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New Zealand: The Unique Experiment in Deregulation

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Dramatic changes occurred in New Zealand telecommunications policy starting in the mid-1980s. A traditional government department with a virtual monopoly in the provision of post, telecommunication, certain banking, and ancillary services was separated into three distinct corporations, while its regulatory and policy advice functions were transferred to another government department. Almost all regulatory barriers to market entry were then removed, and the government-owned Telecom Corporation was privatized. In 1991 competition in the provision of domestic and international long-distance services emerged, and plans for competition for local calls and mobile telephony were revealed. At the beginning of the 1990s New Zealand had one of the most liberalized and modern telecommunications markets in the world.

The changes in policy are the most dramatic elements of a complete revision of New Zealand's communications legislation, which in turn reflects a larger, but comprehensive shift in direction of the government's role in New Zealand's economic development. This chapter reviews the development of telecommunications in New Zealand. It considers the corporatization and later privatization of Telecom, identifies the other network operators, analyzes the regulatory environment, reports the reforms in related markets, and concludes with an assessment of the changes. Dordick provides another view of the changes in New Zealand in Chapter 21, concentrating primarily on their context and implications.

20.1 Background

New Zealand has a population of just 3.4 million people but covers a land mass of 269,000 km^2, with literally hundreds of islands. More than 99 percent of the population lives in the two largest: North Island and South Island, which stretch across mainly hilly and mountainous terrain for a combined length of

1,600 km. One-third of the population is in the Auckland metropolitan area. While New Zealand is a highly urbanized society, the rural community has a key economic role because much of its production eventually earns a large part of total export receipts.

Lieutenant Governor William Hobson opened the first post office for the receipt and distribution of letters just a month after New Zealand became a British Crown Colony in February 1840. The government assumed a major role in the provision of communications services for the next 150 years.

Terrain and population density were such that New Zealand was late in accepting the telegraph, but by the end of the 1850s settlement had increased to the point where efficient communication was necessary, and the first experiments in telegraphy took place. A merchant firm built a line between Dunedin and Port Chalmers for its own use, but opened it to the public in 1861. In 1862 the Canterbury provincial government established service between Christchurch and its port at Lyttelton, after which other provincial governments established their own systems. These systems did not provide integrated services for the rapidly growing colony. The Electric Telegraph Act of 1865 consequently brought all telegraph services under the control of the central government and gave the newly formed Telegraph Department the sole right to construct, establish, maintain, and regulate telegraphic communications. Thus, the pattern for a government-owned communications structure throughout the six provinces was set.

Provincial authorities were unwilling to relinquish control to the weak central government, but the latter pushed ahead. A main trunk line was built from Nelson to Bluff—the length of South Island which, until the twentieth century, was the most heavily populated island. By 1866 more than 1,000 km of lines had been established and a cable was laid under Cook Strait to connect South and North Island. This was followed by a North Island main trunk from Wellington to Auckland. It took six years to complete in part because of the terrain. Most towns had the telegraph by the early 1870s. In 1876 a cable from Wellington to Australia was completed, providing a link to the world, as Australia was already linked to Great Britain.

20.1.1 Julian Vogel

Dramatic leadership was provided by Julian Vogel, whom Sinclair has called "the first politician in New Zealand whose talents were at all remarkable" (1984, p. 152). Vogel was a Londoner who had abandoned his grandfather's merchant trading business to make his mark in Australia's Victorian gold fields. He eventually found his way in 1861 to Otago on South Island where he established New Zealand's first daily newspaper and was drawn into provincial politics. It was not long before he was also drawn into national politics, leading the Parliamentary opposition during 1865–1869. In 1870, as treasurer in the new government of William Fox, he propounded "that grand go-ahead" policy with which his name has been associated. (Biographies of Vogel are Dalziel

1986 and Burdon 1948. The standard general history of New Zealand is Sinclair 1984; also useful is *The New Zealand Official Yearbook.*)

Vogel understood that further growth in the colony required much improved transport and communications. Roads were few and poor, the 80 km of railway had three different gauges, and there were only 1,100 km of telegraph. He proposed to borrow £10 million over ten years to finance a rapid extension of transport and communications and to encourage immigration to provide the needed labor. Security was 6 million acres (over 24,000 km^2, equal to about 9 percent of the islands' land area) that lay along the new railway lines and roads.

Vogel believed a strong central government was necessary for the development of the colony. He was opposed by the "provincialists" who wanted to preserve their local authority and power. In 1876, after several years of bickering with his opponents, Vogel, prime minister at the time, abolished the provincial governments. This action accelerated growth of telegraphy.

Without his "grand go-ahead" policy and victory over his provincialist opposition, Vogel could not have created the strong central government needed to provide the environment necessary for a centrally administered national telecommunications system in New Zealand. Vogel, who also served as postmaster general in 1884–1887, thus had a seminal impact on development of telecommunications in New Zealand.

20.1.2 The Telephone

The first official New Zealand trial of a telephone link took place in Blenheim in 1877, using part of the Blenheim–Christchurch telegraph line. New Zealand seemed very aware of the possibilities the telephone offered, and the government encouraged its introduction. The telephone was initially used primarily to extend the telegraph service to communities too small to justify employment of a trained telegrapher. Messages could be called into or from the nearest telegraph office over a direct line from a telephone bureau in the local community. The first telephone exchange was opened in Christchurch in 1881 and had about thirty subscribers. Exchanges were soon established in Auckland, Wellington, and Dunedin. Initially, however, only local calls were possible. Long-distance services began in 1897.

A clause inserted at a late stage during the passage of the Electric Telegraph Amendment Act 1880 provided the Telegraph Department with exclusive rights to the new telephone service. To minimize administration costs, the Act also brought together the Post Office, the Telegraph Department, and the Post Office Savings Bank (which had been started in 1867). Until the passage of the Post Office Act of 1959 the combined departments were known as the Post and Telegraph Department. The new department provided postal, banking, and telegraph services, as well as, by 1900, at least thirty agency tasks for other government departments, including the collection of fees under the Homing Pigeons Protection Act.

When radio communication was introduced in the early 1900s, it, too, was taken under the wing of the Post and Telegraph Department. The first coin-in-the-slot telephone was introduced in 1910 and automatic exchanges were introduced in 1913. The Postal Telegraph Amendment Act 1924 made provision for a radio-broadcasting service, then beginning to develop rapidly.

In 1926 a Cook Strait cable specifically for telephone use was laid. Until then telephone services were largely restricted to the island in which the caller was located. New Zealand's first overseas phone call—to Australia—was made in 1930 using a short-wave radio link; the United States was called using the same means the following year.

Subscribers faced a flat-rate tariff (i.e., a fixed charge was made for access), and no usage charges were made for calls within a local area. Until 1923 the base rate area was limited to one mile from an exchange. In subsequent years the free calling area was gradually extended. Pressure for extension was, in part, prompted by high toll tariffs for calls—especially between neighboring suburbs in metropolitan areas. (Wagner 1984 cites a case study of the integration of the Auckland metropolitan region into one free calling area, which took nearly twenty years to accomplish during the 1960s and 1970s.)

A satellite earth station at Warkworth, north of Auckland, opened in 1971, which enabled New Zealand to join Intelsat. International cable links were also regularly extended, especially to Australia and the Pacific Island nations, and, from 1963, to Canada. A trans-Tasman fiberoptic cable was commissioned in December 1991, and a fiberoptic link to Hawaii is due to be commissioned in 1993.

20.1.3 Legal Framework Before 1987

The legislative framework was periodically revised and regularly amended. The consecutive principal acts were the Post Office and Telegraph Act 1908, the Post and Telegraph Act 1928, and the Post Office Act 1959. The 1959 act provided the legislative basis for the monopoly in public switched telecom services enjoyed by the Post Office until mid-1987. It empowered the postmaster-general, as the cabinet minister responsible for the Post Office, to establish and operate telephone and telegraph services. Section 4 (1) enabled the postmaster-general to delegate any or all of these powers to the director-general as the administrative head of the Post Office.

The erection, construction, establishment, and maintenance of privately owned lines was generally prohibited, unless they belonged to local authorities or the lines were situated entirely on land owned or occupied by one person. Provisions were made, however, for licensing private lines under the telephone regulations. These regulations gave the postmaster-general the power to revoke a license if the line was used "for any purpose that might be construed as an attempt to deprive the Crown of revenue." The regulations also generally prohibited interconnection of private and public lines in more than one place, eliminating the opportunity for bypass of the long-distance toll network. A 1962 amendment defined telegraph to include "any communications transmitted to a distance by any apparatus other than a telephone."

The Post Office, however, was not the sole provider of physical networks.

Other government organizations—such as the railways, forest service, and electricity departments—operated networks, but these were strictly for their own use. Establishment during the 1960s and early 1970s of a microwave relay network for television programming by the government-owned Broadcasting Corporation faced opposition from the Post Office, which considered the activity part of its common-carrier functions. In the end, Broadcasting Corporation got its own network for provision of public broadcasting services, with any telecom services permitted only if they are incidental to the broadcasting function.

New Zealand has a unicameral parliament modeled largely on Great Britain's House of Commons. (A second chamber was abolished in 1950.) Each parliamentary term is of three years' maximum duration. Government by political party has existed since the 1880s. Since 1935 the government has been singularly formed by either the Labour Party or the National Party. Over time, both main parties have become broad coalitions with a strong degree of pragmatism, and without the characteristics of strong ideology and formal factionalism which feature elsewhere. Until 1990 cabinet ministers and ancillary officeholders in the governing party formed a majority of the government caucus. This feature, together with very strong party discipline, meant that the executive was seldom challenged in Parliament.

Government policies were traditionally directed to encouraging the primary productive sector, especially agriculture, protecting the domestic manufacturing sector, financing the development of infrastructure, and providing social assistance. Agriculture was the mainstay of New Zealand's export-dependent economy, and it still accounts for more than half of export receipts.

Great Britain's entry into the European Economic Community in 1973 forced the search for new markets, which, although initially successful, became fragile in the early 1980s. By 1983 the deteriorating economic conditions had resulted in government policies controlling wages, prices, and interest rates, as well as a burgeoning government budgetary deficit equal to 9 percent of gross domestic product, and providing substantial subsidies to export meat producers and large-scale funding of infrastructural development, especially in the energy sector.

The change to a Labour government following the July 1984 general election marks the commencement of a program of comprehensive economic, social and political reform in New Zealand. The average age of the new Cabinet was nearly twenty years younger than its predecessor. Reflecting greater educational opportunities, for the first time in New Zealand history it was predominantly university educated, including several with graduate degrees. An inner core of five ministers led by Prime Minister David Lange and Finance Minister Roger Douglas, dominated the government and dictated the rapid pace of change. (The other three were Deputy Prime Minister Geoffrey Palmer and two associate finance ministers, David Caygill and Richard Prebble.)

The economic reforms included widespread financial deregulation, the cessation of subsidies to farmers and exporters, comprehensive tax reform, including introduction of a value added tax, abolition of import licensing, a major program of tariff reduction, commercialization of government trading (commercial) activities, plus, in the second term from 1987 to 1990, reform of government administration and a major privatization program. (Publications reviewing this period include James 1986, Douglas and Callen 1987, Bollard and Buckle 1987, and Boston et al. 1991. The origins and nature of economic policy changes are addressed in Bollard and Duncan 1992, Williams 1990, and Easton 1989.)

20.2 Corporatization of the Post Office

Prior to the 1984 general election, Labour had no plans for major changes to the organization of the New Zealand Post Office—although a 1982 party internal memorandum prepared by Mr. Douglas declared that "the need to examine 'state commercial enterprises' to see whether they should be pursuing the 'same profit objectives as the private sector'." Two months earlier, the party's leader, Mr. Lange, assured the Post Office Union that Labour's policy was to maintain the enterprise as a single entity under public ownership, and to ensure it had adequate resources to ensure adoption of new technology. Three weeks after the election, in an address to the Post Office Union Annual Conference, Mr. Lange identified the Post Office as one of the most efficient public sector organizations. (See Roth 1990, pp. 260–63.)

After the 1984 general election, the newly elected government, as is standard practice, received a set of briefing papers from the Treasury on the state of the economy. The documents were more coherent and extensive than any before. They revealed that for the ten years until 1983, compared with the average situation for the OECD countries, the annual economic growth rate had been lower, inflation had been higher, the unemployment rate had risen markedly (albeit from exceptionally low levels), and the government annual budget deficit before borrowing had increased, with a consequent rise in government debt both domestically and internationally, and a sharp rise in debt servicing costs. Governments had used inappropriate interventions, relying on specific controls rather than general policy instruments, and thus had failed to address the underlying causes of New Zealand's economic malaise. These poorly targeted interventions included "unwarranted state monopolies in the communications sector" and the "underpricing of state-supplied goods and services".

In its advice, the Treasury drew attention to the activities of the state-owned commercial enterprises (called trading enterprises in the report) which then accounted for over 12 percent of gross domestic product and 20 percent of gross investment. Factors adversely affecting the performance of these enterprises included (p. 270):

1. Their lack of clear, nonconflicting objectives
2. Their operating environment—that is, the special assistance they received and restraints on competition with them
3. The incentives arising from existing arrangements for monitoring performance.

The solutions for improved efficiency lay in separating policy and regulatory functions from trading operations, providing subsidies for social objectives, and greater use of standard commercial methods of accountability and management procedures.

The Treasury's advice did not result in immediate structural changes, although the November 1984 government budget required enterprises, including the New Zealand Post Office, to pay dividends and tax. This largely formalized the previous government's policy of requiring payment in lieu of taxes.

During 1985 a number of common problems emerged as the government focused on performance of major state trading enterprises. In May 1985 the finance minister, attempted to get cabinet agreement to a "comprehensive approach" to all state trading enterprises, but the issue was deferred. Late in 1985 a dismal forecast of a rising budget deficit for the 1986–1987 financial year prompted a major expenditure review. During the review Associate Finance Minister Richard Prebble said "it became apparent that the Post Office was not being customer-driven". On September 19, 1985, the government commissioned two reviews of the Post Office. One focused on the telecommunications, postal, and agency services, while the second examined the banking activities.

On December 12, 1985, in a government economic statement to parliament, the finance minister announced five principles for government state trading enterprises. Managers would be required to focus on commercial objectives and would report to establishment boards whose directors comprised mainly business sector leaders.

20.2.1 The Post Office Review (Mason–Morris) Report

The Post Office Review report was presented to the government in February 1986 and published two months later (Mason and Morris 1986). The report recommended the Post Office be reorganized into three discrete businesses with separate support functions and chief executives so that each business—telecommunications, postal and agency, and banking—was a completely independent unit. Each chief executive would to report to a group chief executive—the director-general of the Post Office. The director-general would be assisted by a deputy, a secretariat, and a policy-regulatory advice group in a small head office. The idea was that if authority and responsibility regarding day-to-day operations was decentralized within each enterprise, they would be able to respond more quickly to market conditions. The split-up was to take place by April 1, 1987.

The report also recommended that basic network services remain a government monopoly controlled by Telecom, that customer premises equipment be deregulated approximately twelve months after the decision to reorganize the Post Office, and that, a further six to twelve months later, the areas of enhanced services be deregulated and opened to market competition. The report also recommended that the Post Office have the flexibility to determine its own pricing policies, that prices be related to current costs, financial objectives, and market conditions, that cross subsidies be progressively minimized, except in relation to urban and rural users, and that the pricing of monopoly services be subject to price surveillance. Further, the Post Office was to carefully examine the effects of its equipment leasing and procurement policies on the locally manufactured equipment industry, especially as import tariff protection was to be lifted concurrently with deregulation. Telecom was instructed to investigate the availability of alternative capital financing, keeping in mind it would be selling rather than leasing CPE in a competitive marketplace.

On May 19, 1986, the finance minister announced "a major restructuring of the Post Office . . . [under which it] will be separated into three government-owned independent business groups." As part of this, the postmaster-general announced establishment of the Post Office Steering Committee. In July 1986 the review of the Post Office Savings Bank was released, and Establishment Boards for the three proposed new companies were created the following month to replace the Post Office Steering Committee (which was formally disbanded in September).

In the latter part of 1986 it was apparent that corporatization could mean significant reduction in staff numbers. Large reductions had already been signaled for the government's coal mining and forestry corporations. In November 1986 the Post Office Union received assurances from the three chairs that all staff would be placed within the restructured organizations. Because the finance sector had already been deregulated and was very competitive, it was agreed approximately 1,300 staff would be transferred from PostBank to Telecom and NZ Post.

The State-Owned Enterprises Act 1986 provided the statutory framework for the reform of major government trading enterprises. Under the Act, Telecom's conversion to a commercial enterprise requires it to be run as such, which means it is to be as profitable and efficient as comparable businesses not owned by the Crown. Another provision states that when the government wishes Telecom to provide a service Telecom would not otherwise provide, the government will pay part or all of the cost for Telecom to provide the service in question, with the amount negotiated by the two parties. The objective is to make subsidies explicit. To ensure availability of service in rural areas (which house about 15 percent of the population) and for low income households, the use of subsidies is anticipated. (The SOE Act is discussed further by Dordick in Chapter 21.)

20.2.2 Corporatization of Telecom

Telecom Corporation of New Zealand Ltd. (Telecom) commenced business April 1, 1987. As the valuation of assets had not been completed, it operated the commercial telecom services formerly provided by the New Zealand Post Office under a special license from the postmaster-general. The regulatory and policy advice functions, principally the Radio Frequency Service responsible for managing the radio frequency spectrum, were transferred to the Department of Trade and Industry (which on December 1, 1988, became the Ministry of Commerce) to form the basis of a new communications division.

Telecom commenced service with 26,500 staff (24,472 full-time equivalents), and the first managing director was the former director-general of the Post Office. Later in 1987, an international search for a deputy managing director located Dr. Peter Troughton, formerly of British Telecom, but no appointment was made. The managing director retired instead, and Dr. Troughton was recruited as the new managing director. He took up his appointment in March 1988. Meanwhile, in December 1987, Telecom's chair, Mr. Roy Mason resigned, and was replaced by Sir Ronald Trotter, who was also Chair of New Zealand's largest corporation, Fletcher Challenge Ltd. Employment at Telecom had been reduced to under 15,000 by 1992.

The Post Office monopoly in the provision of public switched telecommunications network services was transferred to Telecom from its first day of operations. Legislative action to replace the relevant parts of the Post Office Act 1959 commenced shortly thereafter. While Telecom was concerned with the establishment of its operation, officials from the Department of Trade and Industry and the Treasury commenced a major review of the regulatory regime for telecommunications.

20.2.3 How Much Competition?

In July 1987 the management consultant arm of Touche Ross was engaged by the government to report on whether it was in the interests of economic efficiency to introduce greater competition into the network services market, the likely economic and social impact of introducing greater competition, and the possible phasing in of that competition. As part of determining these, Touche Ross examined Telecom's operations.

The Touche Ross report was subsequently published by the government and provides a good summary of the state of the business at the commencement of Telecom's operations. The results were not flattering. A survey of major users found that Telecom was "poor at providing services, communicating with customers and understanding their requirements. It was engineering rather than market driven." It went on to say:

> Telecom is not achieving a level of efficiency comparable to the best practice of overseas telephone companies. Its management systems are outdated and grossly inadequate, making efficient management very difficult. Automation of clerical functions has lagged behind investment in the network. The [efficiency of] utilization of engineering staff on necessary investment and maintenance is low by world standards (p. 99).

The report identified the existence of large cross subsidies between access and toll (long-distance) charges, and between access charges for subscribers in different circumstances. Possible price reductions in real terms of 50 percent for domestic toll calls on most routes, and of 25 percent or more for international calls, were identified. At the same time the report recognized that local access charges—there were no local usage charges—could possibly double.

Subject to interconnect arrangements, the report concluded that competition in network services was possible and sustainable; the resultant losses of economies of scale and scope would be small, and would be outweighed by dynamic gains arising from the greater pressure on Telecom to be efficient, to offer better service, and to be more innovative. Overall, the national economy could only gain.

The government welcomed the report's conclusions and on December 17, 1987, announced competition in the provision of network services would be permitted beginning in early 1989.

20.2.4 An Independent Telecom

On March 31, 1988, an agreement was signed transferring ownership of the former Post Office's telecommunications assets to Telecom. This agreement valued the business at $NZ3,200 million, with an issued and paid-up capital 2,350 million fully paid ordinary shares of $NZ1 each, and a loan agreement for $NZ850 million which Telecom was to repay in six equal installments over a three-year period.

On June 8, 1988, Dr. Troughton advised the shareholding ministers that the corporation was to be restructured and arrangements made to enable competitors to enter the market once the corporation's monopoly was removed. A number of subsidiary companies were established. The organizational structure has been modified subsequently and in 1992 comprised four regional operating companies (ROCs) providing customer services: Telecom New Zealand International Ltd. providing international services; Telecom Networks and Operations Ltd. providing network and toll services to the ROCs; and a group of new venture and joint venture subsidiaries providing such value added services as cellular telephony, mobile radio, and directory services. A small corporate office also provides policy direction.

The 1988 restructuring was designed to ensure a more commercial focus within the corporation and to prepare it for competition in 1989. At the same time Telecom confirmed its willingness to consult widely with the industry about technical and operational arrangements for interconnection. Arrangements would be fair, and charges for interconnection were to be based on costs.

The pace of change accelerated following Dr. Troughton's appointment as managing director. A major capital investment program begun in 1987 had resulted in the expenditure of $NZ2,500 million (U.S.$1,460 million) through 1991, largely for network modernization. As a result, half the exchanges were less than three years old and *more than* 90 percent of access lines were hooked to digital switches. More than $NZ100 million was expended on a new computerized billing system, and the billing cycle was reduced from two months to one month, thereby improving cash flow. Another marked improvement in service was the reduction of the waiting period for a new telephone connection from six to eight weeks, to just forty-eight hours.

In the first five years, over half of the original staff had departed the company, while many others have seen dramatic changes to their duties. Staff reductions were achieved in part by engaging subcontractors, including former employees. People with new skills—especially in finance, accounting, sales, and marketing—have been recruited. A small number of senior executives have come in from overseas—a trend that has continued since privatization. By late 1991 fewer than ten of about seventy senior management personnel remained from the old Post Office days. Remuneration rates for a significant number of staff are at least in part determined by performance bonuses.

The changes were mirrored in the Post Office Union. In the past, even senior management were voluntary members. In 1987 Telecom immediately identified about 2 percent of all positions that it negotiated as being exempt from union coverage. By 1991 the number of exempt positions had reached more than 10 percent of all positions. The much shrunken Post Office Union, which had also witnessed a 35-percent reduction in the number of postal workers, merged with the Engineers Union to form the Communications and Engineering Workers Union on April 1, 1992.

In November 1988 Telecom commenced a gradual program of tariff rebalancing with reductions in charges for domestic and international long-distance services and leased lines, while residential tariffs have increased. Business customers received a reduction in monthly access charges but faced introduction of timed usage charges for local calls. As with many of the changes, this was first done in one regional operating company, then refined before its gradual extension in the remaining ROCs. The tariff rebalancing program and consequent marketing promotions, combined with the introduction of new services (such as a cellular telephone service) has changed the relative proportions of the sources of Telecom revenue. In the financial year ended March 31, 1991, local services earned 34 percent of total revenue, domestic toll calls 22 percent, international calls 20 percent, and other services provided the remaining 26 percent. The strongest revenue growth was in international calls and other services.

The November 1988 reductions to domestic toll tariffs were the first changes since a set of price increases in 1985. This change, together with changes in April and November 1989, reduced the number of tariff steps, increased the number and extent of discounts according to the time of day, reduced the minimum charge call time from three minutes to one minute (additional time remained rounded up to the next full minute), and shifted the basis for charges away from the actual distance called toward the density of traffic volumes on each route. Telecom subsequently introduced occasional weekend special rates that represented a further reduction in the higher step tariff rates.

20.3 Privatization

In 1986–1987, the Labour government vigorously denied suggestions that corporatization was just a halfway house to privatization. Corporatization was designed to achieve considerable gains in the efficiency, financial performance, and accountability of these state trading activities. This view was readily reaffirmed in the Party's manifesto for the 1987 general election, which stated that

Labour would ensure that all three post office corporations remain in public ownership.

During this period there was a growing feeling that a privately owned company, subject to stock market scrutiny, was likely to be more efficient than a state-owned enterprise (see, e.g., Jennings and Cameron 1987). While accepted by key economic ministers, such a view was unlikely to command a majority in the government caucus. An alternative rationale was provided by the government's own debt situation. Despite early success in reducing the deficit—initially through slashing subsidies to farmers and exporters, as well as comprehensive tax and expenditure reform, significant problems remained. The main drivers of government expenditure were social services (health, education, housing, social welfare benefits, and pensions) and Government debt servicing. Since social services were inviolate to the Labour Party, asset sales targeted to reduce debt were advocated.

In December 1987 the minister for state-owned enterprises, Richard Prebble, confirmed a major assets sales program with "an objective of retiring one third of the public debt by 1992" because "the current level represents a serious impediment to economic growth" and accounted for 20 percent of government expenditure. The desirability of any sale would be assessed on a case-by-case basis, and only made when competition had been permitted.

In 1987–1988 the privatization program focused on enterprises operating in very competitive markets, but it was apparent that if the target of $NZ14 billion in debt reduction was to be achieved, some major assets, such as Telecom, would need to be sold. For telecommunications, however, the focus throughout 1988 was on implementing reforms following the Touche Ross report.

In 1989 National Economic Research Associates (NERA) was commissioned to evaluate the economic issues relating to the privatization of Telecom. The report, completed that June, assessed a number of options in an endeavor to promote competition. These options included removal of international, intercity, or radio-based (cellular, mobile radio) services from the corporation, although no restrictions on Telecom's subsequent re-entry to these markets would be made. NERA concluded that such actions would reduce the benefits of economies of scale and scope, and would also mean a delay that would affect possible timing of Telecom's privatization. NERA also recommended Telecom be obliged to disclose prices for certain services.

In October the government announced it would take action to establish regulations requiring information disclosure by Telecom. In March 1990 Parliament enacted the legislation necessary to permit a sale (essentially removing Telecom from coverage of the State-Owned Enterprises Act and associated legislation) and to allow regulation-making powers for information disclosure. The Telecommunications (Disclosure) Regulations 1990 were promulgated in May and took effect on July 1, 1990.

Sale of Telecom by tender was announced on February 23, 1990. The call for expressions of interest yielded nineteen responses. Indicative bids were invited and the list of interested parties was then reduced to five for the due diligence phase.

The government offered up to 100 percent of the corporation for sale, but was willing to accept tenders for a more limited shareholding. A key aspect was the condition that a maximum 49.9 percent "strategic" stake could be taken by any overseas party, although the government was willing to entertain the possibility that the strategic stakeholder could purchase 100 percent and then reduce that to 49.9 percent over a three-year period. The government also required that at least $500 million worth of shares be made available by public offering on the New Zealand market. The government also announced it would retain a single share (called a Kiwi, or golden share) with special voting rights to control the maximum shareholding of any single foreign party and transfers of blocks of shares among parties, as well as to ensure Telecom Corporation's compliance with its residential services pledges. (The kiwi bird is New Zealand's symbol.)

At the same time as the due diligence phase, work was undertaken to prepare for the subsequent float of any shareholding not required by the strategic shareholder, and to value that remaining parcel.

Although the identities of all the parties and the compositions of other bidding consortiums were never formally disclosed, except for the successful bidders, others known to be actively involved included Cable & Wireless, SouthWestern Bell, GTE, OTC (the Australian international carrier), and Brierley Investments Ltd. (a large New Zealand company). Another New Zealand firm, Fletcher Challenge, attempted to provide a late bid emphasizing local ownership, but this was rejected.

Public reaction to the sale was very mixed, to say the least. During the due diligence process Wellington's morning paper editorialized that reference to the Government's debt problem as a justification for the sale, was a "red herring". After noting the considerable public investment built up over 130 years, and the recent improvements in operating efficiency, the editorial concluded: "Telecom's best days are yet to be. The benefits ought to be shared by the whole community. If it were not for Mr. Prebble and his myopic colleagues, they would be" (*Dominion*, June 1, 1990).

The role of the main Opposition Party in the New Zealand Parliament is to provide a responsible outlet for criticism of the government. The National Party, reflecting the public opposition to the sale, stated that if elected to be the government, it would limit overseas ownership in Telecom to 24.9 percent and would require any successful overseas owner to reduce its shareholding to that level. It also considered that the service commitments were insufficiently protected, and its spokesperson introduced a private Member's Bill to enshrine the commitments into the statute books. The move was unsuccessful.

The precise value of each bid was never disclosed, but all bids were assessed on the basis of the total revenue achieved from the sale of a full 100 percent of shares.

On June 12, 1990, the government announced the successful bid, for 100 percent of the shareholding, was from a consortium lead by two U.S. regional Bell holding companies, Ameritech and Bell Atlantic. The bid was for $NZ4,250 million, and the sale would be effective beginning September 12, 1990. The consortium would sell 5 percent to each of Fay, Richwhite and Company Ltd and Freightways Holdings Ltd., both New Zealand companies, that had acted as advisors to Ameritech and Bell Atlantic during the sale of Telecom. Over three years Ameritech and Bell Atlantic agreed to reduce their remaining 90% to 49.9 percent.

The government agreed that $NZ250 million would be earmarked for health and education programs in an attempt to pacify some members of the public, while $NZ4,000 million would be used to retire government debt. After the 1990 general election, the new National Party government cancelled the $NZ250 million commitment and redirected it to debt reduction. The sale represented the largest sale in Labour's privatization program, and accounted for almost half of all sales, which totaled approximately $NZ9,000 million. The proportion of total funds used for actual debt reduction, however, was considerably less.

The success of the bid by Ameritech and Bell Atlantic was attributed to the parties beginning their assessments of Telecom New Zealand in the second half of 1989, well before the government formally announced its intention to sell. The two companies had other joint business arrangements elsewhere in the world.

The sale price represented $NZ1.82 for each ordinary share. Financial market reaction was positive. Most commentators observed that the Government had received a good price. Many suggested the government had achieved possibly as much as $NZ1,000 million beyond the expected realization. Mr. Prebble claimed the price even exceeded the Treasury's top estimate of $4,190 million. The sale quadrupled American foreign investment in New Zealand.

The new owners retained the existing management team. A new nine-member board of directors was appointed. Only Mr. Peter Shirtcliffe and Dr. Peter Troughton remained from the previous board, with Mr. Shirtcliffe being confirmed as Chair. Five were New Zealand citizens, including Dr. Troughton who had just taken out New Zealand citizenship, while the remaining four were appointed by Ameritech and Bell Atlantic. Telecom's articles of association (see section 16.4.1) requires at least half of the Directors be NZ citizens.

In 1991 Ameritech and Bell Atlantic undertook the initial public offering of ordinary shares. The offering was made on a worldwide basis, with particular emphasis in New Zealand, Australia, the United States and Canada. The company is listed on the New Zealand, Australian, and New York Stock Exchanges (as ADRs equal to twenty ordinary shares).

In New Zealand the shares were offered at $NZ2.00 each, a 10 percent increase on what Ameritech and Bell Atlantic had paid. About 30 percent of Telecom's total shares were sold, and in the process each made an after tax profit of NZ120 million. Soon after listing the stock soared to $NZ2.70 but has subsequently traded just above its offering price, as investors assess the impact of a new tariff structure for domestic long distance calls. A further 10 percent of shares are offered by the majority holders by September 1993, reducing their combined holdings to 49.9 percent.

A 1991 amendment to the Broadcasting Act 1989 removed the specific limits on foreign investment in the New Zealand broadcasting industry. Shortly thereafter, Ameritech and Bell Atlantic, in conjunction with subsidiaries of two of the largest U.S. cable television companies, Tele-Communications Inc. and Time Warner Cable Inc., acquired 51 percent of Sky Network Television Ltd. Sky provides subscription television services in Auckland, Hamilton, Wellington, and Christchurch, which are New Zealand's four largest cities.

In February 1992 the resignation of Dr. Peter Troughton was announced. He had played a key role in the transformation of Telecom, but there were some differences of opinion with the major shareholders. He continued to act as a consultant.

20.4 Other Network Providers

There are four other main service providers: Clear Communications Ltd., Netway Communications Ltd., BellSouth New Zealand Ltd., and Optus Pty Ltd.

20.4.1 Clear Communications Ltd.

Clear is jointly owned by Bell Canada International, MCI International, Television New Zealand (the state-owned television service), and Todd Corporation (a private New Zealand investment firm).

In addition to utilizing the digital microwave telecommunication links owned by Broadcast Communications, a subsidiary of Television New Zealand, Clear leased, then purchased, two fiberoptic cables from New Zealand Rail that run between Auckland and Wellington. It also leases fiberoptic capacity between Wellington and Christchurch from Electricorp.

New Zealand Rail (the government-owned railways service) commenced interconnection negotiations with Telecom soon after competition in network services was permitted in April 1989. Later that year it suspended these negotiations to join a consortium with MCI International and Todd Corporation to provide long-distance and international services. At the same time, a consortium of Television New Zealand and Bell Canada International was established to provide long-distance, international, and local services. Both consortia commenced interconnection negotiations with Telecom in December 1989.

The use of the telecommunications assets owned by other state-owned enterprises (SOEs) on commercial terms highlights a vital component in the early development of competition. The interests shown by some SOEs in entering telecommunications markets (and other markets as well) prompted the government to establish principles for business diversification. SOEs were obliged to confine their activities to those covered by their statement of corporate intent. A distinction was made between diversification within the core business (i.e., Telecom's earlier establishment of a cellular telephone service) and diversification using existing, but noncore, assets (i.e., NZ Rail's fiberoptic cables). This distinction ruled out new telecommunications investments by other SOEs unless it was incidental to core business new investment, such as Electricorp's link between Wellington and Christchurch during installation of new power lines, and primarily for the purpose of the corporation's own communications needs. One affected SOE was NZ Post, which was concerned that the policy would largely confine it to the more traditional segments of the communications market. Prior to the decision, NZ Post had been considering a joint venture with Cable & Wireless to test CT2 service, a radio-based telephone service pioneered in the United Kingdom.

Although both consortia were able to utilize the existing telecommunication assets of SOEs, they soon that realized the New Zealand market was not large and that their existing network facilities complemented each other. The two North American parties discussed the situation and announced a merger in May 1990, creating Clear Communications. The parties confirmed their commitment to the venture in October 1990.

Negotiations for an interconnection agreement with Telecom proceeded through 1990. A memorandum of agreement was concluded in August, and the definitive agreement for long-distance and international services was signed in March 1991. The interconnection agreement was internationally unique in that it did not involve the government, any government agencies, or any intervention by the courts: It was negotiated by the two carriers alone.

The agreement provided for seventeen points of interconnect in fifteen different localities (free calling areas) throughout the country. Clear is able to receive calls from Telecom's network in any of those localities, which contain approximately 85 percent of all telephones (and almost the same proportion of the population) in New Zealand. Clear made a request to Telecom for fifteen additional interconnection points in late 1991 representing other local exchange areas. The matter is still under negotiation, but some difficulties have been identified. In all Telecom has 110 local exchange (or free calling) areas. After conveying the call on its own trunk bypass facilities, Clear is able to deliver that call to any telephone in New Zealand by linking back into Telecom's network. Telecom charges Clear an agreed per minute rate for the tails at each end of a call, together with any long-distance fees incurred in the final delivery stage and a flat fee for the automatic number identification for each call. Clear operates its own billing service, as an earlier request to Telecom by MCI–Todd for the provision of both billing, name and address (BNA), and billing on behalf, services was rejected. At the time of that request Telecom filed proceedings in the High Court seeking a declaratory judgment supporting its right to decline provision of these services.

Clear commenced services in April 1991. Its first-year growth was remarkable. It garnered some 40,000 business and residential customers, and, more importantly, had approximately 9 percent of the domestic toll market one year later. Clear initially relied solely on Telecom for dispatch of international calls, but in 1992 it commissioned independent facilities. It now has a satellite earth receiving station in Auckland and is a member of the Tasman-2 fiberoptic cable consortium. It also joined the PacRim East consortium.

Clear also wants to provide local business access and 0800 (toll-free) services. Although these were also contemplated by the August 1990 Memorandum of Agreement on interconnection, difficulties have arisen in the negotiations. In particular Telecom is adamant that Clear should pay an access levy as a contribution toward Telecom's service obligations. Clear filed an action and a High Court hearing was set. This was the first major court action between the two parties.

Clear Communications' entry into the long-distance market has resulted in a number of changes to toll tariffs. Clear introduced six-second rounding after the first minute. It also introduced a number of discounts—including those for time of day, large volumes of calls, prompt payment, and direct payment. Altogether the discounts represented a reduction of approximately 15 percent on Telecom's standard charges. The occasional weekend specials, first introduced by Telecom, saw both companies offering the same rate, at a considerably lower level. In April 1992 Telecom announced one-second rounding after the first minute for domestic toll calls. Clear promptly matched this and extended it to international call charges—a move Telecom followed.

Clear customers use its network by dialling an access code prior to dialing the national number of the recipient. Some customers, especially businesses with PBXs, have programmed their lines, but most customers have to dial the three-digit access code each time. BellSouth's cellular customers will dial an access code of similar length and type to Telecom's cellular customers. The concerns at the possible competition implications of the numbering pattern prompted the Ministry of Commerce to conduct an investigation.

20.4.2 Netway Communications

Netway was originally owned jointly by Telecom and Freightways (which owns 5 percent of Telecom). Telecom had an option, which it exercised, to buy all of Netway during 1992. Netway offers integrated voice, image, and data network services to corporate and government customers throughout Australasia.

20.4.3 BellSouth New Zealand

BellSouth NZ is a subsidiary of BellSouth International, which in turn is the international operating subsidiary of the Atlanta, Georgia-based regional Bell holding company. In 1990 the Company successfully bid for one of the bands suitable for cellular telephony. The company's bid was \$NZ85 million and, under the second-price bidding system used, the actual price was \$NZ25 million.

BellSouth has chosen to use digital GSM, which has just been launched in Europe. It offers many added service features, and subscribers would be able to use their own telephones in Europe and Australia. Over the ten years subsequent to 1992 the company plans to employ 100 staff and invest more than \$NZ150 million in establishing its network.

BellSouth has announced Clear Communications will provide the main network trunking services, and it expects to commence commercial services in early 1993. In March 1992 the company reached agreement in principle on the key commercial aspects of an interconnection agreement with Telecom; negotiations are proceeding on the key technical, operational, and contractual arrangements.

20.4.4 Optus Communications Pty Ltd

In late 1991, Optus (in which BellSouth Australia has a 24.5 percent shareholding) was licensed to become the second Australian telecommunications carrier. As part of the deal Optus acquired the assets of the satellite company Aussat. These include satellite earth stations in Auckland and Wellington that provide a link to one of its trans-Tasman satellites. Aussat provides trans-Tasman voice, image, and data services.

20.5 Regulatory Policy

The unique feature of New Zealand telecommunications is the regulatory environment. There is no industry-specific regulatory agency or comprehensive set of industry-specific statutes, nor are there lines of business restrictions within the sector, or between this sector and similar activities such as cable television. In addition there are no specific foreign investment restrictions, except for Telecom, for which the major shareholding must be reduced to 49.9 percent within an agreed time and any other shareholding exceeding 10 percent requires the consent of Telecom's Board and the government.

Instead, the main reliance is placed on the Commerce Act 1986 (as amended by the Commerce Act 1990), which is the general competition (antitrust) law in New Zealand. The 1986 statute reflects a keen desire to establish a robust competition framework for New Zealand to improve the performance of the economy. The Commerce Act thus formed an integral part of the Labour government's economic reforms, although its enactment was partly the result of the 1983 commitment by the then National Party government to harmonize New Zealand's competition laws with Australia under the Australia–New Zealand Closer Economic Relations and Trade Agreement (ANZCERTA). The Act is modeled on the Australian Trade Practices Act 1974, which in turn reflects American antitrust policy (see Ahdar 1991). Three parts of the Act have major relevance to the telecommunications sector.

Part II includes prohibitions on contracts, arrangements, and understandings that substantially lessen competition, exclusionary provision, price fixing, resale price maintenance and the use of a dominant position in a market for the purpose of restricting, preventing, or deterring entry or eliminating a person from a market.

Part III relates to mergers or takeovers. The objective is to prevent any acquisition that results in acquiring or strengthening a dominant position in a market, unless the acquisition can be justified in terms of public benefit—a difference with U.S. standards. The regime includes offense and remedy provisions aimed at encouraging the prior clearance or authorization of all mergers that raise competition issues.

Part IV makes provision for the imposition of price control generally, or on particular firms, or even specific products and services, in circumstances where the minister of commerce is satisfied that conditions of effective competition do not exist and control is necessary to protect users or consumers or, as the case may be, suppliers. Price controls were used extensively before 1985, but have subsequently been used very sparingly.

The Fair Trading Act 1986 (as amended by the Fair Trading Amendment Act 1990) prohibits defined unfair trading practices, and false or misleading representation. It also contains product safety requirements.

The Commerce and Fair Trading Acts are enforced by the Commerce Commission, which is an independent statutory body. The commission has five members and its own staff. To assist in enforcement, especially in inquiries involving network industries with natural monopoly elements such as telecommunications, it is able to engage specialists.

There have been three major cases involving the Commerce Act with respect to competition in telecommunications. One relates to the interest of Clear Communications in providing local access services to selected business customers. Clear has filed proceedings directly in the High Court demonstrating the process anticipated in key cases involving major parties. Another case relates to acquisition of additional cellular spectrum licenses (and is discussed later).

The third and longest running case involves a complaint to the Commerce Commission over Telecom's tariffs for short-distance 2 Mbps data transmission links. This service was originally marketed as Megaplan. Telecom raised the tariff in December 1988 and again in April 1989. The cumulative effect was an increase of 588 percent. The Information Technology Association of New Zealand (ITANZ) nearly pursued action after the first price increase, and did lodge a formal complaint with the Commission after the second. The complaint was amended to its present form by August 1989. In addressing the complaint, the Commission has utilized the full range of its investigative powers (see Lojkine 1991). In late 1991 the Commission concluded its investigation and announced it was filing proceedings in the High Court against Telecom's actions. During 1991 Telecom reduced the particular tariffs to a level lower than those prevailing in March 1989. Also in late 1991 the Commerce Commission launched its own inquiry into the competition in telecommunications markets and the factors affecting its development, including the information disclosure regime. At the start Telecom questioned the Commission's powers to hold such an inquiry and initially withheld cooperation. It eventually agreed to make a submission.

20.5.1 Telecommunications Act and Regulations

To augment this reliance on general competition law, there is a Telecommunications Act as well as two sets of regulations made under the Act. The Telecommunications Act 1987 became effective July 1, 1987. The Post Office Act

1959 was repealed on the same date. Under the Act it is not essential to be designated a network operator to provide telecom services. Telecom is deemed to be a network operator and fourteen declarations, mainly by companies proposing to establish cable television services, have been made since this legislation came into force.

Restrictions on the provision of telecommunication goods and services have been abolished progressively since 1987 with passage of the Telecommunications Act 1987 (providing, inter alia, for phased relaxation of restrictions on customer premises equipment) and with the commencement of the Telecommunications Amendment Act 1988 (removing restrictions on the supply of telecom services of all kinds on April 1, 1989). The Act's remaining provisions relate to the promotion of competitive conditions with respect to land access and regulatory powers with respect to international telecom services. The Telecommunications Amendment Act 1990 established regulation-making powers used to establish information disclosure requirements on Telecom, with the purpose of facilitating effective competition.

The Telecommunications (International Services) Regulations 1989 require registration of any person providing public switched telecom services or leased circuits between New Zealand and any overseas operator in a territory outside New Zealand. There are currently five registrations. Registered providers are required to comply with such international telecommunications agreements and conventions to which New Zealand is a party. When representing New Zealand at meetings of international organizations, Telecom is expected to comply with New Zealand's foreign policy and the government's telecommunications policy.

New Zealand is bound by the ITU Nairobi Convention of 1982, which it has ratified. Technical standards in New Zealand are generally in accordance with the recommendations issued by the ITU's International Consultative Committees on Radio (CCIR) and on Telegraph and Telephone (CCITT). The Ministry of Commerce represents the New Zealand government at the ITU. It has wide-ranging consultations with users and providers of telecommunications facilities within New Zealand. Telecom and major broadcasters participate directly in the work of the CCIR. CCITT representation is mainly provided by Telecom, with arrangements for national coordination through the Ministry of Commerce.

Telecom is New Zealand's designated signatory to the Intelsat and Inmarsat Operating Agreements, but the government retains the right to review that appointment. Telecom has established an Office of Signatory Affairs to process applications from competitors for satellite capacity on a separate basis from Telecom's own commercial interests.

The Telecommunications (Disclosure) Regulations 1990 impose certain information disclosure requirements on Telecom and its subsidiaries. These recognize that Telecom does not presently face effective competition. Under the Regulations, Telecom is required to publish information with respect to its subsidiary regional operating companies, which most closely represent the natural monopoly component (the local loop) of its operations. This includes:

1. Financial statements following generally accepted accounting principles for each ROC as if they were independent and unrelated companies, together with information on the accounting policies adopted.
2. Prices, terms, and conditions for all local loop products and services (including interconnection) including those provided to other parts of Telecom or sold under private contract.

Local loop products or services are defined as line rental, local telephone call charges, local and international toll call charges, leased circuits, and interconnection for other networks (telephone, telex, packet switched, cellular radio, mobile telephone, and radio paging). In addition to the standard or list prices for the specified products or services, Telecom is required to disclose the principles or guidelines applied in determining discounts.

Financial statements are published every six months. Information on prices, terms, and conditions was published in October 1990; there are quarterly updates on any modifications, and a comprehensive set of the information published every two years. Each publication forms a supplement to the Government Gazette.

On November 7, 1989, Telecom's Board provided the government with three pledges with respect to its residential services. The government included these in the Articles of Association of the Corporation prior to the settlement of the sale. Changes to these specific Articles, and certain others, require consent of the government as Kiwi shareholder. These commitments are described in the following from Telecom's Articles of Association.

11.4.2.1 Local Call Charging. A local free-calling option will be maintained for all residential customers. Telecom, however, may develop optional tariff packages that entail local call charges for those who elect to take them as an alternative.

11.4.2.2 Price Movement. Telecom will charge no more than the standard residential rental for ordinary residential telephone service and from November 1, 1989, the pre-GST standard residential rental 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.

11.4.2.3. 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.

In 1990, Telecom Corporation also agreed to a request from the minister of consumer affairs to publish quality of service indicators for residential service.

In addition, Telecom Corporation operates a permit to connect program under which anyone seeking to provide equipment for connection to the Telecom network must gain prior approval. The purpose is to check safety and compatibility features. This has gained widespread acceptance from the industry and from the public. As with all the conduct of Telecom, operation of this program is subject to the Commerce and Fair Trading Acts.

Both the present National Party government and the previous Labour Party government remain committed to the present "light handed" regulatory regime for telecommunications. The present government issued a formal statement reaffirming this commitment in December 1991. The statement also indicated that the government would introduce further regulatory measures, should that prove necessary, in the interests of facilitating the development of competition.

20.6 Reforms in Related Markets

The Telecommunications Act 1987 made provisions for the phased deregulation of CPE beginning with residential wiring and telex equipment from October 1, 1987, other wiring, and telephone handsets from May 1, 1988, and PABXs from April 1, 1989. Telecom continues to offer equipment for rental. There is a large number of equipment suppliers, and a significant range of equipment available.

Telegram service was transferred from Telecom to The Telegram Company, a division of Netway Communications, a nongovernment company, in August 1988. There is a three-digit toll-free number for access.

20.6.1 Import Tariff Policy

Since 1986 the government has been engaged in general tariff reduction as part of an overall strategy of reducing industry protection levels. The Post Office purchased only a small share of the output of the local electronics industry. Domestic manufacturers, however, received a one-off production stimulus with the conversion from rotary to touch-tone dialing handsets in 1986–1987. Between 1986 and July 1992 tariffs have fallen from 45 to 19.5 percent, and further reductions, to 13 percent, are planned through 1996. Canada enjoys a preferential rate. Under the ANZCERTA agreement, Australian telecom equipment is imported tariff-free. The level of tariff is also influenced by the level of domestic production, and some goods have a lower tariff level. The range of equipment manufactured in New Zealand is relatively limited, while the tariff descriptions are fairly general. As a consequence the list of concessions in Part II of the Customs Tariff has grown in recent years.

Imports of telecom equipment have grown steadily since the early 1980s (although there was a decline in the 1991 calendar year), and have readily exceeded $NZ200 million annually since the late 1980s. More than 60 percent of these have been for high-value goods, reflecting the considerable investment program of Telecom and, more recently, of Clear Communications. High-value goods include switching apparatus (of which NEC of Japan is the main supplier) and line systems.

20.6.2 Radiocommunications

The Department of Trade and Industry and the Treasury commissioned NERA in July 1988 to examine options for the management of the radio frequency spectrum. This was to assist the design of policies for the deregulation of the telecommunications and broadcasting industries. The main objectives were (1) to assess options that would maximize economic efficiency in the use of the spectrum; and (2) to evaluate and recommend practical and equitable options for the implementation of an allocation and management regime.

Until 1987 the Post Office was responsible for management of the radio frequency spectrum. Bands were allocated to the main government agencies—the Post Office, the Broadcasting Corporation, and the Ministry of Defence—for their respective use. The radio frequency service (RFS), which managed the spectrum, was transferred to the Department of Trade and Industry following corporatization of the Post office in 1987 to form, with the addition of a small policy group, a new Communications Division. The cost of the RFS operations is met by revenue from license holders.

The RFS planned and coordinated the use of spectrum required for private use. Assignments were determined in an administrative manner, after having due regard to government policy, and in accordance with internationally recognized practices. Those for broadcasting were licensed by a warrant system, which in practice seriously limited opportunities. As a consequence, the administrative process—a public tribunal hearing—was long and expensive. Thus, the total cost to all parties of the hearing for the allocation of the third national television license is estimated at $NZ20 million. The station was licensed in October 1987 and began broadcasting November 27, 1989, reaching about two-thirds of the population.

NERA concluded deregulation of the telecommunications and broadcasting industries and future growth in demand for spectrum will mean the RFS increasingly will have to make choices between competing uses and users. In the absence of price rationing, it was expected that excessive demand for certain services, including mobile radio and cellular telephony, could occur within the next ten years (NERA 1988, p. 1).

Provision was made for two cellular networks following the American AMPS standard. Telecom was assigned the B block of frequencies, while the A block was reserved for a possible competitive system. Telecom commenced services in Auckland in late 1987. It then extended to Wellington and Christchurch, and now covers most of the country (in terms of population).

NERA recommended the use of market-based solutions to ensure the optional and efficient allocation of spectrum resources. It specifically recommended the use of a "second-price" sealed-bid auction system to determine the successful bidder, which is a method that avoids payment of an "excessive" price. The two existing cellular blocks were identified as top priority for auctioning as this would help promote competition and maximize revenue.

The report recognized that "a small number of organizations could dominate the spectrum market, and hence stifle competition in the main downstream markets of telecommunications and broadcasting." To overcome this difficulty, NERA recommended the use of existing competition law, especially with respect to the essential facilities doctrine, or even government-imposed limitations on what could be acquired by one firm.

The Radiocommunications Act 1989 introduced fundamental reforms to the management of the New Zealand radio spectrum in order to facilitate competitive entry in telecommunication and broadcasting, as well as to promote efficiency in spectrum management. Provision is made in the Act for establishment of management rights of up to twenty years and subordinate licenses in the name of the secretary of commerce, and for transfer and subdivision of such rights. It is the Government's general policy that where demand for such rights or licenses exists, supply will be forthcoming.

In 1989, during the Parliamentary passage of the Radiocommunications Bill, sufficient concern was expressed by incumbents, mainly sound radio broadcasters, at the possible loss of existing spectrum rights under competitive tendering, that the government amended the legislative proposals to provide surety. (NERA had recommended an initial three-year grace period for incumbent users to vacate the spectrum in the event they were unsuccessful in the auction.)

The Ministry of Commerce invited expressions of interest in spectrum for cellular radio (mobile phones) and other telecommunications purposes in October 1989. Five spectrum bands were identified for consideration, and were designated as the AMPS-A and B, and TACS-A, B, and C bands. The AMPS-B band was already used by Telecom Cellular Ltd., and it enjoyed incumbency rights under section 154-161 of the Radiocommunications Act.

John Murray Associates, a U.S. consulting firm, reviewed the responses to the expressions of interest. Their 1990 report identified that the TACS-A and B bands were lightly used for point-to-point communication links while there were 124 assignments in the TACS-C band. The report recommended nationwide allocation and identified three options—to offer one, three, or four bands for tender—in addition to the band already utilized by Telecom Cellular. Of the options, offering the AMPS-A and TACS-A and B bands was recommended as this would provide "abundant spectral capacity to meet expected end-user demand through the twenty-year planning period."

Rights or licenses in cellular telephone frequencies were tendered in 1990. The successful bidders are required to obtain Commerce Commission clearance before actually receiving licenses. Telecom enjoys incumbency rights to one of the frequencies, and three further frequencies were offered for tender. As a result, up to four cellular telephone services could be established.

Telecom won the AMPS-A and BellSouth International was successful bidder for both TACS-A and TACS-B. BellSouth sought only one TACS frequency band, and preferred the TACS-A. The next highest bidder for TACS-B was the Australian international telecommunications carrier OTC. That bid was rejected as OTC wanted the New Zealand government to agree to a limit of only two cellular operators. The third highest bid for TACS-B was from Telecom's mobile radio subsidiary.

As noted, acquisitions of the bands required clearance or authorization by the Commerce Commission. The Commission cleared the acquisition of TACS-A by BellSouth International, declined Telecom's acquisition of the AMPS-A band, and cleared Telecom's acquisition of the TACS-B band, subject to an undertaking that required Telecom to dispose of TACS-B if Telecom was successful in its High Court appeal against the Commission decision on AMPS-A.

The High Court subsequently upheld the Commission's decision on AMPS-A, but the Court of Appeal granted Telecom leave to appeal the ruling. The High Court, however, rejected the Commission's decision on TACS-B because in proposing and accepting the undertaking the Commission did not give other unsuccessful bidders the opportunity to make further submissions. Telecom has also been granted leave to appeal that decision.

20.7 Conclusion

The dramatic changes in New Zealand's telecommunications are the result of the remarkable confluence of a number of factors: fiscal imperatives, which necessitated the demand for a better financial result from the state trading enterprises; political leadership, whereby a small group of cabinet ministers was able to dominate the executive, and through it the government caucus, and, in turn, Parliament; new economic ideas, especially public choice theory, contestability, and agency theory; and rapid changes in telecommunications technology.

While this confluence has resulted in dramatic changes, four distinct phases—corporatization, deregulation, privatization,and competition—can be identified. The corporatization phase between December 1985 and March 1988 was primarily concerned with establishing Telecom as a separate commercial entity, within an accountability framework consistent with the requirements of a Parliamentary democracy.

In 1988 and 1989 the policy focus shifted to deregulation, following the Touche Ross report, with the enactment of the Telecommunications Amendment Act 1988. At the same time Telecom, under new leadership, prepared itself for competition with an organizational restructuring plus commencement of both a major capital investment program designed to upgrade its network and a major tariff rebalancing program.

The third phase occurred in 1990 with privatization of Telecom. The regulatory regime was adjusted and a restatement of universal service commitments was made by Telecom.

The fourth phase began in 1991 with domestic and international long-distance (toll) services from Clear Communications. Within a year, Clear Communications accounted for approximately 9 percent of the domestic and international toll markets, and its share is expected to continue to grow. Clear established independent facilities for the transmission of international calls in early 1992, and is already planning to introduce local services to major business customers. BellSouth introduced a competing cellular service in early 1993.

Together these phases have comprehensively transformed telecommunications services to an extent well beyond the expectations of the 1987 Touche Ross report and decision makers at the time. The range and quality of services and equipment has significantly increased, while a degree of tariff rebalancing has occurred.

New Zealand's unique experience over the five years 1987–1992 was strongly influenced by its political economy of the preceding fifty years. As a result, there remains a strong commitment to the present "light handed" regime, but that regime is likely to be strongly tested with the intensification of competition during the remainder of the 1990s.

Acknowledgments

The views expressed in this chapter are the author's alone and do not necessarily reflect those of the New Zealand Ministry of Commerce. Parts of this chapter draw on Goodin, Saunders, and Stewart, 1988.

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