privatizations by the Portuguese government. Equities are not widely held in Portugal, and the Portuguese stock market has had a history of instability.[661] The market was closed for three years following the 1974 revolution, and no significant trading occurred until 1986, when Portugal entered the European Union and the government introduced fiscal incentives to encourage privately owned companies to list shares on the exchange.[662] Furthermore, for any Portuguese privatization, there is a limited supply of domestic capital because the largest industrial companies are state-owned. As a result, the Lisbon stock market's entire capitalization just before the Portugal Telecom offering was only $12 billion.[663] Portugal Telecom has contributed liquidity to the Lisbon stock exchange,[664] and the company's stock now accounts for 16 percent of the total capitalization of the Lisbon stock market.[665]

Under Portugal's Privatization Decree Law, shareholders in Marconi exchanged their Marconi shares for shares in Portugal Telecom.[666] Coincident with the IPO, all outstanding Marconi shares were exchanged for shares in Portugal Telecom worth $331 million.[667]

Telephony. The Portuguese government, through CN, now owns 71.7 percent of the share capital and voting power of Portugal Telecom, and the Portuguese government will continue to have effective control over Portugal Telecom.[668]

Typically, a public offering of shares in an incumbent monopolist can generate significant revenues because it con-

661. Sharpe, *Repsol deal augurs well for Portugal Telecom*, *supra* note 542 at 28.

662. *Id.*

663. *Still passing Portugal*, ECONOMIST, May 13, 1995, at 72.

664. Wise, *Telecom issue breathes life into Lisbon*, *supra* note 659, at 30.

665. Wise, *Developing a safe haven in Portugal*, *supra* note 627, at 25.

666. PORTUGAL TELECOM PROSPECTUS, *supra* note 622, at 18.

667. MERRILL LYNCH PORTUGAL TELECOM REPORT, *supra* note 623, at 2.

668. PORTUGAL TELECOM PROSPECTUS, *supra* note 622, at 82.

veys to private investors the franchise to earn monopoly rents for some period of time. Even though the EC permitted Portugal Telecom to retain a monopoly until 2003, the revenues from the offering were not as high as they otherwise would have been because of three significant deterrents to investment. First, the government restricts foreign investment in telecommunications operators. Second, Portugal Telecom is bound under its concession to meet certain service obligations. Third, Portugal Telecom's assets are subject to reversion to the government without compensation.

The Portuguese government restricts foreign ownership of telecommunications operators in the following manner. Under the Basic Law, foreign persons may not hold, directly or indirectly, interests representing in the aggregate more than 25 percent of the share capital of Portuguese companies providing public telecommunications or complementary services. Citizens of other EU member states (including entities incorporated in such countries), however, are not considered foreign persons for the purposes of this restriction.[669]

Additional restrictions are placed specifically on the ownership of Portugal Telecom. Under Portuguese law, despite any proposed sale of a portion of the company, the Portuguese government must continue to own, directly or indirectly, at least a majority interest in Portugal Telecom.[670] An even more restrictive burden is placed on the ADRs. Under Portugal Telecom's Articles of Association, no shareholder, except CN, may exercise more than 10 percent of the voting power of Portugal Telecom. Thus, all holders of ADRs, *in the aggregate*, may not exercise more than 10 percent of the voting power of Portugal Telecom.[671] Furthermore, under Decree Law 380/93 of November 15, no person (Portuguese or foreign) may acquire ordinary shares representing more than 10 percent of the voting capital of certain compa-

669. *Id.* at 66.
670. *Id.*
671. *Id.* at 82.

nies, including Portugal Telecom, without first receiving authorization from the Ministry of Finance of Portugal.[672] Finally, the Portuguese government reserves the right to take over the provision of concessionary services in case of war.[673]

Along with its monopoly privileges, Portugal Telecom also has certain obligations. Under its concession, Portugal Telecom must pay the Portuguese government a fee of 1 percent of annual revenues generated by basic telephone services and data transmission.[674] Portugal Telecom must provide telecommunications services free of charge to Portuguese state officials; in 1994, such services were valued at approximately PTE 70 million.[675] Portugal Telecom must also meet infrastructure buildout requirements, fulfill universal service obligations, and provide discounts to senior citizens and certain media companies.[676]

Under its concession, Marconi has the exclusive right to install and commercially operate submarine cable and satellite telecommunications infrastructure in Portugal.[677] Marconi must pay the Portuguese government 25 percent of annual net profits.[678]

Under the Basic Law and Portugal Telecom's concession, assets held by Portugal Telecom that are currently part of the basic telecommunications network are treated as being within the public domain of the Portuguese government; upon the expiration of the concession, such assets will revert to the government without compensation.[679] Portugal Telecom operates under a thirty-year concession that commenced on March 20, 1995. Thereafter, Portugal Telecom may renew its con-

672. *Id.* at 84.
673. *Id.* at 70.
674. *Id.* at 69.
675. *Id.*
676. *Id.* at 70.
677. *Id.*
678. *Id.*
679. *Id.* at 66.

cession for successive periods of fifteen years.[680] Under the Basic Law, the basic telecommunications network includes fixed subscriber access facilities and the transmission network, as well as the concentration, switching, and processing nodes used in providing fundamental services. Fundamental services include fixed telephone services, telex, and a single national switched data transmission service.[681] Thus, assets of Portugal Telecom that are used in providing services other than fundamental services (such as cellular telephone, paging, or cable television services) and are not part of the basic telecommunications network are considered under the Basic Law not to be in the public domain.[682]

Cable Television. Cable television is a new and undeveloped industry in Portugal.[683] Only two operators currently provide cable television service, and one other holds licenses to do so.

Decree Law 292/91, 13th August (the "Cable Television Decree Law") governs the cable television industry in Portugal. Under this law, the government may issue cable television licenses on a nonexclusive basis to several different operators in any of the nine geographic regions defined by the law.[684] The ICP grants licenses to all applicants fulfilling certain minimum requirements.[685] Cable television rates are not subject to regulation.[686] The cable systems, however, may be used to convey only television signals.[687] The Portuguese government has not indicated whether it will permit cable television operators to provide telephony service over their networks when the Portuguese telephony market is fully liber-

680. *Id.* at 69.
681. *Id.* at 67.
682. *Id.*
683. *Id.* at 55.
684. MERRILL LYNCH PORTUGAL TELECOM REPORT, *supra* note 623, at 3.
685. PORTUGAL TELECOM PROSPECTUS, *supra* note 623, at 72.
686. *Id.* at 71.
687. *Id.* at 64.

alized. Finally, under the Cable Television Decree Law, cable television operators may distribute, but may not themselves produce, television programs in Portugal.[688]

Cable television networks, even those not owned by Portugal Telecom, are subject to a reversion of assets requirement upon expiration of the franchise license. Under the Cable Television Decree Law, upon the expiration or termination of licenses granted to cable television operators, infrastructure installed on the property of a governmental authority will become part of that authority's property; infrastructure installed on the property of a telecommunications operator (including Portugal Telecom) will revert to that operator; and, unless otherwise agreed, infrastructure installed on other property will revert to the property owner.[689]

Portugal Telecom provides cable television services through its wholly owned subsidiary, CATVP-TV Cabo Portugal, S.A. (TV Cabo). TV Cabo holds the only nationwide cable license, valid until 2009 and covering areas including Madeira and the Azores Islands.[690] TV Cabo plans to spend $240 million on cable infrastructure buildout from 1994 to 1998.[691] As of January 1995, TV Cabo's systems passed 103,000 households and had 18,000 subscribers.[692] TV Cabo plans to pass 371,000 homes by the end of 1995, and 810,000 homes by the end of 1996.[693] By 1997, TV Cabo is expected to have passed 1.2 million homes (46 percent of the homes in the franchise) and have 250,000 subscribers (a 25 percent penetration rate).[694]

688. *Id.* at 72.

689. *Id.* at 67.

690. MERRILL LYNCH PORTUGAL TELECOM REPORT, *supra* note 623, at 3.

691. *Id.*

692. PORTUGAL TELECOM PROSPECTUS, *supra* note 622, at 55.

693. *Id.* at 56.

694. MERRILL LYNCH PORTUGAL TELECOM REPORT, *supra* note 623, at 3.

TV Cabo commenced cable television services in Madeira and the Azores Islands in 1992 and 1993, respectively, and in continental Portugal in November 1994.[695] TV Cabo expects to begin widespread commercial operations in continental Portugal in 1995, principally in the metropolitan areas of Lisbon and Oporto.[696]

As of May 1995, TV Cabo was the only cable television operator providing services in Portugal except for Multicanal, which currently serves Braga, a city in northern Portugal.[697] At the end of 1994, Multicanal received four licenses to operate cable television systems.[698] Time Warner is the principal shareholder of Multicanal.[699] Other companies have announced plans to seek further licenses.[700]

Wireless. Two companies provide cellular services in Portugal, Telecomunicações Móveis Nacionais, S.A. (TMN) and Telecel Comunicações Pessoais, S.A. (Telecel). Together, these two companies have achieved a relatively low cellular penetration rate. As of June 1995, with 170,000 subscribers, cellular penetration in Portugal was just 1.8 percent,[701] significantly below the weighted average penetration rate of mobile telephone services in Western European countries of 3.3 percent.[702]

Mobile telephone service licenses, which are valid for fifteen years, are issued by the ICP under Decree Law 346/90 of 3rd November and Decree Law 147/91 of 12th April following an approval process overseen by the Ministry of Com-

695. PORTUGAL TELECOM PROSPECTUS, *supra* note 622, at 29.
696. *Id.* at 32.
697. *Id.* at 55.
698. *Id.*
699. MERRILL LYNCH PORTUGAL TELECOM REPORT, *supra* note 623, at 3.
700. PORTUGAL TELECOM PROSPECTUS, *supra* note 622, at 55.
701. MERRILL LYNCH PORTUGAL TELECOM REPORT, *supra* note 623, at 2.
702. PORTUGAL TELECOM PROSPECTUS, *supra* note 622, at 54.

munications.[703] Mobile telephony rates are not subject to regulation.[704]

TMN, a subsidiary of Portugal Telecom, introduced analog cellular service to Portugal in September 1989.[705] TMN remains the only provider of analog cellular service in Portugal.[706] TMN also holds one of the two national digital GSM cellular licenses in Portugal;[707] TMN introduced its digital GSM service in 1992.[708] TMN may phase out its analog cellular service with five years notice to the ICP or with a plan to move all analog subscribers to the digital network at the company's expense.[709] Portugal Telecom owns 66.67 percent of TMN, and Marconi owns 33.33 percent.[710]

As of January 1, 1994 TMN had 31,000 subscribers for its analog service and another 31,000 subscribers for its digital service.[711] During 1994, TMN experienced 59 percent growth in cellular revenues, attributable to 58 percent growth in subscribership and 60 percent growth in mobile telephone traffic.[712] By the end of 1994, TMN, on both its networks, had a combined total of approximately 85,000 subscribers.[713]

Telecel holds the other national digital GSM cellular license in Portugal.[714] The Portuguese government awarded

703. *Id.* at 71.

704. *Id.*

705. AIRTOUCH COMMUNICATIONS, INC., 1993 SEC FORM 10-K, at 14 (1994).

706. PORTUGAL TELECOM PROSPECTUS, *supra* note 622, at 54.

707. AIRTOUCH COMMUNICATIONS, INC., 1993 SEC FORM 10-K, at 14 (1994).

708. PORTUGAL TELECOM PROSPECTUS, *supra* note 622, at 54.

709. MERRILL LYNCH PORTUGAL TELECOM REPORT, *supra* note 623, at 2.

710. PORTUGAL TELECOM PROSPECTUS, *supra* note 622, at 29.

711. AIRTOUCH COMMUNICATIONS, INC., 1993 SEC FORM 10-K, at 14 (1994).

712. PORTUGAL TELECOM PROSPECTUS, *supra* note 622, at 32.

713. *Id.* at 54.

714. AIRTOUCH COMMUNICATIONS, INC., 1994 ANNUAL REPORT 6 (1995).

the license to Telecel in October 1991.[715] Telecel began commercial service in October 1992. In 1994, Telecel's network covered 92 percent of the Portuguese population. By October 1996, Telecel's network must cover 99 percent of the population.[716] As of December 1994, Telecel had 88,000 subscribers for its digital GSM network.[717]

Large Portuguese companies with no telecommunications experience own a majority of Telecel, while AirTouch holds a minority share and provides its telecommunications expertise. Espirito Santo e Irmaos, S.A. (an affiliate of Espirito Santo-Sociedade de Investimentos, S.A., a Lisbon-based international finance and investment company) owns 34.33 percent of Telecel.[718] Amorim, Investimentos e Participacoes SGPS, S.A., a diversified Portuguese company, also owns 34.33 percent of Telecel.[719] Central, Gestao e Comparticipacoes, S.A., a Portuguese telecommunications manufacturer, owns 6.34 percent.[720] AirTouch owns 23.0 percent of Telecel.[721] If Portugal amends its foreign ownership restriction to allow foreign entities to own a greater than 25 percent interest in a telecommunications licensee, AirTouch will increase its equity interest in Telecel by up to 12 percent, for a total equity interest of 35 percent.[722] Eurofon of Portu-

715. AIRTOUCH COMMUNICATIONS, INC., 1993 SEC FORM 10-K, at 13 (1994).

716. *Id.*

717. AIRTOUCH COMMUNICATIONS, INC., 1994 ANNUAL REPORT 62 (1995).

718. AIRTOUCH COMMUNICATIONS, INC., 1993 SEC FORM 10-K, at 13 (1994).

719. *Id.*

720. *Id.*

721. AIRTOUCH COMMUNICATIONS, INC., 1994 ANNUAL REPORT 62 (1995).

722. AIRTOUCH COMMUNICATIONS, INC., 1993 SEC FORM 10-K, at 13 (1994).

gal, Inc., a subsidiary of the American software and engineering firm LCC Incorporated, owns 2 percent.[723]

AirTouch also owns a 23 percent interest in Telechamada, the Portuguese paging company.[724]

TMN controls nearly half of the entire Portuguese cellular market, but lags significantly behind its competitor in the growing portion of the cellular market, digital GSM service. At the end of 1994, TMN had approximately 49 percent of the entire Portuguese cellular telephony market,[725] but Telecel had 60 percent of the GSM portion of that market.[726]

ASIAN/PACIFIC COUNTRIES

New Zealand

With just 3.4 million people inhabiting an island of approximately 157,000 square miles, New Zealand is a country about the size of California.[727] But it has provided the world with one of the most important lessons in modern telecommunications regulatory policy—that privatization, competition, and the resultant capital investment stimulate the development of a nation's telecommunications infrastructure, giving consumers improved telecommunications services at lower cost.

To lift its economy from recession, the New Zealand government began to overhaul its national economic policies in the late 1970s. A net exporter of agricultural goods, New Zealand suffered significantly from the oil crises in the 1970s. To resuscitate its economy, the New Zealand government implemented an economic plan designed to: (1) find new

723. *Id.*

724. AIRTOUCH COMMUNICATIONS, INC., 1994 ANNUAL REPORT 63 (1995).

725. PORTUGAL TELECOM PROSPECTUS, *supra* note 622, at 54.

726. MERRILL LYNCH PORTUGAL TELECOM REPORT, *supra* note 623, at 3.

727. ITU WORLD DEVELOPMENT REPORT, *supra* note 6, at A-3.

export markets, (2) diversify its basket of export products, (3) increase energy self-sufficiency, and (4) improve transport efficiency. Its economy still sluggish in the early 1980s, the New Zealand government recognized that its economic reforms would fail because too many segments of the nation's economy lacked incentives for efficient production. By the mid-1980s, the New Zealand government decided to privatize a number of state-owned companies and liberalize their respective industries. The objective was to invigorate these industries by injecting competition and thereby encouraging investment, including foreign direct investment, which the government officials predicted would occur under an open and competitive regime. Telecommunications was one of these industries.[728]

From 1987 to 1989, the New Zealand government comprehensively reformed its regulation of telecommunications. Until 1987, the New Zealand Post Office owned and operated, on a monopoly basis, the nation's telecommunications networks. The Post Office, as the nation's single largest employer with 41,000 employees in 1984, was a sclerotic bureaucracy.[729] In 1987, the government severed telecommunications from the Post Office, creating Telecom Corporation of New Zealand (TNZ) and transferring telecommunications regulatory authority to the Ministry of Commerce (then called the Department of Trade and Industry).[730] TNZ assumed all of the Post Office's telecommunications operations.[731] From October 1, 1987 to April 1, 1989, the government progressively deregulated the supply of telecommunications customer

728. NEW ZEALAND MINISTRY OF COMMERCE, TELECOMMUNICATIONS REFORM IN NEW ZEALAND: 1987-1994, TELECOMMUNICATIONS LEAFLET NO. 5, at 3 (Jan. 19, 1995)

729. *Id.*

730. *Id.* at 2.

731. TELECOM CORP. OF NEW ZEALAND LTD., 1994 SEC FORM 20-F, at 5 (1994).

premises equipment.[732] On April 1, 1989, the New Zealand government removed all statutory barriers to entry to any part of the telecommunications industry, including restrictions on foreign ownership of a New Zealand telecommunications operator.[733] Finally, in 1990, the New Zealand government sold its 100 percent interest in TNZ to Bell Atlantic and Ameritech.[734] With its dramatic deregulation and privatization of the national telecommunications operator, the New Zealand government succeeded in creating one of the most open and modern telecommunications markets in the world, benefiting consumers with lower prices and greater services.

To transform its telecommunications industry, the New Zealand government welcomed foreign capital. In the words of the Minister of Commerce, the government's objective with regard to foreign direct investment in telecommunications was and remains:

> to ensure that adequate investment funds are available to the New Zealand economy as a whole, to fund the provision of goods and services required by New Zealand consumers. To achieve this, Government has adopted the strategy of allowing private sector capital funding, including overseas investment capital, where practical.[735]

732. NEW ZEALAND MINISTRY OF COMMERCE, *supra* note 728, at 2.

733. TELECOM CORP. OF NEW ZEALAND LTD., 1994 SEC FORM 20-F, at 12 (1994); NEW ZEALAND MINISTRY OF COMMERCE, *supra* note 728, at 7.

734. BELL ATLANTIC CORP., 1994 SEC FORM 10-K, at 19 (1995).

735. Letter from Maurice Williamson, Minister of Communications, New Zealand, to J. Gregory Sidak, Resident Scholar, American Enterprise Institute 2 (Jan. 30, 1995) (on file with author) [hereinafter *Williamson Letter*].

Thus, there are no restraints on the extent or level of foreign ownership of businesses, other than a requirement that there be less than 50 percent of direct foreign ownership of TNZ.[736]

Telephony. Two companies compete in New Zealand to provide traditional wire-based telephony services: TNZ (the former state-owned monopoly incumbent) and Clear Communications (the newly formed challenger). In addition to these two carriers, several other companies hold licenses to provide international long-distance services.

TNZ is the principal supplier of telecommunications services in New Zealand.[737] TNZ provides local telephone service, domestic and international long-distance telephone services, and a wide range of other telecommunications services, including cellular, directories, leased circuits, mobile radio, paging, and data communications.[738]

In 1990, the New Zealand government sold all of its 100 percent interest in TNZ to private interests.[739] Wholly owned New Zealand subsidiaries of Bell Atlantic and Ameritech each purchased 49 percent of the common shares of TNZ for a total price of approximately $2.4 billion, quadrupling American foreign investment in New Zealand at the time.[740] Under the terms of purchase, Bell Atlantic and Ameritech were required to reduce the aggregate foreign ownership of TNZ to 49.9 percent within four years of the initial purchase, selling at least NZ$500 million worth of shares in a public offering.[741] Despite its open stance toward foreign investment, the New Zealand government deemed it

736. NEW ZEALAND MINISTRY OF COMMERCE, *supra* note 728, at 7.

737. TELECOM CORP. OF NEW ZEALAND LTD., 1994 FORM 20-F, at 5 (1994).

738. *Id.*

739. *Williamson Letter, supra* note 735, at 2.

740. BELL ATLANTIC CORP., 1994 FORM 10-K, at 19 (1995); *Williamson Letter, supra* note 735, at 2.

741. NEW ZEALAND MINISTRY OF COMMERCE, *supra* note 728, at 7.

important to keep foreign direct investment in the newly-privatized national telecommunications operator below 50 percent. Including interests held by portfolio investors, the foreign ownership of TNZ actually exceeds 50 percent.

In accord with the limited ownership requirement, Bell Atlantic and Ameritech sold 30 percent of TNZ in 1991 through a worldwide public offering, reducing their combined interest to 68 percent.[742] Both companies reduced their holdings further through private sales. As of 1995, Bell Atlantic and Ameritech each had a 24.8 percent interest in TNZ.[743] The Capital Group owns 7.47 percent, Rontas Holdings 2.3 percent, and Fay Richwhite 1.3 percent.[744]

Also as a condition of sale, the New Zealand government retains a Kiwi (or golden) share with special voting rights to control the maximum shareholding of any single foreign investor and transfers of blocs of shares among parties, and to ensure TNZ's compliance with its residential services pledges.[745]

In 1991, Clear Communications (Clear) introduced the first wire-based telephony service to compete with that of TNZ. Clear began to offer domestic long-distance service in April 1991 and international long-distance services by December of the same year.[746] As of 1995, Clear offers private network services in addition to its domestic and international long-distance services, and it will soon provide local exchange services for business customers.[747]

One aspect of Clear's telephone service has limited its market penetration. Clear customers had to dial an access code to receive Clear's service. Clear has been able to offer

742. BELL ATLANTIC CORP., 1994 FORM 10-K, at 19 (1995).

743. AMERITECH CORP., 1994 FORM 10-K, at 6 (1995).

744. *Williamson Letter, supra* note 735, at 2.

745. NEW ZEALAND MINISTRY OF COMMERCE, *supra* note 728, at 7.

746. TELECOM CORP. OF NEW ZEALAND LTD., 1994 SEC FORM 20-F, at 12 (1994).

747. *Id.*

customers its long-distance service without the need to dial an access code since April 1993, but the carrier has not yet introduced the non-access code service because Clear would have to pay an additional interconnection fee to TNZ.[748] By 1995, Clear had succeeded in capturing over 22 percent of the domestic long-distance market and 23 percent of the international long-distance market.[749]

Like TNZ, Clear's ownership includes two major foreign telecommunications operators. MCI and BCE each own 25 percent of Clear; New Zealand Television Limited and the Todd Corporation Limited also own 25 percent each.[750]

To provide international telephone call service, a company must be a licensed international operator. Five companies hold such a license: TNZ, Clear, Optus, Television New Zealand Ltd., and Global Telecom Systems Ltd.[751]

Pay Television. In 1991, Bell Atlantic and Ameritech joined with Tele-Communications, Inc. (TCI) and Time Warner to increase their investment in the New Zealand telecommunications industry even further. The four American companies together purchased 51 percent of Sky Network Television Ltd.[752] The infusion of capital has allowed for a more rapid expansion of Sky Network's expansion of its pay television service throughout New Zealand.[753]

Wireless. Three companies hold licenses to operate cellular telephony networks in New Zealand: TNZ, BellSouth, and Telstra Corporation Limited (Telstra).

748. *Id.*
749. *Williamson Letter, supra* note 735, at 4.
750. *Id.* at 3; BCE INC., 1994 SEC FORM 40-F, at 25 (1995).
751. NEW ZEALAND MINISTRY OF COMMERCE, *supra* note 728, at 10.
752. *Williamson Letter, supra* note 735, at 3.
753. *Id.*

TNZ operates two cellular networks, one analog and one digital. TNZ was New Zealand's first and only cellular provider when it introduced its analog cellular service in 1987.[754] TNZ has continued to expand its analog network over the years so that by 1995 it covered approximately 95 percent of New Zealand's population.[755]

TNZ obtained a second cellular license and began offering service over a digital cellular network in December 1992. TNZ's digital cellular network now provides service to Auckland, Wellington, and Hamilton. TNZ intends to expand the digital cellular service to cover the entire nation.[756] TNZ's digital cellular network does not operate on the GSM standard, so its customers cannot also use their same telephone handsets in Europe. TNZ has invested over NZ$300 million to develop its cellular networks, and it plans to invest another NZ$90 million during 1995.[757]

Partly due to its years of cellular operation without any competitors and partly due to its overall strength as the nation's primary telecommunications provider, TNZ leads the other participants in New Zealand's cellular sector. TNZ markets its service itself and through four other resellers: Comtel, Ericsson, Cellnet, and Motorola.[758] During the two-year period of 1993-94, TNZ doubled its cellular subscribership to 207,000—a penetration rate of 6 percent.[759]

In 1990, BellSouth New Zealand Ltd. (BellSouth NZ) became the second cellular licensee in New Zealand when it purchased for NZ$25 million a cellular license from the government.[760] In March 1993, BellSouth NZ began providing the

754. NEW ZEALAND MINISTRY OF COMMERCE, *supra* note 728, at 6.

755. TELECOM CORP. OF NEW ZEALAND LTD., 1994 20-F, at 8 (1994).

756. *Id.*

757. NEW ZEALAND MINISTRY OF COMMERCE, *supra* note 728, at 6.

758. *Id.* at 8.

759. MERRILL LYNCH, NEW ZEALAND TELECOM: SOLID QUARTER RAISING ADR RECEIPTS (Feb. 16, 1995).

760. NEW ZEALAND MINISTRY OF COMMERCE, *supra* note 728, at 8.

first cellular service to compete with that offered by TNZ.[761] BellSouth NZ operates a digital GSM network. BellSouth NZ introduced service in Auckland in July 1993 and in Wellington in 1994, and it plans eventually to cover over 80 percent of New Zealand's population.[762] BellSouth owns 80 percent of BellSouth NZ. Singapore Technology Ventures Proprietary Ltd., a holding company of the Singapore government, owns the remaining 20 percent of BellSouth NZ.[763]

In May 1993, Telstra won a license to provide a digital GSM cellular service.[764]

The Success of New Zealand's Deregulatory Policy. New Zealand's deregulation of telecommunications has spurred significant capital investment. From the beginning of deregulation in 1987 and the end of 1994, TNZ invested over NZ$4.1 billion in network modernization and service enhancement.[765] Now, more than 97 percent of access lines are connected to digital switches; by 1998, Telecom's telephone network will be entirely digitally switched.[766]

The next two largest telecommunications operators, BellSouth and Clear, have not invested at the same level as TNZ, but both, as relatively new market entrants, have nonetheless made significant investments. Bell South currently employs over 100 people and has invested NZ$200 million to develop its cellular network.[767] Clear employs approximately 630 people and has invested over NZ$207 million in fixed assets in New Zealand.[768]

761. TELECOM CORP. OF NEW ZEALAND LTD., 1994 20-F, at 13 (1994).
762. NEW ZEALAND MINISTRY OF COMMERCE, *supra* note 728, at 8.
763. *Williamson Letter, supra* note 735, at 4.
764. TELECOM CORP. OF NEW ZEALAND LTD., 1994 20-F, at 14 (1994).
765. NEW ZEALAND MINISTRY OF COMMERCE, *supra* note 728, at.
766. *Id.*
767. *Id.* at 8.
768. *Williamson Letter, supra* note 735, at 4.

Competition and high capital investment have drastically improved telecommunications services for New Zealand's consumers. Most rural consumers now enjoy the same standard of service as urban users, and new network investment has enabled the introduction of services such as electronic funds transfer at point of sale in many rural communities.[769] The waiting period for a new telephone connection is 48 hours, a considerable improvement over the former state of affairs in which 15,000 people at a time would wait for many months to be connected.[770] More than 90 percent of residential telephone faults are repaired by 5:00 P.M. the next business day. Business consumers can now receive enhanced services such as ISDN and frame relay, offerings which foreshadow growth in computing services, and, in time, broadband video services.[771] And more than 98 percent of TNZ's payphones are in working order at any one time, compared with just 76 percent in 1988.[772]

Consumers enjoy these improved services at lower costs. Since the deregulation of the telecommunications services sector in March 1989, the cost of long-distance calls declined by an average of 10.8 percent per year, and by 1989, TNZ had already decreased its prices substantially in preparation for the advent of competition.[773] Charges for domestic long-distance calls have fallen by up to 50 percent in real terms.[774] Business rental tariffs were reduced by nearly 40 percent.[775]

Finally, competition has reduced the opportunity for cross-subsidization in the telecommunications industry. While the average cost of a long-distance call was falling in New

769. NEW ZEALAND MINISTRY OF COMMERCE, *supra* note 728, at 5.
770. *Id.*
771. *Id.*
772. *Id.* at 4.
773. *Id.* at 12.
774. *Williamson Letter, supra* note 735, at 4.
775. *Id.*

Zealand, the average real telephone access line rental and installation costs increased by nearly 2.9 percent per year.[776]

Summary and Implications. Since 1987, deregulation and competition have significantly improved the efficiency and quality of telecommunications services in New Zealand, to the benefit of both business and residential customers.[777] The government's receptivity to foreign investment fostered considerable capital investment in New Zealand's public telecommunications network by TNZ, Clear Communications, BellSouth, and Telstra.[778] In the words of the Minister of Commerce: "the benefits of reform have, so far, been impressive and have exceeded expectations at the time that the decision to deregulate fully was announced in December 1987."[779]

Australia

Australia has a relatively large and mature market for traditional telephony. The total telecommunications services market in Australia generated an estimated A$17.2 billion in 1994.[780] The country has a population of approximately 17.5 million people,[781] comprising six million households.[782] In 1994, 96.3

776. NEW ZEALAND MINISTRY OF COMMERCE, *supra* note 728, at 12.
777. *Id.* at 18.
778. *Id.*
779. *Id.*
780. AUSTRALIAN MINISTRY OF COMMUNICATIONS AND THE ARTS, BEYOND THE DUOPOLY: AUSTRALIAN TELECOMMUNICATIONS POLICY AND REGULATION 11 (1994) [hereinafter BEYOND THE DUOPOLY].
781. ITU WORLD DEVELOPMENT REPORT, *supra* note 6, at A-3.
782. Emmy Tagaza, *Pay-TV launch today ends tale of indecision*, FIN. POST, Jan. 26, 1995, at 17.

percent of households had a telephone connected.[783] As of June 1994, Australia had 49.6 lines per 100 inhabitants.[784]

Despite its size and maturity, Australian telecommunications is growing rapidly, in part because of developments in emerging sectors of the industry such as broadband networks and wireless services, but also—and probably more importantly—because of competition and increased foreign investment. Since partial liberalization of its telecommunications industry in 1991, Australia has experienced significant industry growth. The A$17.2 billion in telecommunications revenues generated in 1994 marked a 9 percent increase from A$15.8 billion the year before.[785] Telecommunications is also becoming a increasingly larger sector of the Australian economy. Total telecommunications revenue has increased from 2.6 percent of GDP in 1989 to 3.2 percent of GDP in 1994.[786] By 2000, industry analysts predict that telecommunications will account for 4 percent of Australia's GDP.[787]

Australia appears poised to harness the next generation of information technology. Already more than 80 percent of the homes in Australia have video cassette recorders, and approximately 30 percent have personal computers.[788] Yet the pay-television industry was nonexistent until 1994 and remains in its nascent stages.

783. AUSTEL, 1994 COMPETITIVE SAFEGUARDS AND CARRIER PERFORMANCE 49 (1994) [hereinafter COMPETITIVE SAFEGUARDS AND CARRIER PERFORMANCE].

784. *Id.* at 91.

785. BEYOND THE DUOPOLY, *supra* note 780, at 11.

786. COMPETITIVE SAFEGUARDS AND CARRIER PERFORMANCE, *supra* note 783, at 88.

787. G.Q. TAPERELL, COMPETITIVE CONDUCT RULES FOR TELECOMMUNICATIONS AFTER 1997: WILL NATIONAL COMPETITION LAW SUFFICE? 1 (May 1995).

788. BROADBAND SERVICES EXPERT GROUP, NETWORKING AUSTRALIA'S FUTURE: THE FINAL REPORT OF THE BROADBAND SERVICES EXPERT GROUP 3 (Dec. 1994).

With approximately 1.5 million kilometers of fiber-optic cables installed, passing within 700 meters of more than half of all Australian homes, Australia has a relatively high measure of fiber deployment on a per capita basis.[789] But the continued development of the broadband and wireless networks will be costly and technologically complex, creating greater demand for foreign capital and telecommunications expertise. Estimates of the cost to provide broadband services to all Australians range from A$25 to A$40 billion.[790]

History and Regulation. The Australian telecommunications industry has had a long history of statutory monopoly and tight government regulation. The first major shift in policy toward competition occurred in 1989, when the government introduced measures to facilitate competition in the supply of value added services and customer equipment. The Australian government established Austel as the independent industry regulator to supervise competition between the telecommunications operators and to ensure a smooth transition to full competition.[791] Austel is authorized to: (1) promote competition; (2) promote fair and efficient market conduct; (3) protect the public interest; (4) report to the Minister for Communications and the Arts on competitive safeguards and carrier performance; (5) license operators; and (6) issue technical regulations and equipment permits.[792]

The Australian government traditionally assumed all responsibility for the provision of the nation's telecommunications infrastructure and services. The government divided its telecommunications operations along geographic and technological boundaries. Australia Telecom (AT) handled domestic calls, and the Overseas Telecommunications Commission

789. *Id.* at 16.
790. *Id.* at 9.
791. UNIVERSITY OF COLORADO INTERDISCIPLINARY TELECOMMUNICATIONS PROGRAM, TELECOMMUNICATIONS DATABASE REPORT, at 2-4 (1994).
792. *Id.* at 2-5.

(OTC) handled international traffic.[793] AUSSAT, also government-owned, provided satellite communications services.

In November 1990, the Australian government issued a report entitled Micro-economic reform: progress—telecommunications, which set forth the policy decisions upon which the Australian telecommunications reform would be based. In accord with these policy decisions, the Australian government enacted the Telecommunications Act 1991.[794]

Recognizing the importance of an advanced telecommunications infrastructure, the Australian government decided to overhaul the structure of its telecommunications industry, significantly reducing regulation and introducing a competitive regime. The Telecommunications Act 1991 provides the transitional regulatory framework for the Australian telecommunications industry. The act created a duopoly in the provision of basic telecommunications services and certain telecommunications infrastructure until June 30, 1997, and allowed for a third competitor in the market for mobile services. Under the act, the Communications Minister has the authority to grant further licenses, but it is well established that the Minister will not do so until 1997.[795]

In 1992, the government merged AT and OTC to form ATOC; the government retained ownership. In August 1993, the government changed the name of ATOC to Telstra.[796]

Pursuant to the Telecommunications Act 1991, the government licensed Optus Communications to compete on a duopoly basis as a full-service telecommunications carrier with Telstra. In January 1992, Optus purchased AUSSAT and Mobilcom from the Australian government.[797] Optus then received a twenty-five year license to operate a second public

793. *Id.* at 2-3.

794. BEYOND THE DUOPOLY, *supra* note 780, at 33.

795. *Id.* at 17.

796. UNIVERSITY OF COLORADO INTERDISCIPLINARY TELECOMMUNICATIONS PROGRAM, *supra* note 3, at 2-3.

797. CABLE & WIRELESS PLC, 1994 SEC FORM 20-F, at 39 (1994).

telecommunications network providing domestic and international services by means of fixed-link, mobile, and satellite transmission media.[798] Until June 30, 1997, Telstra and Optus have a statutory duopoly over public fixed-link telecommunications services.[799] The duopoly of these two companies over mobile services expired on June 30, 1993.[800]

As part of the regulatory reform, the Australian government supplemented the nation's antitrust legislation with sections in the Telecommunications Act 1991 that applied specifically to the telecommunications industry. Part IV of the Trade Practices Act 1974 regulates abuse of market power and anticompetitive behavior. Although telecommunications would be subject to general competition law, the government feared that the Trade Practices Act would be insufficient to govern situations of market dominance stemming from control of key telecommunications facilities and services. Therefore, the government included particular measures in the Telecommunications Act 1991 to address specifically the areas of access and interconnection, price discrimination and anticompetitive tariffing, misuse of market power by foreign operators, and by providing pricing and cost transparency mechanisms.[801]

Two other statutes govern discrete aspects of the Australian telecommunications industry. The Broadcasting Services Act regulates the licensing and content of radio and television services.[802] The Radiocommunications Act regulates access to radiocommunications spectrum.[803]

The Australian government does not intend to continue to govern its telecommunications industry under the regulated duopoly regime beyond June 30, 1997. The government im-

798. *Id.*
799. *Id.*
800. *Id.*
801. BEYOND THE DUOPOLY, *supra* note 780, at 33.
802. *Id.* at 9.
803. *Id.*

plemented the current regulatory structure of a regulated duopoly to ensure a smooth transition from a government-owned monopoly regime to effective competition. The government, however, is now reviewing this regulatory structure to determine the best degree and type of regulation to govern what it envisions as a more open and competitive telecommunications industry after June 30, 1997. The government intends to announce firm policy decisions and introduce the necessary legislation into the Parliament in time for it to be enacted long enough before July 1, 1997 to provide stability, commercial certainty and an orderly transition to the reformed industry.[804]

In addition to altering the market structure, the Telecommunications Act also reformed the legal status of telecommunications operators. Before 1991, Telecom was exempt from all state and territorial laws. Now, an operator's rights and privileges are determined in accordance with a distinction made between carriers and non-carriers. Under the Telecommunications Act, carriers are the primary suppliers of telecommunications infrastructure and services and have certain rights and advantages in the supply of basic carriage services (essentially services that provide or merely make use of a basic connection). The Australian government deemed it necessary, under a competitive regime, to limit legal immunities and give carriers only those exemptions relating to network construction and maintenance, such as the right to enter land.[805] Carriers also have a broad-ranging right to interconnection. Furthermore, the government subjected all carriers to the Telecommunications National Code, which sets forth rules regarding the performance of activities exempt from the specified laws.[806] Non-carriers have full rights to resell services in competition with carriers, but non-carriers may not use their own line-links for this purpose and do not have a general right

804. *Id.* at 94.
805. *Id.* at 49.
806. *Id.*

to interconnection. Until 1997, Australia has two general carriers, Telstra and Optus, and three public mobile carriers, Telstra, Optus, and Arena.[807] Non-carriers that participate in the Australian telecommunications industry include AAP Telecommunications, BT Australasia, Pacific Star, and BellSouth Mobile.[808]

Under the Telecommunications Act 1991, the general telecommunications carrier licenses, and the Telecommunications Declarations (Nos. 1 and 2) of 1991, carriers are obligated to provide universal service; continue access to untimed calls using the basic telephone service; promptly identify and repair network faults; and provide accurate billing.[809] Under its license, Optus is additionally required to provide telecommunications services by the use of satellite-based facilities, or equivalent services, for the Australian Broadcasting Corporation for its Homestead and Community Broadcasting Satellite Service; remote broadcasting services; the Department of Defense; and the Civil Aviation Authority.[810]

Foreign ownership. Australian law limits foreign ownership of a telecommunications carrier as follows. A carrier must be a corporation formed within the Commonwealth of Australia, and thus subject to Australia law. The Australian government has a policy of encouraging strong Australian participation in carriers.[811] The import of that policy will become clearer presently, as we examine the actual record of foreign direct investment in Australian telecommunication. The Telecommunications Act specifically provides that license conditions can deal with Australian ownership of telecommunications carriers, and foreign investments are subject to normal commercial

807. *Id.* at 9.

808. *Id.* at 12.

809. COMPETITIVE SAFEGUARDS & CARRIER PERFORMANCE, *supra* note 873, at 75.

810. *Id.* at 83.

811. BEYOND THE DUOPOLY, *supra* not 780, at 73.

scrutiny under the relevant provisions of the Foreign Acquisitions and Takeovers Act 1975.[812]

Telephony. After more than three years since the government introduced competition to the market, Telstra, the government-owned incumbent, continues to earn a very large portion of all telecommunications revenues generated in Australia. Telstra earned A$2.5 billion in before-tax operating profit on total revenues of A$13.4 billion in the year ending June 30, 1994.[813] The entire Australian telecommunications industry generated A$17.2 billion in total revenues.[814] Roughly speaking, Telstra thus garnered nearly 80 percent of all Australian telecommunications revenues in 1994.

Telstra benefits from its legacy as a former government monopoly. In Optus' view, Telstra inherited control of the customer base, access to customer information, ubiquity of presence, sunk infrastructure costs, a diverse network and services base, and customer inertia.[815] According to Optus, the Telecommunications Act has not yet achieved its goal of sustainable, broadly based competition. Competition is still in an emergent stage, Optus maintains, and its entry has not yet appreciably diminished Telstra's market power.[816] According to Optus, Telstra controls approximately 90 percent of the wireline sector and has nearly 100 percent of the local exchange market, thereby maintaining a bottleneck for access to residential and business customers.[817] Telstra operates the only analog cellular network in Australia, and it retains a monopoly

812. *Id.* at 10.

813. TELSTRA CORP. LTD., 1994 ANNUAL REPORT 30 (1994).

814. BEYOND THE DUOPOLY, *supra* note 780, at 11.

815. OPTUS COMMUNICATIONS, OPTUS COMMUNICATIONS SUBMISSION TO THE FEDERAL GOVERNMENT'S REVIEW OF POST 1997 TELECOMMUNICATIONS POLICY 9 (1994) [hereinafter OPTUS SUBMISSION].

816. *Id.* at 12.

817. *Id.* at 13.