culminated in a discussion paper issued by the Department of Trade and Industry (which later became the Ministry of Commerce), in August of that year. It was followed by a Ministry of Commerce report of the submissions received and on 12 December 1989, the *Commerce Law Reform Bill* was introduced. This Bill instituted various minor and technical changes but in essence, it confirmed the major provisions and concepts of the original Act.

However, this confirmation in late 1989, came only after the Ministry had survived a strong attack on the foundations of the Act, namely, the objective of maintaining competition. The NZBRT was at the forefront of this attack and argued that the overall objective of the Act should be the pursuit of economic efficiency (NZBRT, 1989).

Dr Douglas Greer, a visiting Professor of Economics from San Jose State University in California, perhaps came to the government's rescue and argued in favour of competition as an objective in and of itself. His conclusion in that paper was that (Greer, 1989, p.26):

As a goal for competition policy, maintaining competition is a rather nebulous ideal. In some ways this is a serious handicap. Yet a major reason for the imprecision is breadth of scope which has its advantages. Workable competition encompasses a wider range of possibilities than static efficiency because it concerns structure and conduct in their own right as well as static performance, and it can also be stretched to reach dynamics as well as statics.

In particular it can be argued that maintaining competition simultaneously advances consumer welfare, fosters distributive equity, and promotes other ends, including static efficiency, to such a large degree that maintaining competition may be considered a multi-purpose goal serving several valued ends fairly harmoniously.

The debates over which goal was the most appropriate to pursue, concluded in the retention of competition as an end in itself, and by the Ministry of Commerce that efficiency was very difficult to define and that economic theory purports that in most circumstances, efficiency will result from the promotion of competition (Ministry of Commerce, 1989).

It became obvious that the link between competition, being the conduct, and economic efficiency, being the performance, was not universal. However, the focus on competition as an end in itself was seen as more pragmatic. Despite this retention of competition as the focal point, a considerable body of opinion remained which did not favour the protection of competition for competition's sake. The Commerce Commission's role in determining the public benefit of conduct was thus broadened with the addition to the Act of s.3A in 1990 which stated that (*Commerce Amendment Act 1990*):

where the Commission is required under this Act to determine whether or not, or the extent to which, conduct will result, or will be likely to result, in a benefit to the public, the Commission shall have regard to any efficiencies that the Commission considers will result, or will be likely to result from that conduct.

Upon further review in 1992, officials came out in favour of efficiency rather than competition and Cabinet approved changes to the Act, but they were never introduced to Parliament.

4 AUSTRALIA'S MORE 'HEAVY-HANDED' APPROACH

Given the continuing debate over the effectiveness of 'light-handed' regulation in New Zealand telecommunications, it is helpful to draw upon the contrasting framework which has been adopted in Australia.

a) The Background

On issues of telecommunications deregulation, New Zealand remains poles apart from its trans-Tasman neighbour. While the New Zealand government took one huge step from full-blown intervention and control to a 'light-handed' regulatory framework, the Australian government embarked upon the path to deregulation at a far slower pace.

Despite the ultimate aims of greater industry performance and efficiency being the same, the Australian telecommunications industry is subject to interventionist regulation in the form of an industry-specific body. The *Australian Telecommunications Act 1991* established which particular industry members could compete, as well as setting the rules for, and initial prices of, interconnection. In addition, the Act provides for an industry-specific regulator, Austel, to fulfil a role as watchdog and settler of any industry disputes which may arise. In regard to interconnection issues, the *Telecommunications Act 1991* contains four crucial features:

- i) There is an obligation on telecommunications suppliers to allow other suppliers to connect up with their networks. This contrasts with New Zealand's situation whereby any refusal by a supplier to connect another supplier to its networks, must be tested in the courts.
- ii) There are government established economic guidelines which dictate that the basis for setting the interconnection price must be 'cost necessarily incurred'.
- iii) The suppliers and prospective suppliers in the industry are obliged to negotiate a commercial agreement. Either party to a negotiation is

entitled to request Austel's involvement in setting negotiation frameworks and if no agreement is reached, Austel has the authority to arbitrate in order to reach a conclusive agreement against which there is no right of appeal.

- iv) The Universal Service Obligation (or Kiwi Share Obligation in the context of New Zealand), remains totally separate from interconnection issues. The supplier who holds the responsibility for the Obligation (in Australia's case, Telstra) is informed by the government how to calculate the costs incurred from having to supply everyone, and Austel ensures the accuracy of the calculations. Then all suppliers are required to pay the incumbent in accordance with the formula, based on the volume of traffic each one carries.

Former Clear general manager and now Austel board member, Neil Tuckwell, strongly supports Australia's regulatory approach to telecommunications, claiming that "there's no doubt New Zealand had a head start but Australia is catching up rapidly and the level of competition is increasing". Tuckwell also claims that one lesson he learned from his time with Clear was that the Courts are not the place for solving commercial matters. "It's a slow and expensive process, and in a fast-moving business like telecommunications, where you often have contention, it is important to have the disputes resolution process moving quickly" (cited in *Computerworld New Zealand*, 1 August 1994). Telecom on the other hand, argue that the judicial process is far superior to compulsory arbitration.

One of New Zealand's major arguments against adopting a similar approach of appointing an industry-specific regulator, is the cost. Tuckwell disagrees that the New Zealand government is too small to support a transitional regulatory body and instead advocates such a move because he claims that the cost should be set against the enormous cost of alternative industry dispute resolution. As with any consideration of a regulatory structure, there are obvious costs involved which must be weighed against

the benefits which are expected to accrue. In addition to actual monetary costs, there are also related costs in terms of time as demonstrated by the lengthy court battles in New Zealand.

The Australian government has recognised that their equivalent of New Zealand's s.36 of the *Commerce Act 1986*, namely s.46 of the *Trade Practices Act 1974*, is not the appropriate mechanism to be applied to the access issues of 'essential facilities'.

Following a recommendation in the Hilmer Report which resulted from an Independent Committee of Inquiry into A National Competition Policy, an alternative mechanism has now been incorporated into legislation.

That Committee concurred with the already widely accepted knowledge that competition in some natural monopoly industries such as gas distribution, and electricity transmission was not economically practical due to the high sunk costs involved in replicating the necessary infrastructure. Therefore, the Report recognised that access to those facilities by competitors in upstream or downstream markets was crucial if consumers were to benefit from lower prices and greater efficiencies. A potential entrant should therefore be allowed to negotiate access with the back-stop of a legally enforceable regime permitting access at a fair price in order to promote efficiency. Such a framework would then still leave the possibility of a new entrant building its own infrastructure if demand required it and if it became economically feasible at some time in the future.

5 CONCLUSION

There is no doubt that New Zealand's 'light-handed' approach to public utility or 'essential facility' regulation is unique and as such as prompted much speculation concerning the effectiveness of its reliance on general competition legislation.

The government's objective in applying this 'light-handed' framework to the telecommunications industry was to encourage competition by imposing constraints on

the market power of Telecom as the incumbent monopolist by, for example, the information disclosure regulations and provisions of s.36.

Clearly, the primary object of any regulatory or public utility access regime should be to create a competitive environment in upstream or downstream markets. This would be consistent with the object of the *Commerce Act 1986* to promote competition in markets in New Zealand.

The recent combined New Zealand Ministry of Commerce and Treasury Discussion Paper (1995), presents the implications of the Privy Council's decision² for interconnection policy in network industries and for the role and operation of the *Commerce Act*. While some criticism of the current regime has been voiced, the official view remains that "there is little evidence to suggest that the 'light-handed' approach has failed in the telecommunications market" (Belgrave, 1995, p.14). However, the experience of 'light-handed' regulation in New Zealand telecommunications which follows in Chapter 7 prompts some major doubts as to the effectiveness of this regime to promote competition.

²This decision is examined in the following chapter.

CHAPTER 7 NEW ZEALAND'S EXPERIENCE OF 'LIGHT-HANDED' REGULATION

1 INTRODUCTION

This chapter examines New Zealand's experience of 'light-handed' regulation in telecommunications. Section 2 details the background towards competition in the New Zealand telecommunications industry. The Commerce Commission's 1992 Industry Inquiry is discussed in Section 3, in particular their opinion on the effectiveness of the disclosure regulations and s.36 of the *Commerce Act 1986* in telecommunications. Section 4 then follows the Clear-Telecom local access battle to the High Court in which Telecom's pricing rule received support and the subsequent appeal to the Court of Appeal in which the High Court's findings were overturned. The Privy Council judgement is then discussed as it was this decision which opened a whole new 'can of worms' in New Zealand regulatory issues with the reinforcement of Telecom's pricing rule. This chapter concludes with an assessment of the battles over local access in Section 5.

Overall, the application of 'light-handed' regulation to the dynamic telecommunications industry provides a good test of the effectiveness of the policy. The overview in this chapter draws out a number of strengths and weaknesses which subsequently have been considered in the August 1995 Ministry of Commerce Discussion Paper on interconnection.

2 BACKGROUND

When designing a regulatory framework, a government's role is to do so in such a way as to facilitate the development of efficient competition, and to restrict the potential for abuse of monopoly or market power. The pursuit of these goals has motivated governments of different countries to design different forms of regulation, which have been labelled as either 'light-handed' or 'heavy-handed' according to their relative control mechanisms.

New Zealand's use of a 'light-handed' regulatory framework for application in the telecommunications industry has the objective of encouraging competition by placing constraints on the market power of the incumbent by, for example the information disclosure regulations and provisions of s.36. The crucial issue with regards to the emergence of competition is undoubtedly the interconnection terms to the incumbent natural monopolist's network. In his unveiling of the new Labour Government's deregulation policy, the Minister of State Owned Enterprises, the Hon. Richard Prebble, commented that (December, 1987):

"The Government recognises that for effective competition with Telecom to occur competitors must be able to negotiate with Telecom for fair and reasonable access to Telecom's network. The Government believes and expects Telecom will formulate an interconnection policy which allows an efficient competitor to have a fair chance of competing with Telecom. The Commerce Act provides a set of rules which place restrictions on the abuse of dominant market positions. If there is evidence that Telecom is acting anti-competitively and that the existing law is insufficient, pro-competitive measures will be considered. The Government, however, believes that it is important that the industry be permitted to develop with minimal regulations so that an objective assessment can be made about the performance of Telecom, the industry and the adequacy of existing competition laws".

However, despite the government's intentions for swift development of competition within this 'light-handed' framework, the telecommunications sector has been fraught with dispute over interconnection terms and conditions. For example, disputes have emerged as to whether or not (Ministry of Commerce & Treasury, 1995):

- i) access to Clear's network would require a separate access dialling code;

- ii) Clear's customers would have access to Telecom's seven-digit National Numbering Plan;
- iii) Clear's customers would be listed in Telecom's white and yellow pages;
- iv) Clear and other service providers would be allocated '0800' numbers in order to provide a toll-free service;
- v) Telecom would make available certain intelligent network features to BellSouth's network (such as international roaming);
- vi) Clear would be required to make a contribution towards the costs incurred by Telecom as a result of the Kiwi Share Obligation; and
- vii) Telecom could lawfully insist upon an access price given by the Baumol-Willig rule.

There have also been various other disputes arising from specific contractual relationships between Telecom and Clear which include the availability of particular numbers or access codes, additional interconnection points, and interconnection access charge adjustments. It is the two final contentious issues mentioned above which have reached the furthest stage of dispute, namely the Privy Council. Let us now describe the experience of 'light-handed' regulation in telecommunications over the period 1990-95.

3 INDUSTRY INDUSTRY

Motivated by a concern that effective competition had not developed as quickly as had been envisaged following deregulation, the Commerce Commission began an inquiry into the New Zealand telecommunications industry on 13 November 1991. The volume of

complaints were significantly greater in telecommunications than in any other industry and this served to exacerbate the degree of concern amongst government officials and potential competitors. The terms of reference for the industry inquiry were (Commerce Commission, 1992, p.2):

- i) a non-exhaustive review of what are the 'telecommunications markets';
- ii) an analysis of any obstacles which may have delayed or prevented competitive entry into any of these markets;
- iii) an examination of the helpfulness or otherwise, of the telecommunications disclosure regime in removing these obstacles.

The Report concluded that the industry consisted of four broad segments:

- i) "Network Services" which involved the use of or access to the network, including the standard local and long-distance telephone services and mobile telephones.
- ii) "Value-added Services" which represented an enhancement of network services. For example, the '0800' and '0900' services.
- iii) "Customer premises equipment" which comprises equipment to gain or make use of the network. For example, answer phones, facsimiles, pagers, etc.
- iv) "Other" which covered servicing and cable supply.

The Commission's Report then presented the entry conditions, defined as those conditions that a new firm would have to satisfy or fulfil before being able to supply, in the three major segments. It was no surprise that the need for prompt interconnection to Telecom's network on commercially realistic terms was identified as a major obstacle which had, at that time, proved to be a lengthy and difficult negotiation process.

In addition, a number of other obstacles were identified including that which arose due to Telecom's control over the allocation of telephone numbers. Any new entrants who lacked a 'point of interconnection' in a local calling area would depend on Telecom transmitting calls through its own tolls network on sufficiently favourable terms.

Telecom's insistence on additional digits in the form of access codes for calls initiated in a competitor's network, also presented an obstacle. Telecom's practice of 'bundling' products and services also had the potential to foreclose opportunities for competitors who also supplied those products and services. Yet another obstacle was the Kiwi Share Obligation imposed upon Telecom which had the potential to distort the entire market.

That one part of an otherwise deregulated industry was subject to effective price control, created artificial pricing signals and prompted concerns over cross-subsidisation and cost recovery by Telecom.

a) Disclosure Regulations

Serious doubts have been raised as to the effectiveness of the information disclosure regulations in making transparent, the performance of businesses with market power. The *Telecommunications (Disclosure) Regulations 1990*¹ require Telecom to publish quarterly information relating to standard interconnection services and prices so as to facilitate informed decision making by customers, competitors and potential new entrants. Two major problems have been identified concerning the effectiveness of these Regulations. Firstly, Telecom was under no strict obligation to offer these 'standard' published terms to a potential competitor, therefore providing them with a means by which to stall or deter competitive entry. Secondly, Telecom was under no obligation to disclose all relevant terms under which its own subsidiaries were allowed to interconnect. This lack of requirement for 'across-the-board' treatment thereby created the possibility of discriminatory access charging. For example, if reduced prices to Telecom's subsidiaries were not framed as a 'discount' in terms of the Regulations, then they could easily be disguised, despite constituting a form of price discrimination.

¹SR 1990/120 These were passed on 28 May 1990 pursuant to s.5c of the *Telecommunications Act 1987* and were amended on 6 December 1993 to require Telecom to publish the full text of its interconnection agreements.

The Commerce Commission considered that the information disclosed by Telecom as required by the Regulations was insufficient to assist in the removal of any of the obstacles to the development of competition. The information itself was not seen as the problem, but rather such matters as the terms and conditions of supply due to Telecom's ownership and control over almost all of the essential facilities required for the final product. The fact that Telecom itself competed against all those business suppliers to which it was also sole supplier of crucial inputs, under no industry-specific regulation, effectively plunged it into the role as *de facto* regulator. In short, the Commerce Commission's conclusion was that "the disclosure regulations are of virtually no assistance in removing obstacles to the development of competition in telecommunications" (1992, para 437). The information disclosed under the Regulations was considered too broad and general to be of use in leveraging entry through legal proceedings under the *Commerce Act 1986*.

b) The Commerce Act

The effectiveness of the *Commerce Act* was from the outset severely limited by its generality and lack of special design to cater for natural monopoly industries such as telecommunications (Commerce Commission, 1992, para. 435):

Only one provision, s.36, deals with unilateral exploitation of market power. Section 36 cannot really provide for remedies for denial of supply or impose competitive terms and conditions of supply without requiring the Courts to stand in the shoes of business people and make business decisions. Even with, at the High Court level, lay expertise on the bench, this is a formidable task.

The Commission saw that the state of competition had unevenly developed in terms of the industry segments it had defined. Certain segments, such as customer premises equipment, exhibited strong elements of competition and other segments such as long-distance telephone calling, showed real signs that the process towards competition was well underway. Nonetheless, competition was far from widespread, particularly in local calling, '0800' and '0900' services and mobile telephone services.

The involvement of the judicial system in resolving complex commercial issues in such a dynamic industry as telecommunications prompted serious concerns over reliance on the

Commerce Act. In addition, the Commerce Commission's powers as prescribed under the Act are confined to resorting to Court proceedings or to recommending controls in relation only to price, and not to other supply terms and conditions. In short, the Commission concluded that (Commerce Commission, 1992, para. 437-438):

The Commerce Act may be some help - but of a protracted, expensive and uncertain kind, and with definite limitations on its scope. The resulting picture in the Commission's view is not that of an industry subject to "light-handed" regulation. In the absence of competition (the best regulator of all), the gap is filled by self-regulation. More precisely, in telecommunications, in relation to many important segments and most of the critical inputs, Telecom is the *de facto* regulator. Telecom owns or controls the key factors and so Telecom makes the rules and other parties in the industry, by and large, play by them.

This Report effectively constituted a strong condemnation of the government's approach to deregulation in telecommunications and cast strong doubts on the application of general competition legislation to this industry. The Minister of Communications publicly denounced the Report as 'superficial' (*Otago Daily Times*, 7 July 1992, p 7). Telecom's immediate reaction was a High Court challenge of the Commission's authority to conduct such a general inquiry. The High Court concluded that (*Telecom Corporation of New Zealand Ltd v Commerce Commission* 1993, 4 NZBLC, p.103,057):

What [the Commission] cannot do is conduct a formal inquiry contemplating a public report unrelated to a particular complaint or transaction or event the subject of its specific functions and powers, purporting thereby to be entitled to gather information either voluntarily or if necessary by recourse to its statutory powers. Only in this respect is it restrained.

The Commission appealed to the Court of Appeal which concluded that the inquiry had been beyond the Commission's authority (*Telecom Corporation of New Zealand Ltd v Commerce Commission* 1993, 4 NZBLC, p. 103,057):

There is a substantial difference between, on the one hand, the assembly of information to enable the Commission to perform its functions effectively and, on the other, the conducting of an inquiry and the publication of a report which canvass and criticise the operation of the disclosure regulations and the conduct of the main operator in the industry.

In essence, the Commission's inquiry showed that s.36 is insufficient to provide any effective mechanisms to determine issues regarding interconnection. This has resulted in widespread discontent voiced by both Telecom and Clear, with the policy of 'light-handed' regulation as it has been implemented in network industries in New Zealand such as telecommunications. Further evidence for that finding is the subsequent lengthy litigation between Clear and Telecom concerning interconnection to the local loop. However, the recent agreement breaks the impasse allowing any new entrants to now negotiate with either Telecom or Clear, with the recent agreement providing the model for others to follow in future negotiations.

4 CLEAR V TELECOM

a) The High Court

It may be considered entirely practical and rational for the incumbent monopolist Telecom, given that it is required by statute to share its network with competitors, to do so on terms which favour itself over the new entrants. In *Clear Communications Ltd v Telecom Corporation New Zealand Ltd* 1992 5 TCLR, p.166, the High Court was confronted with the task of deciding whether Telecom's proposed interconnection agreement with Clear based on the Efficient Component Pricing Rule, which will be examined in detail in Chapter 8, was on such unfavourable terms as to constitute a breach of s.36 of the *Commerce Act*.

Clear, Telecom's competitor in long distance tolls, sought interconnection to the Telecom network in order to provide a rival local telephone service. Early negotiations had failed when Telecom rejected Clear's proposal, which was, in essence, free access. Their proposal involved callers from Telecom's network paying the appropriate Telecom local call charge while Clear's customers who directed calls to Telecom's network would pay the appropriate Clear local charge. Each network would charge and retain revenue from its own customers and there would be no charge for calls terminated in each other's networks. If the net result favoured one supplier, then a settlement agreement could be

reached until the imbalance was eliminated. Clear also sought total transparency of its network in the sense of there being no dialling codes for subscribers to access its network.

This proposal encountered stiff reaction from Telecom as it demanded payment for access to and use of *its* network, and that access to Clear's system was unnecessary in Telecom's operations. The High Court found that this "failed to grapple with the concept of a fully fledged up-and-running competitor offering toll service and a network of customer loops that Telecom would need access to for its own network to have ubiquity of reach" (*Clear Communications Ltd v Telecom Corporation New Zealand Ltd* 1992 5 TCLR, p.188). The Court interpreted Telecom's general approach to negotiations "as a misguided refusal to treat Clear as a full-blown network competitor and an insistence on treating it as if it were merely a large PABX customer which must pay ordinary rates for connection to the network" (*Clear Communications Ltd v Telecom Corporation of New Zealand Ltd* 1992 5 TCLR, p.176 and 187).

Telecom's early proposals had also included the requirement for an 'access levy' from Clear to contribute to the Kiwi Share Obligation imposed upon it under the initial sale agreement. Under this Obligation, Telecom is required to provide free local calls for all residential customers, at prices commensurate with inflation. Telecom funded this Obligation by engaging in cross-subsidisation between local and toll calls and between its business and residential customers. Clear, it was argued, ought to contribute to these social obligations as another network user, but Clear dismissed the Kiwi Share as none of its concern.

Telecom subsequently changed its stance after receiving advice from two eminent American economists Professors Baumol and Willig. The charging regime was formulated on the basis of the so-called 'Efficient Component Pricing Rule' (hereafter ECPR), developed by two economists, Professors William Baumol and Robert Willig which states that (*Clear Communications Ltd v Telecom Corporation of New Zealand Ltd* 1992 5 TCLR, p.203):

The supplier of such a product component should not be forced by government intervention to receive for it less than the price that makes the supplier indifferent to whether the other components of the final product are provided by itself (that

is, the traffic is carried entirely over its own lines, from origin to destination), or whether, instead, those remaining components are supplied by others (the traffic is carried over a joint route operated in part by competitors). Specifically, the efficient component pricing principle requires (at a minimum) that the component price equals direct incremental cost of supplying the component plus contribution foregone by the supplier because of the competitor's use of the component.

In the context of this dispute, Telecom used this rule to suggest that (Clear Communications Ltd v Telecom Corporation of New Zealand Ltd 1992 TCLR, pp. 203-204):

the interconnection price reflect the incremental cost to Telecom New Zealand of supplying interconnection, including both the direct incremental cost of producing the interconnection and the opportunity cost of contribution foregone by Telecom New Zealand as a result of Clear's utilisation of the interconnection.

It then sought a contribution from Clear towards its network overheads generally on the basis of its 'opportunity costs' incurred from revenue foregone as a result of Clear's service provision. Telecom viewed this charging system as a means of incorporating the cost of the KSO into the common costs that it was entitled to recover.

Clear raised no objection to Telecom's requirement for it to contribute to the direct incremental costs which were incurred when the link between the two networks was established, but denounced the 'opportunity cost' component on the grounds that it "offends common sense; it requires Clear to underwrite Telecom's current profits and level of operating efficiency" (Clear Communications Ltd v Telecom Corporation of New Zealand Ltd 1992 TCLR, p.207). Clear's objection centred on the potential for this rule to enable Telecom to maintain any monopoly profits that may exist.

In response, the High Court accepted that this may indeed be the case, but that an access price determined in accordance with this rule, did not breach s.36 because it would not be for one of the proscribed purposes (Clear Communications Ltd v Telecom Corporation of New Zealand Ltd 1992 5 TCLR, p.217):

In the end it is our judgement that implementation of the Rule is more likely than the alternatives to improve efficient competition in New Zealand telecommunications. In that case, Telecom cannot be said to be using its position of dominance for the purpose of preventing or deterring Clear from engaging in competitive conduct in the New Zealand telecommunications

market. If the defendant's conduct is more likely than not, in light of available alternatives, to improve competition, the defendant can not be said to be in breach of the purpose requirements of section 36. It is an improvement in competition where there is an enhancement of an efficient competitive process. Effect does not necessarily imply purpose. Telecom's intent can be inferred from an analysis of the true character of the charging regime it proposed.

Armed with the Baumol-Willig model, the two parties resumed negotiations but, as expected, Clear appealed the High Court's decision to the Court of Appeal.

b) Court of Appeal Judgement

The Court of Appeal was presented with the Baumol-Willig rule almost a year later and rejected the proposition that an interconnection price based on the rule did not contravene s.36. The President stated (*Clear Communications Ltd v Telecom Corporation of New Zealand Ltd* 1993 4 NZBLC p. 103,343):

The rule would seem obviously anti-competitive and in breach of section 36 of the Commerce Act. It would amount to allowing a new entry into a market on condition only that the competitor indemnify the monopolist against any loss of custom. This would be at once an unreasonable use of monopoly power, a restriction on entry, and a prevention or deterrence of competitive conduct ... it seems to me that a substantial purpose of the monopolist in laying down such a conduct is to restrict competition so as to preserve its own position as far as possible.

Specifically, the Court of Appeal consensus that Telecom could not lawfully impose an interconnection charge that included a component of monopoly rents. In his opinion, Gault J failed to accept that "the objects of the *Commerce Act* are served by a method of pricing that secures the profits of a firm in a dominant position" (*Clear Communications Ltd v Telecom Corporation Ltd* 1993 4 NZBLC p.103,359). It was agreed that overall, the terms of interconnection were, "more onerous than could have been insisted upon in a fully competitive market and were not justified" (*Clear Communications Ltd v Telecom Corporation Ltd* 1993 4 NZBLC p.103,359). Therefore, for Telecom to insist upon them simply represented an excess use of its dominant market position and hence contrary to s.36.

The Court of Appeal recognised the importance of direct incremental costs in determining an appropriate access price but this recognition could be used as a guiding principle in the negotiations. As Cooke P observed that “it may be regrettable that the Court cannot resolve the matter, perhaps painting with a broach brush, but the Act rightly does not contemplate this. We are not a price-fixing authority” (Clear Communications Ltd v Telecom Corporation Ltd 1993 4 NZBLC p.103,344²).

Telecom’s insistence on such terms and conditions for access were no less than an outright ‘use’ of their dominant position with the purpose of denying Clear access to the market. In a commercial sense, due to the significant time delays, Telecom was the victor. In addition, Telecom had established its entitlement to *some* interconnection charge. The final words of Gault J were somewhat gloomy: “In the end if agreement cannot be reached the parties may need to arbitrate or face direct Government regulation” (Clear Communications Ltd v Telecom Corporation Ltd 1993 4 NZBLC p.103,365).

On this note, the parties were yet again referred back to the negotiating table. However, Telecom appealed to New Zealand’s final appellate Court, the Judicial Committee of the Privy Council. Clear also lodged a cross-appeal on the Court of Appeal’s refusal to allow an inquiry into damages.

c) Privy Council Judgement

The Privy Council gave judgement on 19 October 1994 which could be interpreted as a decisive victory for Telecom.

While the Privy Council did concur with the High Court that the application of the Baumol-Willig Rule did not contravene s.36, it did so on very different grounds. In contrast to the High Court’s support of the rule on the basis that its imposition did not constitute Telecom behaving for any of the purposes proscribed by s.36, the Privy

²see also Gault J p.103,364 “This Court clearly has no jurisdiction to direct negotiations nor terms for interconnection”.

Council focused instead on use. Their Lordships considered the question of use by applying the criteria provided in s.36(Clear Communications Ltd v Telecom Corporation Ltd 1993 4 NZBLC p.103,566):

Both the High Court and the Court of Appeal proceeded on the basis, with which their Lordships agree, that if the terms Telecom were seeking to extract were no higher than those which a hypothetical firm would seek *in a perfectly contestable market*, Telecom was not *using* its dominant position. In order to discover what such hypothetical terms might be it is inevitable that the parties and the court must have recourse to expert economic evidence. The Baumol-Willig rule is a closely reasoned economic model which seeks to show how the hypothetical firm would conduct itself.

The key issue was whether a rule which calculates prices as they would be in a perfectly contestable market is the appropriate formula to be used by a dominant firm in the context of the *Commerce Act* which sought to promote competition and prevent anti-competitive behaviour. Applying the Baumol-Willig Rule in the Telecom-Clear dispute was fraught with difficulty due to Telecom's virtually franchised monopoly position. Clear's continual rejection of the Rule centred on the potential that monopoly profits would be included in any access price determined by that formula. Professor Baumol had, in evidence, recognised this risk and stated that (Clear Communications Ltd v Telecom Corporation Ltd 1993 4 NZBLC p.103,356):

The bottom line is that I have conceded that on the hypothesis that there are monopoly profits, the access charge rule which includes compensation for opportunity costs would preserve those monopoly profits.

The High Court had accepted this and it was on this proposition that the Court of Appeal had found the Baumol-Willig Rule to contravene s.36. Hence, the appeal to the Privy Council yet again presented the core issue (Clear Communications Ltd v Telecom Corporation Ltd 1993 4 NZBLC p.103,566):

The principal question remains, as it always was, whether the actual or potential presence of monopoly rents vitiates the validity of the Baumol-Willig model for the purposes of section 36.

In conclusion, the Privy Council stated that(Clear Communications Ltd v Telecom Corporation Ltd 1993 4 NZBLC p.103,570):

the risk of monopoly rents has no bearing upon the question whether the application of the Baumol-Willig rule prevents competition in the contested area (p.103,569) [and

that on the true construction of the Commerce Act, section 36 does not operate to exclude monopoly rents (if any).

It was unanimously concluded that:

- i) the use of the Baumol-Willig Rule provides for competitive parity and permits the two suppliers to compete on a 'level playing field'. The application of the Baumol-Willig rule was accepted as appropriate and that over time, Clear would be in a position to compete away any of Telecom's supposed monopoly profits;
- ii) Telecom's demands for compensation of its opportunity costs was not anti-competitive because that is the charge which would have resulted in a fully competitive market;
- iii) Clear had failed to establish that its market entry would be prevented by the imposition of Telecom's charges; and
- iv) while the Baumol-Willig Rule may permit Telecom to recover any foregone monopoly rents, this would be averted by the threat of price control under *Part IV* of the *Commerce Act*.

The Privy Council's findings have given rise to widespread uncertainty as to the application of s.36 to anti-competitive conduct. It has been argued by Clear Council Jim Stevenson and John Fogarty as well as by barristers Ross Patterson and Terence Arnold, that the Privy Council's decision has weakened s.36 and that New Zealand's *Commerce Act* needs strengthening. In essence, the decision allows New Zealand courts to continue to be able to apply s.36 in a manner that is consistent with the competition objectives of the *Act*. However, when considered in the context of vertically-integrated, natural monopolies, the real potential to include monopoly profits in access pricing does exist. Their decision does, however, present a problem. The Privy Council has given the Baumol-Willig Rule credibility making it possible for essential facility owners to demand

interconnection prices which include any level of monopoly profits without fear of being challenged under s.36 of the *Commerce Act*.

5 CONCLUSION

When reviewing the litigation over the period 1990-95, one is reminded of the pessimistic conclusion of the Commerce Commission's 1992 industry inquiry that (Commerce Commission, 1992, para.238):

The Commerce Act may be of some help - but of a protracted, expensive and uncertain kind, and with definite limitations on its scope.

The experiences to date do seem consistent with this, with the local access battle being an obvious example. In October 1993, Clear's outgoing chief executive officer, Mr George Newton declared that the battle to date, had cost Clear \$8-10million in legal fees and had wasted many months in court proceedings.

Telecom too, had outlaid vast amounts in attempts at resolution, and of course, a large value must be assigned to the Commerce Commission's time and efforts for its indirect role. In addition, society in general has suffered due to the extensive use of the court's time which has diverted their limited resources away from other cases. Hence overall, New Zealand's 'light-handed' regulatory approach with its reliance upon competition law, has had its drawbacks. It is obvious that, as the Commerce Commission had predicted, the court process has been expensive and protracted. The courts have also been somewhat frustrated in their granting of relief due to their adversity to fulfil the role of a regulatory authority.

In conclusion, prior to the recent Telecom-Clear agreement, the effectiveness of New Zealand's unique 'light-handed' regulatory framework in telecommunications, with its reliance upon general competition law, had been cast into doubt. The court battles had shown that its ability to function successfully when applied to the deregulated

telecommunications market where the ownership of the network has remained with the dominant incumbent supplier, were severely constrained.

The government had envisaged such interconnection issues to emerge in the newly deregulated environment but had distanced itself from industry squabbles with its insistence that general competition law would apply. New Zealand's experience provides some useful lessons concerning the most appropriate method of achieving full and open competition in telecommunications. Obviously, the recent agreement between Clear and Telecom should be considered superior to an imposed settlement under government's powers contained within the *Commerce Act*. In particular, New Zealand's heavy dependence on the judicial system to fulfil the role of industry regulator by applying general competition law, prompts serious questions as to its effectiveness when considering the design of an ideal regulatory framework in this dynamic industry, as well as in other network industries.

CHAPTER 8 INTERCONNECTION PRICING

1 INTRODUCTION

This chapter examines the contentious issue of obtaining access to the incumbent's Public Switched Telephone Network (PSTN) which has been the major constraint on the development of competition in New Zealand local telephony. Overall we can identify with the New Zealand government's concern at the delays in reaching a settlement for local access as evidenced by the motivation for the recently-released combined Ministry of Commerce/Treasury Discussion Paper on the implications of the Privy Council decision for interconnection policy in network industries and for the operation of the *Commerce Act*.

Section 2 describes the technical aspects of interconnection in order to provide the background for the subsequent discussion on the issues involved. In Section 3, we define the 'Baumol-Willig Rule' and compare it with Kahn's 'Competitive Parity Principle', as these provide one type of pricing rule, not the only one, but the one widely cited in the court cases. The Rule is then assessed in Section 4 in terms of the claims of its ability to promote efficiency, fairness and competition. In Section 5, the three principal criticisms are presented and discussed.

Then in Section 6, we consider the claim of the Rule's general applicability and the conclusions are drawn together in Section 7.

2 ECONOMIC EFFICIENCY

Economic outcomes concern both efficiency and distribution. In the context of the provision of telecommunication services, we are essentially concerned with economic efficiency which is composed of three elements:

- i) Allocative Efficiency;
- ii) Productive Efficiency; and
- iii) Dynamic Efficiency.

i) Allocative Efficiency

Traditional economic theory holds that resources should be allocated between the production of different goods and services to match the quantities demanded by consumers, as evidenced by the price those consumers are prepared to pay. Allocative efficiency is achieved when resources are allocated such that they produce the collection of goods and services that are most highly valued by consumers. In total dollar terms, society's total net benefit from each good or service is maximised. In marginal terms, this occurs where marginal social benefit (MSB) equates with marginal social cost (MSC).

Allocative efficiency is then a process of balancing social desires and costs. The demand curve expresses the amount that consumers are prepared to pay for a product. As Bork (1978) says, it 'expresses a social ranking of wants'. Similarly the marginal cost curve represents the cost of the product, not only to the particular firm or industry but also to the community as its resources of materials, labour and capital are invested in this product at the expense of foregone opportunities to produce alternative products. If a manufacturer must pay say \$40 per ton for steel, that is the price that he must pay to obtain that resource in preference to other uses.

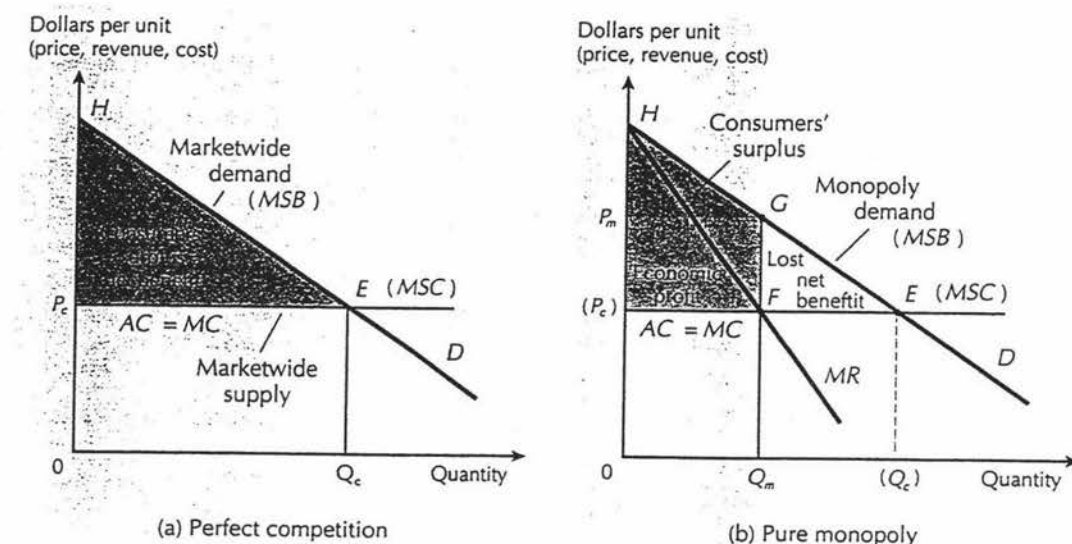
The concept is commonly illustrated graphically with a simplified market with constant costs such that $AC=MC$, and $MC=MSB$. Figure 8.1 contrasts the allocative efficiency of perfect competition in part (a) with the allocative inefficiency of pure monopoly in part (b). We define these concepts in the standard manner whereby AC is the total cost of

output divided by the quantity of output produced, and MC is the addition to total cost which results from a one unit addition to output.

FIGURE 8.1

Perfect Competition and Monopoly

SOURCE: Froyen and Greer, 1990, p.515



The perfectly competitive market price and quantity combination would be P_c and Q_c as determined by the intersection of market demand and supply. Demand reflects willingness to pay, and is taken to reflect MSB. MSC is taken to reflect the Opportunity Cost of the inputs used in alternative uses, where Opportunity Cost measures the value of the alternative outputs foregone. Hence, where the two intersect at point E, $MSB=MSC$ and represents allocative efficiency in marginal terms. In terms of total dollars, total net benefit is maximised by efficiency. The areas in Figure 8.1 tell the story. Total net benefit, area HEP_c , is the difference between gross benefit, area HEQ_cO , and total cost, area P_cEQ_cO . In this case, given the constant unit cost, society's net benefit is entirely consumers' surplus, there being no producers' surplus (surplus of price above MC). In part (b) of Figure 8.1, the monopolist maximises profits by producing OQ_m , which is clearly less than the perfectly competitive output, OQ_c , and therefore also less than the output at which allocative efficiency is maximised. Q_m is the monopolist's profit maximising output because it equates MR and MC at point F. Price is the vertical

distance OP_m or Q_mG and total dollar economic profit emerges as the shaded area P_mGFP_c .

The fact that output Q_m is too little, an inefficient result, may be shown in two ways. Firstly, in terms of dollars per unit, the MSB at point G exceeds MSC at point F, so $MSB > MSC$. This is a direct consequence of the fact that under monopoly, $P > MR$. Secondly, the total dollars representation reveals that there is a total dollar loss to society. Society's total net benefit under monopoly is the combined shaded areas of profit and surplus in part (b). This is the difference between society's gross benefit (area HGQ_mO) and society's total cost (area P_cFQ_mO). A portion goes to consumers in the form of consumers' surplus (HGP_m , recalling that P_m is the price under monopoly), while the other portion (P_mGFP_c) goes to the monopolist in the form of economic profit. This combined total net benefit, $HGFP_c$, is less than the total net benefit under competition, HEP_c , by an amount depicted in triangle GEF. Hence area GEF represents society's lost total net benefit due to monopoly misallocation, called the 'deadweight welfare loss'.

Triangle GEF is society's loss, in this case borne entirely by consumers. When the monopolist raises the price above the competitive price P_c to P_m , consumers' surplus shrinks from HEP_c to HGP_m . Part of this, P_mGFP_c , is captured by the monopolist in the form of economic profit, thus representing a transfer to producers' surplus or monopoly rent. The second lost portion, triangle GEF, is not captured by the monopolist and therefore represents a loss to both consumers and producers. In other words, the efficiency loss represented by triangle GEF is a *real* loss as the inputs whose cost is represented by FEQ_cQ_m are used to produce less desirable outputs whose value amounts to FEQ_cQ_m . In short, when a monopolist exercises market power in a market, whether it be an intermediate or final product market, less is produced than the ideal indicated by $MSB = MSC$. Such allocative inefficiency from resource misallocation reduces society's net benefit.

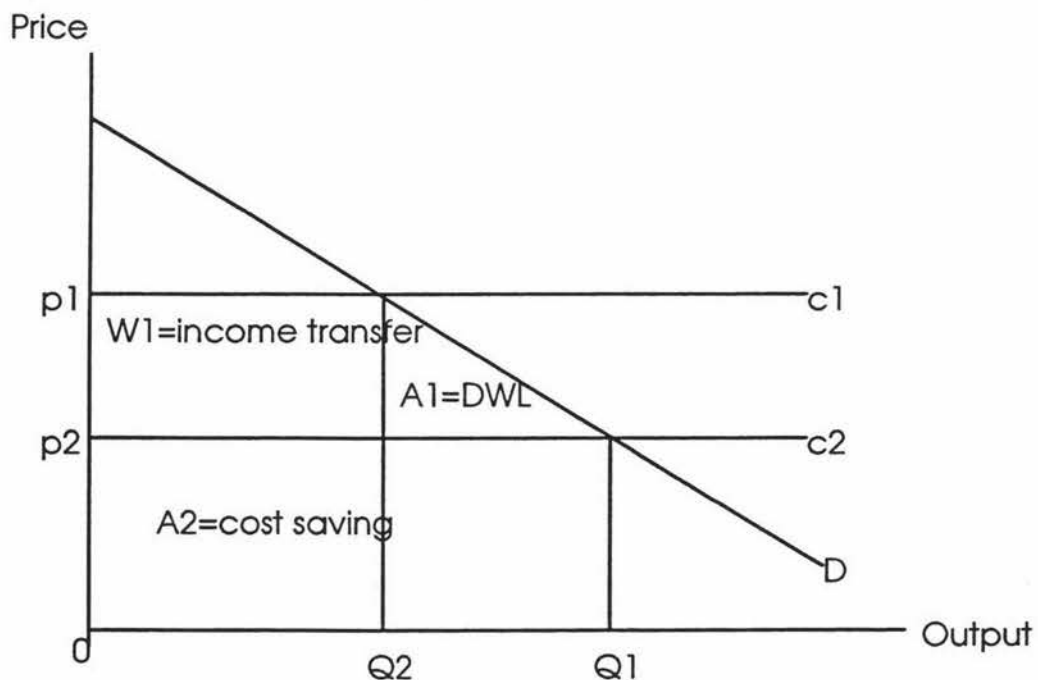
ii) Productive Efficiency

The second component of economic efficiency is the production of goods and services at the lowest possible cost, given the existing state of technology and prices of required inputs, together with the scarcity of available resources with which to use in production. Productive efficiency is depicted in Figure 8.2.

FIGURE 8.2

Productive Efficiency

SOURCE: Martin, 1994, p.314



For simplicity, we assume constant marginal costs depicted by horizontal $MC=AC$ curves. The AC of production is c_1 and to keep the analysis simple, we firstly consider the outcome in the absence of market power: $p_1=c_1$.

Suppose instead that significant market power does exist so as to allow a price increase from p_1 to p_2 . We can see from the diagram that there is a transfer of income from consumers to the producer (area W_1) and a 'deadweight welfare loss' (area A_1) as output is restricted and resources that ideally would have been used in this industry are transferred to the production of other goods and services. In addition, there is a saving

of $c_1 - c_2$ on each of the Q_2 units sold, due to the assumed reduction in production costs. This sums to a total saving of $(c_1 - c_2)Q_2$ and is depicted by area A_2 .

Obviously, the relative sizes of areas A_1 , A_2 and W_1 will depend upon the size of the price increase in the presence of market power, the size of the unit cost saving, and the price elasticity of demand.

There is a tendency to think of productive efficiency only in terms of physical or engineering efficiency, such as the number of units produced for a given input. That is only one aspect of productive efficiency. Moreover, productive efficiency involves a concept of value; an assessment not only of the size of the output but also its quality or attractiveness to consumers. It is this concept which led Bork (1978) to define productive efficiency as 'any activity by a business firm that creates wealth'. He saw productive efficiency as being measured in terms of the benefit to consumers which in turn is measured by success in the market. However, in Bork's assessment of productive efficiency, he switches the focus from the market to the firm and equates success with efficiency whilst ignoring other sources of 'success' such as market power.

iii) Dynamic Efficiency

Both of the above elements of efficiency are static elements which are measures at a single moment in time. In addition, it has to be recognised that markets are constantly changing. Technical innovations to products will move the demand curve and technical innovations in manufacturing methods will change production costs and hence move the marginal cost curve. In addition there are many other changes to the market environment - consumer tastes, fiscal measures, demographic changes, availability of resources, government regulations and so on.

The New Zealand Commerce Commission has recognised the value of dynamic efficiency¹ and considers it to be enhanced by competition rather than by monopoly-

¹Decision 221: NZ Kiwifruit Exporters Association (Inc) and NZ Kiwifruit Coolstorers Association (Inc), Wellington:CC

profit-financed research and development. As a consequence, it asserts that a loss of competitive pressure is expected to lead to reduced innovation. The importance of dynamic efficiency was reinforced in a subsequent case² in which it was stated that (High Court, 1991, pp. 102,387-388):

There is no mention of scope for competition ... in product development, in product variety and service, in greater consumer choice - yet this is a major way in which we would expect competition in such a technologically dynamic industry to take place. Moreover, it is important to stress the potential for dramatic cost and price reduction in such an industry, and to attribute significance to the pace of change that would be fostered by a more competitive market structure.

3 INTERCONNECTION

Upon reaching a commercial agreement with Telecom for the provision of toll services, Clear sought to diversify and compete in the local service market. Specifically, Clear intended to provide local telecommunications services to business users in the central business districts (CBDs) of some large New Zealand cities by constructing its own infrastructure and utilising Telecom's infrastructure for the remaining portion of the local call area. For Clear to be able to make and receive telephone calls to the entire Telecom local call area, it required access to Telecom's infrastructure. Essentially, the question to be resolved was the price, if any, that Clear should pay Telecom for access to its natural monopoly network. This requirement produced the unusual situation of competitors having to cooperate. The contentiousness of this issue is clearly illustrated by the Court battles in the industry to date, as described in Chapter 7.

The pricing of access to the local loop presents itself as the most vexing issue facing the regulatory framework, because it requires the 'essential facility' owner to supply other carriers while simultaneously competing with them in the same markets.

²Telecom Corporation of New Zealand Ltd v Commerce Commission & Ors, 1991, 3 NZBLC, pp. 102,340-390

a) Telecom's 'Essential Facility'

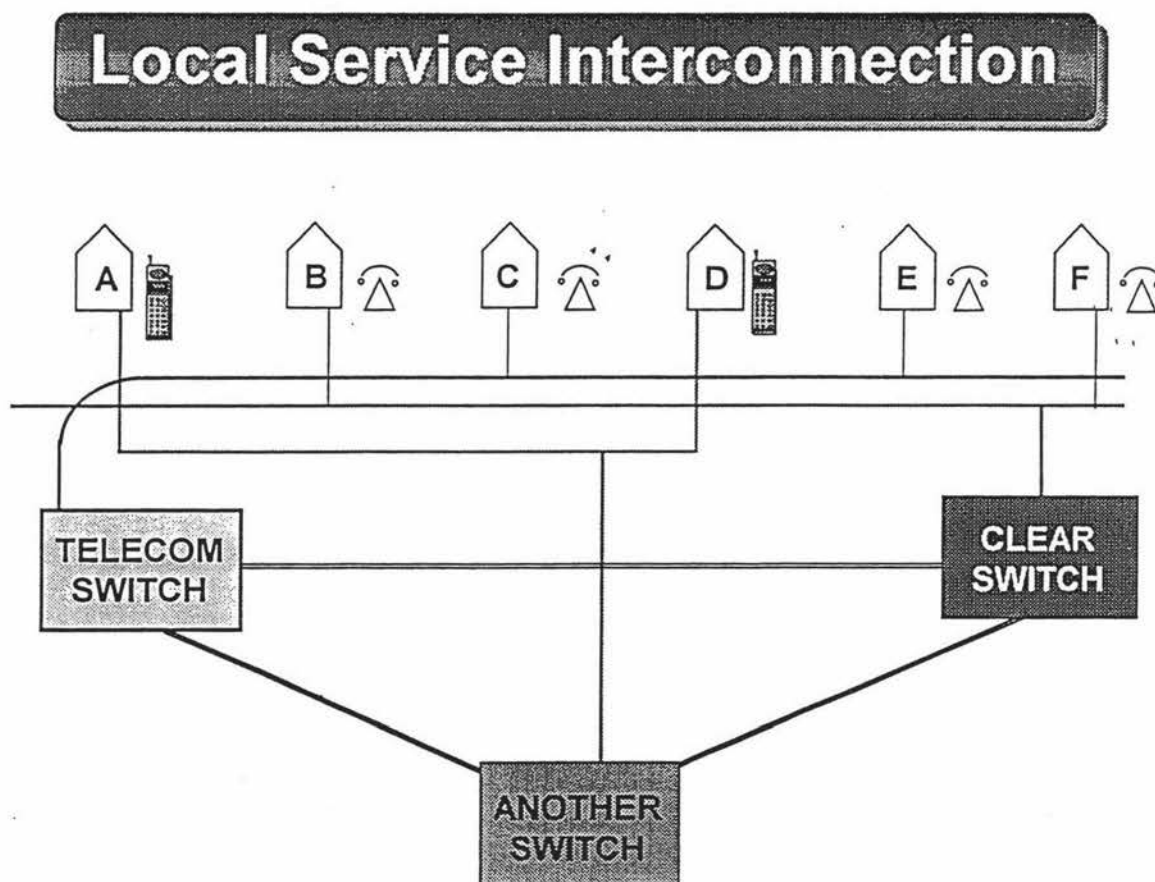
It was shown in Chapter 7 that Telecom continues to possess an 'essential facility', namely the Public Switched Telephone Network (PSTN). This facility provides the connection between messages received from outside areas and the local loop to which a particular subscriber is attached. For local service, the existence of two or more rival suppliers has generally been considered wasteful since that would require duplication of the wires which lead into each individual residential or business location (Baumol and Sidak, 1994). Additionally, the high sunk costs involved created doubts over the long-term viability of numerous suppliers. Therefore, the local loop was deemed to constitute an 'essential facility' for the purposes of competition policy, resulting in the need for an entrant to gain access to the incumbent's network in order to compete. The network owner must supply access to the local loop, both to itself and to its rivals in the market for that service with the compulsion to do so arising from s.36 of the *Commerce Act 1986* whereby if the incumbent is likely to be dominant, it must not behave anti-competitively towards entrants. Hence there is obvious potential for the owner, if unconstrained by regulation, to supply access to itself on terms which are favourable to its own competitive position in the downstream market. To avoid this problem, carefully designed guidelines on the pricing and conditions of access to the essential input are required, at least until widespread and effective competition develops.

In the context of New Zealand telecommunications, for Clear to compete in the local-service market, customers must be able to make calls to Telecom customers and vice versa. Therefore interconnection, or a physical link with Telecom's network, is crucial to Clear's ability to offer services. However, if such interconnection did occur, Clear would compete with Telecom in offering local telephone service in other portions of the local network which do not exhibit natural monopoly characteristics, and therefore eliminate Telecom's monopoly position in provision of those services. The following diagram illustrates the interconnection process:

FIGURE 8.3

The Interconnection Process

SOURCE: Clear Communications, 1995



b) The Initial Negotiations

For interconnection with Telecom's PSTN, Clear proposed that Telecom provide it with blocks of unallocated telephone numbers and that there should be no access code (e.g. prefix of 050) imposed on those numbers.

They proposed that neither party should incur a charge for terminating calls in the other's system on the basis that the flow of calls in both directions would balance each other out. Clear also claimed that the cost of the Kiwi Share Obligation (KSO) requiring Telecom to provide certain services at certain prices, should be borne by Telecom alone. Clear would willingly pay Telecom the direct costs of Telecom adapting its network to enable

Clear's service. This stance perhaps does not seem entirely reasonable as Telecom would bear the entire financial burden of complying with the KSO.

Telecom adopted a very different approach. First, it demanded an access code to enable customers to differentiate between the two service providers. Secondly, Telecom initially demanded a price which represented its normal charging rates for access and traffic to an ordinary business customer. In this sense, it was treating Clear as another large PABX customer rather than as a 'full blown competitor'. Once again, this approach would not appear entirely reasonable either as Telecom clearly failed to recognise Clear as a true rival in its former-monopoly markets.

Months of negotiation proved fruitless and saw Telecom consult with United States economists regarding an efficient pricing regime which prompted Telecom to fundamentally modify its approach to argue that Clear should contribute to its network overheads (including the KSO), an amount equal to the revenue foregone as a result of Clear's interconnection. Telecom would therefore be entitled to the equivalent of usual business line rental and call costs minus any cost savings as a result of Clear providing part of the loop to Telecom's switches. In addition, they would be entitled to recoup the initial cost of interconnection such as the cost of switches.

Clear rejected Telecom's demands on the grounds that they represented Telecom exercising its monopoly power in order to deter Clear from entering the local services market and as such, constituted a breach of s.36 of the *Commerce Act 1986*.

Essentially, Clear argued that such an interconnection price would have been too high for it to be able to profitably enter the industry.

Let us now proceed to define and explore what became known as the Baumol-Willig pricing rule adopted by Telecom during interconnection negotiations for local service provision.

4 THE INTERCONNECTION PRICING RULE

In order to understand Telecom's proposed access charge, it is important firstly to clarify the definitions of several different cost concepts. It is these cost concepts which are used to simulate the outcomes that would result in the local service market if it were perfectly contestable (Baumol and Sidak, 1994, pp.176-177):

- i) The **Marginal Cost of X (MC_x)** refers to the addition to the firm's total cost as a result of the production of an additional unit of output X. Economic theory dictates that the price of X will always equate with its MC in perfect competition. Such a price will satisfy economic efficiency requirements if in the long run it earns sufficient revenue for continued solvency of the firm unless the production of X is characterised by scale economies.

- ii) The **Incremental Cost of X (IC_x)** refers to the addition to total cost when the output of X is increased by some predetermined increment, per unit of that increment. Therefore, this cost concept differs significantly from MC if the increment is large because the output ranges in the two calculations are different.

- ii) The **Average Incremental Cost of an entire service X (AIC_x)** represents the difference in the firm's total cost by providing and by not providing the service, divided by the total output of X. It represents the additional cost per unit of X which is added to the firm's total cost due to its supply of the current output of X. This cost concept is used to calculate the cost of X when the firm produces two or more products, X, Y, Z ... This is a crucial concept for telecommunications where the MC for a succession of units of X (eg. local calls) may be very small, but once full capacity is reached, the MC of one more call may be very large because of the need for new capacity to carry the calls.

a) The Baumol-Willig Rule

Telecom's new offer was calculated by a pricing formula developed by United States economists, Professors William Baumol and Robert Willig based on the following principle (*Clear Communications Ltd v Telecom Corporation of New Zealand Ltd* 1992 5 TCLR 166):

Where a firm supplies components or intermediate goods to another firm ... and this process entails some sacrifice of profit by the supplier firm (as when it thereby gives up some capacity that it would otherwise have used itself), then the supplier firm must be permitted to price the article in question at a level sufficient to compensate it for the profit it is forced to sacrifice because of its supply to the other firm. Economists refer to the sacrifice of profit unavoidably entailed in an activity as the *opportunity cost* of that activity. The third pricing principle then asserts that the price of any goods or service should cover its opportunity cost as well as any other incremental costs entailed in supplying it. This is how goods are always priced in competitive markets, and how they should be priced in any other markets.

In other words, **OPTIMAL INPUT PRICE** = the input's direct per-unit incremental cost + the opportunity cost to the input supplier of the sale of a unit of input

It was from this principle that the Professors developed the ‘Baumol-Willig Rule’ as follows (Clear Communications Ltd v Telecom Corporation of New Zealand Ltd 1992 5 TCLR 166):

The supplier of such a product component should not be forced by government intervention to receive for it less than the price that makes that supplier *indifferent* as to whether the other components of the final product are provided by itself (that is, the traffic is carried entirely over its own lines, from origin to destination), or whether, instead, those remaining components are supplied by others (the traffic is carried over a joint route operated in part by competitors).

In accordance with their Rule, the price for interconnection should be Telecom's incremental cost for providing interconnection inclusive of both the direct incremental cost as well as the 'opportunity cost' of the contribution foregone by Telecom as a result of Clear's use.

b) The Theory of the Efficient Component Pricing Rule

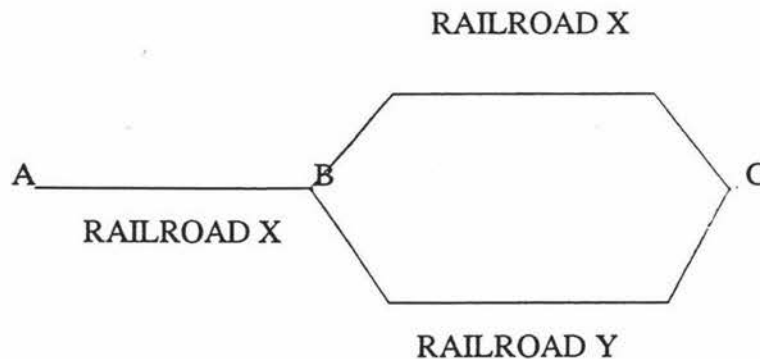
The example of railroad transportation has been used to demonstrate this pricing principle on the grounds that this analogy facilitates the understanding of the logic involved (Baumol and Sidak, 1994, pp. 179-189):

Two railroads, X and Y, operate along parallel routes from an intermediate point B to an end-point C. Railroad X owns the rail tracks from the origin point A to the intermediate point B. The final product is the entire journey from A to C. The competitor railroad Y also owns tracks from point B to C but must interconnect with X's route AB so that both X and Y will be able to transport over the entire route from A to C. Railroad X is labelled the 'landlord railroad' and Y is labelled the 'tenant railroad'. This scenario is illustrated in Figure 8.5 below.

FIGURE 8.4

The Interconnection Scenario

SOURCE: Baumol and Sidak, 1994, p.180



In accordance with the Parity Principle, the landlord railroad X determines the interconnection or access price to the 'essential facility' (ie. rail tracks from A to B) by taking the full price over the entire route, and deducting from it the incremental costs over the competitive portion BC.

Suppose that the landlord receives a price of \$10 per tonne for transporting freight over the entire route, and incurs incremental costs of \$3 over the competitive portion (Baumol and Sidak, 1994). Therefore, the application of the Parity Principle would yield to the landlord a price of \$7 for a new entrant's use of the track between A and B. If the new

entrant Y can pay \$7 for the essential portion and profitably charge LESS than \$10 for the final product, then it must have incremental costs lower than \$3 over the competitive portion of the route. In this case it is able to compete on the basis of its relative efficiency.

On the other hand if the interconnection price was set below that which is dictated by the Parity Principle, say \$6, then railroad Y *might* be able to earn a profit even if its incremental cost was higher. Clearly, a lower access price produces inefficiency. Hence, it is this ability to compete on the basis of relative efficiency which supports the argument that the Efficient Component Pricing Rule produces economic efficiency.

It is important to consider how Baumol's railroad example can be applied to the interconnection pricing issue in telecommunications. From the outset we must recognise that the railroad example is limited because if route AB is indeed an 'essential facility', then why are there two separate tracks between B and C? Surely one would not expect entry into the market for provision of entire route service given the high sunk costs involved in the duplication of rail tracks from B to C. Instead, one would expect that due to it not being economically feasible to duplicate the tracks, then only one set of tracks would exist for which an entrant would seek access to if it intended to provide service over route AC.

It is here that we can identify the attempt to present the railroad example as being analogous to telecommunications. However, the weakness is also obvious. Throughout the battle to establish itself in the telecommunications industry, Clear has recognised the high sunk cost component of constructing its own local service infrastructure similar to Telecom's PSTN. It has instead sought access to the facilities already provided for local service.

The railroad example tends to ignore the reciprocity involved in telecommunications because the rival is never considered to control an essential route itself. Hence Baumol's example reinforces the claim that Telecom has failed to recognise Clear as a full-blown competitor, but rather as another large PABX customer.

The railroad interconnection example provides a weak likeness to New Zealand's telecommunications industry as it completely ignores the dynamism or role of technological progress involved in telecommunications. They essentially involve one firm controlling an essential route and another firm that simply replicates the service offered over a connecting route. Never is it contemplated that the rival firm will offer a *new* service. However, in the context of New Zealand telecommunications, Clear never intended to simply replicate the existing service or technology offered by Telecom over existing routes, but rather it intended to introduce new services and technologies.

Obviously, what this requires is that the access price be set at a level which leaves the landlord X *indifferent* between conducting all the transportation business itself, and sharing the market with the tenant. If X did conduct all the business itself it would receive \$10 over the entire route whilst incurring \$3 in incremental costs over the competitive portion, with the balance of \$7 to cover the costs of the 'essential facility'. If instead the landlord interconnected the tenant for a price determined by the Rule, it would receive the same \$7 to cover the costs of the 'essential facility' but would not incur the incremental costs over the competitive portion, leaving it no worse off.

c) The Kahn Competitive Parity Principle

Another prominent United States economist Dr Alfred Kahn, also gave evidence in the Telecom-Clear litigation supporting the theory behind the Baumol-Willig Rule. Dr Kahn's evidence represented a parallel approach which he claims to have invented independently of the Efficient Component Pricing Rule of Baumol and Willig, contributed three major inter-related points concerning the appropriate principles for interconnection charges, namely:

- i) Clear's ability to compete with Telecom in the provision of local business telephone service solely on the basis of its relative efficiency was NOT dependent solely on the level of the price it paid for that 'essential input', or upon whether that price was a monopolistic or a

competitive one. Instead, it depended upon “the relationship or *margin* between that charge and the price ... at which its competitor, Telecom, offered that same local business service, in competition with Clear, *regardless* of whether the interconnection charge was high or low, monopolistic or competitive”. The exception is that a high charge might so reduce the size of demand as to render entry even more difficult.

- ii) This argument was based on Kahn’s Competitive Parity Principle which dictated that Telecom must not employ its market power as it may possess to deny Clear an opportunity to compete with it on the basis of the *relative efficiency* of the two companies in providing the contested service or services, or in performing the contested functions, with efficiency being defined in terms of offering customers maximum value at minimum cost.
- iii) The following were identified as the necessary and sufficient conditions for efficient competition:
 - a) Telecom’s own competitive operations must be subject to the same access or interconnection charges as it imposes on its competitors except to the extent that the (marginal) costs of providing that service to itself and to its competitors differ; and
 - b) Telecom’s prices of the competitive services must recover both that access or interconnection charge and the incremental costs of its competitive operations.

Despite giving different justifications, Professors Baumol, Willig and Kahn all concurred that the access price, whether determined under the Baumol-Willig Rule or Kahn Competitive Parity Principle, was indeed the correct price. Baumol and Willig’s description of the rule was as an example of the principle of ‘opportunity cost recovery’. They emphasised that because the rational owner would not allow another to access its

facilities or premises at a price lower than the owner's opportunity cost of providing that access in a contestable market, and because their Rule would apply in such a market, then Telecom could not, in advocating it, be said to be using its dominant position for an anti-competitive purpose (Arnold, 1994).

On the other hand, Kahn's Competitive Parity Principle concluded that Telecom could not be said to be using its dominant position for an anti-competitive purpose as long as it provided Clear with access to its facility at a price which allowed Clear to compete with it in the local service market solely on the basis of its relative efficiency in providing that service. Essentially, this required that Telecom charge Clear the identical price it implicitly charged itself for access.

As outlined in Chapter 7, the three Courts which considered the issue - the High Court, Court of Appeal and Privy Council, alternated in their views as to the appropriateness of this access pricing rule.

The High Court held that Telecom was not using its dominant position for an anti-competitive purpose by advocating the Baumol-Willig Rule as a means of setting the interconnection price. Hence, the High Court was satisfied that competition in the telecommunications industry would be improved by applying the Baumol-Willig Rule, because it could potentially enhance an efficient competitive process through the requirement for new entrants to compete solely on the basis of their relative efficiencies.

The High Court's decision was overturned by the Court of Appeal, which instead accepted that monopoly profits did exist and that Telecom was, by attempting to incorporate these in its access pricing rule, using its dominant position for an anti-competitive purpose. As an alternative, the Court proposed that Clear should pay an access price which enabled Telecom to recoup both the incremental costs and make a contribution to common costs in relation to both access to, and use of, Telecom's facility.

The Privy Council reversed the Court of Appeal's judgement, taking the view that even if monopoly profits were present in Telecom's proposed access price, they should be dealt with under the price control provisions contained in *Part IV* of the *Commerce Act 1986* and by manipulating pricing under s.36 (Arnold, 1994). The Privy Council's support for the Baumol-Willig Rule focused on Clear's inability to demonstrate that it would be unable to compete if it had to pay an access price calculated by the Baumol-Willig Rule, and hence that the two should be able to compete solely on the basis of their relative efficiencies in providing the contested local service.

It is this reinstatement of the Baumol-Willig Rule which again evoked strong criticisms of both the Rule and the effectiveness of New Zealand's 'light-handed' regulatory framework based on s.36 of the *Commerce Act 1986* to promote competition in New Zealand's telecommunications markets, as well as in other similar network industries.

5 THE BAUMOL-WILLIG RULE'S CLAIM OF EFFICIENCY

The Baumol-Willig Rule emerged on the belief that it is a necessary condition for economic efficiency and hence for furthering the public interest (Baumol and Sidak, 1994, p.181). Its proponents claim that the Rule is crucial in order to avoid inefficiencies which would result in a wasteful use of resources.

a) The Rule's Efficiency and the Competitive-Market Model

It is useful to refer back to the railroad example initially put forward in support of the Baumol-Willig Rule.

To summarise, the Efficient Component Pricing Rule states that the rent paid by tenant Y should be on a per train basis for the average-incremental cost incurred by each train as it travels over X's essential railroad portion AB, inclusive of any incremental 'opportunity cost' incurred by landlord X as a result of Y's service provision.

To an economist, this Rule with its inclusion of 'opportunity costs', appears familiar except for its different focus on average-incremental cost as opposed to marginal costs.

Support for the Rule's promotion of efficiency comes from the argument that it would determine an access price set in the same way as it would be in a perfectly competitive or perfectly contestable market. Baumol and Sidak (1994) use the analogy of a group of landlords competing to rent retail space to tenants, but who could also use the space for their own retailing enterprise. Therefore, no landlord who could use the retail space themselves, would choose to rent it to anyone else for a rental charge less than the direct incremental cost of that tenant's occupation plus the landlord's 'opportunity cost'. For example, if the landlord could earn \$100,000 by using the property themselves, then he or she would seek to recoup at least that \$100,000 which is foregone in renting the space. The Baumol-Willig Rule simply applies this same concept to a situation of landlord and tenant competing for customers as opposed to competing for retail space. As a consequence, no landlord would accept a rental charge less than that determined by the Rule, and likewise, a tenant would refuse to pay any more.

In accordance with standard economic theory, in a competitive market with no externalities, it is expected that competitive prices will be consistent with economic efficiency. Therefore the Rule's proponents use the preceding argument to substantiate their claim that the Rule is indeed optimal.

b) The Rule's Promotion of Efficiency

Baumol and Sidak (1994) argue that the Rule has a 'critical role' to play in the promotion of productive efficiency.

Drawing yet again upon the railroad example, we can follow their argument. For X to price access below the price dictated by the Rule, the requirements of economic efficiency would be violated. Economic efficiency demands that the competitive service is provided only by efficient suppliers whose incremental costs are the lowest available.

To realise this goal, the more efficient providers must be able to earn a net profit in the final product market which is not available to its less efficient rivals, regardless of whether the landlord or the tenant happens to be the more efficient provider. We can use the railroad example to show how the access price is calculated by the Rule.

Recall from Figure 8.4 that transportation is only available from A to B (route AB) and onwards to C (route BXC) from landlord railroad X. Rival tenant railroad Y also offers transportation from B to C (route BYC) and seeks to provide service from A as well by renting trackage rights along route AB. If Y does obtain access it will be able to provide entire route service from A to C. If we suppose that the competitive price for transport from A to C is \$10 per ton, and X incurs incremental costs of \$3 over each portion AB and BXC, then landlord X earns a net contribution toward its common fixed costs of \$4. This represents the final-product price, that is, the transportation price from A to C, minus its two incremental cost components:

$$\text{X's earned contribution} = \$10 - \$3 - \$3 = \$4 \text{ for each ton of freight it transports from A to C.}$$

In order to determine what access price the landlord will charge Y for access, we assume that each ton of freight that Y transports from B to C is one less ton that is transported by X. Accordingly, if other railroads are in similar positions to railroad X, they would not choose to rent their tracks to Y unless Y compensates them for the cost of the lost profit that Y's access imposes. However, to fully compensate landlord X, Y must also compensate X for the incremental opportunity cost that Y's interconnection imposes.

Specifically, Y must pay the \$4 of net contribution towards common fixed costs that X foregoes when Y provides transportation service that X would otherwise provide.

Therefore, the competitive-market standard necessitates that the price of trackage access must also satisfy the requirements of the Efficient Component Pricing Rule. To refer back to the example, that price would require Y to pay X a fee which included both X's direct incremental cost of providing access of \$3 plus X's per-unit 'opportunity cost' of \$4 per ton of foregone net contribution. Thus, the correct access price determined by the Rule would be \$7 per ton. Baumol and Sidak (1994) and Kahn (1994) argue that

such an access price would be the same as that which would emerge in a perfectly competitive or perfectly contestable market.

I shall now use the previous numerical railroad example to illustrate the basic efficiency result and present the means of generalising so that its result will always hold. Even though a firm may sell all of its products or services at a price equal to its average incremental cost, its total revenue earned may still fall short of its total costs. This justifies a firm, without behaving anti-competitively, to demand prices for some or all of its output that earn it both the necessary profit component of incremental cost and also some contribution toward its common fixed costs which are not included in the incremental costs of the individual units of output.

Let us suppose that entire route transport is provided for \$10 per ton. We know that X's incremental cost from A to B (IC_{ab}) is \$3 per ton and from B to C (IC_{bxc}) is \$3 per ton, leaving a net contribution of \$4 per ton toward common fixed costs from each unit. In addition, we know that the Efficient Component Pricing Rule dictates that X provides Y with access to route AB at a price of IC_{ab} plus X's 'opportunity cost' of providing that access. Therefore, Y obtains access at a price of:

$$IC_{ab} \text{ (of \$4)} + \text{Opportunity Cost of X (of \$3)} = \$7$$

At a price of \$7, Y's gross earnings per unit of entire route transport is \$3 - the \$10 final-product price less the \$7 access fee it must pay to X. We must also deduct the incremental cost that Y incurs by transporting each ton of freight over its own portion of railroad B to C, in order to offer the full service. Baumol and Sidak (1994, p.185) have identified three possible outcomes depending upon the relative efficiency of Y:

Case 1:

If railroad Y is a less efficient provider from B to C such that it incurs an incremental cost of, for example, \$4, which is greater than the \$3 incurred by X, then Y stands to lose money by providing the service. If Y did attempt to provide service, its final-product price would need to cover both the efficient component price of \$7 plus its own

incremental costs over route BC of \$4, thus dictating a price of \$11. This higher price would deter Y from providing the final product due to its inability to compete with X. This would represent the desired outcome in terms of the public interest when measures in solely in terms of productive efficiency.

Case 2:

If instead we suppose that both X and Y incur the same incremental cost over route BC of \$3 then it follows that both firms are equally efficient in providing service over that portion. As a result, it is of no consequence to the public interest which railroad provides the service. Tenant Y will experience no gain or no loss if it provides the service, as its profit over and above its incremental capital cost is the price of \$10 less its trackage fee and its incremental cost over route BC, that is, $\$10 - \$7 - \$3 = 0$. Therefore, the tenant will be indifferent with respect to providing transport over the entire route.

Case 3:

Now suppose that tenant Y is more efficient in providing service over route BC with a lower incremental cost of, for example, \$2. Y could then undercut X's final-product price of \$10 and earn an extra profit whilst still being able to cover both the efficient component price of \$7 which it pays to X, and its own incremental costs over route BC of \$2. Y could therefore charge a final-product price of, say \$9.50 per unit enabling it to earn a profit of \$0.50 per unit over the cost of capital (that is, $\$9.50 - \$7 - \$2$).

Landlord X would then have no incentive to continue to provide service over the competitive portion BC. It would only be able to do so if it matched Y's final product price of \$9.50. However, if X was to price its final product at any price lower than \$10, it would be accepting a contribution less than it could earn if it charged the efficient component prices for Y's service provision over route BC. We can consider this scenario as the landlord choosing to 'buy' rather than 'make' the BC transportation component of the final product. It is indeed this result which illustrates how the Efficient Component Pricing Rule achieves the principle of indifference between 'make' and 'buy'. Specifically, the Rule sets the landlord's component price, in our example transport over

route AB, at an amount inclusive of all the landlord's costs. Because it does so, the landlord is indifferent between providing the service itself and allowing it to be provided by a rival as all its costs are covered regardless. Hence, the Rule automatically assigns transport over route BC to the least-cost provider.

This result is contrasted with that which might emerge under regulation whereby the landlord was required to offer transport over route AB at a price below that determined by the pricing rule. For example, suppose that regulation permitted X to charge no more than \$5 for transport over route AB rather than the \$7 dictated by the Rule. Y's gross earnings of the final product price \$10 less the access price \$5, would be \$5, or \$2 higher than X's incremental cost of providing transport over route BC. Even if Y's incremental cost over route BC was \$4, thus making it a less efficient provider of that service, Y would still be able to earn a contribution from its inefficient service provision because its per-unit profit would be \$1.00, that being the final-product price \$10 less the access charge of \$5 less its \$4 incremental costs. Despite being an inefficient provider, the imposition of the \$5 access price cap, enables Y to earn a profit and is effectively a subsidy to Y from the landlord of \$2 for every unit of service that Y chooses to provide. We note here the assumption that \$10 is the competitive price, which hardly seems likely prior to Y's entry unless some form of price regulation exists. Even then, such price regulation would most likely be distortionary.

This contrast clarifies the link between the Efficient Component Pricing Rule and productive efficiency as Baumol and Sidak (1994, p.186) claim that it ensures proper pricing and efficiency over the competitive portion of the route. It follows, they claim, that it is this same rule which will ensure similarly proper pricing and efficiency in the local telecommunications loop. The Rule's proponents claim that it is generally applicable and not simply unique to the specific numbers used in the original railroad example.

To consider how this result relates to the overall economic efficiency issue, we suppose that AIC_x or AIC_y is their average incremental cost per train over the competitive route BC. If AIC_x is less than AIC_y , then it would obviously be more efficient for railroad X to

provide the service and vice versa. To formally prove that the Efficient Component Pricing Rule automatically produces efficiency by assigning the service to the more efficient provider, an explicit expression is provided for the total contribution (T) received by each provider, of the total traffic over the entire route AC. Baumol and Sidak's proof uses P to represent the price that customers pay to transport a trainload of freight from A to C. If X refuses Y access to its facility route AB, then X will earn a total contribution from the traffic it carries M as follows:

$$T = M (P - AIC - AIC_x) \quad (1)$$

If instead, X grants Y access and Y transports N trains over the entire route AC, Y will earn a profit which equals its total revenue PN less its optimal input-price contribution $(N)(AIC) + NT/M$, less its incremental cost incurred as a result of transporting N trains over its own route BC. Specifically:

$$Y's \text{ profit} = N (P - AIC - T/M - AIC_y) \quad (2)$$

or substituting the value of T as determined in equation 1:

$$Y's \text{ profit} = N (P - AIC - P + AIC + AIC_x - AIC_y) \quad (3)$$

which simplifies to:

$$Y's \text{ profit} = N (AIC_x - AIC_y) \quad (4)$$

Therefore, Y can earn a profit by renting X's tracks and providing service over the entire route AC, only if Y can provide the service more efficiently. That is, Y will only earn a profit if $AIC_y < AIC_x$.

As a corollary then, we can say that if the access price is determined by the Rule, Y would lose money by acquiring access if it was the less efficient service provider. As such, the Rule is said to optimally allocate the provision of service between railroads X and Y solely on the basis of their relative efficiencies in providing that service.

c) Application of the Efficient Component Pricing Rule to Telecommunications

As previously discussed, the issue of pricing access to the local telecommunications network has caused controversy within many regulatory frameworks due to the necessity to access an 'essential facility' owned by an incumbent monopolist.

In attempts to apply Efficient Component Pricing Rule to the telecommunications arena, some generic problems have arisen. However, despite the criticisms, its proponents still claim that the pricing of access to the local telecommunications loop is analogous to the railroad example. Generally, this same problem arises in any situation where one firm produces an intermediate good that constitutes a necessary input for its competitors in an upstream or downstream market.

Let us now proceed to examine the principal criticisms of the Rule and present the issues involved in each of them in order to assess their actual substance.

6 PRINCIPAL CRITICISMS OF THE BAUMOL-WILLIG RULE

This pricing Rule has been subject to much discussion, and to criticism from some economists, lawyers and of course Clear's own officials. Criticism has centred on the inappropriateness of the pricing principle for the New Zealand telecommunications industry. The temptation is to totally abandon the Rule in favour of the alternatives which will be addressed in Chapter 9. Let us now evaluate the three principal criticisms levelled at the interconnection pricing rule.

a) Appropriate model for consideration

Professors Baumol and Willig prefaced their promotion of the Efficient Component Pricing Rule by observing that "where there are economies of scale and scope, perfect competition is not an appropriate model and must be replaced by a model of perfect contestability" (Clear Communications Ltd v Telecom Corporation of New Zealand Ltd, 1992 5 TCLR p.203). Professor Baumol himself conceded that (Baumol, 1982, p.42):

Perfectly contestable markets do not populate the world of reality any more than perfectly competitive markets do. Real markets are rarely, if ever, perfectly contestable. Contestability is merely a broader ideal, a benchmark of wider application than is perfect competition.

It is on this basis that doubts arise as to the Baumol-Willig Rule appropriateness in the New Zealand telecommunications industry as in other network industries which fail to even approximate a perfectly contestable market. The New Zealand telecommunications industry is characterised by significant economies of scale and scope which thus render it outside the realms of the perfectly contestable market depicted by 'free entry' and 'costless exit'. For example, the high sunk costs associated with replicating the necessary infrastructure clearly restrict it from being defined as perfectly contestable. The Privy Council's judgement was fraught with confusion between the terms 'perfectly contestable market', 'fully competitive market', 'fair competition' and 'efficient competition'. Their conceptual differences seemed to be overlooked with the drastic consequence that they all differ significantly from the concept of workable or effective competition with which the *Commerce Act* deals.

Such confusion highlighted the Privy Council's failure to understand the individual concepts as well as to illustrate the inappropriateness of the perfectly contestable market model. It is rather paradoxical that the issue of monopoly profits even arises. Surely if the New Zealand telecommunications market is indeed perfectly contestable, then monopoly profits would simply not exist. Clearly, the idea has been to generate an outcome similar to that which would arise if the market hypothetically was perfectly contestable.

Significant support has emerged for this criticism, particularly regarding the workable or effective competition goal of New Zealand's *Commerce Act 1986*. Essentially it serves to render the Baumol-Willig Rule incompatible with New Zealand's general competition legislation.

b) The Rule perpetuates monopoly profits

Undoubtedly the strongest and most frequent criticism of Telecom's proposed pricing regime is that it will give rise to an access price inclusive of the incumbent's monopoly profits. If an access pricing regime would enable the incumbent monopolist to remain no worse off financially upon new entry, then surely this suggests that truly open competition is not being permitted. One finds it hard to imagine any other industries in which new entry occurs at no financial detriment to existing members. However, we must bear in mind that this is a special case, where, because of the 'essential facility', namely the PSTN, new entry may not be efficient.

Essentially this criticism rests on the premise that the Baumol-Willig Rule would calculate an interconnection price high enough to indemnify Telecom for the loss of business flowing to Clear, or to any other potential competitor, and therefore that it perpetuates any monopoly profits. It has since been conceded by Professor Baumol (Baumol and Sidak, 1994, p.196):

The decision of the Court of Appeal of New Zealand illustrates a frequent objection of the component-pricing rule. The complaint is that the rule is a means of ensuring that the landlord can continue receiving any monopoly profits it has been able to earn on the final product. Suppose that in the absence of the tenant, the landlord has monopoly power in the final product market and earns a high rate of profit on sales. If, by supplying the input to the tenant, the landlord permits the tenant to take away some of those profitable sales, then the monopoly profit on those forgone final product sales is indeed an opportunity cost to the landlord. According to the efficient component-pricing rule, the tenant should be required to compensate the landlord for that loss. This ensures the monopoly earnings of the landlord. It also undercuts the tenant's power to introduce effective competition into the final-product market and thereby, its ability to reduce prices to their competitive levels.

All this is true, but the villain is not the efficient component-pricing rule. The real problem is that the landlord has been permitted to charge monopoly prices for the final product in the first place. Had the ceiling upon final-product prices been based on stand-alone cost, which as we explain elsewhere it should be, the landlord could never have earned a monopoly profit in this regulatory scenario. The error, therefore, is the failure to impose stand-alone cost ceiling on the final product price, not the use of the efficient component-pricing rule.

Professor Kahn similarly acknowledges the substance of this criticism in his evidence that (Kahn and Taylor, 1994, p.231):

Unsurprisingly, therefore, opponents of the interconnecting charges proposed by telephone companies, including Justice Gault of the New Zealand Court of Appeal,

protest that the entitlement claimed by the LECs to recover the 'opportunity costs' of business lost to competitors is merely a rationalisation for the continued collection of monopoly profits. They are right, it could well be.

We must remember of course, that the Rule was designed for a different regulatory environment - the US - where telecommunications firms are subject to price controls.

The term 'opportunity costs' has been used throughout the access battle in a somewhat confusing manner. Baumol and Willig used the concept to refer to the profit which is unavoidably sacrificed in undertaking of an activity. In that sense, they manipulated it to refer to foregone money profits as opposed to the true economic costs of foregone opportunities to produce alternative goods and services. Of course, opportunity cost applies to individuals or companies as well as to the economy as a whole.

Criticism of the pricing rule highlights the real potential for vertical foreclosure because of the need for access to the 'essential facility' in order to offer service in upstream or downstream markets. Professor Kahn recognised this potential and saw the Rule as insufficient to ensure the development of competition in those contested markets (Kahn and Taylor, 1994, p.225):

The Baumol and Sidak Rule does not in itself however, permit competition to fulfil its other functions of eroding monopoly profits and promoting allocative efficiency. It can therefore be permitted only when the charges for the essential inputs are regulated, so as to ensure that any mark-ups above marginal costs in those charges are no greater than is necessary to afford the challenged utility companies a fair opportunity to earn a return on their invested capital.

Because of the Rule's preservation of existing price-cost margins on the 'essential facility', namely the local loop, Telecom as the incumbent could recoup the same contribution towards its common costs as it would receive from effectively selling that input to itself. The crucial question is whether Telecom would have any incentive to stall local access interconnection given that it is theoretically indifferent to new entry. However, one must bear in mind that other incentives for delaying entry could prevail.

Professor Baumol's concession that the Parity Principle perpetuates monopoly profits strengthens the criticism that it is insufficient on its own to produce economic efficiency. How was it then, that the theorists Baumol, Willig, Kahn and Sidak originally claimed that the Parity Principle was of itself, a necessary condition for economic efficiency? The inconsistency may arise from Baumol and Willig's idiosyncratic definition of 'opportunity costs' which fails to employ the conventional terminology. Tye and Lapuerta (1995) base this argument on the premise that the proponents of the Parity Principle used 'opportunity cost' in a 'misleading and extremely confused manner'. The Rule's underlying assumptions purport that the same customer uses the same 'essential facility' regardless of which supplier provides service in the competitive portion of the route. Accordingly, the revenues foregone by the incumbent firm do not represent an 'opportunity cost' in the true, conventional economic sense which could result if one customer's use of the facility displaced that of another's. Perhaps the answer is that they define economic efficiency to mean productive efficiency only. This is certainly in keeping with their railroad example, and with their argument that other measures need to be adapted to generate allocative efficiency (eg. price controls or some such).

From Baumol and Willig's 'opportunity cost' definition, any monopoly profit which may exist is defined an 'opportunity cost' as "the sacrifice of profit unavoidably entailed in an activity..." (Baumol and Willig, 1992, p.11) and therefore is included in the access price determined by the Rule.

It is obvious that in a perfectly competitive or perfectly contestable market, incumbent firms are not compensated by new entrants for the 'opportunity cost' of reduced monopoly profits. It is simply the nature of new entry that erodes the incumbent's previous position. The suggestion that any monopoly profits included in the 'opportunity cost' component and hence in the access price, will be eroded by competition have been strongly criticised. Telecom's argument was that the monopoly profits component would disappear because, if Clear or any other new entrant, was more efficient in providing the contested local service, then customers would be attracted by lower prices and Telecom would need to meet this lower price to compete. Over time, that process was expected to erode any monopoly profit component, and Telecom's

'opportunity cost' for which it would seek compensation, would fall. In this sense, their claim was that rather than sheltering Telecom from the pressure of a more efficient rival, the Rule would force Telecom to meet the competition by eliminating its own inefficiencies or monopoly profit, and therefore strengthen the Baumol and Willig case.

Tye and Lapuerta (1995) base their criticisms of this proposition on the very pricing mechanism of the Baumol-Willig Rule. If the Rule shelters the incumbent from the effects of competition, and if 'opportunity cost' includes a monopoly profit component, then monopoly profits would still be included regardless of the volume or strength of competition by the new entrant. They support this with the use of the following example in response to Baumol and Willig's railroad example, showing that the Rule preserves the full amount of any monopoly profits previously earned by the incumbent carrier, simply because that is what the Rule is designed to do.

They identify two potential sources of monopoly profits, firstly in the prices charged for the 'essential facility', and secondly, in the prices charged for the final product or service. To consider the first source, we assume that the \$10 final product price for transport over route AC reflects monopoly profits, that is, an excess of 'opportunity costs' for the facility over the actual costs of the competitive firm. Route AB has competitive costs of \$5.50 and when traffic is shared between the two, the Parity Principle dictates an access price of \$7. The incumbent thus retains \$1.50 in monopoly profits over and above the 'essential facility' costs of \$5.50 irrespective of competition over the contested portion route BC and regardless of the competitive price being \$5.50.

FIGURE 8.5

Source of Monopoly Profits

SOURCE: Tye and Lapuerta, 1995, p.31

\$10 Price over entire route reflects monopoly power:				
Bottleneck Portion		Connecting Competitive Portion		
Price for Bottleneck Portion		Equilibrium Price for Competitive Route	Price Over Entire Route	Monopolist's Rents
<ul style="list-style-type: none"> Parity principle price: \$7.00 Competitive price: \$5.50 		\$3.00	\$10.00	\$1.50
		\$3.00	\$8.50	\$0.00
		Total Revenue	Costs	Monopolist's Rents
			Bottleneck	Competitive Portion
Monopoly Rents Prior to Entry:		\$10.00	\$5.50	\$3.00
Monopoly Rents are Protected by the Parity Principle:		\$7.00	\$5.50	
Monopoly Rents Under				

Baumol and Willig did concur that the Rule would fail to compete away any monopoly profits on the essential portion of the route but strongly believed that excess costs on the competitive portion would be competed away upon entry, hence reducing the final product price to consumers. Tye and Lapuerta (1995) countered this assertion also and state that irrespective of whether the 'essential facility' owner enjoyed monopoly profits as a result of excessive incremental costs over the competitive portion, the final price to customers would not be reduced by competitive entry. This created doubts about Baumol and Willig's hypothesis of new, more efficient entry lowering the final price as such pricing behaviour would not represent the incumbent monopolist's profit maximisation strategy. Instead they claim that the incumbent would impose the monopoly price of \$10 over the entire route and \$7 for the competitor's access to the essential portion. The threat of a new entrant being efficiently superior as indicated by their attempts to compete on price alone, should motivate the landlord to transfer its excess cost component of \$1.50 into additional monopoly profit.

Objections to this criticism would be on the basis that the final product customers would fail to reap the benefits of alternative provision because the incumbent charged a higher price for access than that calculated by the Baumol-Willig Rule. To claim that new, more efficient entry would be allowed by the incumbent monopolist to drive down the final price seems implausible as the monopolist would have a strong incentive to maximise the value of the facility.

c) Designed for Regulated Industries

Another major criticism of attempts to apply the Baumol-Willig Rule to the New Zealand telecommunications industry has focused on the proponent's initial claims of the Rule's general applicability for any regime of competition or regulation. Underlying the Rule is the assumption that it seeks to achieve efficient use of inputs but not competition in the final product market. In short, this criticism claims that the Rule was developed for regulated industries but has no role to play in competitive deregulated industries. In his comments on the Court of Appeal's observation that the Baumol-Willig Rule "has been developed primarily for a country of regulated markets where prices for ultimate

consumers may be controlled by regulatory agencies" (Clear Communications Ltd v Telecom Corporation of New Zealand Ltd 1993 4 NZBLC 103,340), Professor Baumol openly concurred that (Baumol and Sidak, 1995, p.195):

Given these circumstances, we must sympathise with the reasoning of the Court of Appeal. As we explain elsewhere, the efficient component-pricing rule plays its full beneficial role only when adopted as part of a set of complementary rules designed to promote consumer welfare. One such rule is that a monopolist should not be permitted to charge a price for a final product sold to consumers that is higher than the price that would attract an efficient entrant into that market - a price equal to the stand-alone cost of producing that final product. But, as Justice Cooke noted, no such price ceiling exists under current laws and regulations of New Zealand. It is therefore understandable that the Court of Appeal ordered Clear and Telecom to renew negotiations to set an access price that excluded any monopoly profit foregone by Telecom.

Professor Kahn also agreed that the Rule was designed for application in a regulated industry (Kahn and Taylor, 1995, p.231):

The ultimate determination of how large a markup of retail price above marginal cost is economically efficient, and therefore what level of contribution may correspondingly be incorporated in interconnection charges, must be supplied, in circumstances such as these by regulation, the absence of which in New Zealand was the ultimate reason for the Court of Appeal rejecting our proposals.

Tye and Lapuerta (1995) extend this criticism further to say that the Baumol-Willig Rule is an 'artefact of regulation' because it requires complementary controls of the final product price. As Gault J of the Court of Appeal stated (Clear Communications Ltd v Telecom Corporation of New Zealand Ltd, 1993, p.4):

It is important, I think to appreciate that the theory has been developed primarily for a country of regulated markets where prices for ultimate consumers may be controlled by regulatory agencies. That is not the present situation in New Zealand: the system is one of 'light-handed' regulation, the Commerce Act and competition being relied upon to provide built-in safeguards against consumer exploitation.

7 CONCLUSION

The deregulation and introduction of competition into the traditional public utility industries has created much controversy with regards to new entrants seeking to obtain

access to the incumbent monopolist's 'essential facility'. The major difficulties experienced in the telecommunications sector under New Zealand's 'light-handed' regulatory environment have centred on determining an appropriate access price to Telecom's PSTN for the provision of local service. The proposed Baumol-Willig price will in principle ensure the static productive efficient outcome, namely, that the product or service is provided in the contested market by the provider who does so most efficiently in terms of its use of resources (Kahn and Taylor, 1995, p.225). However, that Rule tends to discourage entry, and so does not permit competition to achieve its other functions of promoting allocative and dynamic efficiency.

It is now commonly agreed that the Rule fails to achieve allocative efficiency because it does not permit competition in the final product market to compete away monopoly profits. Baumol himself argues this point (Baumol and Sidak, 1994, p.177):

The BW rule was not designed for that purpose and consequently does not achieve that commendable goal. The monopoly-pricing problem may or may not require attention in the telecommunications industry in New Zealand, but to condemn a procedure that performs other useful tasks, the tasks it was designed to carry out, for failing to deal with the monopoly problem as well, is potentially *non sequitur*. It would be equally appropriate to attack the BW rule for its failure to contribute to the protection of the environment.

And further:

The BW rule ... if imposed without supplementary safeguards, requires the lessor of the bottleneck facilities to include in the rental payment whatever monopoly profits the bottleneck proprietor has been able to extract from other customers. In our recent book on local telephone regulation we have been most explicit about this concern, emphasising the second economic efficiency requirement that, in addition to the BW rule, final product prices must be constrained by market forces or regulation so as to preclude monopoly profits ... the one rule, without the other, does not guarantee results that serve the public interest.

To the extent that the competitor, in this case Clear, is more efficient in the downstream market we would expect some downward movement in final product prices. However, this movement would be constrained by the extent of the new entrant's cost savings over the incumbent in the final product market. Economic theory would suggest that when there are only a few competitors in the final product market, any downward movement in

final product price would not be as significant as the competitor's actual cost savings. Regardless, the incumbent monopolist would not be affected and would still be able to earn monopoly profits on the natural monopoly portion of its business (Ministry of Commerce/Treasury, 1995, p.32).

Despite the continued support of its proponents, together with the Privy Council's 'rubber-stamping' of the Baumol-Willig Rule's application in New Zealand telecommunications, strong criticisms and doubts still linger. The major criticisms, as presented in the previous sections, are that:

- i) the Rule fails to exclude from the interconnection access price, any monopoly profits that the incumbent may have previously enjoyed;
- ii) the perfectly contestable market model is not the appropriate one to apply in the context of the New Zealand telecommunications industry because of its failure to meet the prescribed structure of such a market model; and
- iii) the Rule is not generally applicable to all regulatory regimes and therefore is inappropriate in New Zealand's 'light-handed' regulatory telecommunications environment whereby there is no price regulation in final product markets.

In short, the Baumol-Willig Rule achieves its sole objective of productive efficiency in the most simple, static and certain contexts but fails in its pursuit of allocative and dynamic efficiency. To the extent that a competitor in a downstream market can provide the service more cheaply solely on the basis of its relative efficiencies, there will be some downward movement of prices in the final product market. However, such movement is likely to be constrained, and will not have the potential to restrain the incumbent from charging to include monopoly profits on the natural monopoly portion of its business. The Baumol-Willig access price could be set at a level which excludes the incumbent's monopoly profit. This would force the incumbent to reduce its price accordingly when faced by an equally efficient entrant.

It was criticisms such as these which raised concerns about the appropriateness of the Baumol-Willig Rule for pricing interconnection for local service in New Zealand's 'light-handed' regulatory environment. When the 'light-handed' regime was established, it was envisaged that parties seeking access to an 'essential facility' would independently negotiate acceptable terms and prices with, as a last resort, the threat of recourse to the courts and the application of the *Commerce Act 1986* if the incumbent monopolist sought terms which were anti-competitive with the purpose of excluding or deterring entry. The new, more liberal environment was established as a superior alternative to other more 'heavy-handed' approaches such as industry-specific regulatory bodies and price controls. The policy's reliance upon the Courts and the *Commerce Act* has faced some harsh criticism and its effectiveness has been cast into doubt.

Some success is evident from the several interconnection agreements which have been negotiated in natural monopoly industries in New Zealand. For example, a variety of agreements have been concluded enabling access to electricity distribution networks, and a small but increasing amount of electricity is supplied by non-network owners. In the telecommunications arena, several interconnection arrangements have also been reached. Albeit, some of those arrangements were not concluded totally independently. One such example is the original toll bypass agreement between Clear and Telecom, where Telecom's privatisation depended upon the conclusion of a satisfactory agreement. Hence, the threat of government action or intervention has proved to be a strong motivating factor for the parties to reach agreement. Government threats to intervene have once again prevailed in the recent local access interconnection agreement concluded in September 1995. It would be misleading to suggest that the two parties, given the procedural history of the local access issue, could rather suddenly have a 'meeting of the minds' over such contentious issues. Clearly, the Privy Council's involvement, together with the government's follow-up of strong threats to use the price control provisions contained within *Part IV* of the *Commerce Act 1986*, provided the motivation for Clear and Telecom to reach an interconnection agreement for local access. It is doubtful whether we would have seen such a result without the government's 'kick start'.

The question remains as to whether the New Zealand experiment with 'light-handed' regulation has been successful in terms of its intentions to promote competition. Is a 'light-handed' regulatory framework, with reliance upon general competition law and disclosure regulations, sufficient in New Zealand's deregulated telecommunications sector where the ownership of the crucial input network remains with the incumbent dominant monopolist?

There were no doubts in the Commerce Commission's Inquiry (1992) findings that reliance upon the *Commerce Act* "may be of some help - but of a protracted, expensive and uncertain kind, and with definite limitations on its scope". The somewhat fruitless and lengthy history of litigation concerning interconnection, echoes support for such concerns. Just prior to deregulation, the government itself envisaged interconnection problems arising due to its failure to separate the incumbent monopolist from its 'essential facility' prior to privatisation. Since then, the government has assumed essentially a 'back seat' role and has left the regulatory role to the judicial system.

Hence overall, the experiences of New Zealand's 'light-handed' regulatory environment in the telecommunications sector have provided valuable lessons for other network industries in both New Zealand and overseas. Despite claims to the contrary, serious doubts exist as to achievement of full and open competition in New Zealand telecommunications. The experience in New Zealand telecommunications tells a story of its own. The major lesson comes from the danger of reliance on courts, operating under general competition legislation, as industry regulators (Ahdar, 1995, p.116).

CHAPTER 9 *BEYOND THE COURT BATTLES*

1 INTRODUCTION

This final chapter details recent developments with regard to interconnection in telecommunications in New Zealand. Section 2 discusses the implications of the Privy Council's supporting decision of the Baumol-Willig Rule.

In Section 3 we presents the major conclusions and recommendations of the August 1995 combined Ministry of Commerce/Treasury Discussion Paper on vertically-integrated natural monopolies. The various options offered as alternatives are discussed here. In that Paper, there is a distinct leaning towards compulsory arbitration as a way forward in New Zealand, with apparent similarities to the Australian post-Hilmer Report approach.

Section 4 then discusses the interconnection agreement for the provision of local service between Clear and Telecom reached on 4 September 1995. The long-awaited agreement provides a somewhat 'tidy' conclusion to this thesis but of course, the success and commercial feasibility of it remains to be seen over the five year period of the contract. The conclusions are then drawn together in Section 5 and overall we find that the recent agreement by no means signals the end to the lengthy battle towards competition in New Zealand local telephony.

2 THE IMPLICATIONS OF THE PRIVY COUNCIL'S DECISION

As a result of the Privy Council decision, the incumbent owner of a vertically-integrated natural monopoly facility could lawfully demand an access price calculated by the

contentious Baumol-Willig Rule. However, from the examination of the Rule in the previous chapter, this may raise concerns as to the consequences for both competition and economic efficiency in regulated industries over delays to entry which deny consumers the benefits of competition. Although it is accepted that the 'light-handed' environment has defects, it does not mean that it is inappropriate. The task is surely to have a regulatory regime that maximises the advantages and minimises the disadvantages, taking all factors into account.

The Privy Council's decision in support of the Baumol-Willig Rule has prompted the government to grapple with the implications of the options that were suggested - either to intervene to set the price for interconnection using the price control provisions contained within *Part IV* of the *Commerce Act*; or to rely upon the Rule not proving to be an entry barrier. The government's central goal was to have a competitive outcome without having to intervene with further regulatory measures. It is this dilemma which has initiated a review of the public policy implications of the case in the form of the combined Discussion Paper.

In order to retain the credibility of its 'light-handed' regulatory environment, New Zealand must confront the direct political challenge of the Privy Council and reaffirm its competition principles and improve the institutional framework.

Let us now examine the conclusions and recommendations of the Discussion Paper which interestingly, was published less than a month before Telecom and Clear finally concluded an interconnection agreement for local access.

3 THE DISCUSSION PAPER'S FINDINGS AND RECOMMENDATIONS

The combined Discussion Paper by the Ministry of Commerce and Treasury was undertaken to consider the issues arising from the interconnection negotiations in New

Zealand telecommunications, and the implications of the Privy Council's support for Telecom's proposed pricing regime. It raises issues of great importance for the economic regulation of interconnection issues both in the telecommunications industry, and in other vertically-integrated natural monopoly industries in New Zealand such as the electricity and gas distribution networks.

Motivation for the paper came from concerns of Clear and other potential entrants such as BellSouth, the Major Users of Monopoly Services group (MUMS), and the government's general desire to maximise the contribution of such crucial industries to economic growth through the promotion of economic efficiency.

The Discussion Paper re-evaluates New Zealand's current 'light-handed' regulatory framework by taking into consideration the concerns voiced by various groups and suggests possible alternatives for natural monopoly access pricing generally, and in particular for telecommunications in the event that Clear and Telecom had failed to mutually agree upon an appropriate interconnection pricing regime.

We recall from earlier discussion that access or interconnection issues, such as those in the Telecom and Clear battle, arise in contexts where (Ministry of Commerce/ Treasury, 1995, p.17):

- i) access to a natural monopoly good or service is necessary for a firm to compete in upstream and/or downstream markets; and
- ii) the firm providing the natural monopoly service also provides services in those upstream or downstream markets.

Hence, Telecom, which owns and controls the natural monopoly facility, the PSTN, is vertically-integrated into the final product market, namely the local service market, and therefore constitute a 'vertically-integrated natural monopoly'.

As detailed in earlier chapters, the New Zealand telecommunications industry now operates within a 'light-handed' regulatory environment which relies primarily upon

general competition legislation to deter Telecom from using its dominant position to restrict competition. This placed potential entrants, such as Clear, in the position of having to negotiate an interconnection agreement with Telecom, and placed an obligation on Telecom to negotiate in good faith to that end. Any such negotiations are essentially governed only by the three elements of New Zealand's 'light-handed' regulation:

- i) the *Commerce Act* s.36's provisions which prevent a dominant firm from acting in an anti-competitive manner;
- ii) information disclosure regulations to assist negotiations and the enforcement of the *Commerce Act* provisions; and
- iii) the threat of further regulation in the form of the price control provisions contained in *Part IV* of the *Commerce Act*.

Under 'light-handed' regulation, competition has emerged in particular segments of the telecommunications industry, for example in national tolls, international tolls and cellular telephony. Despite such achievements, major concerns have arisen surrounding the interconnection negotiations for local service provision, particularly since the Privy Council gave support to the Baumol-Willig pricing rule. Criticism of the Rule has come from many sectors, the most significant coming from disgruntled would-be entrants who argue that the access price is too high to sustain profitable entry. Clearly, the government has also been dissatisfied because of its concern to see competition develop in the industry. Such groups generally concur that its three major pitfalls are:

- i) its preservation of the incumbent's monopoly profits;
- ii) the inappropriateness of the perfectly contestable market model for application in the New Zealand telecommunications industry which is characterised by high sunk costs; and
- iii) its inapplicability to all regulatory regimes, specifically to New Zealand's 'light-handed' regulatory environment in which final product prices are not controlled.

Trade-offs are inevitably involved for whilst the Baumol-Willig price generates productive efficiency but not new entry, a lower price would encourage entry, increase competition and improve dynamic efficiency, but do so at the expense of productive efficiency. In the end, some kind of value judgement seems inevitable.

The Paper generally concluded that “the Baumol-Willig Rule was designed to achieve the goal of productive efficiency, which it does in the most simple, static and certain contexts. However, it is unable to achieve the other goals of overall economic efficiency, namely allocative efficiency and dynamic efficiency” (Ministry of Commerce/Treasury, 1995, p.33). The Paper also concludes that one aspect in favour of the Rule is that it is minimally invasive of the incumbent’s property rights and enables the incumbent to recoup the costs of the Kiwi Share Obligation without having to explicitly quantify those costs. It is these such conclusions which are compatible with the general concerns which have been voiced, as to the Baumol-Willig Rule’s appropriateness for New Zealand’s ‘light-handed’ regulatory environment in telecommunications.

The effectiveness of New Zealand’s ‘light-handed’ regulatory environment has itself encountered serious attack. When ‘light-handedness’ was established, it was envisaged that potential entrants who required access to a natural monopoly facility in order to provide a good or service in an upstream or downstream market, would negotiate their own terms and conditions. If they failed to reach an agreement, they were then to resort to the courts and the application of the *Commerce Act 1986* if the terms and conditions demanded by the incumbent monopolist were considered to be anti-competitive.

Despite the expensive and lengthy local access negotiations in telecommunications, there is no conclusive evidence that the ‘light-handed’ option has failed. Yet there are definite doubts of the current policy environment’s ability to promote competition.

a) The Options

Dissatisfaction with applying the pricing rule, despite the Privy Council's endorsement, has motivated various parties, including economists, Clear, and the Ministry of Commerce, to suggest possible alternatives for interconnection pricing regimes.

The six major options raised in the Discussion Paper are set out below. Each has received varying degrees of support over time from the concerned parties (Ministry of Commerce/Treasury, 1995, pp.93-97).

Option (i): No principles with resolution/enforcement by the Courts

Under this option, which obviously represents the current situation, access pricing is determined with the channel of recourse to the Courts and with reliance upon the provisions of the *Commerce Act*.

The advantages of retaining this regime include the judicial system's built-in safeguards against the parties' influential conduct in court disputes. The publicity of court proceedings and decisions also provides a channel for accountability to the wider society, as does the binding nature of our judicial system's appellate structure.

Support has grown in recent years for the abandonment of the right of final appeal to the Privy Council, and perhaps this would be one option if minor changes to our legal system are to be undertaken. Another possibility is elevating the penalties imposed for breaches of the *Commerce Act*. However, such changes would simply represent avoidance of the crucial point made by both the High Court and the Privy Council, that being that the New Zealand judicial system is not prepared to deal with complex regulatory issues which may require ongoing regulatory influence. Therefore, slight tampering with the status quo may instead produce further complexities and fail to address the difficulties arising from the application of 'light-handed' regulation in telecommunications.

Option (ii): No principles with a new Mandatory Arbitration regime

Mandatory arbitration may be superior alternative to the status quo of court decisions in terms of speed and expense because:

- i) binding agreements result, whereas court decisions can only identify whether specific conduct is lawful or unlawful under the *Commerce Act*;
- ii) the opportunities to appeal are more limited;
- iii) it avoids the lengthy queues for access to the courts; and
- iv) it can involve strict time constraints.

However, among the disadvantages are that mandatory arbitration may encounter strong influences and pressures from interested parties and decisions are not bound to be followed in subsequent arbitrations or court hearings. Obviously then, strong pressures are placed on the belief that the process of arbitration will indeed be a cheaper and faster alternative to the courts.

Despite rather strong support for mandatory arbitration in an effort to resolve outstanding matters, and that arbitration certainly does have its place, by itself it would unlikely be reliable in resolving all disputes in telecommunications. There is no guarantee of an outcome or clear definition of the principles which should be followed. A real danger exists for arbitrariness to creep in and for the outcome to depend greatly upon the identity of the arbitrator.

Option (iii): Broad principles with the courts

If broad principles for access were defined so as to clarify for the parties what their access rights will be, then it may be possible to avoid the pitfalls inherent in the status quo option (i). By so doing, reliance upon the courts, and the associated time and expense, would be reduced.

A drawback is the difficulty associated with specifying meaningful principles in terms of defining parties' rights across a variety of industries. From the experiences to date in telecommunications, there would appear a real need to establish the 'ground rules' prior to the inter-company negotiations.

Option (iv): Broad principles with a Statutory Regulator

This option would ease the burden on the arbitrators to identify and clarify the pertinent issues and instead require them to follow the specified broad principles. Because of the restrictions on the remedies available to the arbitrator it is unlikely that a remedy requiring continual regulatory supervision or a series of ancillary decisions, would be chosen. A related concern is that the arbitrator may not possess or be able to rapidly acquire the industry-specific expertise which would enable them to make an informed decision. It is this concern which has given rise to some support for the establishment of an industry-specific regulatory body, similar to that adopted in the Australian telecommunications industry, namely Austel. That body is charged with the responsibility of fulfilling the role of arbitrator in situations where agreement seems impossible.

However, disadvantages of such 'heavy handed' regulation include 'regulatory creep', whereby the regulator can acquire greater power, and jurisdiction; 'goal displacement', whereby the initial goals for regulation are modified as time progresses; and 'regulatory capture', whereby the regulator shifts their emphasis away from the public interest and toward the specific industry's interest (Ministry of Commerce/Treasury, 1995, p.95). Plainly, the significant degree of discretion ceded to the regulator provides the scope for such distortions to occur.

Option (v): Detailed industry-specific principles with the courts

If it was possible to define clearly the appropriate access-pricing regime, then this may alleviate the potential for disputes. This option would essentially entail an enhancement of Option (iii) by strengthening the clarity and specificity of the principles to be considered. The benefits offered by the judicial process, such as procedural safeguards and precedent could then be achieved, which may actually outweigh the costs incurred in the process of mandatory arbitration.

However, the big question and doubt in many people's minds is whether or not the Courts are sufficiently well-equipped to assess access-pricing disputes. Surely, the

people responsible for deciding such crucial matters require a substantive body of knowledge and familiarity with the area concerned.

Option (vi): Detailed industry-specific principles with Mandatory Arbitration

This option is similar to that suggested in Option (v) with the difference that it instead resorts to mandatory arbitration as opposed to the court process. This alternative is suggested on the grounds that in certain industries which are characterised by rapid technological change, such as the telecommunications industry, the increased expense and time lags inherent in the judicial process may outweigh the benefits which accrue from the procedural safeguards and increased precedent value.

Obviously the design of the most appropriate regulatory framework is dependent upon various factors including (Ministry of Commerce/Treasury, 1995 p.96):

- i) the complexity of the rules that the regulatory institution must implement;
- ii) the amount of discretion which must be delegated to the regulatory institution;
- iii) the information available to the regulatory institution;
- iv) the willingness of the legal system to impose appropriate remedies; and
- v) the value of precedents.

Perhaps in the end it comes down to outcomes, and the costs and benefits associated with each framework.

Despite presenting the above-mentioned options for an access-pricing regime which combine principles and regulatory institution, the Ministry of Commerce was by no means of the opinion that there is a need for change to New Zealand's current 'light-handedness'. Most of the options are said not to be under present consideration by the government. What their presentation does indicate however, is that such policy options have been suggested by various parties as superior alternatives to the current approach in

telecommunications with primary reliance upon the Baumol-Willig Rule for access-pricing determination.

b) A Response

However, a leaning towards compulsory arbitration as the preferred option is quite apparent in the Discussion Paper. This can perhaps be attributed to the officials' recognition from the experiences in telecommunications, that s.36 of the *Commerce Act 1986* is inappropriate on its own to deal with access to 'essential facilities' such as Telecom's PSTN. Hence, it appears that there might be a convergence between the suggestions for compulsory arbitration here and the post-Hilmer Report approach in Australia.

The proposal of the Hilmer Report was that the first step for a firm seeking access to an 'essential facility' in order to provide service in an upstream or downstream market, was to privately negotiate with the incumbent. Then, upon either access refusal or alleged excessive demands by the incumbent, the firm can approach the new regulatory body to have the facility declared 'essential'. That body would then make a recommendation to the Minister and if that facility was indeed declared 'essential', the firm seeking access would have a legally enforceable right to negotiate access with the incumbent owner. If agreement was still not possible, the compulsory arbitration of access terms and conditions would occur under the control of the regulatory body. The key focus of this is clearly on a service provided by a facility rather than a facility *per se*.

The lesson here for New Zealand is that Australia's recognition of the inappropriateness of their s.36-equivalent has prompted them to devise an alternative way, short of regulation, of dealing with access to 'essential facilities' in the form of a legislated arbitration regime. Perhaps on the 'down-side' though, is that the procedure is very laborious and long-winded and does involve a significant degree of political involvement; a situation that the New Zealand governments of the 1980s sought to avoid.

The group MUMS represents interested organisations and companies that are engaged in commercial arrangements, or negotiation, dispute or litigation with monopoly service providers such as gas distribution, electricity supply and distribution and of course telecommunications. Whilst they do favour a move towards a compulsory arbitration regime for any party seeking access to such a facility, there is little support for 'heavy-handed' industry-specific regulation, even from Telecom's discontented competitors. "Direct industry-specific regulation is of limited value and would be a retrograde step," according to BellSouth's Michael Davies. "The New Zealand experience has demonstrated conclusively that despite its shortcomings a deregulated market is a much more effective economic process than one controlled by an industry-specific regulator.

Even a deregulated market which has relatively long delays and high transaction costs achieves better outcomes than regulation" (*The Independent*, p.29, 12 May 1995).

Surely, to establish an industry-specific regulatory body in a natural monopoly industry such as telecommunications, would represent a return to the traditional Muldoon era of governments fixing, regulating and controlling. Such a step back simply does not correspond with today's more liberal economy and society.

Although the compulsory arbitration option was the only one discussed in detail in the Discussion Paper, the writers carefully pointed out that this did not imply that the government favoured it (*The Dominion*, 16 August 1995).

The Ministry intended its review of New Zealand's competition framework, prompted by the four-year deadlock over Clear's entry to the local call market, to be guided by public responses due within a month of the Discussion Paper's release. However, Telecom and Clear's subsequent agreement reached on 4 September 1995 has essentially muted the effect of any responses for at least the next five years, being the duration of the agreement effective from 1 January 1996. Clear chief executive Andrew Makin himself admitted that "the recent Treasury-Ministry of Commerce discussion paper on access to monopoly services was outstanding in its grasp of the issues, and could be

influential in five years' time, when the agreement came up for renewal" (*Evening Standard*, 7 September 1995).

Let us now examine the details of the interconnection agreement for local service provision between Telecom and Clear in order to estimate the compromises on the initial demands made by each party.

4 INTERCONNECTION FOR LOCAL SERVICE PROVISION

4 September 1995 signalled a landmark day in New Zealand telecommunication history for it marked the conclusion to the expensive and time-consuming four-year deadlock to the negotiations for local service interconnection. Both parties have admitted that the government's threat to step in had intensified their talks. As Telecom media manager Clive Litt said, "we had been negotiating intensively before the government made its warnings of the consequences of us not reaching an agreement ... so we were mindful of the warnings but both companies felt it was best to settle it themselves" (*The Dominion*, 7 September 1995). Telecom and Clear have also both admitted that although the agreement was one they could both live with, both had had to make compromises on their initial demands.

The long-awaited agreement is actually more far-reaching than was anticipated in that it does not deal only with interconnection for local service provision. The agreement covers, in addition to the price and conditions for Clear to connect to Telecom's local telephone network, the pricing for Clear's toll bypass link with Telecom due to expire on 31 December 1995 and, for the first time since its entry to the industry, gives Clear access to Telecom's cellular network and '0800' service. The five year deal also clears all existing legal claims between the two companies including:

- i) local interconnection for nationwide service provision;
- ii) toll by-pass interconnection;
- iii) resale of land-to-Telecom cellular calls;

- iv) legal clean slate; and
- v) the Alternative Dispute Resolution process.

Given the importance of the resolution of the local service interconnection dispute, it is interesting to examine the available details of the agreement in order to estimate the extent of each parties' compromise. The interconnection agreement for the provision of local service, which will occur initially in the Central Business Districts (CBDs), was priced on the cost of terminating and originating calls, with an additional contribution which recognised Telecom's network costs. For all **local calls** (Telecom, 4 October 1995):

*Clear pays Telecom call charges at the rate of:

- 2.0 cents per minute during the peak period of 7am-10pm, 7 days per week;
- 0.5 cents per minute during off-peak periods;

+ an additional charge of 1.0 cent per minute as a contribution toward Telecom's fixed and common costs.

*Telecom pays Clear call charges only at the rate of:

- 1.0 cent per minute during the peak period of 7am-10pm, 7 days per week, and linearly increasing to 2.0 cents per minute in Year 5;
- 0.25 cent per minute during the off-peak period and linearly increasing to 0.5 cents per minute in Year 5.

The prices agreed upon are non-adjustable over the five-year period, are exclusive of GST, and are not adjusted for inflation. The linear increases in the call charge will result in symmetrical call charges by Year 5.

Under this pricing structure, there is no consideration of the revenues foregone by Telecom which will result from Clear's service provision. It is unclear specifically how the Kiwi Share Obligation borne by Telecom, which ensures free local calls and restricts line rental price increases to the rate of inflation, would be treated under the agreement. It may be appropriate to regard the additional charge of 1.0 cent per minute paid by

Clear to Telecom as representative of a contribution toward the costs associated with fulfilling that obligation. Telecom recently announced that it is providing its local service at a pre-tax 'economic loss' of around \$150 million a year. The loss, which was first quantified in a paper by strategic issues manager John Crook in April 1995, was again cited in a submission to the government on local service interconnection issues in response to the Ministry of Commerce/ Treasury Discussion Paper (*Evening Standard*, 17 October 1995).

The loss was determined by offsetting profitable local business services, cellular services and tolls calls, against loss-making rural and residential services, and inclusive of an allowance for a reasonable profit. However, despite their claims of an 'economic loss', Telecom said that it was not willing to submit its local service cost analysis to independent audit for substantiation. Despite facing competition for the first time in the local service market, Telecom is confident that its profitability will not suffer. "If you look at the tolls market, where we have had competition from Clear, we have still done very well. There is no reason why the same shouldn't be true in the local service," said Telecom media manager Clive Litt (*The Dominion*, 7 September 1995).

Upon expiry of the five year contract, it is intended that new prices will be agreed upon or, failing agreement, that the existing prices will be 'rolled over' until such time as new prices can be agreed upon either by negotiation or the agreed Alternative Dispute Resolution process, with new prices backdated to 1 January 1996.

The Dispute Resolution process covers all matters which may arise during or at the termination of the contract. Its major features are that:

- i) the process can be initiated by either party to the negotiations;
- ii) the resolution is binding; and
- iii) the process is time limited, unless agreed otherwise by the parties, in the following ways:
 - three months for negotiation
 - private arbitration must commence within two months of either party giving notice
 - private arbitration must be completed within six months of its commencement.

5 CONCLUSION

It is somewhat premature however, to try to imagine the situation in five years time in such a dynamic and profitable industry. What is there to say that Telecom and Clear will both still exist in the industry? Or who is able to predict whether other service providers will not seek entry? Already there are hints that new entrants are 'lurking on the horizon'.

The recent agreement is by no means the 'final chapter' in regards to the emergence of a fully competitive environment in New Zealand telephony. Nor does it 'set in concrete' the industry structure and behaviour of its participants for the next five years. With the prediction of new entry and new technologies, the events over the next five years have the potential to be as interesting and contentious as they have been to date. Many interested parties eagerly await the outcome of the interconnection agreement as it will be most interesting to observe the pace and extent of the development of competition in this section of the market. Such widespread interest is unavoidable due simply to the volume of consumers who are affected by local service provision. Of most interest to the consumer is the potential for competition to result in lower priced and new, innovative services in this dynamic and highly technical industry. The strong competitive pressure that has emerged between Telecom and Clear in toll service operations, for example the weekend toll call price wars, already signal attempts to gain customer loyalty and preference for the future battles in local service provision which are imminent from 1 January 1996. It remains to be seen, the extent of local service price wars as Clear finally steps into this previously inaccessible sector of the market - only time will tell!

CHAPTER 10 SUMMARY AND CONCLUSIONS

The purpose of this thesis has been to explore the changes to the economic and regulatory environment, and their impact on the New Zealand telecommunications industry, over the past decade.

While the focus of attention has been on the telecommunications industry, the key issue of pricing access to an 'essential facility' in a 'light-handed' regulatory framework, is not unique to this industry or country, but is faced by telecommunications and other network industries worldwide which possess natural monopoly characteristics, such as electricity and gas distribution networks.

Various approaches have been used throughout, including an economic and legal analytical approach, a descriptive approach, and an historical approach. These varying approaches have enabled us to consider in a very broad sense, the changes which have occurred in both the New Zealand economy as a whole and more specifically, in the telecommunications industry.

Overall, this thesis has presented an historical survey of the deregulation of New Zealand's telecommunications industry and has examined the factors which have impeded the emergence of competition. To do so, we have examined each step on the path towards deregulation in telecommunications, viewed against the background of the economy-wide liberalisation programme.

In Chapter 1 we saw that New Zealand's economic 'revolution' was motivated by a widespread dissatisfaction with the traditional interventionist approach as it became apparent that New Zealand would only experience long-term economic growth and prosperity if virtually all sectors encountered major restructuring. The emergence of

'Rogernomics' and the demise of the traditional corporatist tendency were the key features of the early 1980s.

Although it was realised that such restructuring would not be without some detrimental effects in the short term, such as high unemployment, these were seen as a minimal sacrifice for the anticipated longer term growth.

Despite all good intentions, implementation of the new strategy was fraught with difficulties and failed to initiate large investment in New Zealand's infant industries. Such shortfalls led to further restructuring and a very apparent leaning back towards the corporatist approach during the latter period of the 1980s.

Chapter 2 demonstrated that greater independence together with the growing complexity of the New Zealand economy developed the philosophy that there was a need for the government to adopt a greater role in order to maintain stability and promote economic growth. Accordingly, the government identified an important role for itself in the maintenance of economic stability and the promotion of economic growth.

In order to fulfil such a role, the government entered into the commercial arena as a means of inducing, stimulating and directing certain actions which were not expected to occur under the 'invisible hand' of the free market. Such actions have differed over time, and have included strict controls, regulation, promotion, protection and public ownership.

Some form of government intervention has been seen as necessary in order to avoid the adverse consequences of unemployment and inflation which result from economic instability.

In 1984, the accession of the new Labour government brought major changes and restructuring which were to be of such magnitude as to justifiably be termed a

‘revolution’.

In Chapter 3, we focused on the government’s policy of corporatisation and the various rationale for its implementation. Overall, the intention was to restructure State enterprises to remove the characteristics which were thought to be impeding their performance, namely:

- i) a lack of clear, non-conflicting objectives;
- ii) a protected operating environment; and
- iii) a lack of management accountability and performance monitoring.

We saw that the standard ‘principal-agent’ problem had arisen in the government department structure due to the above-mentioned characteristics. The main conclusion here was that corporatisation of State businesses, despite possessing the potential to significantly reduce agency costs, still failed to replicate those which could be achieved in a privatised environment.

We examined the design and implementation of New Zealand’s corporatisation programme in order to provide the background information for its subsequent specific application to telecommunications in New Zealand.

Despite problems associated with corporatisation, such as redundancies, without it, much of New Zealand’s industry would have ‘ground to a halt’.

In Chapter 4 we found that corporatisation, by giving State businesses more commercial objectives, did indeed achieve its key objective of improved performance, but not without severe consequences in some sectors, such as employment, due to the significant displacement of workers. The policy encountered strong criticism by such parties as the Union movement as it was viewed as being detrimental to the interests of the New Zealand workforce.

In this chapter, we specifically examined how corporatisation was implemented in telecommunications in New Zealand, and its impact on the former State monopolist. Additionally, we discussed the concurrent programme of deregulation which was designed to remove the barriers to competitive entry.

Telecom soon realised its weakened position in the newly deregulated environment and set out to prepare itself for the inevitable entry of rivals.

Chapter 5 detailed the general rationale for New Zealand's privatisation of State enterprise and examined its implementation in telecommunications as part of the government's wider plan to create a more open and competitive economy. The 'Kiwi Share Obligation' which placed three major constraints on Telecom in respect of pricing, was introduced at this point and we saw how its existence could potentially present a major hurdle in negotiations for competitive entry. Telecom's claim throughout negotiations for new entry, has been that its compliance with that Obligation would impose a substantial financial burden on it, therefore favouring an entrant.

The changes implemented under Telecom's new ownership structure were also examined, including major internal restructuring and price rebalancing aimed at improving its ability to succeed in the more competitive environment which was emerging.

The potential for economic welfare gains from price and cost reductions, as estimated by de Boer and Evans (1995) provided interesting 'food for thought' with regard to the potential for more substantial gains to accrue in a more truly competitive environment.

In Chapter 6 we saw that the challenge to design an ideal regulatory framework in network industries, such as telecommunications, in order to promote the development of effective competition, prompted the New Zealand government to opt for a unique 'light-handed' regulatory approach.

'Light-handedness', in the form of the *Commerce Act 1986*, was intended to encourage the development of competition in the New Zealand telecommunications industry by imposing constraints on the market power of Telecom as the incumbent monopolist.

The Privy Council's 1994 decision served to reinforce the application of this 'light-handed' framework in network or 'essential facility' industries. However, the experiences in telecommunications to date prompt some major doubts as to the effectiveness of this regime to promote competition.

Chapter 7 examined the experience of New Zealand's 'light-handed' regulation in telecommunications over the period 1990-1995. In essence, it demonstrated that the application of 'light-handedness' to the dynamic telecommunications industry has provided a valuable test of the policy's effectiveness and provided some valuable lessons for the future.

A number of strengths and weaknesses of the 'light-handed' approach, specifically in telecommunications, are highlighted and have received subsequent detailed consideration in the Ministry of Commerce/Treasury Paper on vertically-integrated natural monopolies.

In reviewing the experiences in telecommunications over the period 1990-1995, one is reminded of the Commerce Commission's pessimistic forecast in its 1992 Inquiry, that (Commerce Commission, 1992, para 238):

The Commerce Act may be of some help - but of a protracted, expensive and uncertain kind, and with definite limitations on its scope.

This experience provides some useful lessons in respect of the most appropriate method of achieving full and open competition in telecommunications. Serious questions arise concerning the effectiveness of New Zealand's heavy dependence on the judicial system to perform the role of industry regulatory by applying the country's general competition law. The challenge remains clear - to design an ideal regulatory framework in such network industries in order to promote the development of effective competition.

In Chapter 8, the Baumol-Willig Rule for interconnection pricing was examined with the aid of Baumol's railroad analogy, which its proponents claim ensures that service will automatically be assigned to the most efficient service provider.

Although the railroad example was purported to be analogous to the situation in telecommunications, we presented a discussion of the weaknesses of applying the same scenario. These weaknesses arose mainly from the economic unfeasibility of the rival reproducing the 'essential facility', thus rendering it rather unrealistic in the context of local telephone service provision.

The pricing Rule's ability to achieve economic efficiency was also discussed, which consists of three elements:

- i) allocative efficiency;
- ii) productive efficiency; and
- iii) dynamic efficiency.

In so doing, it was crucial to recognise the importance of the dynamic efficiency element of economic efficiency in an ever-changing and highly technical industry such as telecommunications.

We also discussed the three principal criticisms of the Baumol-Willig Rule in order to assess their substance and credibility.

Overall we found that the New Zealand government's concerns at the delays in reaching a settlement for local access culminated in the August 1995 combined Ministry of Commerce/Treasury Discussion Paper. In that paper the implications of the Privy Council's decision for interconnection policy in network industries and for the operation of the *Commerce Act 1986*, were discussed. In reading that Report, it was crucial to bear in mind that although the analysis was specific to the New Zealand telecommunications industry, its substance is analogous to any similar network industry where a potential entrant requires access to an 'essential facility'.

Chapter 9 discussed the recent developments in the battle towards competition in New Zealand local telephony. We saw that the September 1995 agreement by no means signals an end to the lengthy and expensive battle but rather, we envisage the next five years, being the contract duration, to be as interesting and contentious as the last five years have been.

Obviously, of most interest to the consumer is the potential for eventual benefits in the form of lower priced and new, innovative products. However, despite the interconnection agreement for the provision of local service, the Central Business Districts will be the only beneficiaries in the short term. It remains to be seen if, and when Clear or other new entrants will seek to provide low-profit local service to the general consumer.

Unpredictability is a crucial characteristic in a dynamic and highly technical industry such as telecommunications. So many changes have already taken place and more are looming over the next five year period which will provide an interesting and continuing saga in the telecommunications generally, and in particular, in the battle towards competition in New Zealand local telephony.

APPENDIX 1

TELECOM PRICE RE-BALANCING PROGRAMME

SOURCE: Telecom, 1994

November 1988	<ul style="list-style-type: none"> - reductions for National Calls between main centres - reduced off-peak rates - reduced minimum charge from 3 minutes to 1 minute - introduction to Operator Assistance charges - standard residential line rental charges increased by 30-40%
April 1989	<ul style="list-style-type: none"> - 20% reduction for all National Calls over 165 km
November 1989	<ul style="list-style-type: none"> - 20% reduction on all national trunk routes - 10% reduction on the long distance step - standard residential line rental charges rose 7%
February 1990	<ul style="list-style-type: none"> - local call charging for businesses began in Wellington
June 1990	<ul style="list-style-type: none"> - introduction of economy rates, 35 % reduction on International Calls to the UK, USA, Canada, Hong Kong and Singapore
September 1990	<ul style="list-style-type: none"> - prices for Telecom 0800 Calls were reduced from a flat price of 90c per minute (GST inclusive) to 74c for National Calls and 11.25c for Local Calls
January 1991	<ul style="list-style-type: none"> - 5% increase on standard residential line rental charge
November 1991	<ul style="list-style-type: none"> - reduced international calling rates to over 85 countries which account for 50% of all calls from New Zealand - economy rates to some Pacific countries
January 1992	<ul style="list-style-type: none"> - 1.5% increase on standard residential line rental charge
April 1992	<ul style="list-style-type: none"> - introduction of minimum one minute call charge with one second rounding after the first minute (1+1) on Direct Dial National Calls
September 1992	<ul style="list-style-type: none"> - telephone rental standardised at \$3.56
January 1993	<ul style="list-style-type: none"> - 1% increase in standard residential line rental charge
March 1993	<ul style="list-style-type: none"> - restructuring of installation charges for 2mb circuits resulting in the second and subsequent circuits being

- significantly cheaper and prices more accurately reflecting costs
 - additional costs for 0800 were introduced
 - 12 city-to-city introduced with cheaper base rates
 - discounts introduced for time of day and volume usage as well as option for customer to pay sub-minute
- May 1993
- average 1% reduction in national call base rates
 - introduction of '1 minute plus 1 second' charging for cellular calls with average saving of more than 10% per call
- July 1993
- lower base rates for 100 city-to-city routes
 - average 1% reduction in international toll call charges
- September 1993
- introduction of Build Your Business programme offering special discounts on calls, service and equipment to general business customers
- October 1993
- introduction of Friends and Family Off Peak Plan for residential customers
- November 1993
- City Access introduced offering a 15% discount on line rentals for inner city businesses
 - world fax service introduced enabling customer to pay in 30 second lots
 - reduction in price of service to Australia, UK and USA by 25%; rest of world 6%
- January 1994
- 1.1% increase in standard residential line rental charge

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