

# Financing Telecommunications Projects in Asia: A Promising Regulatory Perspective

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## I. INTRODUCTION

Asia's telecommunications market has long been viewed as lucrative and fast growing. The value of the Asian market is estimated at \$180 billion, while a recent study shows that the "Asia-Pacific excluding Japan has been the fastest growing information and communications technology market, moving at a compound rate of over 14.5%."<sup>1</sup> Given this rapid growth and potential, foreign investors (particularly major global communications operators) have shown strong interest in investing in the region's telecommunications infrastructure upgrades.

At the same time, telecommunications authorities and governments have been moving away from the traditional monopoly model of regulation and separating and privatizing their telecommunications operators. A worldwide trend to introduce competition to the telecommunications sector—often beginning with the wireless telephone market—has continued the liberalization movement, particularly in developed economies. Competition brought new investment in infrastructure, lower rates, and innovation to the market. As the benefits of a competitive telecommunications market become apparent, many Asian governments also recognize that global corporations require, and in fact demand, state-of-the-art telecommunications infrastructure. They realize that priorities must be placed on telecommunications infrastructure projects in order to attract new business and development to their countries. Finally, in the last five years, the stunning emergence of the Internet and its potential to promote global electronic commerce caused governments and telecommunications authorities to place a higher priority on promoting and studying information infrastructure issues, so that their countries will not be relegated to the category of information "have nots."

After several years of strong growth, however, the severe economic crisis that affected all industry segments in Asia caused investors to pause and reevaluate the risks involved in financing infrastructure projects. The Asian economic crisis stalled projects in every industry segment. Beginning in 1998, the crisis resulted in a hold on numerous telecommunications projects, especially in countries such as Indonesia, Thailand, and Malaysia.<sup>2</sup> Thailand and Indonesia postponed privatizations

1. *Asia Telecoms This Month*, TELECOM ASIA, Dec. 1998, at 31.

2. See, e.g., *More Projects Fall as Telecom Firms Sit out Financial Storm*, ASIAN PACIFIC TELECOMM. ANALYST, Feb. 16, 1998, at 7; Steve Watkins, *Thai Firm Tries to Raise L-Star from Fiscal Ashes*, SPACE NEWS, June 29, 1998, at 3.

of state-owned incumbent telecommunications providers.<sup>3</sup>

One positive result of the capital crisis is that it prompted some countries to open their telecommunications markets to increase foreign investment.<sup>4</sup> For example, in 1998, Malaysia reformed its laws to allow foreign investors to own up to 61% of a local telephone company.<sup>5</sup> During the World Trade Organization (WTO) Basic Telecommunications Agreement negotiations, Korea also submitted that it would raise the ceiling on foreign ownership from 33% to 49% by 2001.<sup>6</sup> In an effort to jumpstart this process, the government recently raised the ceiling to 49% effective July 1, 1999.<sup>7</sup>

The WTO Basic Telecommunications Agreement<sup>8</sup>—signed by sixty-nine nations in February 1997—also helped to push forward liberalization schedules that were underway. In Singapore, the termination of Singapore Telecom's monopoly on wireline services moved from 2007 to 2000.<sup>9</sup> In Korea, a third international operator was added.<sup>10</sup> In Thailand, the government committed to initiate liberalization in three years instead of ten.<sup>11</sup>

The greatest effect of the WTO Agreement, however, is expected to come from the adoption of regulatory principles binding certain signatories to rules on anticompetitive practices, interconnection, universal service, the public availability of licensing criteria, and other issues.<sup>12</sup> The adoption of these regulatory principles is very significant to foreign investors for two reasons. First, a stable regulatory environment provides investors with a secure investment climate. Second, as discussed below, certain regulatory

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3. See Pongpen Sutharoj, *Continued Stall on Privatisation Damaging Thai Competitiveness*, NATION, Aug. 4, 1998, available in LEXIS, News Library, WLDSRC File; *Indonesia Economy: Telecoms Dispute Delays Privatisation*, EIU VIEWSWIRE, Aug. 7, 1998, available in LEXIS, News Library, EIU VW File.

4. See *The State of Asia's Telecom Health*, TELECOM ASIA, Dec. 1998, at 92, 97 [hereinafter *The State of Asia's Telecom Health*].

5. See *id.* at 92.

6. See *id.* at 97; *General Trends in Telecommunication Reform 1998: Asia Pacific Volume V*, ITU, compiled in GENERAL TRENDS IN TELECOMMUNICATION REFORM 1998: WORLD REPORT, at 95 box5.2 (1998) [hereinafter ITU Paper].

7. See *Korea's National Assembly OKs Bill to Raise Ownership Ceiling for Facilities-based Carriers to 49%* (visited Aug. 26, 1998) <<http://www.investgate.com/home1/frame3/news/teletext.htm>>.

8. The results of the WTO Basic Telecommunications Services April 30, 1996, negotiations are incorporated into the General Agreement on Trade in Services (GATS) by the *Fourth Protocol to the GATS*, 36 I.L.M. 366 (1997).

9. See ITU Paper, *supra* note 6, at 95 box5.2.

10. See *id.*

11. See *id.*

12. See *id.*

safeguards enhance and protect competitive conditions.<sup>13</sup>

The financing of any project, including a telecommunications project, involves various risks, including currency risk, political risk, technological risk, and regulatory risk. This Article focuses on regulatory risk. It first provides one perspective on the regulatory issues that should be considered when assessing the investment opportunities in Asian countries. The Article then provides country-specific analyses of countries with more developed, and, therefore, more “investor friendly” regulatory schemes. Furthermore, this Article addresses those countries with less developed, but potentially favorable regulatory schemes based on the regulatory principles previously identified.

## II. REGULATORY CONSIDERATIONS FOR INVESTMENT PURPOSES

From a regulatory perspective, potential investors should assess two aspects of a country’s regulatory regime in order to determine whether the regulatory environment would be favorable toward investments in telecommunications projects. First, most countries have in place restrictions on foreign ownership and investment in telecommunications companies. The extent to which a foreign investor is allowed to participate in telecommunications projects often is determined by these foreign ownership limits. Second, a stable, transparent, and competitive regulatory atmosphere with an effective, independent regulatory agency is necessary to protect the investment and minimize undue political risks.

### A. *Foreign Participation Restrictions*

Governments often use a variety of mechanisms to restrict foreign participation in the telecommunications market. These mechanisms must be analyzed on a case-by-case basis in order to determine the nature and level of investment allowed in a particular country.

Typically, foreign investment is capped with a foreign investment ceiling, which may vary according to type of telecommunications service or type of investment.<sup>14</sup> For example, a country’s laws may allow direct foreign investment in a licensee up to twenty-five percent in its wireline carriers and up to one hundred percent in wireless carriers. It may allow a higher amount of foreign investment in a holding company that owns a subsidiary that is a licensee, on the theory that the structure of the holding

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13. *See id.*

14. For example, the United States imposes a 20% foreign ownership limit on direct investments in telecommunications companies and a 25% foreign ownership limit on indirect investments in telecommunications companies. *See* 47 U.S.C. § 310(b) (1994).

company dilutes the impact of the foreign investor's control over the licensee. Alternatively, foreign investment may be allowed through other legal mechanisms, such as joint ventures, business cooperation contracts (BCCs), build-transfer arrangements (BTs), and memoranda of understanding (MOUs).<sup>15</sup> These legal mechanisms should be studied carefully so that a participant fully understands the extent and nature of its role in the project.

One of the more controversial investment vehicles used in Asia was China's "Chinese-Chinese-Foreign" (CCF) approach.<sup>16</sup> The CCF approach was developed to "circumvent China's long-standing prohibition on foreign ownership, operation[,] and management of telecoms enterprises."<sup>17</sup> Using a CCF approach, a "Chinese company licensed to operate a network . . . creates a joint venture that serves as an investment clearing house. Complex [three]-way management contracts between the operator (Chinese), the joint venture company (Chinese), and the investor (Foreign) combine equipment leasing, royalties, consulting[,] and license fees in a network supply contract in lieu of direct equity investment."<sup>18</sup> When it was first introduced, the CCF approach seemed to signal a new willingness of the Chinese government to open one of the world's largest telecommunications markets. Last year, the Chinese government officially banned CCFs, and earlier this year, Unicom, the state-owned company which had employed CCF arrangements, "froze [sixteen] million [dollars] in revenue to be paid to foreign CCF participants and began buying them out."<sup>19</sup> CCF participants now have until the end of August to back out of the joint venture contracts or they risk receiving nothing in return.<sup>20</sup> These actions are the result of the Chinese government's decision to list Unicom shares in Hong Kong and overseas exchanges as a means of obtaining foreign investment. The decision to use financial investors and remove strategic investors is seen by some to be a move backwards that ultimately lessens foreign involvement in China's telecommunications industry.<sup>21</sup>

Notably, Asian governments traditionally have kept a tight hold on foreign investment in telecommunications. The WTO negotiations reflect

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15. See ITU Paper, *supra* note 6, at 83, 85.

16. Ken Zita, *Will China Embrace Competition? Foreign Equity in Telecoms Hangs in the Balance* (visited Aug. 26, 1999) <[http://www.ptc.org/planetptc/Zita\\_Ken/paper.htm](http://www.ptc.org/planetptc/Zita_Ken/paper.htm)>.

17. *Id.*

18. *Id.*

19. Gordon G. Chang, *Unicom Highlights Reform Paradox*, S. CHINA MORNING POST, July 26, 1999, at 12.

20. See Wang Xiangwei, *China Unicom Gives CCF Investors August Quit Deadline*, S. CHINA MORNING POST, July 26, 1999, at 1.

21. See Chang, *supra* note 19, at 12.

this trend. Pursuant to these negotiations, most Asian countries continued to retain lower caps on foreign ownership of local telecommunications companies than other regions of the world.<sup>22</sup> Although governments have encouraged joint ventures between local and foreign firms, the level of foreign investment and equity stakes in such ventures also have been limited. Only a few governments, such as Hong Kong, Australia, and New Zealand, have established liberal ownership reforms that encourage foreign ownership.<sup>23</sup>

### B. *Regulatory Safeguards*

Regardless of the size or type of investment established, in order to protect that investment, a stable, transparent, and competitive regulatory regime with an effective, independent regulator must be in place.

#### 1. *Stable and Transparent Environment with an Independent Regulator*

A stable and transparent regulatory atmosphere minimizes the political risk that additional unforeseen restrictions will be imposed may impede private investment or favor one competitor over another. Since impartial decision making is necessary to effectuate competition and ensure that incumbent operators are not unfairly advantaged, an independent regulatory agency constitutes the first step toward ensuring a stable regulatory environment. Ideally, the regulator is fully separated from the operator, and rules are established that prohibit any conflicts of interest between the regulated entity and the regulator.<sup>24</sup>

Transparent regulation also is necessary to provide investors with accurate information and the necessary lead time required to make reasoned investment decisions. Regulations should be promulgated through open proceedings and via established procedures. Such safeguards ensure that investors have the opportunity to assess the shifts in regulatory policies that may affect their investments.

Finally, an effective regulator should be politically strong and have enforcement authority.<sup>25</sup> That is, the regulator must have the decision-making authority to establish and implement its policies. Absent such "teeth," a regulator will be reduced to a mere figurehead.

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22. See ITU Paper, *supra* note 6, at 86 tbl.5.4.

23. See *id.*

24. For example, the regulator should be prohibited from owning stock in any telecommunications company and may not receive anything but limited nominal gifts.

25. Enforcement authority should include the ability to strip a licensee of its operating authority, to assess monetary fines, and to impose criminal sanctions.

Of the sixteen Asia-Pacific countries that signed the WTO Agreement, eleven adhered in part or in full to the regulatory Reference Paper that requires the regulator to be “separate from, and not accountable to, any supplier of basic telecommunications services.”<sup>26</sup> Of these eleven, several countries, such as Indonesia and Thailand, do not yet have independent regulators.<sup>27</sup>

The positive news for investors is that the trend of establishing separate regulatory agencies has been growing. The Philippines set up the first separate regulator in Asia in 1979. A decade later, Asia’s regulators only increased to three. By 1997, however, eleven separate regulators had been established in the region.<sup>28</sup> Although this trend is encouraging, the road to establishing an effective independent regulator is often long and time-consuming due to sensitive political and legal considerations. For instance, India released plans for a telecommunications regulator in 1994, but the regulator did not become operational until 1997. Similar delays plague Thailand.<sup>29</sup> Hence, even if a country has set forth plans to establish an independent regulatory body, investors should continue to monitor the planned and actual implementation time frame.

## 2. Competitive Environment

Asia is becoming one of the most competitive regions in the world, in terms of numbers of operators for certain services, such as wireless services. The introduction of competition into basic services—for example, local or long-distance telephone service—however, is at an earlier stage and moving at a slower pace. To date, more than sixty percent of Asian countries have yet to introduce competition into the local or long-distance telecommunications service markets.<sup>30</sup> Where countries have allowed competition in basic services, they have taken a cautious approach and

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26. *Reference Paper*, Apr. 30, 1996, 36 I.L.M. 367, 369 (1997). The Reference Paper contains principles relating to competition safeguards, interconnection, universal service, transparency of licensing criteria, independence of the regulator, and allocation of scarce resources. The United States and 54 other countries assumed the additional specific commitments set forth in the Reference Paper. The WTO Secretariat distributed the Reference Paper, but never formally issued it as a WTO document. The text has been published in 36 I.L.M. 367 (1997). See Rules and Policies on Foreign Participation in the U.S. Telecommunications Market, Market Entry and Regulation of Foreign-Affiliated Entities, *Report and Order and Order on Reconsideration*, 12 F.C.C.R. 23891, para. 340 n.692, 10 Comm. Reg. (P & F) 750 (1997).

27. See ITU Paper, *supra* note 6, at 80, 84-85 tbl.5.3.

28. See *id.* at 81-82 tbl.5.2.

29. See *infra* Part III.B.3.

30. See ITU Paper, *supra* note 6, at 89 fig.5.2.

allowed limited competition, often in phases.<sup>31</sup>

The introduction of competition has provided many more investment opportunities in Asia. In order for those opportunities to be fully realized, however, a competitive and fair regulatory environment must be in place. As Asian markets move to multioperator regimes, regulators will be faced with a variety of regulatory issues that are crucial to encouraging and maintaining competition. Some of the most significant and complex regulatory issues include interconnection, universal service, and the licensing process.

Clear policies regarding interconnection are necessary to ensure that new market entrants are able to obtain access to customers of the incumbent networks. Interconnection payments represent one of the most significant costs for new entrants, which significantly affects the earnings growth of new operators.<sup>32</sup> The technical conditions of interconnection also affect a new operator's business plan and operational success. The new entrant must be able to provide quality service to its customers in a timely manner. Thus, both the prices charged for interconnection and the technical conditions of interconnection must be established as competition is introduced if a competitive environment is to succeed.<sup>33</sup>

Universal service policies promote access to basic telecommunications services by all citizens in a country. Regulations involving universal service are intended to ensure that reasonably priced basic telecommunications services are provided to remote areas and high cost areas, as well as to businesses and urban customers. Many Asian countries have adopted universal service policies, adopting various methods of implementation. Some governments require carriers to construct local lines and develop a variety of additional services as a condition of licensing. Others require service providers to contribute a percentage of revenues toward universal service obligations, which are then carried out by the incumbent.<sup>34</sup> Any method employed in a competitive or emerging competitive environment must be structured in a competitively neutral way—they must not unduly burden one carrier or industry segment. In order to avoid hidden costs that may affect investment decisions, payments must be transparent and explicit.

A transparent licensing process is another important regulatory factor for investors to consider. An established, open-licensing process and a clearly articulated spectrum plan provides licensees and investors some

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31. *See id.* at 89.

32. *See* ITU Paper, *supra* note 6, at 88 tbl.5.5, § 5.6.1, at 91.

33. *See id.* § 5.6.1.

34. *See id.* § 5.6.2.



assurance of regulatory stability for the term of the license. Multiservice and technology-neutral licenses also provide greater flexibility to upgrade technologies more efficiently and to develop new services as markets develop.<sup>35</sup>

### III. COUNTRY STUDIES

The development of telecommunications markets across Asia varies greatly. Generally, in more developed areas, such as Australia, Hong Kong, Japan, and Singapore, efforts are being focused on enhancing infrastructure and providing greater diversity in services. In contrast, in the less developed and developing areas, such as China, Indonesia, and the Philippines, the focus is on providing basic service and sufficient lines.<sup>36</sup> Similarly, the regulatory regimes of such countries tend to vary according to the extent of the market's development.

Using the principles discussed above—namely, foreign ownership restrictions and safeguards that ensure a stable, transparent, and competitive regulatory environment—this Article analyzes various countries in both categories of more developed and developing countries in terms of regulatory schemes.

#### A. *Developed Regulatory Schemes*

##### 1. Hong Kong

With an estimated annual telecommunications market valued at five billion dollars, Hong Kong has the sixth largest telecommunications market in the Asia region.<sup>37</sup> The potential business opportunities in Hong Kong, combined with an established regulatory body, partial competition, and no foreign ownership restrictions, present a favorable environment for investment.

The independent regulator in charge of telecommunications, the Office of the Telecommunication Authority (OFTA), was created in 1993.<sup>38</sup> OFTA is in charge of a large variety of tasks, including the licensing of operators and the management of radio spectrum.<sup>39</sup> OFTA also resolves interconnection disputes, ensures compliance with international agreements, watches over the protection of consumer interests, and

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35. *See id.* § 5.6.3.

36. *See id.* at 78 tbl.5.1.

37. *See The State of Asia's Telecom Health, supra* note 4, at 73.

38. *See* ITU Paper, *supra* note 6, at 81 tbl.5.2.

39. *See id.*

promulgates technical standards.<sup>40</sup> Although OFTA has in the past been accused of regulating “with a light hand,” and failing to take firm, proactive measures to prevent anticompetitive conduct by the former monopoly providers, recent measures taken by OFTA have dispelled some of these concerns.<sup>41</sup>

As of 1997, the Hong Kong government allowed multiple operators for local services, leased-line service, data, mobile cellular, and paging, but it maintained a monopoly in international, long-distance, telex, cable television, and fixed satellite.<sup>42</sup> The Hong Kong telecommunications market is dominated by four fixed-line carriers, one of which is the former monopolist, Hongkong Telecom. Hongkong Telecom still has the largest share of the residential market, but its monopoly on international calls terminated at the end of 1998.<sup>43</sup> There is also a highly competitive Internet-access market with a one hundred percent growth rate.<sup>44</sup> On May 5, 1999, the government announced that it would not grant any additional fixed network service licenses until January 1, 2003.<sup>45</sup> This moratorium is intended to provide the existing carriers time to deploy their networks. In the meantime, in order to stimulate competition in the local fixed market, the government also announced that it would issue licenses to companies deploying nonwireline networks.<sup>46</sup>

OFTA established necessary regulations to accompany a competitive environment. Although interconnection policies in Hong Kong generally lag behind the introduction of competition, interconnection policies currently exist. New competitors complain, however, that interconnection negotiations are slow. Service providers are encouraged to conduct

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40. *See id.*

41. Hong Kong Telecomms. (Pacific) Ltd., Application for Authority Pursuant to Section 214 of the Comms. Act of 1934, as Amended to Resell Int'l Private Lines for the Provision of Non-telephonic [sic] Serv. between the United States and Hong Kong, *Order and Authorization*, 13 F.C.C.R. 20050, para. 37, 14 Comm. Reg. (P & F) 50 (1998) [hereinafter HKT Order]; *see also* OFTA, *Telecommunications Authority Takes Regulatory Action against Anti-Competitive [sic] Practices of Hong Kong Telecom* (visited Aug. 26, 1999) <<http://www.ofta.gov.hk/press/pr98.html#fm29>> (imposing the maximum statutory penalty on HKT for anticompetitive marketing practices); OFTA, *Determination under Section 36A of the Telecommunication Ordinance for Interconnection Between Hong Kong Telephone Company Limited and New T&T Hong Kong Limited, Statement of the Telecommunications Authority* (visited Sept. 1, 1999) <<http://www.ofta.gov.hk/tas/interconnect/ta980821.html>> (setting interconnection rates retroactive to 1995).

42. *See* ITU Paper, *supra* note 6, at 90 tbl.5.6.

43. *See The State of Asia's Telecom Health*, *supra* note 4, at 81.

44. *See id.*

45. *See* Angela Yeung, *Telecomm Projects* (visited Aug. 30, 1999) <[http://www.ptc.org/resources/industry\\_news/1999/24mayc.html](http://www.ptc.org/resources/industry_news/1999/24mayc.html)>.

46. *See id.*

bilateral negotiations over the terms and conditions of interconnection, with the proviso that the regulator will step in to assist where parties cannot agree.<sup>47</sup> OFTA takes an “objective cost-based approach” toward setting interconnection charges and requires that the incumbent and former monopoly provider interconnect “at charges which are based on reasonable relevant costs.”<sup>48</sup> On May 12, 1999, the government introduced a new bill to the Legislative Council that intends to enhance competition and improve interconnection and access arrangements.<sup>49</sup> Hong Kong also has adopted a distributed approach to universal service obligations by requiring service providers to pay a percentage of revenues to the incumbent carrier for its universal service expenses.<sup>50</sup> The licensing process in Hong Kong is sufficiently flexible in that licenses are technology neutral.<sup>51</sup> Finally, certain regulations also promote competition. For instance, in order to avoid predatory pricing, the incumbent operator must separate its services and ensure that there will be no cross-subsidization.<sup>52</sup> In general, Hong Kong represents a positive environment for investment.

## 2. Singapore

Singapore’s telecommunications market has an estimated annual value of \$2.5 billion and ranks among the top ten largest markets in Asia.<sup>53</sup> Singapore is anxious to be the Asia region’s telecommunications center for international business and was noted as working toward turning the country into an “intelligent island” by 2002.<sup>54</sup> Although privately-owned monopolies over some services exist today, Singapore established a fairly aggressive schedule for opening those markets over the next five years. Moreover, Singapore already established some regulations that promote and protect a competitive environment.

The independent regulator for Singapore, known as the

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47. See ITU Paper, *supra* note 6, § 5.6.1.

48. HKT Order, *supra* note 41, at para. 26.

49. See *Hong Kong Focus: Will Broadband Succeed in Hong Kong?*, ASIA COMPUTER WKLY, Aug. 2, 1999.

50. See ITU Paper, *supra* note 6, § 5.6.2, at 93.

51. See ITU Paper, *supra* note 6, § 5.6.3, at 94.

52. For example, the license requirements of Hong Kong Telecom International (HKTI) require it to implement accounting practices to prevent cross-subsidization and give OFTA the authority to audit HKTI’s accounts. Furthermore, Hong Kong Telecom companies must comply with OFTA’s cost allocations manual, submit regular reports, and are subject to an annual independent audit. See HKT Order, *supra* note 41, at para. 31.

53. See *The State of Asia’s Telecom Health*, *supra* note 4, at 73.

54. *Singapore Data Communications Equipment Market*, INDUSTRY SECTOR ANALYSIS, June 15, 1999, available in LEXIS, News Library, AIW File; see *The State of Asia’s Telecom Health*, *supra* note 4, at 97.

Telecommunication Authority of Singapore (TAS), was established in 1992.<sup>55</sup> TAS is responsible for licensing, enforcement of regulations, management of radio spectrum, and the promotion of a fair and competitive operating environment, including dispute resolution. The agency also ensures compliance with international agreements, controls tariffs and prices, sets principles for interconnection and access charges, and monitors service quality and customer complaints. Finally, the development of technical standards, technology selection, and equipment approval also fall within the agency's authority.<sup>56</sup> The government recently announced a new convergence-oriented ministry, known as the Ministry of Information and Communication Technology. This agency will govern the Internet services industry. Along those lines, the government announced that it would issue unlimited licenses to companies providing Internet exchange services.<sup>57</sup>

Foreign ownership of facilities-based services is limited to forty-nine percent.<sup>58</sup> Although monopolies over fixed-line services currently are in place, Singapore allowed partial competition for data and leased lines and full competition for mobile cellular, paging, and cable TV is now in place.<sup>59</sup> Currently, Singapore Telecom (SingTel) is the monopoly provider of basic telephone services, both domestic and international.<sup>60</sup> In 1998, one additional license for basic telecommunications services was granted to StarHub, a consortium of British Telecom, NTT, and local Singapore partners. StarHub will begin operating in April 2000.<sup>61</sup> StarHub recently finalized its interconnection agreement with SingTel to lay the foundation for providing a competitive service.<sup>62</sup> TAS also announced plans to offer additional basic telecommunications licenses to take effect in 2002.<sup>63</sup> Opportunities to provide international services will be the main focus for most new participants, since Singapore's domestic services are considered to be unusually efficient due to the small size of the country.<sup>64</sup> In the area of wireless communications, SingTel lost its monopoly over cellular and

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55. See ITU Paper, *supra* note 6, at 82 tbl.5.2.

56. See *id.*

57. See *Southeast Asia Lures ISPs*, TECHWEB NEWS, June 24, 1999, available in LEXIS, News Library, TECHWB File.

58. See ITU Paper, *supra* note 6, at 85 tbl.5.3.

59. See *id.* at 90 tbl.5.6.

60. See *id.* at 88-89, 90 tbl.5.6.

61. See Telecommunications Authority of Singapore, *Interconnect Agreement Signed by SingTel and StarHub* (visited Oct. 24, 1999) <<http://www.tas.gov.sg/website/home.nsf/html/indexNewsroom>>; *The State of Asia's Telecom Health*, *supra* note 4, at 96.

62. See *Interconnect Agreement Signed by SingTel and StarHub*, *supra* note 61.

63. See *The State of Asia's Telecom Health*, *supra* note 4, at 96.

64. See *id.*

paging services in 1997.<sup>65</sup> Since then, three mobile licenses and three paging licenses have been granted to private parties.<sup>66</sup> Finally, Singapore allowed the resale of international and domestic public switched services.<sup>67</sup>

Singapore was one of the first Asian countries to consider competitive regulatory issues, such as those governing interconnection and the introduction of multiple operators contemporaneously. TAS promulgated interconnection guidelines and the basis for interconnection charges at the same time that it started the licensing process.<sup>68</sup> Interconnection rates are determined by the regulator, at least for the first three years after the market entry of a new fixed-line provider.<sup>69</sup> After that, TAS will observe and try to facilitate negotiations between the parties.<sup>70</sup> The interconnection charges are based on forward-looking economic cost and long-run average incremental cost.<sup>71</sup> Competition is also promoted in that the dominant carrier is required to separate its services in order to prevent cross-subsidization.<sup>72</sup> Thus, Singapore represents a stable environment for investment.

### *C. Developing Regulatory Schemes*

#### *1. China*

China's \$17.4 billion annual telecommunications market continues to spark investors' interest, given that it is the largest valued market in Asia.<sup>73</sup> China's closed regulatory scheme, however, has made it nearly impossible for foreigners to participate in telecommunications infrastructure projects. Recent events provide some indications that China's regulatory regime may become more favorable for entry and foreign investment in the future.

None of the basic principles that provide indicators of a favorable regulatory environment for investment are currently present in the China telecommunications market. First, the regulator for telecommunications services, the newly formed Ministry of Information Industry (MII), is not an independent regulator in that MII also is the largest national and international operator of telecommunications services and owns the three

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65. See *Singapore Data Communications Equipment Market*, *supra* note 54.

66. See *id.*

67. See *The State of Asia's Telecom Health*, *supra* note 4, at 97.

68. See ITU Paper, *supra* note 6, § 5.6.1.

69. See *id.*

70. See *id.*

71. See *id.*

72. See *id.* § 5.6.4, at 96.

73. See *The State of Asia's Telecom Health*, *supra* note 4, at 73.

largest mobile operators in the country.<sup>74</sup> Given this relationship between the regulator and the incumbent carrier, it would be difficult for the MII to make policy decisions in an independent and impartial manner.

Partial competition has been introduced in the local, long-distance, data, and leased-line services, while full competition exists for telex, mobile cellular, and paging.<sup>75</sup> China partially opened the local and long-distance markets in 1994 when it allowed a second national carrier, Lian Tong (Unicom),<sup>76</sup> into the market. The third player that shapes the current market is the Ji Tong Corporation, which is in charge of the "Three Golden Projects," an initiative to develop a national information infrastructure.<sup>77</sup> In February 1999, the government further sharpened competition by establishing the China Cable TV Network Corporation (CCNC), which will provide basic and value-added telecommunications services.<sup>78</sup>

Chinese law currently prohibits foreign ownership of telecommunications operations. As a consequence, foreign companies such as NEC Corp., AT&T, and Lucent Technologies participated in the China market through contracts for equipment supplies, or for specific work on particular infrastructure projects for the MII. Until recently, firms also have used the CCF approach.<sup>79</sup>

Even in its partially competitive markets, China's regulatory requirements hinder competition. For instance, China has been reluctant to promulgate sufficiently clear regulations that mandate interconnection. Hence, China's second network operator Unicom underwent a six to fifteen month delay before it finally was granted interconnection with the state-owned, incumbent local network.<sup>80</sup> Furthermore, it is reported that official statements regarding key regulatory policies, such as interconnection, can be either unclear or cursory, which creates uncertainty and implementation difficulties.<sup>81</sup>

Despite the many high regulatory hurdles in the China telecommunications market, commentators recently indicated that there is a "new sophistication in the marketplace."<sup>82</sup> The Chinese government is beginning to realize that development of the telecommunications industry

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74. *See id.* at 78.

75. *See* ITU Paper, *supra* note 6, at 90 tbl.5.6.

76. Unicom also is a state-owned entity. *See id.*, at 89 n.15.

77. *The State of Asia's Telecom Health*, *supra* note 4, at 78.

78. *See* Michael J. Wang, *New Telcom Carrier* (visited Aug. 27, 1999) <[http://www.ptc.org/resources/industry\\_news/1999/7junc.html](http://www.ptc.org/resources/industry_news/1999/7junc.html)>.

79. *See supra* Part II.A.

80. *See* ITU Paper, *supra* note 6, § 5.6.1.

81. *See id.* at 92.

82. Zita, *supra* note 16, at 2.

is vital to the growth of the economy and business sectors. Some noted that China Unicom's plan to list in the Hong Kong and overseas stock exchanges emphasizes the country's determination to strengthen competition in telecoms.<sup>83</sup> However, others indicated that seeking foreign investment by eliminating the previous CCF structures, which allowed some foreign strategic participation, indicates a move away from increased foreign participation.<sup>84</sup>

## 2. Malaysia

Malaysia has ambitious plans to develop its telecommunications market, including the government's objective to close the service penetration gap between Malaysia and the developed countries by 2006.<sup>85</sup> Among the main players in the approximately \$2.5 billion market is Telekom Malaysia, the formerly government-owned and now publicly-owned operator, as well the privately-owned Cellular Communication Network, Binariang, Time Telekom, and Mutiara Swisscom.<sup>86</sup>

Malaysia took important steps to make the country attractive for private and foreign investments. The regulatory body was created in 1950 and advertises itself as being "a firm regulatory body."<sup>87</sup> Recently, a new Malaysian Communications and Multimedia Commission was established as the sole regulatory body for telecommunications, broadcasting, and computing.<sup>88</sup> Recognizing the potential of e-commerce, Malaysia also passed cyber laws relating to digital signature, copyright, computer crimes, and telemedicine.<sup>89</sup> Last year, Malaysia also passed the Communications and Multimedia Act of 1998, which governs the convergence of the telecommunications, broadcast, and computer industries.<sup>90</sup>

The laws and regulations of Malaysia allow competition in all major market segments. In that respect, Malaysia is similar to countries like Australia, Japan, New Zealand, and the Philippines. Malaysia not only

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83. See Matthew Brooker, *China Unicom Wins Listing Nod*, S. CHINA MORNING POST, July 19, 1999, at 1.

84. See Chang, *supra* note 19, at 12.

85. See Ministry of Energy, *Malaysia's National Telecommunications Policy* (visited Oct. 24, 1999) <<http://www.jtm.gov.my/jtm/documents.html>>.

86. See *The State of Asia's Telecom Health*, *supra* note 4, at 92.

87. Ministry of Energy, *Multiple Operator Environment* (visited Sept. 16, 1999) <<http://www.jtm.gov.my/jtm/multiple.html>>.

88. See Moggie: *Telekoms Department to Re-deploy [sic] 196 Staff*, NEW STRAITS TIMES (Malaysia), Feb. 16, 1999, available in LEXIS, News Library, AIW File.

89. See Dionne Jackson-Miller, *Technology-G-15: Doing Business in Cyberspace*, INTER PRESS SERVICE, Feb. 17, 1999, available in LEXIS, News Library, IACNWS File.

90. See *Malaysia Can Be Major IT Player, Says Moggie*, NEW STRAITS TIMES (Malaysia), Feb. 23, 1999, available in LEXIS, News Library, AIW File.

largely liberalized its markets but also introduced a number of competition safeguards, such as equal-access rules, to ensure that competitors have an actual chance of succeeding.<sup>91</sup>

Foreign operators should carefully monitor Malaysia's interconnection policy, which is not yet fully established, but is planned to include cost-based pricing for interconnection charges.<sup>92</sup> Universal service obligations also are integrated into license terms. Multiple service providers are subject to a number of obligations, including the establishment of local lines. An interesting aspect of Malaysia's licensing process is its move to issuing full-service licenses, rather than service-specific licenses, in order to increase investment, especially from investors who are interested in strategic stakes in operators.<sup>93</sup>

Malaysia has only partially adopted the WTO principles. The government seems to be courting foreign investors, nevertheless, by now allowing sixty-one percent foreign ownership in local telecommunications companies.<sup>94</sup> However, that stake must be reduced to forty-nine percent in five years.<sup>95</sup> Some analysts continue to believe, however, that this is an excellent time to invest in Malaysia.<sup>96</sup>

### 3. Thailand

Many regulatory changes occurring in Thailand make its estimated two billion dollars annual telecommunications market another potential option for investors. Thailand is currently undergoing a privatization of its two state-owned telecommunications providers. The Telephone Organization of Thailand (TOT) is Thailand's major telecommunications services and network provider. The Communications Authority of Thailand (CAT) provides international as well as cellular service.<sup>97</sup> The government is currently working with the World Bank to establish a privatization secretariat that will manage the sale of these and other state-owned enterprises.<sup>98</sup>

Private participation in the telecommunications industry historically has been allowed through "build-transfer-operate" arrangements.<sup>99</sup> Under

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91. See *Multiple Operator Environment*, *supra* note 87.

92. See *The State of Asia's Telecom Health*, *supra* note 4, at 92.

93. See ITU Paper, *supra* note 6, § 5.6.3, at 93.

94. See *Battling the Odds*, MALAYSIA BUS., May 16, 1999, available at 1999 WL 12263646.

95. See *id.*

96. See *id.*

97. See *The State of Asia's Telecom Health*, *supra* note 4, at 100.

98. See *id.* at 99.

99. *Id.* at 100.



this arrangement, a concession is granted for specific line construction projects. Ownership of the assets is transferred to the state-owned operator immediately after construction and the concessionaires then operate the assets in return for a fixed revenue share.<sup>100</sup> This system is expected to terminate in fiscal 1999, when the concession contracts will be converted into joint-venture contracts and the state-owned entity will become a shareholder in the former concessionaires.<sup>101</sup>

Proposed laws and regulations also are being considered as the government attempts to lay a framework for introducing competition and foreign investment. A government working group suggested that infrastructure services, network provision, and value-added services be licensed for an unlimited number of players starting January 1, 2000.<sup>102</sup> Foreign ownership in each licensee would be limited to twenty percent. The proposed law would allow foreign entities to hold up to forty-nine percent of all licensees starting January 1, 2006, and one hundred percent starting January 2010.<sup>103</sup>

Thailand also has been moving toward establishing an independent regulator and adopting regulations to promote competition. Establishment of an independent regulator has been stalled due to political in-fighting, however, and the process could be held up until October 2000.<sup>104</sup> Disputes also have arisen regarding the adoption of a Telecom Act to ensure fair and efficient competition.<sup>105</sup> In the meantime, however, TOT has been studying a new tariff structure, which will include a framework for interconnection charges.<sup>106</sup> The combined goals of privatization, establishing an independent regulator and formulating a regulatory framework to accompany the introduction of a liberalized market, will continue to be difficult and complex as the government tackles these issues in concert.

#### 4. Korea

Although the economic crisis affected the economic growth rate in

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100. See ITU Paper, *supra* note 6, at 88 tbl.5.5.

101. See *Interconnection-Charges*, ASSOCIATED PRESS, Jan. 2, 1998, available in LEXIS, News Library, APINTL File.

102. See *Telecom Act Public Hearings Aim to Ensure Fairness*, NATION, Feb. 1, 1999, available in LEXIS, News Library, WLDSRC File.

103. See *id.*

104. See *Rifts Mar Regulation Plan for Telecom-Broadcasting*, NATION, Jan. 26, 1999, available in LEXIS, News Library, WLDSRC File.

105. See *Telecom Act Public Hearings Aim to Ensure Fairness*, *supra* note 102.

106. See *TOT to Revamp Tariff Structure*, NATION, Oct. 28, 1997, available in LEXIS, News Library, WLDSRC File; *New TOT Chief Warns of Change*, NATION, Mar. 14, 1998, available in LEXIS, News Library, WLDSRC File.

Korea and, hence, the development of infrastructure, foreign firms continue to push for the liberalization of the Korean telecommunications market.<sup>107</sup> With an annual telecommunications market valued at \$8.7 billion<sup>108</sup> and a gradual liberalization of its markets, foreign investors continue to monitor the progress of developments in Korea.

The Ministry of Information and Communication establishes rules and policies for the telecommunications industry. Furthermore, Korea adopted the WTO Agreement's regulatory principles and introduced competition in all sectors through a phased-in approach.<sup>109</sup> For example, the government first introduced competition in core basic services in 1991 when it allowed a second international long-distance provider, Dacom, to compete with Korea Telecom.<sup>110</sup> In 1996, Dacom also began operating as the second domestic long-distance provider.<sup>111</sup> In October 1997, Korea Global Telecom became the third international long-distance provider.<sup>112</sup> In addition, in 1999, Korea Telecom's monopoly on local access is scheduled to end and the new operator, Hanaro Telecom, will begin service.<sup>113</sup> The government adopted a more aggressive approach to introducing competition for mobile services. In that instance, the market went from a monopoly to a multiple-operator environment with five operators in less than three years.<sup>114</sup>

The government carefully controls the introduction of competition, however, through fairly extensive price control mechanisms. For instance, when Dacom entered the market as the second domestic long-distance provider, it was permitted a ten percent price advantage over Korea Telecom.<sup>115</sup> As it gained market share, however, it was allowed only a one percent price advantage.<sup>116</sup> Korea placed similar restrictions on Shinsegi when it entered the market as the second mobile operator.<sup>117</sup>

Investors have closely monitored the lifting of Korea's foreign ownership restrictions. Effective July 1, 1999, the foreign equity ownership

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107. See Nam In-Soo, *U.S. Demands Complete Opening of Korean Telecommunications Market*, KOREA HERALD, Dec. 4, 1998, available at 1998 WL 20206500.

108. See *The State of Asia's Telecom Health*, *supra* note 4, at 73.

109. See ITU Paper, *supra* note 6, at 84 tbl.5.3.

110. See *id.* at 89.

111. See *id.*

112. See *id.*

113. See *The State of Asia's Telecom Health*, *supra* note 4, at 97.

114. See ITU Paper, *supra* note 6, at 88.

115. See *id.* at 94.

116. See *id.*

117. See *id.*

limit for facilities-based telecom carriers was raised from 33% to 49%.<sup>118</sup> This change took place ahead of the scheduled increase in 2001, according to the concession schedule submitted by Korea to the WTO's Group on Basic Telecommunications.<sup>119</sup> The government is moving toward liberalization as evidenced by its move earlier this year to sell 13% of Korea Telecom held shares to foreign investors, increasing the foreign-owned shares from 5% to 19.1%.<sup>120</sup> In general, the developments in Korea should be closely watched as the opportunities for foreign participation increase.

#### IV. CONCLUSION

Despite the recent Asian economic crisis, the overall picture for Asian telecommunications infrastructure projects remains promising. Asian governments continue to liberalize their regulatory schemes, thus reducing regulatory and political risks to investors. The true test, however, is yet to come. As nations of the world struggle to establish stable and predictable legal frameworks for electronic commerce over the Internet, they will realize that their efforts in the telecommunications arena was merely a prelude to even more complex and difficult issues involving the information economy of the next century.

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118. See *Korea's National Assembly OKs Bill to Raise Foreign Ownership Ceiling for Facilities-Based Carriers to 49%*, *supra* note 7; *The State of Asia's Telecom Health*, *supra* note 4, at 97.

119. See ITU Paper, *supra* note 6, at 84 tbl.5.3.

120. See P.S. Kim, *Telecom Investment* (visited Aug. 30, 1999) <[http://www.ptc.org/resources/industry\\_news/1999/1jun.html](http://www.ptc.org/resources/industry_news/1999/1jun.html)>.