

**COMMUNICATION FROM THE SEPARATE CUSTOMS TERRITORY OF TAIWAN,
PENGHU, KINMEN AND MATSU**

Assessment of Trade in Services

The following communication, dated 17 February 2004, from the Delegation of the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu is being circulated to the Members of the Council for Trade in Services.

I. INTRODUCTION

1. This submission has been prepared by the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu as our contribution to discussions on “an assessment of trade in services in overall terms and on a sectoral basis with reference to the objectives of this Agreement” pursuant to Article XIX:3 of the GATS under the Council for Trade in Services Special Session and for the reference of other WTO Members only.¹

2. The paper starts by touching briefly on the liberalization of trade in services in the pursuit of our broad economic interests, then moves on to elaborate specifically on our progress in telecommunications liberalization and how the results have affected the overall expansion of our trade in services. The paper concludes by drawing on the lessons learnt to arrive at implications for our trade in services in general, and telecommunications services in particular.

II. DEVELOPMENT AND LIBERALIZATION OF OUR SERVICE INDUSTRIES

3. While our economic achievement has been driven mainly by export-oriented industrialization, manufacturing muscle alone can no longer be solely depended upon for our continued economic development. At its record peak in the mid-1980s, the manufacturing sector accounted for nearly 40% of our GDP, but by 2002 this figure had declined significantly to a mere 25.7%. By contrast, the service sector’s share of GDP grew from 47% to 67.1% over the same period (see Table 1). Similarly, since 1988, employment generated by the service sector has outpaced that of the manufacturing sector and in 2002 accounted for 57.3% of employment overall.

4. Looking at a breakdown of the whole services trade sector, three main sub-sectors stand out: banking, insurance and real estate; wholesale, retailing and catering; and social and personal services. As shown in Table 1, these three areas together account for nearly half (47.05%) of our total GDP

¹ In no way does this paper prejudice any positions that the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu might take in the negotiations on Trade in Services.

by 2002. The transport, storage and communication sector has been the only sub-sector of the service industry to significantly increase its share of GDP, from 6.67% in 1998 to 8.31% in 2002².

Table 1: GDP by Major Sector and Sub-Service Sector

		Unit: %					
		1986	1998	1999	2000	2001	2002
Agriculture		5.5	2.5	2.6	2.1	1.9	1.9
Industry	Manufacturing	39.4	27.4	26.6	26.4	25.6	25.7
	Construction	3.8	4.4	3.9	3.4	2.9	2.6
	Electricity, Gas and Water	3.5	2.3	2.2	2.2	2.2	2.3
Services		47.3	63.0	64.3	65.5	67.0	67.1
Wholesale, Retailing & Catering		N.A.	17.30	17.38	17.51	17.46	17.19
Transport, Storage & Communication		N.A.	6.67	7.36	7.83	8.26	8.31
Banking, Insurance & Real Estate		N.A.	20.36	20.35	20.05	20.49	20.82
Business Services		N.A.	2.33	2.39	2.47	2.59	2.48
Social and Personal Services		N.A.	8.29	8.40	8.44	9.01	9.04
Other Services		N.A.	7.48	7.30	7.47	7.23	6.91

Source: Council for Economic Planning and Development (2003)

5. In the process of industrialization, several of our domestic service sectors were subject either to benign neglect or to heavy regulations. As the economy has matured since the mid-1980s, emphasis on the promotion of the service sectors has increased, the underlying rationale being that as distinctive key elements a number of the service sectors are indispensable to the further development of the economy and of society as a whole.

6. In the 1990s, a greater emphasis was placed on institutional reform and soft infrastructural development, which were seen as the new competitive paradigms for evolving towards a highly liberalized economy in the Asian Pacific region. Sub-sectors, such as telecommunications, finance, insurance, transport, and distribution have been the subject of an intensive liberalization process through regulatory reform and market opening, albeit applied at differing degrees. More recently, efforts to liberalize the service sector have been stepped up even further in the hope of developing a more knowledge-based economy and of strengthening the logistics aspect of manufacturing activities.

7. The transformation of the telecommunications service sector, as discussed below, offers an interesting case study of the impact of liberalization, for two reasons. First, the opening of the telecommunications sector arguably provided an excellent opportunity for foreign as well as domestic firms to penetrate an under-exploited market, leading to a certain level of foreign participation in the local market. In light of this, the liberalization policy as implemented has had a definite positive impact on inward investment, which in turn has profoundly affected the local telecommunications landscape. Second, with the recent downturn in economic growth, the promotion of domestic and inward investment increasingly has become a key policy issue. A particular point of interest, therefore, has been to see how much the liberalization programme has mobilized, and will continue to mobilize, private investment and what the introduction of private competition means to the development of the industry and economy as a whole.

² It is worth noting that statistics on trade in services are often drawn from international balance of payments data, which might give rise to some difficulties when it comes to detailed analyses and international comparisons.

III. CASE STUDY: TELECOMMUNICATIONS LIBERALIZATION

A. OVERVIEW

8. Long gone are the days of telecommunications service sectors around the world being governed entirely by state monopolies. While global liberalization and, in our particular case, accession to the WTO, have hastened the process, internal forces have also worked to promote the liberalization of the services sector. Specifically, telecommunications liberalization has been driven by the following strategic goals:

- (a) hastening investment in the telecommunications infrastructure through the introduction of competition from private operators so as to achieve the goal of building an information society;
- (b) transforming our economy into a telecommunications hub that can host the operating centres of multinational companies (MNC) by the upgrading of our telecommunications service sector as a result of competition; and
- (c) helping our telecommunications enterprises acquire overseas market opportunities by bringing in foreign capital and expertise.

9. To achieve these goals, it was necessary to reform the legislation governing the telecommunications market. This was accomplished through the passing of three telecommunications reform acts (Amendment to the Telecommunications Act of 1958, Amendment to the Organizational Statute of the DGT [Directorate-General of Telecommunications] and establishment of the Organizational Statute of CHT [ChungHwa Telecom Company] in January 1996.)

B. PROGRESS IN TELECOMMUNICATIONS LIBERALIZATION

10. Before 1995, the scope for competition in our telecommunications services was limited and involved mainly the deregulation of the Customer Premises Equipment (CPE) market, access to telecommunications networks and value-added network (VAN) services. However, new momentum was gained following the enactment of the three telecommunications reform acts in 1996.

11. One of the key steps was the separation of the commercial operations from the regulatory functions of the former DGT. In July 1996, the DGT was re-organized as an independent industry-specific regulator. At the same time, the CHT, a state-owned company, was established to assume responsibility for telecom services.

12. The framework for reform of our telecommunications services sector divides telecommunications enterprises into two distinct types. A Type I telecommunications enterprise is one that installs telecommunications line facilities and equipment in order to provide telecommunications services. A Type II telecommunications enterprise is one that does not fit the description of a Type I enterprise. In other words, a Type I telecommunications enterprise is a facilities-based operator and a Type II telecommunications enterprise is a non-facilities-based operator. The extent of regulatory control differs between Type I and Type II enterprises. A Type I telecommunications enterprise shall not operate without a franchise and licence issued by the MOTC (Ministry of Transportation and Communications). A Type II telecommunications enterprise shall apply to the DGT for an operating licence. There is no limitation on foreign ownership for a Type II enterprise, but for a Type I telecommunications enterprise, the total direct shareholding by foreigners may not exceed 49% and the sum of direct and indirect shareholding by foreigners may not exceed 60% (Table 2).

13. To achieve a fast roll-out of broadband networks and to provide incentives for local service providers to continuously invest and upgrade the telecommunications network, we have deliberately adopted a phased approach towards liberalization, introducing facilities-based competition before service-based competition. In other words, to avoid any possibility of a “creaming off” effect, it was considered essential at first to support the sustainable development of facilities-based players that will compete vigorously and effectively in the marketplace and thus provide a full range of basic telecommunication services. This will, in turn, lay the necessary foundation to support a plethora of innovative and equally vigorous value-added services.

Table 2: Regulatory Framework for Telecommunications Enterprises

Industry Framework	Type I Enterprises	Type II Enterprises
A. Business Activities	Own and operate telecom circuit facilities.	Use telecom circuit facilities leased from Type I operators.
B. Start-up of Services	Franchise and operating licence issued by the MOTC	Operating licence issued by the DGT
C. Foreign Capital Limitation	Direct: 49%; including indirect: 60%	No limitation
D. Retail Prices Control	Price-Cap regulation applied Prior approval is required for dominant operator’s major services. Prior notification is applied for non-dominant operator and dominant operator’s non-major services.	No regulation

Source: DGT

14. Since 1996, several milestones have been achieved on the road to market liberalization in our telecommunications service sector. Firstly, the liberalization of four kinds of mobile communications services (i.e. radio paging, mobile phones, trunked radio and mobile data communications) was introduced in 1997 and subsequently 44 licences were awarded. Secondly, the opening up of the satellite communications market, including mobile satellite services (MSS), fixed satellite services (FSS) and satellite TV programme relay services, took place in 1998. Thirdly, four licences for fixed network services were issued in 2000. And last but not least, competition in the international submarine cable leased-circuit service was introduced in the same year. As a result, our telecommunications market had been fully opened up to competition before our accession to the WTO. In addition, five licences for the third generation mobile telecommunications services (3G) were issued in 2002, via a competitive multi-run bidding process. Today, there are more than 530 operators providing basic and value-added telecommunications services (Table 3).

Table 3: Competition Status of the Telecommunications Service Sector

	Services		Year of Competition Introduction	Total Existing Operators as of Sep. 2003		
	T Y P E I	Mobile	Mobile phone	2G	1997	6
3G				2002	1*	
Radio paging			1997	5		
Mobile data communications			1997	6		
Trunked radio			1997	12		
Digital low-powered cordless phone (1900MHz)			1999	1		
CT-2			1995	2		
Satellite		MSS		1998	0	19
		FSS		1998	13	
		Satellite TV program relay services		1998	6	
Fixed	Fixed network		2000	4	43	
	Domestic Leased Circuit		2000	36		
	Submarine cable		2000	3		
T Y P E II	Internet Access		1995	166	436	
	Voice Simple Resale		2001	49		
	I-phone		2001	41		
	Other Value-Added services		Since 1987	180		

*The first 3G operator launched its services on 29 July, 2003.

Source: DGT

15. Some market segments, notably the mobile phone and international telephone services markets, are witnessing viable competition, while others are experiencing market stagnation or are waiting for market competition to take root. This has much to do with the market overlap of competing networks and the increasingly blurred boundaries between them. For instance, the opening of the radio paging service initially met with an astonishingly high penetration rate, with the number of subscribers reaching an all-time peak of 4.32 million within two years. But by September 2003, this figure had shrunk to 1.46 million. Its demise can be mainly attributed to the success of mobile phone services. On the other hand, while the digital low-powered cordless phone (1900MHz) service (known as PHS) functions in a similar way to the mobile phone services, its operator has still been able to find a market niche and gain a strong market foothold, capturing more than half a million subscribers to date.

16. During our accession process to the WTO, we made additional commitments to accommodate all the provisions of the WTO Basic Telecommunications Reference Paper. Starting with of amendments to the Telecommunications Act in 1996, we embarked on a programme of regulatory reform and established certain measures to prohibit anti-competitive practices, e.g. interconnection regulation, an accounting separation system, a universal service scheme and price-cap tariff regulation (see Appendix). Moreover, in the true spirit of transparency, we introduced a public comments system. In January 1998, we set up a Fixed Network Liberalization Task Force to develop the licensing framework for fixed network services. This task force comprised government officials, academic experts, industrial practitioners, consumers, fair trade advocates and equipment vendors. It

took one year for the task force to finalize the licensing terms and conditions for fixed network services. Meanwhile, the regulatory regime has been gradually fine-tuned to ensure fair competition. For example, in response to the deregulation of fixed network services, the Interconnection Regulation for Mobile Communications was amended to extend its coverage to fixed network communications and was renamed in November 1999, the Interconnection Regulation for Type I Telecom Enterprises.

C. IMPACT ON THE DOMESTIC SCENE

17. Two immediate consequences of telecommunications liberalization have been the opening up of market access and the subsequent proliferation of private operators. Following the passing of the three telecom reform acts, some 95 firms had become Type I operators by the September of 2002 and the number of Type II operators had reached 436. At the same time, telecommunications revenues increased their share of total GDP from 2.11% in 1997 to 3.42% in 2002, which is on a par with the OECD average of 3.35% (OECD, 2003, p.61).

18. As a result, the industrial landscape has been changed fundamentally, as outlined in Table 4. Perhaps the most impressive outcome has been the rapid growth in penetration rates of mobile phone services and broadband Internet access. Before liberalization, there existed only about 1.49 million subscribers to mobile phone services, amounting to a penetration rate of 6.86% as of the end of 1997. Thanks to fierce market competition and aggressive promotional activities, we have experienced an explosive growth in subscriptions for the services over the last six and half years, bringing the penetration rate in September 2003 to 111.97%, with a CAGR (Compounded Annual Growth Rate) of 67.12%. It follows that mobile phone services have outgrown fixed network services and become the major sub-sector within the local telecommunications service sector, accounting for 56% of all revenues in this market. In addition, due in part to the opening of Type II and fixed network services, the number of Internet users has soared, from 1.66 million in 1997, to 8.76 million as of September 2003, reaching an unprecedented penetration rate of 39% for Internet services. Within this figure, 30.96% subscribe to broadband Internet services. Consequently, the share of total market value accounted for by data business has grown in five years from 4% to 18%. Moreover, the total telecom market size has almost doubled from NT\$ 176.2 billion to NT\$ 333.7 billion.

19. Another result worth noting is that the incumbent's market share in the mobile phone services sector has now dropped to a level of around 30% and even its total number of subscribers has been surpassed by that of a single private operator. In sharp contrast, the market for the fixed network service sector remains overwhelmingly dominated by the previous incumbent, with its market share for local call subscription being as high as 98.61% as of September 2003. Having said that, market competition is now taking root in the international call services segment, with three new entrants having captured a combined total of about 40% of market revenues during the first half of 2003.

Table 4: Effects of Our Telecommunications Liberalization

Item	Category	1997	Sep. 2003
Operators	Type I (FBO)	1	95
	Type II (SBO)	80	436
Subscribers (Millions)	Local Phone	10.86	13.29
	Mobile Phone	1.49	25.28
	Internet	1.66	8.77
	Broadband Internet		2.72

Item	Category	1997	Sep. 2003
Penetration	Local Phone (pop)	49.96%	58.86%
	Mobile Phone (pop)	6.86%	111.97%
	Internet (pop)	8.00%	39.00%
	Broadband/Internet		30.96%
Total Revenues	NT\$ Billions	176.2	333.7 (2002)
	Fixed Network Telephony	74%	26%
	Mobile Phone	22%	56%
	Data	4%	18%
Total revenues to GDP (%)		2.11%	3.42%(2002)
Average Price of IDD per minute (NT\$)		29.94	6.22(Nov.2003)

Source: DGT

20. Additionally, the liberalization of mobile phone services has borne fruit in other ways within the sector. Viable market competition has led to phased decreases in mobile phone service tariffs, of 50% at the outset of liberalization and 40% in the year 2000. Consumers have benefited from significant cost savings in connection fees, monthly subscription charges, airtime prices and handset costs. For example, during 1998 and 1999, cost savings for consumers of mobile phone services were estimated at NT\$ 4.8 billion for connection fees, NT\$ 16.3 billion for monthly rentals and NT\$ 252.9 billion for handset costs (CIER, 2000). In fact, our mobile phone service tariffs are relatively low. According to the ITU (International Telecommunications Union), out of 52 high-income economies, we have the 11th cheapest tariff rates for mobile phone services. Among OECD member economies, only South Korea, Australia and Canada outperform us in this respect.³

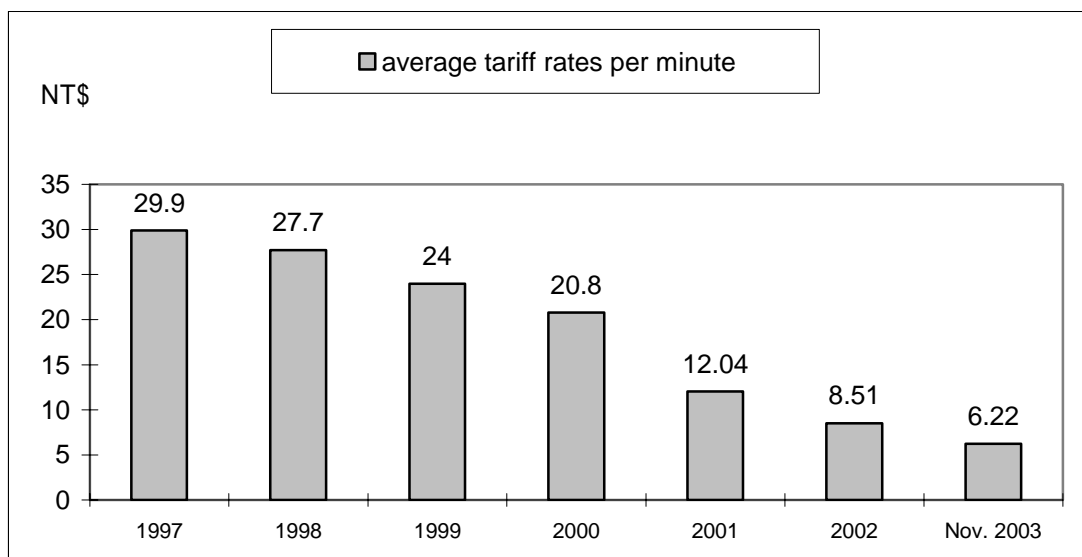
21. It can therefore be argued that, out of all the service sectors liberalized, the mobile phone segment has been the most successful in triggering market competition. This success may be attributed to several underlying factors at the time of market liberalization. Firstly, hundreds of thousands of residents had already been placed on a waiting list for mobile phone services due to the failure of the then state-monopoly operator to meet the mounting demand. This huge backlog provided an immediate ready-made market for the new entrants. Secondly, delays in equipment procurement caused by the bureaucratic red tape of the previous incumbent operator allowed the new entrants to consolidate these early market penetration gains. And thirdly, we adopted the calling-party-pay pricing system, which seems to have further encouraged residents to take advantage of the services.

22. The liberalization of fixed network services, which took place in the year 2000, has produced less impressive results, though a few positives have emerged. For example, telephone density per 100 inhabitants climbed from 54.52% in 1999, to 58.86% by September 2003. More significant has been the impact on international call services. Despite the economic downturn in recent years, the volume of outgoing international calls has increased significantly, from 958.26 million minutes in 1999 to 2.15 billion minutes in 2002. This trend has undoubtedly been given an extra boost by the steady decline in average tariff rates for international call services, as shown in Figure 1.

³ The average annual exchange rate for NT\$s per US\$ 1 over the period 1997-2002 ranged from 28.66 to 34.58, as shown below:

	1997	1998	1999	2000	2001	2002
Exchange rate NT\$s	28.66	33.44	32.27	31.23	33.80	34.58

Per US\$ 1



Source: DGT

Figure 1: Average Tariff Rates Per Minute on International Call Services

23. The entry of private operators has resulted in a huge amount of realized or anticipated investment in the telecommunications services industry. In terms of physical capital investment, according to data gathered by the regulator, investment in facilities by all of the operators generated on average an annual capital formation of NT\$ 103 billion during the period 1997-2000 rising to NT\$ 142.09 billion annually during the period 2000-2002. Consequently, the share of GDP accounted for by telecommunications investment increased from 0.59% in 1997 to 1.2% in 2001 and to 1.25% in 2002.

24. Additionally, in terms of local industrial development, telecommunications liberalization has produced a vast array of spillover effects, such as the unleashing of both price and non-price competition. The telecommunications sector has become an important customer, for example, for the advertising industry, generating new revenue for the latter of more than NT\$ 3 billion annually over the last five years. Furthermore, the fast expansion of telecommunications services has led to an impressive proliferation of distribution and service chain stores. Indeed, a study commissioned by DGT (CIER, 2000) has revealed that an investment of NT\$ 1 in the telecommunications service sector is estimated to have brought about a growth in GDP of NT\$ 2.89; and an investment of NT\$ 1 million in this sector is estimated to have generated 0.65 employment opportunities. In other words, the above-mentioned average annual investment of NT\$ 103 billion during the period 1997-2000 would have generated about 67 000 jobs.

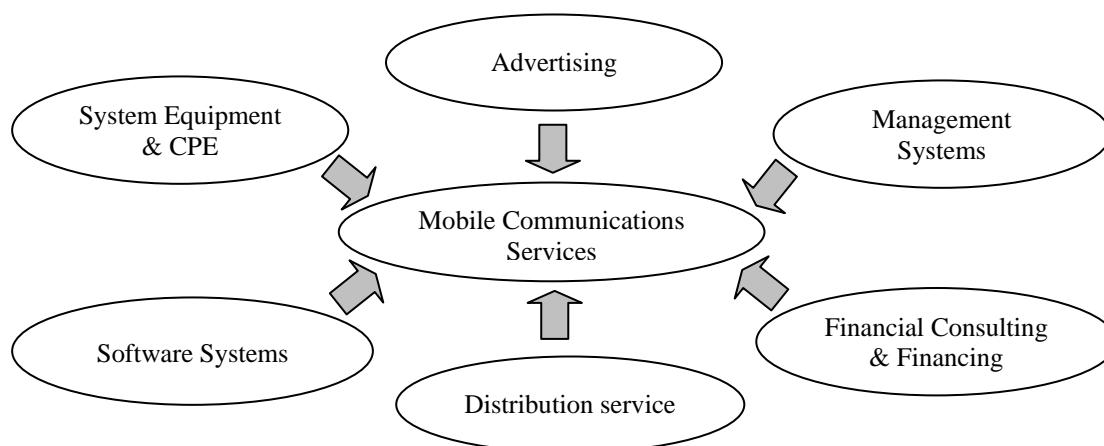
25. Moreover, the latest assessment of the economic impact of our telecommunications liberalization (CIER, 2003) has shown that consumers over the last three years have benefited from a surplus worth NT\$ 222.49 billion and NT\$ 23.69 billion from competition in the mobile phone and international call services markets respectively.

D. FOREIGN PARTICIPATION AND LOCAL INDUSTRIAL UPGRADING

26. Despite the 49% limit on foreign direct ownership of Type I telecommunications operators, a number of foreign firms have gained a market foothold here. Prominent among these are AT&T Wireless, NTT DoCoMo, GTE, Japan Telecom, Southwest Bell Telecom, Singapore Telecom, and Bell Canada. In fact, out of the 18 Type I operators with foreign investments, two have a foreign capital ratio of 60% (including indirect ownership), and some 10 operators have a foreign capital ratio

greater than 10%. For Type I operators as a whole, foreign capital stock amounted to NT\$ 41.88 billion in 2002, and this figure climbed further to NT\$ 53.65 billion in 2003, registering an increase of 28%, due in part to the liberalization of the third generation mobile telecommunication services.

27. In fact, the liberalization of our telecommunications services has created considerable business opportunities for both foreign and domestic enterprises. Mobile communications is the leading and perhaps most influential example. Seven different kinds of related major business opportunities, including mobile communications itself, can be identified as having grown out of liberalization, as illustrated in Figure 2.



Source: Chen (2000).

Figure 2: Business Opportunities Arising from the Liberalization of Our Mobile Communications Sector

28. From the outset, due to the lack of indigenous supply, it was foreign firms that had the main chance to benefit from the above-mentioned business opportunities, capturing the lion's share of such market segments as system equipment and wireless CPE, management systems and software systems. Having said that, our local firms have not only gained plenty of business opportunities related to distribution services and advertising, but they have also been able to become important players in contract manufacturing work for the globally branded marketers of handsets, thanks mainly to the global trend in telecommunications liberalization. Specifically, the volume of handsets manufactured by our local firms increased from 9.6 million in 2000 to 28.6 million in 2002, leading to a rise in the value of production from US\$ 771 million to US\$ 1.94 billion respectively. It has been forecast that 2003 will see a new peak of US\$ 3.14 billion reached in terms of production value (CIER, 2003).

29. On balance, there are strong grounds for arguing that foreign participation in the local market arising from telecommunications liberalization helps to promote the overall efficiency of the telecommunications service sector. The development of the sector may also have further positive spill-over effects on other parts of the economy, including the manufacturing sector, hence contributing to the growth of total GDP and generating additional consumer benefits.

IV. CONCLUSIONS

30. From our experience of liberalizing Trade in Services, including telecommunications services, several important lessons have been learnt.

31. Firstly, the services sector has the potential to act as an important driver of growth in the medium to long term, if the proper sequencing of liberalization and deregulation is undertaken. As

the liberalization of services can involve a fairly painful, yet short, period of adjustment, it must be managed appropriately. An important caveat should be added here: services liberalization in particular requires that the institutional and regulatory environment be strengthened both prior to and during the process of liberalization.

32. Secondly, central to the telecommunications liberalization is the introduction of efficient and effective competition into the market under an appropriate regulatory framework. This requires much more than just the simple opening of the market. In fact, it involves striking a balance between deregulation and re-regulation. With this, our telecommunications liberalization has been bringing benefits to us in terms of more choice, greater innovation and higher quality of services at reduced prices. Furthermore, as well as aiding the telecommunications sector specifically, it has positive spill-over effects on other parts of the economy.

33. Thirdly, a key factor in our telecommunications service sector liberalization was the separation of the regulator from the state-run services provider; the regulatory body had to be separate from and not accountable to any supplier of telecommunications services. This is also the way to ensure that the decisions of regulators and the procedures developed by them, are impartial as far as all market participants are concerned. In addition, efforts we are currently making include the establishment of a new converged independent regulator outside the jurisdiction of the competent ministry, in order to eliminate potential conflicts of interests between industrial promotion and open competition and to tackle the trend of convergence between telecommunications and broadcasting sectors.

34. Fourthly, the regulator has been advised to take into consideration both public opinion and international benchmarks so as to develop more transparent practices that can better balance the different, and sometimes conflicting, interests of the services sector. A public consulting process has enabled regulators to identify conflicting views among the industries. Although it is almost impossible to satisfy everyone fully, the consulting process at least enables the regulator to make more equitable decisions.

35. And lastly, we have found the need for mechanisms to safeguard effective competition to be established in the deregulation of our telecommunications market, and these should be constantly reviewed and adjusted to market developments and technological innovations. In the end, the ever-changing state of technology in this market can easily render the regulatory regime outdated, and this characteristic feature alone demands continuous and systematic fine-tuning of the deregulatory and regulatory framework.

**APPENDIX: MILESTONES IN THE PROCESS OF DEREGULATION
AND REREGULATION**

1996 Feb.:	Amendment to Telecommunications Act of 1958
July:	Re-organization of DGT
1997 Jan.:	Mobile Phone Services opened
Feb.:	Paging Services opened
Mar.:	Mobile Data Services opened
Apr.:	Trunked Radio Services opened
Oct.:	Stipulation of Administrative Regulations of Network Interconnection for Mobile Communications
1998 May:	Opening up of Satellite Up-Link / Down-Link Services market
Aug.:	Opening up of VPN Services market
Sep.:	Opening up of Mobile Satellite Communications Services market
Dec.:	Opening up of Fixed Satellite Communications Services market
1999 Nov.:	Amendment to Telecommunications Act of 1996
Nov.:	Revision of “Administrative Regulations of Network Interconnection for Mobile Communications”, and renamed as “Administrative Regulations for Network Interconnection between Type I Telecommunications Enterprises”
2000 Feb.:	Liberalization of Domestic Leased-Circuit Services
Mar.:	Liberalization of Fixed-line Communications Services
Aug.:	Stipulation of Accounting Standards and Regulations for the Type I Telecommunications Enterprises
Sep.:	Administrative Regulation Governing Tariffs of Type I Telecommunications Enterprises
Dec.:	Liberalization of International Submarine Cable Leased-Circuit Services
2001 June:	Stipulation of Regulations on Telecommunications Universal Service
July:	Licensing of Voice Simple Resale
2002 Jan.:	Our Accession to WTO Membership
Feb.:	Five licences for 3G services issued
2003 May:	Amendment to Telecom Act of 1999
July:	Liberalization of MVNO Services
Sep.:	Revision of “Administrative Regulations for Network Interconnection between Type I Telecommunications Enterprises”, and renamed as “Regulations Governing Network Interconnection among Telecommunications Enterprises”

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