

# Chapter 23

## Global Trends in Privatisation and Liberalisation

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### 1.0 Introduction

The wave of telecom reforms that is sweeping the globe began in the 1980s. These reforms have included privatisation of national companies, either through public stock flotations or private sales to strategic investors, and the general opening of opportunities for private investment in an increasingly diverse telecom marketplace. They have also included liberalisation, or the removal of restrictions on competitive entry and the loosened grip of legally protected monopoly. Sometimes the reforms also have included restructuring of corporate entities, such as the forced break up of the Bell System in the United States. In the 1990s, it seems that a rash of privatisation has swept around the globe, spreading to emerging markets of Latin America, then Central Europe and now Africa.

This chapter examines the objectives underlying these reforms, some of the common features of reform programs and their implications, particularly for developing countries. A detailed description of the many varieties of sector reform that have been implemented around the world is beyond the scope of this review. Instead, an effort is made to present a way of categorising different combinations of privatisation and liberalisation trends to gain some insight into the relation between the two trends. The specific country information included herein is necessarily selective and illustrative.

### 2.0 Pressures for Reform

Telecom reforms have been spurred both by technological change and a growing urgency to attract financial investment for sector development. Particularly in developing countries, investment in telecom infrastructure is considered a necessary foundation for economic growth. Massive investment, at the level of tens of millions of US dollars world-wide, is required to combat low telephone densities and poor service quality and to take advantage of modern technologies. Such investments are far beyond the reach of many governments that have other social and development programs in urgent need of funding. Private sector investment – through privatisation of the national carrier or other forms of private sector involvement – is often the only recourse. In developed countries, pressures for reform continue to mount as a consequence of innovation and increased international trade in telecom services and equipment. At the same time, many countries realise that continued lack of investment, particularly in new technologies, leaves the

country vulnerable to loss of revenue through by-pass, at either the local or international level.

Some countries turn to the sale of the national telephone network as a means of gaining revenue that can be used to retire substantial national debt, as was the case for example in Argentina. Alternatively, a sale can be a means to further a social agenda. In Nicaragua it is hoped that proceeds from the telephone privatisation can help repay citizens whose lands were confiscated by the Sandinistas. Some countries, such as Venezuela, turn to privatisation mainly to improve the quality and penetration of telephone service. Others, including Britain and New Zealand, have initiated reforms as part of the implementation of a new general political and economic agenda. Almost all countries that pursue reform also seek to reduce external pressures from trading partners in the telecom sector, address needs for investment and modernisation of the telecom infrastructure and reduce government involvement in the provision of public services.

The rationale for change may influence the structure of reform, although the same reform approach may be selected by different countries for different reasons. For example, countries that need to retire debt or maximise revenue from the sale of shares in the national carrier may expect that a higher competitive bid will be paid for a monopoly than for an enterprise forced to compete. Similarly, countries that seek to improve service quality and extend universal service also may believe that a closely regulated monopoly will result in the quickest build-out of infrastructure. On the other hand, some countries that do not find privatisation to be politically feasible liberalise telecom markets as a means of attracting private sector investment, as well as from a recognition that a multi-carrier industry will result in expanded services and reduced rates. As discussed below, countries infrequently combine privatisation and liberalisation. To a great extent, in countries with low teledensities, this is due to a concern that multi-carrier markets cannot achieve universal service, especially when rates need to be rebalanced at the same time.

### **3.0 Overview of Emerging Models**

There are nearly as many approaches to privatisation and liberalisation as there are countries. Moreover, the two developments appear in different countries in widely varying combinations. Nonetheless, certain patterns are emerging.

Privatisations of national carriers in developing countries, especially in Latin America, frequently have involved the sale of a block of stock to a strategic investor consortium and often have included, or been closely followed by, a public stock flotation. The foreign investors, often consisting of a consortium of telecom operating companies and financial institutions, usually are joined by local investors. The consortium obtains financing backed by the assets of the group. Normally, the investor consortium is obligated to expend considerable sums for upgrade and expansion of the basic services network. In return, the investors frequently are granted operational control over the enterprise, even if they are minority shareholders, and are guaranteed certain exclusive rights. These exclusive rights often include a monopoly over basic services for a period of five to ten years.

There is no universally accepted definition of “basic” services. In the US, basic services are those provided on a common carrier basis which do not involve any subscriber initiated change in content, code or protocol of the message transmitted. In other countries, “basic services” may refer more specifically to two-way live voice. In

Argentina, for example, basic services are two way live voice services over fixed links (i.e., not cellular or other mobile services).

Privatisations also have included significant market reorganisations. In Argentina, before it was sold the national telephone company was divided into two regional companies. In Australia, the national satellite carrier was transformed into a second basic services carrier in competition with a new state-owned enterprise formed from the merger of domestic and international operations. In some developed countries, such as the UK and Japan, privatisation has been effected solely by public stock flotation and has not involved the deliberate sale of shares to strategic investors. In fact, privatisation can refer not just to the sale of a national company, but also to the removal of restrictions against private sector participation in the industry. The emergence of private companies in new services, such as cellular telephony, value added services, and even private networks, are a form of partial “privatisation.”

In most cases, privatisations face significant resistance from labour unions and employees who fear loss of jobs. In several countries, such labour concerns have been met successfully through the sale of a significant portion of stock to employees, or through generous retraining and/or retirement programs. Privatisations also engender political and social resistance due to a perceived loss of national identity from the sale to foreigners of such a significant national asset. National security concerns can become an additional issue.

Privatisation and liberalisation are closely linked, but not always in the same way. As mentioned above, in many cases the privatisation of the national company to a strategic investor consortium is accompanied by the grant of exclusivity rights, usually in basic services. Thus, a public monopoly often becomes a private one. Ironically, very frequently the strategic investor consortium that purchases control of a national company in a privatisation transaction is itself controlled by government-owned monopolies of foreign countries. This has commonly occurred in Latin America, where Telefonica of Spain, France Telecom and STET of Italy have strong holdings in such countries as Mexico, Chile, Argentina, Peru and Bolivia. Even in countries where privatisation is accomplished through stock sale, the number of competing market entrants allowed in basic services markets is frequently closely controlled. Rarely is privatisation accompanied by full liberalisation.

Liberalisation is slowest in basic services. Commonly competitive entry is allowed first in “fringe” services such as mobile services (cellular, paging, trunking), value added services, closed user groups or private networks, VSAT (very small aperture terminal) satellite services, teleports and terminal equipment. Competitive entry in any basic services, i.e., plain old telephone service, is still relatively rare throughout the world.

One very common misperception is that liberalisation equates to deregulation. To the contrary, most countries engaged in liberalisation commonly experience a need for increased regulation. Licensing, enforcement of license obligations, rate rebalancing and review, interconnection rules, accounting standards and frequency allocation all normally require a significant degree of regulatory oversight – at least until fair competitive market rules are firmly established. Even then, perpetual changes in technology, network architecture and service provisioning continually raise issues and conflicts within the industry that must be resolved. Some countries, most notably New Zealand, have tried to

resolve such conflicts through judicial enforcement of fair trading laws. However, most countries appear to have concluded that, such a dynamic industry as telecom, public interest issues require prospective and generally applicable policymaking, and cannot easily be addressed through exclusive reliance on judicial adjudication of disputes involving particular parties.

Although the specific approach to privatisation and liberalisation varies among countries, at least four common models are beginning to emerge.

### *3.1 Model 1: Privatisation with Full Competition*

New Zealand presents the pre-eminent case of contemporaneous privatisation, liberalisation and deregulation. Telecom Corporation of New Zealand (TCNZ) was privatised in 1990 to a strategic investor consortium led by the American companies Bell Atlantic and Ameritech and also including New Zealand companies. The consortium purchased all of the shares of the company, except a “Kiwi Share” retained by the government for special control purposes. Since the initial sale, the investor group’s share has declined to 49.9 percent. At the same time as the privatisation, the government implemented a policy of full and open competition. All restrictions on entry into all segments of the market were removed. Moreover, the New Zealand government pursued a true deregulatory approach by implementing competition without the establishment of a regulatory authority. The government does however retain some controls. TCNZ was required to undertake certain obligations in connection with the pricing of services and disclosure of information, and the Kiwi Share permits the government to exercise special voting rights to ensure compliance with foreign ownership and pricing rules. Anti-competitive conduct is policed through enforcement of various fair trading laws by the Commerce Commission and the courts. So far the experience has been positive, in lowering prices and stimulating infrastructure investment. The lack of a regulatory authority appears to some to be a disadvantage, particularly in assisting the carriers to come to agreement on interconnection rules. These issues have been in the courts for several years. It appears that the Ministry of Commerce in fact has assumed a policymaking/regulatory role to address such issues.

Chile is another example of a privatised and fully liberalised market, though the transition from government-owned monopoly was more gradual than in New Zealand. Chile also included within its reforms the establishment of a regulatory authority, though significant reliance in Chile, as in New Zealand, has been placed on antitrust enforcement to maintain a fairly competitive environment. Chile was the first Latin American country to open its telecom markets to the private sector. Beginning in 1977 with the establishment of SUBTEL as the regulator, Chile initiated reforms that ultimately led to the elimination of the government monopoly by 1981. Then, over the period from 1986-88, Chile privatised its two largest companies, Compania de Telefonos de Chile (CTC), the local carrier in Santiago de Chile, and Empresa Nacional de Telecomunicaciones, S.A. (ENTEL), the national long distance carrier. Additional reforms were implemented in the early 1990s with revisions to the telecom laws and decisions of the antitrust tribunal that eliminated segmentation of the local and long distance markets and ultimately led to the divestiture by Telefonica of Spain, a major shareholder in CTC, of its interests in ENTEL. Today, Chile is one of the most liberalised markets in the world, with all services open to competition. At least twelve companies have been licensed to

provide long distance service and several have offered local service. Telephone rates have fallen significantly and the availability, quality and diversity of services are among the best in South America.

A similar approach has led to very different results in Malaysia. In that country, the national monopoly provider, Telekom Malaysia was partially privatised in 1990 and over the next few years, several competing carriers were authorised in the cellular, international, domestic long distance and local services markets. Due to the lack of constraints on the privatised dominant carrier, and the lack of clearly defined interconnection rules, the market became very inefficient. The government has considered reregulation and consolidation of industry participants to reduce overlapping infrastructure investment and build-out proposals.

The strength of the dominant carrier also remains a problem in the Philippines. That country initiated privatisation of its national carrier, Philippines Long Distance Telephone Company (PLDT) in 1990 while at the same time introducing full competition. While the country has over 50 telephone companies, effective competition is impeded by the fact that PLDT still has the only completely integrated national network.

In all these cases, the combination of privatisation and liberalisation has led to lower prices and accelerated infrastructure investment, although some carriers may suffer small operating margins for a period of time. But the fairness and success of competition depends significantly on the ability of authorities to control market abuses by dominant carriers, either through antitrust enforcement and/or regulatory control of interconnection and pricing policies.

### *3.2 Model 2: Privatisation with Phased-In Competition*

In this model, privatisation of national carriers is accompanied by a sustained period of exclusivity rights, or limited competition, in basic telephone services. At the outset, only “fringe” services are liberalised. There are a large number of variations on this theme. However, countries that pursue this model usually either want to maximise the value of the sale of the national carrier or believe that a private monopoly operating under strict regulatory scrutiny for a period of years is the best way to achieve universal service through infrastructure build-out.

The United Kingdom and Japan are examples of countries that privatised national carriers while implementing competition in a measured and gradual way. Reforms in the UK began earnest in 1981 with the corporatisation of British Telecom (BT) and the implementation of the duopoly policy with Mercury as the second carrier. The duopoly in domestic services lasted until 1990, and was just eliminated from international markets in mid-1996. The UK also sold 100 percent of the government’s interest in BT over the period 1984-93 in public stock flotation. Today, the UK has one of the most liberalised private telecom systems in the world.

Japan has not carried its reforms quite so far. Japan completed the public sale of 35 percent of the stock of Nippon Telephone and Telegraph (NTT) in 1986 and may sell more shares in 1997 or 1998. The 1985 telecom law authorised three domestic competitors to compete with NTT. In 1989, two new carriers entered the international market in competition with government-owned KDD. Currently there are also competitors in terrestrial mobile as well as satellite communication markets. However, the success of Japan’s competition policies has been limited by the constraints on the

number of carriers permitted to enter as well as the lack of competitive safeguards to prevent abuse of market power by the incumbent dominant carriers.

A number of countries in Latin America also fit this model. In that region, a number of national carriers originally were private companies that were subsequently nationalised. Telephone privatisations typically have involved the transfer of control of the government-owned carrier and the grant of an operational concession to a private strategic investor consortium comprised of one or more foreign telecom companies joined with local operating and/or investment entities. To maximise the value of these transactions, the concessionaire has most often been protected from competition in basic services for a period of time, ranging from five to ten years.

Argentina privatised its national carrier, ENTEL, in 1990 by first dividing it into two regional companies (north and south), and selling 60 percent of the stock of each resulting company to investor consortiums led by European telecom companies. The purchasing groups, led by France Telecom and STET of Italy in the north and Telefonica of Spain in the south, were granted exclusivity in basic telecom services until 1997, with a possible extension to the year 2000. Mexico also privatised its national carrier, Telmex, in 1990 with a private sale of a little over 20 percent of the capital stock to a Mexican-led consortium including France Telecom and Southwestern Bell. The exclusivity period in Mexico expires in 1997, and already a number of competitive carriers have been licensed. Venezuela partially privatised its national carrier CANTV in 1991 with the sale of 40 percent of the stock of the company to an investor consortium led by GTE. In Venezuela, the exclusivity period runs until the year 2000. Peru sold 35 percent of the combined interests of its national companies, CPT and ENTEL, to Telefonica of Spain in 1994, with an exclusivity period extending for only five years, until the year 1999. Finally, in 1995 in Bolivia 50 percent of that country's national carrier, ENTEL, was sold to STET of Italy with a six year monopoly. In each of these cases, competition was permitted during the exclusivity period only in such "non-basic" services as cellular, value added and private networks. The strategic investors also often obtain cellular, paging and cable licenses along with the basic services concession.

Several countries in Europe have followed the general prescription of partial privatisation of the national carrier with exclusivity in the provision of basic services guaranteed for a period of years. In 1995 the Belgian government sold 49.99 percent of Belgacom, a national monopoly provider of basic services and cellular services to an international consortium led by Ameritech. The EU has mandated liberalisation in 1998, but the Belgian government has not yet adopted the specific plans. In 1995 the Czech government sold 27 percent of SPT, the state owned public telecom operator, to a joint venture of KPN of the Netherlands and Swiss Telecom. A basic services monopoly will last until the year 2000. In Denmark, interests in the state owned public telecom operator TeleDenmark were sold in an international share offering in 1994. TeleDenmark retains a monopoly of the basic services, only until 1996. The Hungarian government sold a 30 percent stake in the public telecom operator Matav in 1993 to the MagyarCom joint venture between Deutsche Telekom and Ameritech. This was increased to majority ownership in 1996. Matav has a 25 year license and a monopoly over long distance and international services until the year 2001. In Italy the republic telecom operator Telecom Italia has been partially privately held for some time. A total of 55 percent is owned by

STET, a state holding company, with 45 percent owned by private investors. Local, long distance, and international services continue to be provided on a monopoly basis.

Several countries in the Asia Pacific region also have followed this model. In Australia, the 1992 privatisation of the national satellite company, formerly known as Aussat and now Optus, ushered in a period of duopoly which is expected to change to full and open competition in 1997. The partially privatised Indonesian carrier PT Telkom will be subject to competition after the expiration of a 15 year exclusivity on local service and a 10 year monopoly on long distance. Hong Kong Telecom, an affiliate of Cable & Wireless, is entirely privately owned. Through various operating companies, Hong Kong Telecom had a monopoly in domestic telephone service until 1995, and retains a monopoly in international services until the year 2006. Competitive licenses for local services already have been awarded to at least three new operators. The mobile communications markets also are very competitive. In Korea, 20 percent of Korea Telecom was privatised in 1995, with plans for complete privatisation by 1999. Local service remains in monopoly in Korea, while long distance services are a duopoly.

In countries where privatisation has led to the entrenchment of a monopoly, or even a duopoly, in the provision of basic services, operating licenses or concessions are usually conditioned with the obligation to meet certain specific requirements for investment and/or service quality improvement. This may guarantee a certain level of network development. However, there also may be loss of efficiencies and poor integration of new technologies within the basic services network.

Many countries have committed to further liberalisation within a decade. In the next few years significant opportunities will open up for increased private sector participation in telecom reforms throughout the world. It will also be a period of intense development of regulatory approaches and solutions to such complex issues as interconnection arrangements and pricing reforms.

### *3.3 Model 3: Liberalisation without Privatisation*

Under this third model, administrations may attempt to introduce liberalisation into the marketplace without actually privatising the national carrier. One reason for pursuing this approach is to gain the advantages of foreign investment, technology and management expertise without suffering the political disadvantages and disruptions of a privatisation transaction. Privatisations typically encounter significant resistance from workers and unions who fear loss of jobs. They also often are opposed by military and defense interests, which fear loss of control and security over critical communication facilities. In other cases, there may be legal impediments to privatisation, such as a constitutional prohibition against foreign ownership, as was the case in Brazil. In other countries, such as Greece, insufficient investor interest may derail the transaction. In many cases where privatisation may not be practical in the near term for these or other reasons, many administrations still recognise the necessity of opening markets to private sector participation and competition.

For example, Telecom Finland remains 100 percent state owned. However, all services, including local, long distance, international cellular value added and private line services are competitive. Less than a year after the implementation of the liberalisation policy, Telecom Finland's main competitor, the ATC Consortium, has captured a significant share of both the long distance and international services market. In Sweden,

Telia is the 100 percent state-owned carrier. The primary competitor is Tele2, which is privately owned. As is the case in Finland, all service markets in Sweden are competitive. As has happened in Finland, the state-owned national carrier in Sweden has lost significant market share. It also is feeling increasing pressure to find sources of financing to support infrastructure development needed to compete.

Colombia is pursuing a similar strategy. An attempted privatisation of the national carrier Telecom failed in the early 1990's, largely due to trade union protests. However, in 1994 a new telecom law was passed eliminating licensing requirements for local services and mandating the introduction of competition in long distance. Implementation has taken longer than originally anticipated. However, two private long distance competitors have been licensed to begin operations in 1997. Competition is planned in all sectors by the year 2003.

India presents a slightly different case study. In that country, the Department of Telecommunications (DOT) provides local and domestic long distance services in most metropolitan areas. In Bombay and New Delhi, local services are provided by Mahangatar Telephone Nigam Limited (MTNL), which is 80 percent government owned. International long distance services are provided by Videsh Santhar Nigam Limited (VSNL), which is 85 percent government-owned. Despite the small amounts of private investment in MTNL and VSNL, these Indian telecom operators are government controlled. Privatisation has been planned by the Indian government for the past few years and is now scheduled for 1977. In advance of privatisation, however, the Indian government has attempted to introduce some measure of competition. In January 1995, the government began a bidding process for 15 year renewable licenses for basic services in 21 regional "circles." This is intended to establish a duopoly in local service in each state. Cellular telephony is also supposed to be a duopoly. Licenses were awarded in India's four largest cities in 1992, but implementation has been slow. Long distance and international services will remain a monopoly until at least the year 2000.

In all of these cases, the introduction of liberalisation has brought some of the benefits of competition – lower prices, increased infrastructure build-out, and implementation of new technologies – even without privatisation. However, whether this model is implemented in a developed or a developing country, a key element of success will be price reform. In many cases the government must take the unpopular step of supporting increases in local rates necessary to permit reductions in long distance and international rates that will ensure that competition is effective. Interconnection negotiations may be especially difficult because the incumbent is a state-owned carrier. Where countries have not privatised, the regulatory authority must be prepared to implement special safeguards to protect emerging competitors from unfair competition due not only to the market dominance of the incumbent carrier but to its special position and privileges as a state-owned entity.

#### *3.4 Model 4: Private Sector Participation without Privatisation or Liberalisation*

Under this last model, an administration may find a creative way of attracting private sector investment and expertise without privatising and without introducing competition. Typical techniques have included the granting of franchises or concessions by national operators to private industry to build and/or operate specific facilities or services and the entry of the national operator into management contracts or consulting arrangements to

improve operations and profitability as well as to facilitate introduction of new technology. Thailand, Saudi Arabia and the Peoples Republic of China (PRC) are examples of this approach.

In Thailand, domestic services are provided by the Telephone Organization of Thailand (TOT) while international services are provided by the Communications Authority of Thailand. Other services, including packet switching, telegraph and telex are provided by the Ministry of Transport and Communications. These entities are all government controlled, although Cable & Wireless recently purchased 40 percent of TOT. Further privatisation is proposed for 1997. However, plans for liberalisation are on hold. In the meantime, private sector involvement, specifically foreign investment, has been invited in the form of build, transfer and operate arrangements, particularly with TOT. These arrangements provide private sector financing for infrastructure installation. The private companies invest capital to develop a project and operate the systems for a period of time with all ownership rights eventually transferred to the government company. This type of arrangement avoids political risks as well as transaction costs by permitting the national carriers to gain access to private sector capital. However, although these arrangements facilitate infrastructure build-out, the full benefits of competition, are not necessarily achieved.

In Saudi Arabia, Saudi Telecom is the operating arm of the telecom ministry. Saudi Telecom is completely government-owned, but it is managed by Telstra of Australia and a Saudi firm. Some management functions are contracted out to other foreign firms, including British Telecom and Ericsson. Also, significant telecom expansion projects are contracted out to private sector entities, such as AT&T. AT&T, in turn, may contract various other companies and joint ventures to complete specific parts of a network upgrade project.

In the People's Republic of China, the Ministry of Posts and Telecommunications "compete" with Unicom, a second telecom operator controlled by the Ministry of Electronic Industries. The People's Republic of China is one of the most sought after markets for private sector investment. However, private sector participation in telecom is not permitted. Private company involvement is limited to consultant services and supply contracts.

#### **4.0 Present Monopolies and Future Plans**

The following is a summary of additional developments in privatisation and liberalisation that can be expected in the next few years in various regions around the world:

##### *4.1 Africa*

Nearly all African nations still maintain government-owned monopolies. Several countries have announced plans to privatise their national operators. South Africa intends to privatise its national operator in 1997, but will implement a six-year transition to full competition. Ghana and Kenya plan to privatise their national operators and implement a duopoly. Other countries, including Cote D'Ivoire, Senegal and Uganda plan to privatise their national operators, but have indicated their intention to keep a basic services monopoly, at least for a term of years.

#### 4.2 *Asia – Pacific*

Several countries in this region retain government controlled monopolies, including Bangladesh, Brunei, Cambodia, Burma, Nepal, Singapore and Taiwan. A few countries have multiple government controlled operators. Vietnam has two government operators, Vietnam Post and Telecommunications and Sigalco, run by the Ministry of Defense.

#### 4.3 *Caribbean*

Most countries in this region maintain government owned monopolies. Antigua and Barbuda, Barbados, Dominica, Grenada, Jamaica, Montserrat St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago all are served by monopolies owned or controlled by Cable & Wireless, a UK company originally established to provide communications services to Britain's former colonies. The Bahamas and Haiti have government owned monopolies while Guyana and the US Virgin Islands are served by affiliated privately owned monopolies.

#### 4.4 *Central and South America*

Several countries in this region have already privatised and/or introduced competition, and others are planned for the near future. Privatisation plans are currently in various stages of implementation in Ecuador, El Salvador, Honduras, Nicaragua and Panama. Brazil has passed a constitutional amendment permitting private ownership in the telecom sector, but the national carriers may not actually be privatised for several years. In several other countries, privatisation remains very unlikely for the foreseeable future. Costa Rica has no plans to privatise the national carrier and competition was recently declared unconstitutional. In Uruguay, a proposed privatisation of the national carrier, ANTEL, was defeated by public referendum in 1992. In the same year, voters in Paraguay also rejected a privatisation proposal. Guatemala intends to "demonopolize," along the lines of the reforms started in Colombia.

#### 4.5 *Europe*

Most members of the European Union have agreed to liberalise their basic telecom systems by 1998, although five year grace periods have been granted to several countries, including Spain, Greece, Ireland, Luxembourg and Portugal. The Netherlands plans to introduce a duopoly in 1997. Many countries have opened mobile, value added and equipment markets to competition. Except for the UK, Western European countries have been slow to privatise. Germany issued a large public stock offering of Deutsche Telekom in 1996 and France Telecom has recently been restructured to permit a public sale of shares in the future. As mentioned above, a plan by Greece to privatise its national carrier to a strategic investor consortium was abandoned. A securities offering of a very small percentage of equity was floated in March of 1996, with plans for a larger percentage sale in the future.

#### 4.6 *Middle East*

Almost all countries in the Middle East retain government-owned monopolies. Kuwait and Morocco have contemplated, but have not actually initiated, privatisation of their national operators. Some countries, particularly Saudi Arabia, Oman and Syria, which have prohibited outright private ownership, have relied on the public sector for

management and operational expertise. Competition is also slow to take hold in this region, with most competitive entry concentrated in the cellular telephony and equipment markets as well as in private networks.

#### 4.7 *North America*

All three countries in North America are currently undergoing significant transformations of their telecom markets. In Canada, most of the companies (except the provincial operator in Saskatchewan) are private, but not all markets are competitive. Domestic satellite markets will be a monopoly until the year 2002. Competition has been permitted in domestic long distance since 1992 and local service are being opened. Teleglobe Canada will retain a monopoly in international service between Canada and points other than the US until 1997. In the US, the *Telecommunications Act of 1996* removed remaining impediments to local services competition, and will permit the divested Regional Bell Operating Companies to enter long distance markets as soon as certain competitive criteria in their local markets are met. In Mexico, the exclusivity granted to Telmex in connection with the 1990 privatisation of that national carrier expires in 1997, and several competitive carriers already have been licensed. The new Mexican *Telecommunications Law of 1995* also requires the privatisation of the Mexican satellite carrier, Telecomm.

#### 4.8 *Russia and the CIS (Commonwealth of Independent States)*

In Russia, most of the 100 or so state-owned regional telecom companies are joint stock companies which will be privatised over the course of several years. Long distance is currently a monopoly controlled by Rosetelecom, but a new telecom law enacted in 1995 establishes a legal framework to permit liberalisation. Among the other countries in the region, Azerbaijan, Tajikistan and the Ukraine have announced plans for major reforms including privatisation and/or liberalisation. However, several countries, including Armenia, Turkmenistan, Uzbekistan and Kyrgyzstan, have no specific plans to change their government-run administrations.

### **5.0 Trends and Observations**

#### 5.1 *Diversity of Regulation*

One of the most important lessons being learned from telecom reforms around the world is the importance of making an effective transition from government as operator to government as regulator. Meeting this challenge is a necessity for the success of reform efforts, both to attract risk-averse strategic investors as well as to ensure achievement of the social and economic goals underlying the reforms. However, in countries that have little or no tradition for regulation, and do not have a well-developed body of administrative law, the design and implementation of regulatory structures can be a problem.

The first issue is to resolve the nature of the regulatory authority itself. As mentioned above with respect to New Zealand, one option is to privatise, liberalise and deregulate all at once, bypassing the necessity to establish a regulatory authority and relying instead on enforcement of fair trading rules. As it turns out, however, even in New Zealand the government recognises the need for some prescriptive policymaking

and, although there is not a separate regulatory authority, certain regulatory functions are being performed by the Ministry of Commerce. Even in countries that have regulatory authorities, the role and function is still evolving. Chile is one country that established a technical regulator in an attempt to keep the effort to bare essentials. There again, however, it is has proved difficult to escape the necessity of applying regulatory resources to the development of prospective policies and solutions to such difficult issues as interconnection and pricing. The reality is that telecom markets are dynamic and asymmetric, and policymaking, particularly with respect to issues attendant to introducing competition, is critical.

Even if a regulatory authority is established with the necessary jurisdiction, it must be effective. Unfortunately, this is extremely difficult to achieve. In the first place, it is difficult within the political structures of most countries to find the right balance and allocation of responsibilities among a new regulatory authority and other ministries, including those of communication, information, investment, defense and foreign affairs. The situation is made more difficult if the regulatory authority is established by executive action (e.g., presidential decree) rather than through legislative action. In the former case, the very structure and existence of the regulatory authority may be at risk. This has been the case in Argentina where jurisdiction and powers were set by presidential decree rather than by law, and the agency itself has been reformed at least three times since its original inception. Finally, regulatory authorities typically suffer with lack of resources, including lack of trained personnel. It takes many years to develop an indigenous pool of competent professionals who have the necessary skills, knowledge and judgement to perform the regulatory function in a consistent and reliable way. Finally, the judiciary inevitably become involved in disputes between carriers and challenges to regulatory actions and jurisdiction. The judiciary must understand telecom technology and policy issues, as well as be expert in new administrative procedures and regulatory tools.

It is also critical to establish a legal framework for fair and consistent regulatory decision-making. Private sector investors and market participants will demand transparency and consistency of administrative action. Many countries look to the US model for guidance, but decision-making procedures have to be adapted to suit the legal systems, practices and customs of particular countries. Also, to some extent, regulatory procedures will reflect cultural norms as well as legal requirements. Concepts of public rights and personal privacy and traditions of advocacy vary significantly from country to country.

Regulatory models from one country cannot be imported wholesale into another. Although important lessons may be learned from countries with significant regulatory experience, any regulatory process must be customised to meet the unique requirements of a particular country. For example, a US style commission structure may not be feasible or appropriate, as decision by committee may be too unwieldy and may lend itself to political bottlenecks. On the other hand, a streamlined directorate structure, at least one that is independent from the ministry, may not be feasible or appropriate.

In fact, as telecom reforms accelerate around the globe over the next decade, one of the most interesting phenomena that all administrations will have to deal with is the increasing diversity of regulatory structures world-wide. This diversity extends to more than just the structure of the regulatory authority, or even to specific competition policies, which are different if almost every country. Diversity also will be apparent in the

definitions of the rights and obligations that carriers assume in gaining authorisations to provide certain services. Understanding the diverse approaches on the different ends of international circuits will become important to multinational carriers and customers that increasingly seek to establish seamless international services.

## 5.2 *New Service Paradigms*

Exclusivity rights granted to privatised national carriers are most often defined in terms of both geographic area and type of service. Service exclusivity normally is dependent upon what the national carrier had been providing, in the sense of provisioning facilities as well as customer use. Thus, in many cases privatisation has led to the grant of a term of exclusivity in the provision of two-way live voice over traditional wireline technologies.

However, technology has moved far beyond the twisted copper pair networks that many privatised carriers in developing countries have inherited. A host of wireless and mobile technologies, as well as fixed and mobile satellites and broadband fibre may dramatically change the economics of particular network architectures in many countries. Technologies not previously available to, or utilised by national carriers may offer a much more economical and efficient means of extending networks.

Regulatory regimes arising in connection with privatisation transactions are challenged not to artificially restrict the use of efficient technologies. Such can be the case if exclusive basic services are defined in terms of fixed links, making it difficult for the national carrier to utilise mobile technologies where appropriate without having to obtain a new license for a different service. Even the notion of basic service as being limited to two-way live voice is increasingly stretched as digital systems become more prevalent and advanced switching and transmission technologies, such as Signalling System #7, ISDN, packet switching, asynchronous transfer mode switching and optical fibres enhanced with new types of amplifiers and multiplexers, continue to blur distinctions between basic and enhanced services. Computer and voice networks are merging, and voice over the Internet may be a near term reality for many applications. Similarly, telecom and video networks are merging for the provision of broadband integrated and interactive services.

These developments are unfolding at an accelerated pace. Exclusivity periods that entrench old technologies, network design or service definitions may hobble national PTOs in their efforts to be positioned for competition in a whole new range of services and technologies at the beginning of the next millennium.

Regulators also will have to be prepared for more rounds of policymaking on a multitude of issues. Integration of digital services will require significant reassessment of how services should be classified for regulatory purposes. Distinctions between “basic” and “value added” may not hold as more and more “enhanced” features such as store and forward and subscriber interactivity become essential features in the most fundamental communication links. This will be especially true in circumstances, either domestic or international, where enhanced services are increasingly relied upon to span time, language and cultural barriers. Similarly, “mobile” and “fixed” technologies will increasingly be mixed on integrated networks. Changes in network architecture, with distributed intelligence and increasing reliance on software for operation and control may require rethinking of which entities should be considered “carriers” for the purpose of

ensuring control of facilities. Perhaps most significantly, the changing landscape of local interconnection with multiple operators providing different combinations of the same integrated voice, video and data services will require a significant overhaul of pricing and interconnection rules. Internet telephony will force this issue as local operators lose the ability to determine the quantity and type of “calls” that enter their networks.

### 5.3 *Globalization*

One of the most important features of the changing world-wide telecom landscape is the development of global markets for telecom equipment and services. These global markets are quickly breaking down traditional boundaries of national identity. National carriers are less and less able to control access to their own national customer base. Telecom service providers from other countries can more and more easily “poach” on markets that were once the exclusive province of national carriers. Technical as well as service product innovations in international resale and toll free services permit carriers with relatively low international rates to provide international services to the national customers of telephone administrations with relatively higher rates. Consequently, the market for international service is no longer limited to the national customer base in the country in which a carrier is licensed. Pricing arbitrage can make that carrier’s service attractive anywhere in the world. These developments will challenge the way international telecom correspondents relate to one another as well as how international services are marketed to national customers.

These developments signal greater urgency for reform. National carriers must streamline costs and build-out infrastructure, or risk being marginalized by foreign carriers as well as upstart new technologies. Invasive services such as “call back” can sap a national carrier’s precious international revenues.<sup>1</sup> Several countries have tried to deem such services an illegal infringement of a national monopoly. However, legal action cannot hold the line against growing consumer demand for such attractive alternatives when the national carrier’s long distance and international offerings remain priced artificially high. Ultimately, the only defense for a national carrier may be to reduce long distance and international rates and go on the “offensive” with new and innovative services of its own. A national carrier must compete in the global market, even in its own backyard.

As the customer base on the demand side is becoming global, so are the carriers and services on the supply side. AT&T has formed WorldPartners with other major international carriers. British Telecom has invested in MCI and the two companies have formed the Concert venture. The administrations of Switzerland, Sweden and the Netherlands have formed Unisource. The French and German telephone companies have invested in Sprint and have formed the Global One venture. These alliances will provide seamless global telecom services for business users. Other initiatives, such as the various proposed low earth orbit satellite systems, will offer global interconnectivity over single privately owned networks.

These globalization developments are quickly resulting in a tangled web of multinational interests in both national and international systems. This raise difficult policy issues with respect to market entry by “foreign” carriers. The United States has recently adopted new rules concerning such entry that requires application of a form of reciprocity test to the proposed transaction to determine if the home market of the foreign

carrier seeking entry to the US is open to US carriers. As carriers and operations become more multinational, it may become increasingly difficult to implement this policy in any meaningful way. Moreover, such market developments will require significant analysis of actual supply and demand factors to determine the extent to which carrier combinations signal an increase in desirable competition or undesirable concentration. Government decision-makers may then have to evaluate the relative advantages and disadvantages of applying trade policies or competition policies in order to ensure maximum consumer benefit.<sup>2</sup>

## **6.0 Concluding Observations**

In light of the trends outlined above, some final observations may be made as to the relative advantages of the different privatisation and liberalisation models outlined in this chapter. First it must be acknowledged that each country implementing telecom reforms faces unique political and cultural issues. The summary presented here does not presume to address such issues, and in fact focuses only on the relative advantages and disadvantages of the models identified.

All the models are variations on a theme: the desire to attract private sector investment in a way that maximises infrastructure build-out and extends universal service. Universal service is generally taken to refer to the extension of basic service to areas that are geographically remote and/or characterised by high costs as well to individuals who have low incomes. The two desires, private investment and universal service, may seem in conflict with one another. There is a fear that self-interested private enterprises will not choose to serve remote local communities and a conviction that universal service can be achieved only through compulsion.

This is one reason why so few countries have chosen Model 1 – simultaneous privatisation and liberalisation. However, different technologies with different economic characteristics may be found to economically extend fundamental service elements to remote areas. Furthermore, though they may be challenging to design and difficult to establish, government programs for targeted subsidies can remove an enormous burden from carriers and provide critical support for universal service. Government policies that help make service to remote areas an attractive business, including providing direct and targeted support for universal service, in fact may be much more effective in extending service to both urban and rural communities than a national monopoly market structure. This is true even when the national carrier is obligated to meet investment and build-out milestones. The combined competitive efforts of multiple carriers within the market, spurred by the appropriate incentives, may surpass the centrally planned build-out program of a single monopolist.

Countries following Model 3 may in part be attempting to avoid some of these problems by keeping a government-owned national carrier that presumably is more responsive to demanding universal service requirements. However, simply burdening one entity with the role of carrier of last resort does not solve underlying inefficiencies or necessarily best serve the public in the long run. Also, without careful attention to price reform and interconnection policies, the benefits of competition may not be realised.

Models 1 and 3 are good for the swift introduction of competition, which can have immediate consumer benefits. But to be truly beneficial, it must be effective and sustainable competition. In this respect, successful implementation of either Models 1 or

3 generally requires a strong regulatory framework so that difficult policy and regulatory decisions concerning pricing structures, universal service development, interconnection, and other important issues can be addressed. Few countries embarking on reforms already have a strong regulatory structure in place. In some cases it takes years to ensure that regulatory jurisdiction is well established, that regulatory tools such as licensing and rate review techniques can be smoothly implemented and enforced, and that a depth of knowledge and experience can be accumulated in professional staff. Attempts to address complex policy issues with unsettled jurisdiction or inexperienced staff can create more problems than they solve.

Model 2 may involve a more gradual introduction to competition, and may afford more flexibility and a longer transition to the establishment of regulatory frameworks. However, in light of the global trends outlined above, the benefits of Model 2 may be lost if the transition period, i.e., the exclusivity period, is too long. However, a successful transition to competition requires detailed attention to regulatory issues from the outset. Only Model 4 offers an opportunity to introduce private sector participation without the need to move relatively quickly to a well formed regulatory framework.

In summary, the best successes with telecom reform have been experienced by countries that attend to regulatory reforms first. Such reforms include the establishment of a regulatory authority with clear lines of jurisdiction and the initiation of important policies necessary to support the introduction of competition. Private sector participation can contribute in a variety of constructive ways if it is part of a planned reform program. In many circumstances, it can facilitate the development of universal service and the transformation of the national PTO into an efficient player in an increasingly global telecom market.

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#### Endnotes

<sup>1</sup> There are many varieties of call back services, but a common form is an arrangement whereby a caller in Country A makes an uncompleted call to an intelligent switch maintained by an international services reseller in Country B. The reseller returns the call, and when the originator picks up the phone in Country A, he or she gets dial tone from Country B. A call can then be originated to any termination point throughout the world, and it will be charged at the lower international rates offered by the Country B reseller. The national carrier for Country A is bypassed and loses out on the direct revenue from the call, although it receives international settlements for “terminating” a call.

<sup>2</sup> Trade policies on both a regional and multinational basis are becoming more prevalent and central to evolving regulatory frameworks. After talks broke down in April 1996, the Negotiating Group on Basic Telecom is set to restart efforts over the next few months to reach agreement on market entry principles for basic services among countries participating in the World Trade Organization. It is anticipated such agreement would hasten liberalization world-wide.