



The institutional environment and effects of telecommunication privatization and market liberalization in Asia[☆]

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Abstract

Are the privatization and market competition models resulting in the leveling of the supply-side playing field, and are they demand driven as expected? Quantitative indicators of network expansion and efficiency provide a partial and inconclusive picture. Instead, an evolutionary property rights framework is favored. Examined in detail are the institutional environments that lead to particular types of property rights which in turn affect network expansion and efficiency. The article offers two conclusions: (a) introducing market competition is slow, messy and difficult to manage but, where present, it is better for growth than privatization alone, and (b) network expansion and efficiency are most noticeable where adequate property rights and enforcement mechanisms are in place. It also conjectures that the “East Asia Model” toward network expansion may not be easily generalizable. © 2000 Published by Elsevier Science Ltd.

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1. Introduction

This article evaluates the effects of privatization and market liberalization in telecommunication with respect to the creation and enforcement of property rights. The lesson is simple: property rights, and markets thereof, which affect network expansion and efficiency, are only as effective as a particular country’s political–economic environment allows them to be.

Why Asia? Most studies examining the effects of privatization on infrastructural expansion have looked at Latin America (Ros & Banerjee, 2000; Molano, 1997; Ramamurthy, 1996) the reason

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Table 1
Privatization and market liberalization summary^a

	Incumbent provider	Local	Toll	Int'l	Cellular	VAS ^b	CPE
Singapore	Partial pvtn.	R	R	R	C	C	C
South Korea	Partial pvtn.	C	C	C	C	C	C
Malaysia	Partial pvtn.	M	C	C	C	C	C
India ^b	Govt. owned	P	P	M	C	C	C
China	Govt. owned	G	G	M	G	C	C
Philippines	Private	C	C	C	C	C	C

^aR: recently liberalized; M: monopoly; P: partial competition; C: competitive; G: government providers' competition. A few categories are adapted and updated from Gary Clyde Hufbauer, & Erika Wada (Eds.). (1997). *Unfinished business: Telecommunications after the Uruguay round* (p. 159). Washington, DC: Institute for International Economics.

^bIncludes Internet.

being that (as Ros and Banerjee note) Latin America had 10 cases of private service provision between 1986 and 1995 while Asia had only two (Hong Kong and the Philippines). However, Asia is significant for three reasons. Privatization has now increased and private provision is the norm for cellular and specialized services (see Table 1). Second, competition, even if among government providers, is significant allowing us to observe its effects, too. Third, the high growth rates of service provision by government carriers in a couple of cases and, at times, low growth rates by private carriers, make us look deeper into the mechanism of privatization to examine the institutional context in which it comes about. More generally, recent studies like those by Levy and Spiller (1996), Melody (1997) and Singh (1999) note the differential effects of privatization rather than seeing it as a cure-all for service provision.

The cases examined are chosen carefully to account for variations in institutional environment, property rights, industry structure, and also for levels of development. The variations in environment, property rights and industry structure are examined to see if they cause differences in network efficiency and expansion. The variations also allow us to examine the growth rates in countries with or without (and also, at times, before and after) privatization and market liberalization. Given the disparity in income levels of countries, three cases are those of low-income countries (China, India and Philippines) while three are mid- to high-income (Korea, Singapore and Malaysia). Being sensitive to development levels means being cautious about the infrastructural expansion and historical development experiences of newly industrializing countries (NICs) like South Korea, Malaysia and Singapore, that are often touted as “role models” for the developing world.¹

The article is organized as follows. First, instead of evaluating network expansion and efficiency with a few “outcome” indicators only, a political economy framework suitable for examining the causes behind these outcomes, the evolution of property rights, is proposed in the next section.

¹ A recent article in *Telecommunications Policy*, for example, noted that South Korea is “an ideal model for many developing countries because of success in implementing its national telecommunications infrastructure in a short period of time” (Hyun & Lent, 1999, p. 390).

Second, the paper outlines the way property rights are evolving in each country with respect to the institutional environment of these countries. This environment, mostly focused on state structure and pressures on the state, is necessary to evaluate the path dependency of any country's economic growth. Finally, the newly created property rights are analyzed to conclude that (a) market competition is either slow to emerge or messy where present, and difficult to manage, but, where present, it is better for growth than privatization alone, and (b) network expansion and efficiency are most noticeable where adequate property rights and enforcement mechanisms are in place. Moreover, while the dirigiste top-down "East Asia Model" continues to break down, the liberal alternative of bottom-up pressures and service provision poses serious problems in terms of its evolution. On one end of the spectrum is the Philippines, with its messy and nepotistic industry history and liberalization program, and on the other end is Singapore, with its streamlined reforms, both enthused and challenged by liberalization prospects as they might challenge government control over information services provision and their content. A quote from Hayek's (1944/1996) seminal work *The Road to Serfdom* contextualizes the arguments made here:

The liberal argument is in favor of making the best possible use of the forces of competition as a means of co-ordinating human efforts, not an argument for leaving things just as they are. It is based on the conviction that, where effective competition can be created, it is a better way of guiding individual efforts than any other. It does not deny, but even emphasizes, that, in order that competition should work beneficially, a carefully thought-out legal framework is required and neither the existing nor the past legal rules are free from grave defects.

2. Political economy of evaluating outcomes

Telecommunication reforms are best evaluated via criteria rooted in dynamic institutional contexts, best understood with reference to new institutional economics (NIE). Both privatization and market liberalization as property rights are leading to the creation of new institutions, often in macro political-economic environments undergoing radical change themselves. North (1990) tells us that neoclassical economic theory can only tell us of resource allocations in a given moment of time but fails when evaluating dynamic change. Olson and Kahkonen (2000) note that in evaluating dynamic contexts, it is important to realize that emerging markets' transactions are neither spontaneous nor self-enforcing, and that both the creation and enforcement of property rights involve calculations of government power. For Williamson (2000), a bottom-up approach toward institutions examines the organizational environment in which particular rights arise rather than a top-down approach which solely examines the differential impact of emerging market norms.² Instead of evaluating the norms through the criteria of normative efficiency, Williamson proposes that we situate both markets and firms in organizational constraints in which they are bound. This would force us to ask why particular organizational arrangements exist and if they are

² In the context of telecommunications literature, a bottom-up approach is employed by Levy and Spiller (1996) while a top-down approach is employed by Ros and Banerjee (2000). Beyond noting that privatization alters the incentive structure faced by firms, the latter do not examine the environment in which these property rights arise like Levy and Spiller do.

remediable, rather than merely “excoriate on politics” and politicians. Before calling for changes in the contractual environment, NIE first examines the origins and constraints embedded in this environment.

It is hard, in fact, to evaluate the outcomes of telecommunication market reform without a reference to institutional contexts and property rights. First, growth rates in telecommunications in most countries, since telecommunications was made a priority in the 1980s, have been quite high compared to previous eras. Going by these growth rates alone would make us pronounce reform exercises to be a success story the world over. But, how should we examine the high growth rates of network expansion under state auspices in authoritarian countries like Myanmar, Laos and China and compare them with low growth rates in more democratic and market-oriented circumstances? Thus, attributing change to reform is difficult without comparing countries temporally in terms of service provision and supply-side efficiencies before these reforms took place. A comparison with countries in which reforms have not taken place is also necessary. Second, reforms being a fairly new phenomenon, as in Asia, a time series on network outcomes is not available for the post-reform period. Instead, property rights of some sort (which are supposed to generate these effects) are usually in place. A focus on property rights can then not only help us provide a conceptually rigorous way of measuring the effects of reform, but by their very nature, they also point out the likely causes of the particular effects. Third, given the varying levels of reforms in different sub-sectors (see Tables 1 and 2), capturing precise effects of reform in sector-wide quantitative studies, which are usually carried out in this regard, remains a dubious proposition. Finally, given the non-comparable starting points for reform efforts, differences in levels of development and other cross-national variations, quantitative indicators may be too pithy to tell the precise story. For example, it is well known that countries with low teledensities can achieve much higher growth rates than those with high teledensities.

While quantitative indicators tell a partial and/or inconclusive story by themselves, their analysis is nonetheless important to point out a few broad trends, and thus it helps to count them as dependent variables affected by property rights and institutional environments. They are also able to show us growth rates and cost efficiencies (penetration and productivity indicators) during particular periods even if they only tell a partial story about the underlying causes. But, the empirical evidence examined in this article (see Tables 3 and 4) also paints inconclusive results about telecommunication reform: for every success, there is a puzzle or contradictory evidence. The clear success story seems to be cellular with its rapid diffusion but here, again, China’s “success” with government-led terrestrial telephony makes one wonder if market liberalization is the likely cause of this success (Table 3). The lesson seems to be reinforced by the two NICs, South Korea and Singapore, that have eliminated their waiting lists, boast of very high teledensities and falling costs for services. Korea, which has had some form of competition (among government carriers) since the mid-1980s can be seen to have an efficient sector, too, and is the only country in the 1995–98 period with a positive growth rate for revenues per main line. However, most of the increases in teledensity, the entire elimination of waiting lists, and many of the cost efficiencies came about under state auspices for countries like Singapore and South Korea. Privatization and liberalization being relatively new in these countries, the degree to which the infrastructural growth and efficiency indicators can be attributed to them is not clear.

While Malaysia and India are not comparable in terms of their levels of development, they offer interesting parallels in terms of their reform experience. Their mainline growth rates during

Table 2
Major telecommunication privatization and liberalization initiatives

Singapore

Privatization began in 1990, with the sale of 11 percent of stock (the initial announcement was for 20–25 percent). Only 2 percent sold to foreigners, 26 percent to be sold by 2000
Singapore Telecom monopoly on basic services until 2000. Cellular and paging privatized in 1997
Market opening to foreigners by 2000 through WTO Telecom accord. Forty-nine percent foreign ownership

South Korea

Korea Telecom privatization began in 1991 with the sale of 20 percent of stock (41 percent sold by 2000). It was corporatized in 1982 as Korea Telecom Authority
DACOM created in 1982 (then 33 percent owned by KTA until 1991) To compete with KTA 100 percent privatized in 1994, started competing in long distance in 1995
KT and DACOM compete in international and long-distance service
Korea Mobile Telecom Corporation (KMTC) started in 1984, began privatizing in 1989 and became 100 percent privatized by 1994
Liberalization of all services launched in 1998. Also, market access to foreigners allowed in all areas by 1998 under the WTO telecom accord

Malaysia

Dominant carrier (Telekom Malaysia) privatization began in 1990 with the sale of 25 percent stock, now 34 percent. It became profitable by 1993. Earlier corporatized in 1986 as Syarikat Telekom Malaysia
Private cellular providers began to be commissioned in 1989. Celcom controlled 66 percent of the market by 2000. Eight providers in cellular, fixed line and satellite based services by 1995 and 32 in paging existed by 1995
Market access and foreign investment (limited to 30 percent) provided under the WTO Telecom Accord
The Communication and Multimedia Act became effective in 1999 and fosters convergence

India

1994 telecom policy divided the country into 21 circles allowing a private firm to compete with DoT in each circle for local and intra-circle toll. Licenses given in 1996–97 but most efforts stalled by licensing and interconnection disputes. Similar structure and problems in cellular. New Telecom Policy 1999 allows for revenue sharing
Value-added services liberalized since 1992
MTNL, a para-statal corporation, provides services for Delhi and Mumbai (Bombay)
VSNL, another para-statal corporation, provides international and Internet services
TRAI came into being in 1997 and TDSAT in 2000

China

Basic service provision through China Telecom and its government competitor, China Unicom
Privatization of specialized services began in 1995. Foreign firms involved in building infrastructure. First cellular license sale in late 1997 for China Telecom (only in Guangdong and Zhejiang provinces)
Competitive provision of services by two other state-owned providers (Liantong since 1992 and Jitong since 1994)
Ministry of Information Industry formed in 1998

Philippines

Dominant provider was PLDT. During the 1990s liberalization, PLDT lost 25 percent market share from a high of 94 percent. Eight government providers service rural areas with a ten percent market share
Industry now features several local (cellular and terrestrial) operators and nine international operators

1990–95 and 1995–98 periods are clearly high during the time period when, in Malaysia's case, privatization and market competition are in place or, in India's case, there are sufficiently high competitive pressures on the monopoly basic service provider while the rest of the market is being

Table 3
Network expansion indicators^a

	Years	Singapore	S. Korea	Malaysia	India	China	Philippines
Main lines (per 100 population)	1980	21.68	7.34	2.95	0.3	0.2	0.9
	1985	30.96	16.1	6.11	0.39	0.3	0.9
	1990	39.96	30.97	8.97	0.6	0.6	1.0
	1995	47.85	41.47	16.56	1.29	3.35	2.09
	1998	56.2	43.3	19.8	2.2	7.0	3.7
Compound annual growth rates (%)	1985–90	4.7	13.97	7.98	9.0	14.86	2.12
	1990–95	4.2	6.0	13.0	16.5	41.1	15.86
	1995–98	5.5	1.45	6.13	19.47	27.84	20.97
Waiting list (000)	1980	4	604	133	447	164	—
	1985	0.05	280	183	839	274	173
	1990	0.07	0.7	82	1961	689	567
	1995	0.02	0	122	2227	1620	900
	1998	0	0	160	2705	7400	900.2
Tele-accessibility (residential main lines as percent of total)	1980	73.9	62.8	58	—	—	—
	1990	67	82	72	—	28	61
	1995	61	79	72	—	71	64
	1997	60.4	78.3	72.3	—	77.7	—
Cellular mobile subscribers (per 100 population)	1990	2/0	0.19	0.5	0	0.0016	0.06
	1995	10.6	3.69	5.1	0.008	0.3	0.73
	1998	34.6	30.2	9.9	0.1	1.9	2.2

^aInternational Telecommunication Union. *World telecommunications indicators on diskette*; International Telecommunication Union. (1986–1995). *Yearbook of statistics, telecommunication services*. CAGR calculations are those of the author.

liberalized. (Given the economic downturn in East Asia, the lower 1995–98 growth rates for Malaysia are understandable.) Both also show increases in growth rates for mainlines per employee. Beyond this, the efficacy of reform in these countries is called to question on the following grounds: waiting lists begin to increase during the reform period, revenue efficiencies are low for Malaysia and negative for India.³

It is at this point that contrasts with China and Philippines offer a sobering picture for all the cases. China offers the highest growth rates — under state control. Philippines offers the lowest growth rates during 1980–90 and that, too, with a private provider (and some degree of market liberalization). Second, China's revenue and employee efficiency indicators do well in spite of the high levels of employment (which is an important social objective in China). Lastly, China's contrast with India is particularly telling, too. Both are at similar levels of development and both started off with similar teledensities in 1980 but China is now far ahead. Like Korea in the 1980s,

³ Privatization and market competition often entail phasing out of subsidies and lowering of service costs, and thus it is hard to define efficiency in terms of revenues per main line. This is especially true of the 1995–98 period in Table 4 where five of the six cases posit negative growth rates.

Table 4
Network efficiency indicators^a

	Years	Singapore	S. Korea	Malaysia	India	China	Philippines
Mainlines per employee (CAGR%)	1985–90	10.4	11.86	11.6	5.5	14.95	– 1.43
	1990–95	16.63	4.58	15.38	16.03	44.42	15.83
	1995–98	– 3.4	3.4	11.9	21.1	32.3	34.9
Telecom revenues per mainline (CAGR)	1985–90	15.43	5.8	0	8.45	3.01	12.11
	1990–95	12.12	4.18	0.95	– 8.46	1.31	– 4.58
	1995–98	– 2.66	4.36	– 3.43	– 4.1	– 11.06	– 5.79
Rates of changes in service costs (1996–97) ^b	Home	– 39	– 21	– 13	+ 2	– 23	+ 14
	Business	– 31	– 26	– 5	+ 29	– 23	+ 5

^aSources: International Telecommunication Union. *World telecommunications indicators on diskette*; Gary Clyde Hufbauer & Erika Wada (Eds.). (1998). *Unfinished business: Telecommunications after the Uruguay round* (p. 185). Washington, DC: Institute for International Economics. All calculations, except in the last two rows, those of the author.

^bHome and business baskets include initial costs and local calls for terrestrial and cellular networks. It also includes toll and international calls for terrestrial telephony.

China now has government-sanctioned and government-led competitive providers. It seems to indicate that government bodies competing with each other maximize welfare better than private ones! This would even be supported by the evidence of government-owned MTNL (with its high rates of growth) in Mumbai (Bombay) and Delhi that sees India's Department of Telecommunication Services (DTS) as its competitor.

In sum, while growth seems to be the order of the day in the cases examined, it is not clear if the variation is due to or in spite of reform efforts. Second, it seems that growth rates are particularly high (and, as shown later, reforms more streamlined) in catalytic states such as Singapore and South Korea.⁴ But, they are also high for the 1990s for countries like Malaysia, Philippines and India moving toward market reform. How should we arbitrate between the two types of cases?

Outcomes posited by quantitative indicators are misleading only if we refuse to check them against the property rights and institutional contexts that are important for explaining the variations and inconsistencies told by these indicators. While the current state of the property rights literature in telecommunications literature is still developing, it does provide a few clues to the kind of property rights most likely to lead to industry making credible commitments toward network expansion and efficiency under market-oriented circumstances. Thus the essential features of efficient property rights in terms of policies, regulations and market structure of telecommunications sectors are noted below building on similar concerns noted by Levy and Spiller (1996), Dokeniya (1999), Garcia (2000), Melody (1999) and Singh (1999). This list is not exhaustive but mentions most of the commonly mentioned property rights issues. The rationale behind such emerging property rights can be summarized as follows: avoidance of capture by the government's

⁴ Catalytic states possess a great deal of administrative capacity and other resources, can stay sufficiently autonomous in their decision-making and historically may inherit a pro-development agenda (see, Singh, 1999).

internal prerogatives, streamlining the regulatory process so that it does not become messy or nepotistic, and efforts to rule out rent-seeking by the industry. In other words, property rights must be impartial, inclusive, transparent and enforceable.

2.1. Policy

For property rights to be demand driven, civil society, as well as private businesses, must be involved or included in policy/law formation, the state's internal prerogatives must be lessened and checks placed on executive and/or legislative discretion. A competitive party system and political institutions (including a capable bureaucracy) designed to deal with pluralism are usually most effective in designing and implementing efficient policies. The states must be able to make credible commitments toward enforcing property rights. Policymaking must involve experts who can work toward realizing the society's objectives in the long run.

2.2. Regulation

A truly autonomous agency, free from everyday government influence, with sufficient human and financial resources can help with efficient enforcement but many other things matter as well. Regulations must be transparent and safeguards against regulatory indiscretion and incumbent power built in. The presence of an independent judiciary and legislative/executive checks on regulatory authority are also useful. The regulatory authority can also help effect a separation of powers by intervening between the government and the industry.

2.3. Market structure/industry performance and operations

Given the scope for positive externalities in telecommunication, rules governing network architecture, pricing and interconnection must be transparent (some of these things may very well be regulatory issues). Cost-based pricing scenarios have greater welfare benefits. The industry must be free of influences from politicians and government officials, thus management needs to be insulated from these pressures. Rules governing private property and competition, if enforceable, can also alter the incentive structure in favor of network expansion and efficiency.

Three basic observations taken from institutional economics provide the theoretical backdrop for evaluating the property rights criteria noted above vis-a-vis their demand and supply. The first proposition is that creation and enforcement of efficient property rights are path dependent, which is the "key to an analytical understanding of long-run economic change" (North, 1990). Thus, a brief foray into the reform "history" of each country examined is necessary to evaluate the current shape of property rights. The second proposition concerns the encompassing interest of even autocrats to provide public goods either for regime legitimacy or for maximizing their revenues and taxes. Therefore, even special interest driven states can act in a responsible fashion, though Olson (1993) notes that this encompassing interest in providing such public goods can seldom be sustained beyond a generation. The third proposition concerns the ability of some user groups to do better than others because of their ability to overcome their collective action problems and in gaining access to the state (Olson, 1982). All three propositions are rooted in the historical

and institutional environment to which the rest of this article is devoted in terms of the cases examined.

The progress made by each of this article's cases in terms of property rights is examined below by focusing on the institutional history and environment of these countries. Such a focus also resolves the apparent paradox of high growth rates in many of the East Asian societies under state control and the low growth rates followed by high growth rates in many of the market-oriented cases examined here.

3. Singapore

Singapore's telecommunication reform is streamlined and shaped by the powerful Singaporean state, that plays a key role in shaping societal preferences and intervenes directly in the economy. The role played by the state is so central to Singapore's economy that it is possible to discount the demands that the state faces. The role of the state, however, provides the macro backdrop against which the preference given to MNCs and the current international strategy of Singapore Telecom (SingTel) need to be traced. Nonetheless, the state makes sure that all of its population receives telecommunication services, in turn ensuring the legitimacy of the state. Singaporean property rights in telecommunications have now moved beyond positing telecommunications as a public good, thus allowing private competition.

Singapore's telecommunication has gone through three phases. In the first phase lasting until the late-1970s, telecommunications responded to business and societal needs via an expansion of its infrastructure. This phase was characterized by service enhancement and reduction of waiting lists for telephone connections. State legitimacy in Singapore rests ultimately in being able to deliver a high standard of living to its citizens. The two groups at the micro level which matter to the state in terms of telecommunications include the Singapore society and international business groups. The latter are often the only actors emphasized in examination of Singapore's telecommunications but it is important to remember that Singapore's waiting list for telephones of two years in 1972 (which included society at large) was brought down to less than two weeks in 1979. By 1980, Singapore had the highest teledensity in the developing world (while now its penetration rates are comparable to those of any in the developed world). Similarly, in the 1980s, the benefits of ISDN or broadband networks in Singapore, when provided were universal.

During the second phase, the 1980s, telecommunications became part of the state's pro-active strategy to carve out a competitive advantage for the city-state. Services such as banking, financial services and tourism were emphasized and a new drive was launched to attract MNCs. (There are over 650 MNCs in Singapore, many of them with regional headquarters.) These MNCs played a key role in shaping Singapore's international competitiveness. The National Information Technology Plan (NITP) was started in 1986 with the aim of making Singapore an information society. By the time of NITP announcement in 1986, an "information communication infrastructure" was recognized as vital for Singapore's information society strategy. Earlier plans were given a renewed thrust and easily implemented given the coordination among ministries of finance, trade and industry, communications and the powerful Economic Development Board. By 1989, Singapore could boast of 100 percent ISDN. Cellular service was introduced in 1982 and by 1990 the city had 52,000 mobile telephone subscribers (cellular teledensity was 34.6 in 1998). Data network facilities

were extended to Singapore's bureaucracy and commercial facilities. Private networks emerged for important services and industries.

The third phase of Singapore's telecommunication strategy starting in the late 1980s may be identified as enhancing the state's international role, partial liberalization of state monopoly in telecommunications, and drafting and implementing an ambitious plan (IT 2000) to encourage new multi-media services. Presenting Singapore Telecom as a corporate and commercial entity was necessitated by this role. Only partial privatization was necessary to send the right signal to international markets. A carefully orchestrated privatization of around 11 percent of the stock (down from the initial announcement of 20–25 percent) took place in 1993, though 24 percent of the stock had been sold by 2000. The trade media dubbed it as "the most prestigious international equity deal of the year" (*Euromoney*, April 1993). Only about 2 percent of the stock was allowed to be held by foreigners. Competition was also introduced in local and international telephony by April 2000, two years ahead of schedule. However, the 76 percent state ownership of SingTel marred its moves to acquire or hook-up with providers in neighboring markets.

The comprehensive state-led vision for telecommunications in Singapore continues with an aggressive push into multi-media services. Its cable service, launched in 1997, is already considered one of the best in the region (Jussawalla, 1999) and it is positioning itself to be a regional hub for broadcasting, too. Its Internet strategy, through private competitive provision, seems to be paying off, both ensuring aggressive expansion as well as getting the population to go along with content regulations in the name of social stability (Wang, 1999).

Singapore's comprehensive program in telecommunications has been shaped by a catalytic state which only has to respond directly to a few cohesive external pressures. While MNCs have direct access to the state and societal pressures are more indirect, the state does respond to both in providing basic services and can remain sufficiently autonomous in doing so. In boasting of its present and future communication services, Singapore increasingly speaks of itself as "an intelligent island". Hundred percent fiber optic network is expected to be available by 2005. But as with large users elsewhere, 30 percent of the users account for nearly three-fourths of all telecommunication traffic while only about 2 percent of the traffic comes from the bottom 30 percent users (Bruce & Cunard, 1994). It is also undeniable that foreign firms operating in Singapore are slated to receive the best of telecommunications services, with all other user groups coming second in terms of priority. The exception might be the recently launched interactive services program, Singapore One, leading to convergence between cable and phone networks, which is aimed at all business, state and residential consumers (though it has had problems attracting customers and is criticized as being a "field of dreams"). Finally, even with an MNC-oriented coalition in Singapore, the state's working is made easy by the fact that it faces no opposing pressures (political opposition is itself quite weak and marginalized).

A state-led development strategy, in which the state could concentrate on meeting the demands of particular groups, has worked well in Singapore's context. In the 1990s, Singapore's liberalization program was driven more by SingTel's desire to play an aggressive regional and international role than by any kind of inability to meet demands at home. It was becoming clear by 2000 that three-fourths ownership of SingTel by government was hampering its international ambitions. Furthermore, while the public support for the state's Internet strategy has been noted, as Singapore moves toward providing the latest generation of interactive services, it poses a problem for the state, which has traditionally regulated information flows in the country. One scholar (Sisodia,

1992) noted the “irony” almost a decade ago that “there is an inherent conflict between the democratization of information creation and access and the state’s long-standing determination to control closely the information citizens receive”.

4. South Korea

The emerging property rights in South Korea are heavily influenced (and biased toward) powerful business conglomerates (*chaebols*) and, as in Singapore, shaped by a powerful state. But universal service became a political priority for regime survival in the 1980s. While tempting to attribute South Korea’s superior infrastructure expansion to privatization and liberalized marketplace in the 1990s, the expansion that took place in the 1980s is momentous and overshadows that of the 1990s (see Table 3).

The powerful South Korean state, whose build up of administrative capacity can be traced to the beginnings of the Yi dynasty in 1392, has played a catalytic role in the telecommunication infrastructure. The centralization and increasing authoritarianism of the state is particularly important in the case of President Park Chung Hee (1961–79) whose assassination was a direct result of widespread dissatisfaction with elite domination and the post-assassination period was marked by serious civil unrest. In the 1980s, the South Korean state, therefore, became more conscious of providing services (including telecommunications) to its growing ranks of middle-income consumers. While the corporatization of Korea Telecom Authority (KTA) and the creation of Dacom and Korea Mobile Telecom Corporation (KMTC) were also due to pressures from domestic business, it is nonetheless important to view the elimination of waiting lists by 1987 (which exceeded five million in 1982) in the light of the political legitimacy of the state.

Domestic business demands, especially those coming from its top 30 *chaebol* which produce 15 percent of the GNP, have mattered the most in terms of reform. Other significant pressures come from the top 108 corporations (less than 1 percent of the total exporters) who account for two-thirds of the exports and from the country’s well-developed electronics industry. Of late, the pressures from foreign providers, equipment manufacturers and MNCs have also been particularly intense. Bilateral negotiations with the United States and the WTO multilateral negotiations have been specifically important in opening the Korean telecommunications market (Hyun & Lent, 1999).

Korea is thus caught among many pressures for reform purposes. The state hedges between pressures from its *chaebol*, international pressures, and those of its increasingly affluent consumers. Another element making the state cautious is pressure from Korean workers. In fact, plans to privatize the main telephone carrier, Korea Telecom or KT, in 1995 were met with strikes by the workers (KT has almost 60,000 workers). President Kim Young Sam described it as equivalent to “an attempt to overthrow the state”, itself indicative of how seriously the state views these pressures (*The Economist*, June 10, 1995).

While the 1980s were marked by a steady and streamlined expansion of telecommunication services, the Korean state initially found itself in an increasingly unenviable position in the 1990s with its liberalization and privatization program. Charges of nepotism for awarding telecommunications licenses (especially in cellular) to influential *chaebol* by the previous administrations came under intense public and judicial scrutiny in South Korea. As Table 3 shows, South Korea’s cellular

penetration was below that of Malaysia in 1995 though it shot up exponentially after that. The privatization of KT (and Dacom) was held up at times by worker protests and at others by the unwillingness of the state to make the firms' affairs public.

The liberalization program since the late-1990s has proceeded more smoothly. The state gained some autonomy, firstly, from domestic pressures opposed to liberalization by streamlining of the ministries and raising the stature of the Ministry of Information and Communications (MIC) in 1994 (Hong, 1998) and, secondly, from the financial crisis in 1997 that allowed foreign agencies to exert more power. It is now undeniable that South Korea offers a glimpse into a steadily privatized, liberalized and up-to-date marketplace. KT is reinventing itself as a multi-media high-tech-type company, heavily prodded by the Internet-driven business in Korea. KT privatization has been allowed to proceed, even though worker pressures remain, with the state owning only 59 percent of the stock which is expected to be reduced further. Foreign ownership limit was also raised to 49 percent from 33 percent (although the actual ownership was only 18 percent). While charges of policy non-transparency and control of KT (like government control of SingTel) continue, the country as a whole is seen as more liberalized and accessible than Singapore. Both countries have in fact now liberalized their telecommunication sectors ahead of schedule. Like Singapore, comprehensive policies to introduce an information society have been introduced and implemented in South Korea. Internet and cellular growth rates have both boomed, with nearly 28 million cellular subscribers by April 2000. The GDP growth rate has also risen to above 10 percent in 1999 from a historically low 5.8 percent in 1998.

Korean property rights, shaped decisively by the state, are surely dividing common property in telecommunications among private hands, but in the Korean scheme of things, domestic investors come first, foreign ones second (though a shift occurred in the last three years), medium- and small-scale businesses after that, followed by the middle-income groups in the country. Policy and regulatory functions are controlled (sometimes opaquely) by MIC. Korea also has an ambitious program in place for bringing about a universal "information society" and has allowed privatization and competition. But the effectiveness of these new property rights and future outcomes is dependent upon the birth of an institutional structure which can safeguard against policy, regulatory and industry excesses. The alternative, a re-birth of the erstwhile authoritative or catalytic state (as in Singapore), seems increasingly unlikely.

5. Malaysia

Malaysia represents the case of a strong state more or less pushing through its telecommunication reforms with its administrative clout but nonetheless having to satisfy disparate constituencies in all phases of its telecommunication reform. Demand pressures on the Malaysian state come from its socio-economic cleavages which include Malaysia's multi-ethnic society, rural-urban divisions and, to some extent, federalist or regional breakdowns. These divisions make it hard for the Malaysian state to implement emerging property rights effectively. Malaysian pluralism often makes telecommunications reforms difficult, and at times, biased in favor of politically powerful groups.

The dominant carrier's corporatization and partial privatization in 1990 was accompanied by the liberalization of the Malaysian telecommunication market as a whole (See Table 2).

Twenty-five percent of Telekom Malaysia's stock was initially privatized (34 percent by 2000), and while the corporation still has problems meeting waiting list demands, it had become a profitable entity by 1993. The opposition to restructuring the dominant provider diminished by the time of privatization, and most of the energies of user and other interest groups in the 1990s were focused on the liberalizing market structure.⁵

The market liberalization exercise was marked both by trying to satisfy the potential providers of telecommunications (and favoring the native Malay *bumiputeras* who dominate state policy) while also trying to appease the various user groups. The biggest challenge was meeting the service demands of rural users for whom provision costs are high while marginal revenues are low. Rural users are important for the Malaysian state, as the rural population accounts for 46 percent of the total in contrast to an average of 27 percent for upper-middle-income countries. Also, *bumiputeras* are concentrated in rural areas. Thus, Malaysia's official policy, in its rhetoric at least, displays a rural bias even though it is not always borne out by numbers. For example, rural teledensity was 3.8 in 1994 against a national total of 14.9 (Telekom Malaysia Berhad, *Operational Review*, 1995). On the other hand, while Kuala Lumpur accounts for less than one-sixth of the total mainlines in the country, it attests to the diffusion of telephones in the country as a whole. Most significantly, over 60 percent of households in Malaysia have access to a mainline. Even if exaggerated, this number shows the importance to the Malaysian state of building its legitimacy widely.

Overall, in spite of service enhancement, Malaysia's waiting list for telephones which decreased in the 1980s, increased again in the 1990s, from 82,000 in 1990 to 160,000 in 1998 (Table 3). Finally, Telekom Malaysia, as could be expected from a dominant incumbent provider, indulged in a number of practices which made matters difficult for new entrants. Interconnection with Telekom's network and high charges were major problems.

The liberalization of the cellular industry, in particular, is illustrative in terms of Malaysian property rights. The state sought to leapfrog the technological frontier and assured rural areas that cost-effective cellular service would soon be available to them. The next step was to license cellular service providers that would then compete with Telekom's own cellular service provider ATUR (introduced in 1985). The first provider to be commissioned was Celcom, a *bumiputera* concern, in 1989 (that by 2000 controlled over two-thirds of the cellular market). But by 1995, seven licenses had been issued for mobile telephony alone, leading observers to term it a case of "privatization run amok" (*Far Eastern Economic Review*, June 15, 1995). Even by 2000, Telekom Malaysia's own cellular concern had not turned a profit, mostly due to low subscriber bases. The case of overlicensing extended beyond cellular. TRI (the holding company for Celcom) geared itself for providing international service (a Telekom Malaysia monopoly) to its customers. Binariang, another cellular provider (with a 20 percent share by US West and 33.3 percent by British Telecom) was to provide domestic and international services, too. In addition, Time Communications was licensed to lay out a 1000 km fiber optic network for local service and hoped to provide international services. All in all, there were eight providers for cellular, fixed line and satellite based

⁵ This does not mean that privatization proceeded smoothly. For example, the country's ethnic Indian Minister for Energy, Telecommunications and Posts who headed the Telekom Malaysia's privatization effort came under investigation in 1992 for offering nine million shares to three companies owned by other ethnic Indians (*Far Eastern Economic Review*, July 16, 1992, p. 56).

services. The state had also licensed 32 paging providers. “The stampede for licenses seems to have overwhelmed the state. Having dispensed permits freely, in some cases to political favorites, ministers appear to have realized belatedly how big a problem they had created for themselves” (*Far Eastern Economic Review*, June 15, 1995). Another former official admitted: “Licensing appears to be a political process to please all masters” (interview, July 1995). By mid-1995, Mahathir Mohamad personally intervened in the overcrowded telecommunications market declaring that the state would like to see mergers or consortia develop. A similar action was taken in April 1999 by the Minister for Energy, Communications and Multimedia, who froze issuing of new licenses because of the excessive number of players.

The Malaysian state continues to play a strong and effective role in its society but it faces pluralistic pressures and difficulty with arbitrating those pressures given its current institutional constraints. Beginning in July 1997, the state’s legitimacy (built on economic foundations since the 1969 riots and subsequent policies) faced a strong challenge from the currency devaluation and financial crisis. However, it seems to have weathered the crisis well, especially in terms of going ahead with its comprehensive plans for information technologies. The Communications and Multimedia Act 1998 became effective in April 1999, merging telecommunications, broadcasting and computer ministries and creating an independent regulator (Malaysian Communications and Multimedia Commission). The Act is especially meant to encourage projects such as the Multimedia Super Corridor (MSC), a 30 mile facility with state-of-the-art computing and information capabilities.

6. India

Indian telecommunication liberalization in the 1990s was driven by a state which saw its capacity and consensus frittered away over the last 50 years under the weight of pluralistic pressures and personalistic rule (such as under the so-called Nehru–Gandhi dynasty). While the present BJP government comes with a pro-business tilt, it must dodge between domestic industrialists and politicians encouraging the concept of *swadeshi* (indigenization), international pressures wanting liberalization, and anti-liberalization pressures from government and trade union employees.

Indian reform efforts in the 1980s were halting and nepotistic even though demands from businesses, urban residential users and government administrations continued to grow. India was pushed toward further telecommunications liberalization after a severe fiscal and balance of payments crisis in 1991 that weakened the status quo constituencies in the country and empowered many businesses to demand liberalization. Specialized services, including cellular, were liberalized between 1991 and 1994 and basic telephone service was liberalized after the announcement of the National Telecommunications Policy in 1994. The 1994 policy announced ambitious goals for provision of telephones (20 million lines by 2000) and also liberalized the telecommunications sector further. The state-owned monopoly, then called the Department of Telecommunications (DoT), could not be corporatized or privatized due to resistance from its 480,000 workers (tacitly supported by 18 million employees in other state-owned enterprises). DoT was to compete with a private player in each of the 21 regions (known as Telecom Circles) announced by the state but the complex licensing procedures, marred by government corruption and resistance from DoT, led to

marginal service provision in only six of the 21 operators by 2000. The BJP government announced a New Telecom Policy in 1999 (NTP 99) which tried to streamline the licensing process and free prospective operators of heavy license fee burdens by allowing revenue-sharing arrangements. The operators were still shy of investment given the lack of autonomous and transparent regulatory clout. In particular, foreign investment in telecommunication had slowed down to a trickle by 2000. NTP 99 also divided DoT into a policymaking body (named DoT) and a service provider, Department of Telecom Services (DTS). NTP 99 renewed plans for corporatization of DTS but this has not been effected given trade union pressures and many strikes, although most recently the government set a date of October 1, 2000 for corporatization. Similar pressures have also staved off long-planned privatizations of MTNL (the government service provider in Mumbai and Delhi) and the international carrier VSNL. DoT also remains opposed to liberalization of domestic toll services but by July 2000, it seemed to be losing on this front.

Each stage of the liberalization process in India has been marked by the awarding of contracts and licenses to those with most access to the state's decision-making processes along with many court battles and scandals. Unlike the Chinese state to which India is frequently compared, a single liberalization "coalition" has not emerged, given India's more democratic environment and plurality of actors. The many things going on simultaneously in the Indian telecommunications landscape reveal the many influences at work on the Indian state. The most powerful liberalization coalition includes international and domestic businesses supported by foreign states and international organizations. Urban users have exerted pressures through the media and other agencies but so far they are not formally part of the business coalition. The opposing coalition includes trade unions and politicians (who may be supported by domestic businesses continuing to benefit from the past or extant inward-oriented policies and with a stake in keeping MNCs out of the market). The Indian state's juggling between these interest groups (including constituencies within the state-owned monopoly) is producing one of the most complex liberalization programs ever undertaken. While many groups with high demand for services (large businesses, exporters, urban users) continue to be denied services, the state must also hedge between providing services to these groups and rural areas where more than two-thirds of Indian voters live but where the teledensity is only 0.4. All of India's 650,000 villages were to have connectivity by 1996, according to NTP 94, but by 2000 not even half of them did.

The creation and sustenance of the regulatory authority, the Telecommunication Regulatory Authority of India (TRAI), was damaged by opposition from the DoT, which was loathe to give up its authority. From 1994 to 1997, the state hedged on TRAI creation and even after it came into being, its decisions were publicly challenged and not implemented by the DoT. Because of the weak mandate given to TRAI, its willingness to play an aggressive role against the DoT after 1997 was marred by judgments against its authority in the Indian courts. BJP moved toward strengthening TRAI authority in March 2000 and also sought to create an independent Telecom Dispute Settlement and Appellate Authority (TDSAT) to arbitrate between operators and government, but the effectiveness of these bodies cannot be judged as yet. While a tug of war on defining the features of the regulatory authority continues, the Indian government is also getting set to merge the ministries of telecommunications, information and broadcasting to encourage convergence. Plans call for making TRAI a "super-regulator" but whether such a union of powerful turfs can be effected yielding to a super-regulator remains a politically challenging and moot proposition.

India thus offers the interesting case of a state facing pluralistic pressures which has liberalized its marketplace, but safeguards and checks against unrestrained authority are few. Political institutions have long succumbed to the party in power (analogous to the Philippines, which will be examined later), usually driven by special interests, and only recently have opposition parties started playing a significant role.

7. China

Although Chinese infrastructure is impressive, the Chinese state is also primarily driven by awarding of favors to groups with the most access to state decision-making. These personalistic favors and defining telecommunications as a public good shape the emerging property rights in telecommunications. While privatization has not taken place, state-led competition is being credited for a phenomenal growth in mainlines and cellular subscribers.

China might at first seem to be an odd choice for a special interest dominated state for telecommunications, because the state seems so insular. However, its highly authoritarian and centralized decision-making procedures reveal the influence of powerful groups, that account for everything from awarding of lucrative economic contracts to widespread corruption within the state. In telecommunications, the challenge to the traditional telecommunications monopoly, the Ministry of Posts and Telecommunications (MPT), came from other powerful ministries within the state and politically powerful groups of domestic and international large users. In China's centralized context, where channels to the elite decision-making are limited, the challenge to MPT coalesced around the two newly formed inter-ministerial service providers known as Liantong (China Unicom) and Jitong. China Unicom is more powerful, with its shareholders coming from the influential electronics, railways and power ministries, and was poised to become China's second carrier. Jitong is owned by 26 state institutions and sought to provide a variety of specialized services. Provincial administrations are also being given more power to provide telecommunication services. While not providing services, MNCs led by Alcatel, AT&T and Motorola are selling a lot of equipment to a country which has one of the most ambitious service enhancement programs in the world.

Competition in China comes in the form of governmental rivalries and many steps have been taken to check incumbent power. However, the competition is also becoming so diversified and complex that it is making streamlining of regulation difficult. MPT was merged with that of electronics in 1998 and later with broadcasting, film and television to create a "super-ministry", the MII. In order to hasten competition, MII was asked to give up its operational role of China Telecom, the dominant incumbent provider. While its rival China Unicom is still struggling, it is nonetheless credited for bringing effective competition and pressures for network expansion (Yan & Pitt, 1999). There are now plans to break up China Telecom into three different types of service providers. Provincial bodies are also gearing up to provide telecommunications and although broadcasters and Internet providers are officially barred from telephony services, many are planning to do or have found ways to do so already.

While decision-making is not as transparent as in other developing countries, two things nonetheless stand out in China's context. First, a coalition for reform telecommunications with access to state's decision-making exists. "The reform coalition consists of a powerful group which

includes the major manufacturing and user ministries, large national users, local states and interest groups and international equipment suppliers and service operators” (Tan, 1994). The insulated nature of Chinese politics accounts for the narrowness as well as the existence of a “reform coalition” among its privileged groups. (A small number of privileged groups would find it easy to form a coalition.) Second, reform has, in turn, mostly benefitted the coalition partners, in which incumbents like China Telecom have gained more than others. But, this is also evident from the networks available to powerful ministries, equipment deals for MNCs, and availability of advanced services for users in export-oriented areas such as Guangdong and Fujian.

Chinese reform continues the devolution of power to provincial bodies and alternative providers. Privatization of a few telephony services is being allowed as witnessed in the sale of cellular licenses beginning in 1997. Apart from the networks built by large users, provincial autonomy in building networks is important. It accounts for the accelerated deployment of services along the eastern and coastal areas. Many of the provinces even took the lead in collaborating with foreign providers such as with Cable and Wireless in Shenzhen starting in 1984. In the mid-1990s, AT&T and Singapore Telecom planned on building business user and fixed line networks in Shanghai. But the seemingly centrifugal nature of the network is in fact not quite so, given its hierarchical structure and the ultimate controls through Beijing’s elite central decision-making bodies like the State Council. MII might also be seen as further centralization of state functions while at the same time it streamlines regulation and policy (Tan, 1999). Foreign providers have actually been kept quite disciplined by Beijing and there are a few widely known cases of government renegeing on foreign contracts.

The tightly controlled telecommunication reform in China, however, may become difficult in the future as its political system adjusts to the post-Deng and post-Hong-Kong eras, along with successive international pressures (such as China’s pending application for membership with the WTO) and those generated internally. Given the diversity of China’s telecommunications industry and the impending liberalization with its entry into WTO, the MII was in fact preparing new regulatory rules by July 2000. Government rivalries are also making it difficult to introduce streamlined regulation. Nonetheless, China has by far the most ambitious service enhancement program in the world. Apart from a teledensity of seven in 1998, China in 2000 could boast of 56 million mobile subscribers, over 15 million pagers, and six million Internet users. But whether or not China can reach its targets in the future depends on how well it controls its political pressures. The neat ordering of its “reform coalition” can break down with China’s inability to control its provincial or reformist pressures and as international manufacturers and providers get aggressive. Summing China’s development experience with special reference to telecommunications, Mueller (1994) noted that China’s “development is thus driven by a jarring dialectical tension between economic freedom and political authoritarianism, between decentralization and centralization, between capitalist practice and socialist ideology”.

8. Philippines

The dominant, historically stagnant, and privately owned telecommunication provider in the Philippines, the Philippines Long Distance Telephone Company (PLDT), has served as the example for many arguments. Most authors note that the industry structure historically

approximates that of the United States. But its actual performance is that of a predatory firm surviving in an equally predatory political environment. PLDT is also used to illustrate the case of how private industry (especially when foreign controlled) remains essentially exploitative (Wolf & Sussman, 1995) or to show how without efficient property rights in place, even private provision or competition does not work (Esfahani, 1996). The assessment below concurs mostly with the latter in showing how PLDT did not deliver under the predatory and uncertain institutional environment until the late 1980s and how the pace of the telecommunications growth picked up in the country in the 1990s when a modicum of institutionalized rule-making and stability ensued. The 2.12 percent growth rate of mainlines prior to 1990 as opposed to high double-digit growth rates after that is just one indicator of this (see Table 3).

The political–economic context of the Philippines is a result of centuries of colonial rule (first by the Spanish for three centuries followed by the US for over a half). The colonial rule set in place an executive authority revolving around a tiny but very competitive elite. Not only were the boundaries between the elite and the ruling groups quite porous, but the elite groups which dominated the political scenario received all the rent-seeking favors economically. Ownership of industry remained private, including telecommunications, because, “[P]ublic ownership of an enterprise meant the total loss of the associated surplus once the ruling group was out of power” (Esfahani, 1996). The dominance of the executive, reaching a pinnacle under President Marcos’ martial law years (1972–86), marginalized the importance of the legislature and the judiciary, both of which were set up in emulation of the US model but worked differently due to the historical–societal context. Centralization of authority, often encouraged by the United States, was also regarded as essential for containing ethnic and left-wing strife.

Telecommunications came to Manila in 1905 and the PLDT itself came into being in 1928 after obtaining a 50 year franchise. PLDT’s majority ownership passed into GTE hands in 1956 who remained its dominant shareholder until the late 1970s. The period 1956–90 features inimical growth rates due mostly to two reasons. First, PLDT catered to the elite, domestic and foreign, and limited itself mostly to Manila. In 1987, one year after Marcos was deposed, the teledensity for the country was 1.31 but that of Metro Manila was 7.37 leaving a teledensity of 0.31 for the rest of the country (Aquino, 1994). But, during the 1970s, the PLDT was able to meet registered demand for telephones. In fact, PLDT brought down the waiting list for mainlines from 60 percent of total service down to about 12 percent in 1974. This was not surprising given that even with high growth rates, wealth accrued to a few only and the demand thus came from the elite. Second, PLDT patronage rested on privileged rules-making from the regime which ensured it good fortunes during periods of political stability and made it hesitant to invest during political uncertainty (as in the period from the late 1970s onwards when Marcos’ health and political fortunes became suspect). With its access to power, PLDT was also able to keep effective competition out. Thus, the department of Transport and Communication (DOTC) and the National Telecommunications Commission (NTC), created in 1979 to provide policy guidance and regulatory supervision, were both effectively captured by PLDT instead.

After Marcos, President Cory Aquino did promulgate a new constitution aimed at redemocratization but the elite families, including the Cojuangco family which controlled PLDT by then stood in the way. The family moved to weaken regulatory control on itself by, for example, replacing the anti-PLDT secretary of transport and communications with one favorable to PLDT interests (Wolf & Sussman, 1995). And it stalled state policies in areas that would have affected its interest

adversely. It stifled competition with interconnection bottlenecks and got injunctions against license sales to competitors. Thus, even though there had been more than 60 licensed providers in telecommunication in the 1980s, PLDT controlled 94 percent of the market share.

With the growing middle-income and worker groups in the Philippines and the political discontent following the Marcos and the Aquino administration, the need for a more responsive political–economic structure has strengthened. While the Ramos administration too was answerable to many in the ruling elite, it did pass a critical deregulatory legislation in 1993 in such a way as to fortify the rules in telecommunications. The two most important developments were mandatory interconnection and licensing of private providers with guarantees that the cellular providers would install 400,000 mainlines and international gateway operators would install 300,000 mainlines within five years. By 2000, PLDT met effective competition from Globe Telecom in both terrestrial and cellular telephony and Bayan Tel in cellular telephony. The difference in growth rates between the 1985–90 versus the 1990–95 and 1995–98 periods is especially striking. A teledensity of 18 is planned by 2015. The newly licensed operators themselves consist of elite family groups aligned with powerful telcos from abroad. For example, Globe includes 28 percent shares each from SingTel and Deutsche Telekom. The growth indicators run counter to the cost and revenues ones (Table 4), but that may be due to the decreases in cross-subsidies and political rents. In fact, service costs, especially for international calls, ran quite high and are used to subsidize domestic telephony. NTC has keenly audited the new providers for mainlines installed but it has been less successful in enforcing interconnection and pricing regulations.

The Philippines case, more than perhaps any other in this article, demonstrates the effectiveness of efficient property rights. While the Philippines institutional environment still remains weak and unresponsive to public interest, given the evidence of the 1990s (and a contrast with other cases), the Philippines case may be more illustrative of the malfunctioning of markets in a vitiated political environment prior to the 1990s than of any inherent weakness of markets themselves.

9. Comparative analysis of demand and supply

The supply side focuses on the special interest driven nature of most Asian states. However, in the case of three of the East Asian states examined (South Korea, China and Singapore), the state was strong enough to contain all pressures and (in South Korea and Singapore) to build its legitimacy through universal service provision. The impressive growth of the infrastructure until the early 1990s is a testimony to the effectiveness of this model. It seems that private property rights are not necessary for infrastructural expansion in the “East Asia Model”. But, as economic and political liberalism make an entrance in East Asia, it is hard to predict if its current institutions will be able to enforce the property rights as effectively as they have done in the past. Singapore so far has done a better job of containing these pressures than South Korea. The property rights in the latter are not only biased toward the *chaebol* but their implementation is continually challenged by workers and the civil society in general, which is at odds with the elite underpinnings of the state. Singapore state’s continuing catalytic role can be seen in the recent streamlined auction for a local and long-distance provider ending Singapore Telecom’s monopoly in the year 2000. However, whether the state can remain so monolithic in its task as its boundaries become increasingly seamless with information technologies is a moot point.

In the case of India and Malaysia, where the states, while being special interest driven, cannot contain pluralistic pressures, privatization and liberalization measures become messy. Malaysia represents the special case of a semi-catalytic state becoming quite dysfunctional. Its corporatization, privatization and liberalization program can be viewed as success stories (in as much as the transitions were relatively smooth and opposition contained). But by the mid-1990s the evolving property rights had resulted in nepotism and negative externalities from a crowded marketplace. Legislative and regulatory safeguards were also not forthcoming. The mess of liberalization and privatization in India from the supply side also points to the danger of bringing in market competition before political checks and balances and a regulatory framework are in place. With state capacity in Malaysia, the state was at least able to start streamlining the reform process in 1995 but the Indian scenario, which features a weak and inept state, continues to suffer from an anarchic liberalization program. The formation of a semi-autonomous regulatory authority and the emergence of competitive politics in India may change the course of institutional evolution but it is too early to tell if that would be the case.

The Philippines case is analogous to those of Malaysia and India in the inability of the state to go beyond powerful (elite) pressures on itself but its example is instructive for another reason. Unlike Malaysia and India, Philippines does not feature broad-based reform coalitions although middle-class pressures (especially in urban areas) were quite intense in the 1990s. Second, its private provider and slow liberalizations featured poorly during the 1980s political environment but during the 1990s, the reform was strengthened. This is revealed in the increase in infrastructural growth rates and the worker productivity from 1990 to 1998.

The supply side lesson is clear: efficient property rights take a long time to evolve and to be implemented and enforced. *For economic growth, efficient property rights must include criteria of impartiality, inclusiveness, transparency and enforceability.* This is a tall order which cannot be fulfilled even by sophisticated pluralistic systems like the United States, best suited for creating and enforcing private property rights. It would be unrealistic to expect Asian states to evolve and implement such property rights in a decade or so. North (1990) sums up the issue well: “When there is radical change in the formal rules that makes them inconsistent with the existing informal constraints, there is an unresolved tension between them that will lead to long-run political instability.”

Turning now to the demand side, collective action (or alliance formation) is easier for privileged groups in society with small numbers and difficult for larger groups with fewer resources. It is for this reason that most influential reform coalitions in Asian countries have an elite nature, usually including influential business users, equipment manufacturers, international organizations like the World Bank and WTO, and foreign governments. But while it may be difficult for other groups to form coalitions, other entrenched coalitions (often representative of erstwhile economic strategies), opposed to reform, may exist. Not only is reform partly a result of the interplay among these coalitional interests, but the problem gets even more complicated when there are not one or two but several coalitions. Only countries like China have the ability to showcase a cohesive coalition in favor of infrastructural expansion.

With multiple coalitions, reforms may be slow and piecemeal, but there is also a positive side to the story. Articulated coalitional demands, especially plural ones, are forms of restraints on political systems. Inasmuch as political systems now begin to respond to wider demand pressures, they are moving away from exclusive considerations rooted in the supply-driven PTT model, even

when the change is slow and piecemeal (as in India and Philippines). Second, these coalitions are often part of other nation-wide processes and might in the long run turn out to be not so elitist at all.

In sum, the scenarios focusing on the effectiveness of privatization and liberalization need to account for the role politics plays in these efforts. Efficient property rights can only be expected in rare circumstances when the polity has a highly developed civil society and existing institutions produce restraint. Of special importance here is the symbiotic relationship between property rights and the institutions for their enforcement (The World Bank, 1997). This article shows that in terms of supply, sequencing and the fit between domestic institutions and the degree of privatization and liberalization are important. From the demand side, well-organized large user groups are clear winners from reforms but universal service in countries like South Korea and Singapore resulted from state prerogatives. To make the beneficiaries of reforms less dependent on powerful user groups or the state's internal prerogatives, we need an appreciation of the internal mechanisms of states and their interaction with civil society to understand how societal preferences are articulated and arbitrated to shape property rights.

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