

**Industrial policy after the East Asian crisis:
From “outward-orientation” to new internal capabilities?**

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Abstract

Prior to East Asia's financial meltdown in the second half of 1997, there appeared the prospect of an uneasy consensus on the East Asian "miracle" that recognized the role of the entrepreneurial state in accelerating industrial development but emphasized the "market-friendly" nature of the state's interventions. Following the financial crisis, East Asian policies and institutions are once again under scrutiny—for their failures rather than the miracles they achieved. In this review, I find that prospects for a consensus that incorporated the East Asian experience were ill founded. East Asian policymakers emphasized growth through quantitative targets. Price signals played a significant but secondary role. I illustrate these propositions through the examination of trade policy, industrial conglomerates, and provision of physical infrastructure. The evolving international consensus on industrial policy, which predates the Asian crisis, emphasizes a hands-off approach in which competition policy plays an important role. But the new consensus also proposes "deep integration" or the adoption of uniform standards in areas such as competition policy and labor and environmental standards. For East Asia, the shift to the international consensus may be appropriate because government-driven growth has declined in intellectual respectability and also because it may be time to consolidate the gains from the rapid trade-led growth by focusing on creating a stronger incentive structure for the efficient utilization of resources. However, implementing the new set of policies will require sophisticated new skills in the public administration. Moreover, since the current consensus is based on strong priors rather than on solid empirical evidence, the dangers of international uniformity in policy are evident

Introduction

Just when views on East Asia's economic "miracle" appeared to be converging, the East Asians chose once again to surprise the world—this time by spiraling into a financial meltdown. The publication of the World Bank's (1993) *East Asian Miracle* had added respectability to East Asian industrial policy. Even critics of the "Miracle" study welcomed the belated and qualified recognition of the role that the state had played in fostering industrial growth.¹ Is there reason now to reassess one more time, the lessons from East Asia?

I review three sets of East Asian policies: those related to trade, corporate organization, and physical infrastructure provision. East Asian policymakers used these complementary policy instruments primarily to stimulate output growth or relieve bottlenecks. The East Asian experience can be characterized a "big industrial push" tempered by price and international market discipline to limit egregious errors. This interpretation is consistent with estimates of modest productivity growth in the region. East Asian growth depended on the virtuous reinforcement of policy measures and business behavior that always had the potential to unravel, although the timing was unpredictable.

Thus, despite East Asia's evident success in achieving high rates of investment and output growth, and notwithstanding the "Miracle" study, I conclude that East Asia offers few lessons to guide industrial policy in the near future—either for itself or for other countries. This view had begun to evolve prior to and independent of the recent crisis but has been reinforced by the financial distress in the East Asian region. Government interventions to stimulate industrial growth will not

¹ For example, Rodrik (1997) writes: "Whatever one may say about the World Bank (1993) *East Asian Miracle* report, this study has made it very difficult for any reasonable person to argue that there was little government intervention in East Asian countries, or that these countries grew so fast *despite* their government's interventions—arguments that one used to hear not infrequently."

disappear but the emphasis has shifted towards measures that deal directly with increasing efficiency (e.g., competition policy and definition and protection of property rights).

Selective industrial targeting may be dated, but surely the importance of “outward-orientation” remains undiminished?² Though a hallowed tenet in the explanation of the East Asian miracle, the term “outward-orientation” tends to be a fluid one (absence of bias against exports, active promotion of exports, and low trade barriers). When defined as low trade barriers to increase an economy’s allocative efficiency, outward orientation has been driven by an intellectual tradition beyond East Asia. East Asian economies are often thought to validate the benefits of “openness,” but their commitment to low tariff and non-tariff barriers has been less than exemplary. Also, aggressive export promotion from East Asia has been viewed with concern by the international community—countervailing duties, antidumping measures, “voluntary” export restraints are instruments designed to limit the advantages from government support of exporters.³

East Asia’s corporate structure and governance mechanisms—significant contributors to rapid output growth in the past—are under especially strong criticism in the wake of the ongoing financial crisis. Close relationships between government and business, heavy reliance on bank debt, and conglomerate firms combined to foster corporate investment in highly efficient factories, new product development, and greater presence in international markets. That system is under criticism

² The IMF (1997) in referring to high East Asian growth rates in the first half of the 1990s—high even by the standards of that region—attributes them principally to “outward-orientation.”

³ Since the onset of the recent crisis, falling East Asian export revenues (in dollars) despite rising export volumes are also a reminder that manufactured exports, like primary commodities, can experience sharp decline in prices, contributing to an adverse shift in terms of trade. The competitive currency devaluations in the region revive the concerns of “export pessimists” of yesteryears that the world market does not have the depth to absorb large volumes of developing country exports without a significant price decrease. Raphie Kaplinsky (1998) shows most developing economies have experienced steadily declining terms of trade especially since the emergence of China as a significant exporter of manufactured goods.

for “cronyism” and wasteful investments in real estate and currency speculation.⁴ The knife-edge quality of the corporate governance mechanism in East Asia was evident to observers (Campos and Root 1996) and reform attempts were ongoing even prior to the recent crisis. The limited progress in dismantling old structures reflects not only the decline in the East Asian states’ ability to enforce policies but is also a reminder of the continued economic strengths of the region’s business organizations.

Finally, a generally untold feature of East Asia’s success has been the large and steady commitment to the provision of infrastructure, sometimes built ahead of demand but typically to relieve bottlenecks in the flow of people, goods, and information to permit rapid growth. Despite its past success, the public delivery system is giving way to greater use of private initiative and capital in the provision of infrastructure. To serve future requirements, the system will need to shift from an emphasis on physical targets to financial and regulatory mechanisms that create incentives for efficient delivery while protecting the consumer.

This paper is guided by the idea that imbalances in an economic system periodically cause shifts in focus (see Syrquin 1986). The worldwide decline of trade barriers requires government policies to pay greater attention to domestic non-tradable inputs and institutions. Participation in the global economy is held back by the absence of key non-tradable inputs. Specifically, improved productivity of non-tradable inputs such as infrastructure become of critical importance; equally, important are the institutions and the bureaucracy that deliver a domestic policy agenda with emphasis on a competitive environment while protecting property rights.

⁴ In 1996, Astra, the Indonesian conglomerate, made Rp 80 billion of its Rp 90 billion net profit by borrowing abroad and lending at higher domestic interest rates (*Financial Times*, September 11, 1998). Though among the strongest Indonesian firms, Astra has had to reschedule its foreign debt: “There is no way it can repay its scheduled debt now or for the next couple of years” (*Wall Street Journal*, October 23, 1998).

In turn, the domestic policy agenda is partly being preempted by the efforts to create international standards for “best practice” in policymaking. New sets of rules for “deep” integration—as distinct from the “shallow” integration achieved by freer flows of trade—are being put in place. These rules seek to increase competition and create a more “level playing field” and deal with competition policy, intellectual property, environment and labor standards, investment codes, and more liberal trade in services such as telecommunications. This set of policies is acquiring increasing homogeneity across national borders in part because of endorsement by international institutions and, in some cases, actual codification in the framework of the World Trade Organization (WTO).

In the next three sections, I consider the East Asian experience with trade policy, corporate structure, and infrastructure delivery. I then describe the trend towards the international homogenization of industrial policy. A concluding section discusses some caveats and future research and policy tasks.

The goals of industrial policy

The term “industrial policy” evokes the image of Japanese bureaucrats of the 1960s or 1970s vintage picking high growth sectors (“winners”) and guiding industrial firms into those sectors through financial incentives and an appeal to their sense of obligation to society. Growth as the all-encompassing objective has great appeal. High growth appears to entail no sacrifice. A rising tide, as they say, lifts all boats. Rapidly growing economies will make the most efficient use of resources and be well positioned to withstand unexpected shocks.

The challenge to the growth mantra has come from two fronts. First, based on Alwyn Young’s (1995) research, Paul Krugman (1994) has argued that East Asian economic performance

is more a “myth” than “miracle.” Rapid growth in East Asia was the outcome of “blood, toil, sweat, and tears”—output grew because of high rates of investment and not because East Asians were miraculously able to extract more output from a given level of inputs. The numbers themselves and their interpretation have been subject to considerable debate (see the discussion in IMF 1997, box 9, pp. 82-83).⁵ A recent review concludes that through the 1980s, East Asian output growth *and* productivity growth was considerably higher than in other parts of the world (IMF 1998, chapter 3). In the 1990s, however, while output continued to grow at high rates, productivity growth in East Asia slowed down considerably reflecting inefficient use of capital.⁶ Thus, output and efficiency need not grow together. Indeed, rapid output growth can sometimes lead to the disregard of prudent investment policies and create inefficiencies: “...businessmen and financiers alike were likely blinded by the success of Thai corporates over the last decades that produced impressive economic growth rates” (Alba, Claessens, and Djankov 1998).

The collapse of large parts of the corporate sector in East Asia provides the second challenge to the virtues of high growth. The collapse resulted from some of the same features that were only recently viewed as strengths: high reliance on bank debt, cross-shareholdings among corporates, and close relationships between business and industry. As productivity declined in the 1990s, the extend of debt (much of it short-term) also rose, creating high fixed costs of debt repayments (Alba, Claessens, and Djankov 1998). At the same time, the ability of the state to guide

⁵ When the quality and composition of goods being produced are rapidly changing, as in East Asia, output and productivity growth may be greatly understated (Nordhaus 1997). Collins and Bosworth (1996) also conjecture that there may exist “threshold effects.” A certain level of capital accumulation is necessary before the pool of international knowledge can be tapped for productivity growth.

⁶ The Malaysian Government’s “National Economic Recovery Program” following the crisis highlights the sharp fall in productivity growth from high levels in the late 1980s (Government of Malaysia 1998). More than two-fifths of Malaysian Gross Domestic Product was invested between 1995 and 1997 with limited increase in output on account of the heavy emphasis on the property sector and other capital intensive projects with expected long-term returns. Falling productivity is also reflected in sharply declining profit rates throughout the region (Alba,

the corporate sector diminished as personalized relationships become more common (Kim 1997 and Lee 1997). Again, the facts and their interpretation are controversial. In particular, some would argue that the collapse was unnecessary and resulted mainly because of misguided policies imposed by the International Monetary Fund (i.e., Sachs). It is sufficient to note that recent events have focused attention on systemic vulnerability as an important consideration in the design of economic policy.

Efficiency, growth, and vulnerability—the expanded set of industrial policy objectives—are considered in table 1. For many, good industrial policy is an open trade regime, which fosters a competitive environment and, in particular, ensures efficient allocation of resources (in line with a country's comparative advantage). Though quintessentially efficiency-enhancing, an open trade regime is also conducive to growth where openness creates access to the international pool of knowledge and hence facilitates the adoption of superior production practices. Where trade policy fails to provide the necessary discipline (because goods and services are not traded), domestic competition policy creates the pressures that limit wasteful allocation of societal resources. Competition from foreign investors may also raise the quality of investments.

Despite the discipline from trade and domestic competition policies, managers of firms may yet waste resources if they lack incentives to work in the interests of their stakeholders. Efficient corporate structures are successful in mobilizing resources and putting them to work for the highest possible returns. However, managers may also undertake substantial investments (leading to high rates of output growth) but, lacking the knowledge or incentives, may generate low returns for their stakeholders and render the economic system more vulnerable to shocks. While the search for an “optimal” corporate structure may be illusory, much attention has recently focused on policies that

may lead managers to socially responsible investment decisions. Rigidities in the labor market may also create poor investment decisions.

Table 1: Objectives and instruments of industrial policy

	Allocative efficiency	Investment efficiency	Growth	Vulnerability
Product market				
Trade policy	↑		?	
Competition policy	↑			
Foreign direct investment		↑	?	
Capital and labor inputs				
Corporate structure/governance		↑	?	?
Labor market norms		↑	?	
Supporting environment				
Physical infrastructure			↑	↓
Education/technology policy			↑	↓
Social capital			↑	↓
Higher environmental standards			?	↓

Note: An up arrow (↑) indicates that appropriate policies create the potential for an increase and a down arrow (↓) indicates the potential for a decrease. Note that ↓ is a desirable objective only for vulnerability. A question mark (?) suggests that a relationship exists but is poorly understood. Spaces are left blank where policies and objectives are not directly related.

Finally, the supporting environment for industrial activity does not directly influence the allocation and investment decisions but rather changes the entire economy's potential for growth and its vulnerability. For example, superior infrastructure that reduces the cost of moving people, goods, and information raises the growth potential while lowering the risks to the economy. Protection of the air we breathe and the water we drink reduces risk but is thought also to lower the growth potential; however, growth may not be sacrificed when higher protection standards spur innovation leading to a more efficient use of resources. While the provision of an operating environment conducive to business is uncontroversial, the methods of achieving the objective are undergoing

considerable change. Specifically, market signals and private initiative are being increasingly employed in the design and delivery of support services and protection of the physical environment.

The limits of trade policy

For many observers, trade policy has been the cornerstone of East Asia's industrialization strategy. But the characterization of East Asian trade policy varies greatly. For Alice Amsden (1989) the policy was proactive with intent to guide firms, especially in Korea, into high growth areas. In contrast, most proponents of "openness" interpret the East Asian policy as a hands-off approach of lowering trade barriers that spur firms to achieve greater efficiency. Emphasizing the latter perspective, Jeffery Sachs and Andrew Warner (1995) determine that rapidly growing Korea has been an "open" economy since 1968. With the failure of countries such as India to "open" until recently, Sachs and Warner find, not surprisingly, a close association between "openness" and growth.

Was East Asia open? And did "openness" cause growth? East Asia illustrates the great difficulty in measuring the extent to which an economy is open. In the Sachs and Warner analysis, a key indicator of an open trade policy is the lack of a significant black market premium on the country's exchange rate. T.N. Srinivasan, in his comments on the Sachs and Warner paper, and Susan Collins and Barry Bosworth (1996) argue that the black market premium depends not only on trade policy but on the overall macroeconomic prospects and on the liquidity in the black exchange markets. Low tariff and non-tariff barriers on average may also deceive if policy is focused on a few strategic sectors (automobiles, steel, consumer electronics).⁷ Finally, the Collins and Bosworth

⁷ On account of these problems, in his comments on the Sachs and Warner paper, Stanley Fischer questions the classification of several countries as "open" or "closed."

(1996) raise serious questions about the statistical association between “openness” and growth. They find with Sachs and Warner a strong link between “openness” and growth in per capita income but little association between “openness” and growth of total factor productivity. As Srinivasan emphasizes, a more open economy should primarily enhance efficiency. Instead, the Collins and Bosworth evidence suggests that if trade policy worked to raise output in East Asia, it did so by stimulating greater investment.

Import protection. An important trade policy tool for raising investment is protection of domestic producers from import competition. As in other matters, there is no East Asian model of import protection. Robert Wade (1993) documents extensive import protection in Taiwan. But the aggressive use of import protection as a tool of industrial policy really is a Korean story. In her provocative book, Amsden (1989) argues that the government deliberately set the prices “wrong” to foster activities with long-term benefits to the economy but which may otherwise not have been undertaken. Import protection in important industrial sectors such as automobiles, steel, chemicals, and heavy machinery was an instrument for fostering growth and is thus presented by Amsden as a constructive and viable development strategy. Dornbusch (1992) though generally skeptical of import protection concedes that in some countries the protection may actually have worked though state capacity necessary for success is uncommon elsewhere.

In the current international climate state-sponsored industrialization comes under much greater scrutiny than was the case in the past. Typically, tariffs are declining, although tariffs in Thailand remain surprisingly high (table 2). Low overall tariff rates mask the protection accorded to specific industries. Following the recent financial troubles, the Indonesian government appears to have scaled back its protection of the controversial automobile and aircraft projects. The Indian government’s continued large stake in Maruti, the largest automobile manufacturer, is an

anachronism, which has led to publicly aired confrontation with its Japanese partner. In part due to the intellectual decline of the import protection, protection survives, however, in other guises. As part of its “National Economic Recovery Program,” the Malaysian Government has recently announced a wide range of financial incentives to promote its domestic automobile industry on account of its strong “linkage” effects.

Table 2: Tariff Rates in Large Developing Countries (%)

	1984-87	1988-90	1991-1993	Post-Uruguay Round
Indonesia	18.2	18.0	12.6	6.3
Brazil	50.2	28.4	14.7	11.7
China	29.2	29.2	30.6	16.6
India	90.0	62.4	42.6	30.9
Korea	20.2	11.3	10.0	7.7
Malaysia	14.7	11.5	11.2	6.4
Mexico	9.1	8.9	12.3	10.4
Thailand	26.9	38.0	36.9	26.1
Turkey	21.9	19.0	9.0	2.8

Source: World Bank. 1998. “Indonesia: Strengthening International Competitiveness.” Processed. The World Bank, Washington D.C.

Also, Michael Finger (1997) notes, “safety valves” emerge to circumvent the discipline imposed under international agreements to reduce trade barriers. “Voluntary export restraints” by Japanese auto producers at the height of their ascendancy in the U.S. market gave much breathing room to U.S. automakers. By controlling the quantities sold, a *de facto* cartelization of the U.S. market was permitted allowing U.S. producers to sell larger quantities at stable or higher prices (Krishna 1989).⁸ Because they reduced competition, voluntary export restraints were always

⁸ The U.S. automobile industry is stronger today than it was at the onset of the voluntary export restraints. Many Japanese innovations, such as “lean” production, have been imitated by U.S. producers.

viewed by academic economists with disfavor and over time most of these arrangements have been wound up.

Another safety valve highlighted by Finger is antidumping duties. The share of trade directly affected by antidumping duties has not been large; however, Finger argues that such duties have had a “chilling” effect on trade. In other words, the prospect—and threat—of duties being imposed has led to scaling back of exports by developing country exporters, thereby affording protection to developed country producers. The threat of duties being imposed, Finger argues is high because the definition of antidumping is always fuzzy and experience suggests a high probability of success in persuading national authorities that protection is justified. Antidumping duties also encourage producers across borders to collude and so can be more expensive to the economy than straight import duties. Antidumping actions by developed nations were on the decline, but have been on the rise once again since 1995, with a sharp projected rise in 1998 to almost 300 cases instituted worldwide compared with about 225 in 1997 (*The Economist*, November 7-13, 1998).⁹ In an important development, developing countries are increasingly resorting to protection through antidumping measures; most such actions are against other developing countries.

Export promotion. Export promotion is viewed as more benign than import protection (World Bank 1993). Export promotion, however, potentially suffers from the same rent-seeking behavior as does import protection. Export promotion instruments are thought to have worked in East Asia. But even if that was the case—and the evidence as reported below is ambiguous—we have an identification problem. Both import protection and export promotion worked to some extent in East Asia; both import protection and export promotion have had less success outside East

⁹ “European Union steelmakers are set to launch dumping complaints over steel imports from up to eight Asian, African and eastern European countries—mirroring demands from US counterparts for action to stem a flood of

Asia.¹⁰ Thus what works is East Asia in its incarnation before July 1997 and not necessarily either import protection or export promotion.

The evidence on export subsidies has three components. First, in most countries export subsidies have been abused through overinvoicing, falsification of shipments, and lobbying for *ad hoc* subsidization to benefit the least competitive exporters (see Rodrik 1993 on the experience in Bolivia, Kenya, India, and Turkey).¹¹ Economic theory has provided no easy guidance on the design of subsidies. Should they be tailored to sectoral or project requirements to help overcome specific constraints to increased exports (as in East Asia) or should they be set at uniform levels to limit lobbying for special dispensations (as was the intent in Bolivia and Kenya)? The Bolivian and Kenyan scams show that uniformity does not reduce the potential for abuse. The possibility that selective subsidies generated some benefits in East Asia once again suggests that it is East Asia that worked rather than the subsidies.

Second, even where would-be exporters have not exploited the system, the impact of subsidies on export growth has been limited.¹² Rodrik (1993) examines the trends in export subsidies and in manufactured goods exports. He finds that export subsidies showed little change in years prior to the “boom” in East Asian exports. Thus the export targets set seem to have been at least as important—or more so—than the subsidies. Rodrik’s evidence is consistent with other

cheap imports.” *Financial Times* November 11, 1998.

¹⁰ To the extent export subsidies worked in Brazil during the 1970s, they were also accompanied by a relatively successful import substitution (Nogues 1990).

¹¹ Among the more egregious anecdotes is that of a Kenyan exporter licensed to export gold and jewelry. All exports turned out to be to fictitious buyers. But the cost to the Kenyan treasury was severe. That one firm received cash subsidy equal to five percent of all exports. Kenya’s export policy had moved from “the Scylla of incentive-blunting diligence to the Charbdes of corrupt generosity” (Rodrik 1993, p. 25).

¹² Production subsidies, rather than those directed towards exports, may have fared even worse. Krugman (1996) analyzes the overall impact of subsidies for steel and semiconductors for Japan and finds some evidence that these contributed to overproduction and subsequent gluts in the market which did little to benefit the domestic producers.

recent work on the determinants of exports. Mark Roberts and Jim Tybout (1992) show that because exporting has high sunk costs, producers do not freely move in and out of exporting activity. In other words, having committed to exports they persist in doing so till conditions change to an extent that the option value of staying exporters falls significantly inducing a shift away from exports. In Egan and Mody (1992) and Mody and Yilmaz (1997a) persistence is seen to arise from long-term relationships with international buyers. These buyers invest in developing country exporters by providing continuing technical and marketing information. Hence a virtuous circle of growing exports, superior “reputation,” and increased competencies emerges. For these reasons, even though price elasticities in export demand functions tend to be in the range of unity, only a small fraction of the large growth of East Asian exports can be attributed to the slower growth of East Asian export prices relative to those of their competitors.

Finally, recognizing the importance of non-price factors in the development of export markets, supporting measures complimented export subsidies in East Asia. Of special importance were detailed sectoral and firm-specific export targets that were monitored at the highest levels of government (Westphal 1990). Upon the achievement of these targets depended the access to government favors, especially subsidized credit. Thus, a carrot-and-stick policy was followed (Stiglitz 1996). In addition, East Asian governments generated benefits for all exporters through agencies that developed new markets and testing and standards organizations certified product quality to enhance the “reputation” of exports (Dahlman 1994 and Stiglitz 1996).¹³

In sum, the evidence suggests that East Asian policymakers did not passively rely on lower trade barriers to send the right price signals. They used complimentary measures to foster active

participation in international trade. High trade intensity was encouraged and the benefits of increased foreign trade were real enough (see Pack 1994 and Pack and Page 1994); but an open trade regime was clearly considered insufficient—and, in some instances, inappropriate.

Industrial conglomerates or crony capitalism?

Following the recent East Asian crisis, special attention has been focussed on government-business relationships in the region. Once the object of admiration in characterizations such as Japan Inc., Korea Inc., or Malaysia Inc., these relationships have become suspect and in popular commentary a contributory cause of the crisis. Of the legacies of old-style East Asian industrial policy the one that is most seen to have a bearing on the recent crisis—either directly or through creating a “zone of vulnerability”—is the extent of “cronyism” prevalent in many countries of the region.

For industrial ventures, the term “crony capitalism” seems to have come into popular usage in the context of special favors granted to particular industrial groups under President Ferdinand Marcos in the Philippines during the late-1970s and the early 1980s. It seemed evident then to most observers of the Philippines that such special dispensation was both iniquitous and inefficient. However, evidence from other countries in the region could be read as indicating success. Starting even earlier, the Korean government—following the example set by Japan—had embarked upon a policy of actively promoting special groups (known as *chaebols*). Over a period of about three decades the *chaebols* did very well for themselves and for the country—until several of them folded

¹³ There is a story told about the sale of the first batch of bicycles from Taiwan. Certain defects likely to cause injury were discovered after the bicycles arrived in the United States. The Taiwanese government paid for their recall and replacement of these bicycles on the grounds that country reputation was involved.

up in the recent crisis. Crony capitalism also prospered along with Indonesia once again till the recent crisis hit, leading to a reassessment of their role.

Today, in the wake of the East Asian crisis with attention focussed on factors contributing to poor governance, it is easy and, perhaps, appropriate to be critical of industrial conglomerates sponsored by the government. Close relationships between big business and government can be used productively or can be the source of wasteful corruption. Korean authorities chose explicitly to foster conglomerates to conserve entrepreneurial resources, which they believed to be in short supply. Such positive economic justifications of conglomerates are found in the economic literature (Oliver Williamson 1975) and in the writings of Korean observers (Leroy Jones 1987). But diversified big business houses may derive sustenance mainly through their superior ability to lobby for industrial permits, cheap credit, and other favors. Pankaj Ghemawat and Tarun Khanna (1997) find that following Indian economic liberalization in the 1990s, the degree of diversification rapidly declined in select groups. In Indonesia, though government-business relations shored up investment and output, the nature of the relationships have been seen as most liable to fall off on to the wrong side of the knife's edge. Chinese businessmen took on as partners military officers with political links: this facilitated licenses and contracts, the military partners also developed a stake in the growth of the enterprises. But, Campos and Root (1996) point out that the system "thrives on the lack of predictability of and transparency in the regulatory environment," a condition which they believe is ultimately inimical to growth.

It could be that conglomerate firms did serve a virtuous function in some parts of East Asia in the 1970s and 1980s, but are now unnecessary or even harmful. In a comparison of Taiwan (China) and Korea written in the mid-1980s, I showed that by most measures of economic development, Korea was following Taiwan (China) with a lag of about a decade (Mody 1990). However, Korean

chaebols were making impressive strides resulting in faster Korean growth accompanied by investment in increasingly more sophisticated products and a global marketing reach that was laying the basis for future growth. The price of higher growth was greater vulnerability: Korean firms were subject to sharper downturns and setbacks. Some Taiwanese firms clearly saw the merits the Korean strategy. Despite the folklore of “small is beautiful in Taiwan,” and with direct and indirect governmental support, firms such as Acer (the computer mass manufacturer) and Taiwan Semiconductor Manufacturing Company (the international joint-venture for chip production) were adopting mass production and marketing techniques to establish themselves as significant international players. Thus, over time some degree of convergence occurred in the industrial structures of the two economies as Taiwanese firms grew in size and established their own brand names while the sprawling Korean conglomerates rationalized their business.

The successful harnessing of industrial conglomerates, where it did occur, resulted from a particular political conjuncture not commonly found. Peter Evans (1993) describes the state in East Asia as possessing an “embedded autonomy.” The autonomy permits the government to set national goals and to discipline private sector behavior. However, the state is also embedded in the broader social and economic milieu through personal ties between government officials and leaders of the private sector. This delicate balance between personal relationships, which foster information flows and create trust, and autonomy which allows the government to pursue a broad-based social agenda is, according to Evans, the key to East Asian success. East Asia is thus distinguished not only from predatory states such as Zaire (where the state is rapaciously autonomous) but also from intermediate states, such as India and Brazil, where neither autonomy nor embeddedness prevail.

However, East Asia itself may have lost its ability to balance on the knife’ s edge. In Korea, for example, the state’ s autonomy was compromised as the economy grew rapidly, and business

groups acquired increased political influence. Korean authorities attempted unsuccessfully from the mid-1980s to restrict favors to conglomerates, demand greater specialization in their activities, and discipline them through competition policy laws (Kim 1997 and Lee 1997). The ongoing Korean crisis may serve to break the inertia (e.g., the recent takeover by Hyundai of Kia, the troubled motor company).¹⁴ In Thailand, similarly, industrial conglomerates powered the growth process but are under intense scrutiny for their governance methods following their recent collapse (Alba, Claessens, and Djankov 1998).

In today's context, the viability of a strategy of promoting large industrial firms has been undermined by the high associated economic and political risks. As such, while the strategy was an option in the context of East Asian development, it is no longer tenable. To enhance investment efficiency, policymakers need to rely on a new set of corporate governance mechanisms that require reduced reliance on bank debt, more transparency in operations and accounting, and greater shareholder rights (Stephen Prowse 1998). Which is not to say, as with import protection, that governments will cease to promote national champions. In China, which is relatively insulated from international trends, the attraction of "holding companies" has been significant, as has been the case in certain parts of Eastern Europe (Anjali Kumar 1993). More importantly, Khanna and Krishna Palepu (1997) remind us of the continued economic rationale of conglomerates, especially where capital and information markets function poorly. While active promotion of conglomerates may be inappropriate, their characterization as *per se* a detrimental force, and hence to be severely constrained, may also be unjustified.

¹⁴ Though the government has urged swapping of business lines to achieve specialization, the five largest conglomerates have, in their most recent move, agreed to mergers of businesses in semiconductors, petrochemicals, aerospace, rolling stock, ship engines, and power generation. For example, Hyundai Electronics and LG Semicon, the second and third largest semiconductor producers, will merge. Each will thus retain an

Provision of non-tradable inputs: an unfinished domestic agenda:

The efficient supply of non-tradable inputs is critical both to increase national productivity and to participate in international commerce. I focus here on physical infrastructure.¹⁵ The economic importance of these inputs arises not only because they cannot be purchased from other nations but also because they are associated with strong economies of scale. The government's role has changed from direct provision to setting the terms of procurement of service, defining the regulatory rules of the game, and ensuring consumer protection.

*East Asian emphasis on infrastructure was sound.*¹⁶ The sustained commitment to high-quality infrastructure in East Asia was the product of a long-range vision—to maintain the region's competitiveness in export markets, to attract foreign investment to the region, and to support more balanced social development. Compared with an average infrastructure investment of 4 percent of gross domestic product (GDP) among all developing countries, investment in East Asia rarely fell below 4 percent of GDP and was often higher, reaching 7 or 8 percent in several years (World Bank 1994). On occasion, the commitment to high levels of investment implied a willingness to undertake bold ventures, often amounting to gambles, in high-profile infrastructure projects. In all East Asian

interest in semiconductors (instead of specializing) and the net effect will be of reducing “excessive” competition (*Financial Times*, September 4, 1998).

¹⁵ Many East Asian economies also invested extensively in technological upgrading (Dahlman 1994, Goldman et al. 1997, Lall 1998). Following the Japanese lead, technology dissemination institutions catering specially to small and medium enterprises (such as the very effective Hong Kong Productivity Council) were set up throughout the region. In addition, incentives raised private research and development to high levels, especially in Korea. Finally, a strong emphasis on technical education produced large numbers of engineers. According to one estimate (Lall 1998), the absolute number of scientists and engineers in Korea (118,000) is about the same as in India (128,000). While these measures have undoubtedly contributed to East Asian growth, the challenge facing most developing countries today is to provide technological support in a more market-oriented way. In this regard, the external linkages that proved to be conduits of knowledge may have more relevance than publicly provided technical support.

economies, the drive toward nurturing international commerce and investment made telecommunications, ports, and airports critical to the overall economic strategy. Despite initial East Asian advantage in power and communications over other developing countries, growth in these sectors substantially widened the gap (table 3). Growth was especially rapid in Korea and Thailand. Although Chile had a more advanced infrastructure in 1970, Malaysia's infrastructure had surged ahead by the early 1990s—despite the fact that Chile is Latin America's star performer and in the vanguard of market-oriented reforms.

Why did this top-driven process, mediated by elaborate planning mechanisms, succeed in delivering infrastructure of generally sound quality? Why, instead, were more mistakes not made? Why did the coordination function work when similar attempts in other economies have generally led to poor results? The answers are found in three complementary hypotheses. First, the goal of infrastructure development was simple: the emphasis was on production and trade-related infrastructure to support economic growth; equity considerations and environmental concerns received less attention, no doubt with costs that must now be dealt with. Second, the number of competing “voices” or competing claims were limited, allowing the focus on growth to proceed. Third, the elixir of growth itself is a powerful reinforcement mechanism, where positive outcomes engender socially responsible behavior.

New infrastructure challenges require new skills. Governments in East Asia, as elsewhere, are also increasingly realizing that the private sector must participate more heavily in infrastructure. While the East Asian emphasis on the importance of infrastructure remains, the methods of delivery are changing rapidly. New and sophisticated skills are required as governments

¹⁶ The discussion on East Asian infrastructure here is based on Mody (1997b).

move away from being operators to regulators and facilitators (see papers in Kohli, Mody, and Walton 1997).

- *Sector structure designed to enhance competition.* Experience from Chile shows that following privatization, incumbent firms can acquire significant market power, limiting the benefits of privatization. Regulatory reforms to facilitate interconnection in telecommunications and “third-party access” of transmission in electric power and gas sectors are preconditions to a sound competitive regime.
- *Contracting.* For many infrastructure services, it is necessary to award the rights to provide services. Conducting a fair competition and negotiating the terms of contract are major challenges. Required design and negotiating skills are substantial. The sophisticated process for the award of airwaves for mobile telephony and other services in the U.S. was viewed as a great success when bidders committed to pay large fees for the rights to those airwaves. However, several contracts have unraveled, as the winning bidders have been unable to fulfil their commitment.
- *Finance.* With infrastructure investment at around 4 percent of GDP, even a three-quarters share of private investment in infrastructure implies only a 3 percent of GDP requirement to finance private infrastructure. For most countries this should not pose a significant problem since domestic savings are typically much higher. However, domestic financial institutions have typically been unable to channel the resources into long-lived assets prone to regulatory risks. As a consequence, much of private infrastructure has been financed with international funding even though revenues are in domestic currency. The sudden and large increase in domestic currency obligations in the wake of sharp currency devaluations has hit projects in Mexico and in East Asia during the two recent currency crises.

The challenges inherent in gearing traditional public administrations to fulfil this new role in facilitating private investment in infrastructure are enormous. For East Asia, the challenge may be greater than elsewhere. Despite the tradition of strong institutions that would normally be a source of inertia, East Asian economies have, in the past, displayed an ability to adapt to infrastructure needs as they developed. That ability will be tested severely, paradoxically, because of the very achievements in installing a largely successful delivery mechanism. To reorient that system will require both political capital and skilled administration.

Taking the place of domestic policy are global rules: an incomplete consensus?

The guiding leitmotif of the new emerging consensus on industrial policy is greater competition. Dismantling of entry barriers and the establishment of antitrust legislation and enforcement are direct efforts to increase the potential for competition. A more liberal and internationally uniform regime for the flow of foreign direct investment is in the spirit of facilitating greater competition. Greater controversy surrounds the measures to limit “unfair competition.” A tighter intellectual property regime has been endorsed and is being implemented worldwide, though under somewhat different timetables to allow for differing country circumstances. The most contentious issues relate to the creation of uniform international standards for the environment and for workers. The trend, however, is towards an increasing convergence on “minimum” standards.

Domestic competition policy. The commitment to domestic competition policy has varied greatly across countries and across time. The current emphasis on competition is in contrast to objectives and practice in East Asia. As Stiglitz (1996) has noted, striking the right balance between competition and cooperation was an important concern for East Asian policymakers. Economic theory concedes that less than full competition may stimulate growth where firms with market power

use their profits to innovate and hence move the technological frontier. Maintaining a dynamic tension between competition and “collusion” was, consequently, an important feature of Japanese industrial policy (Yamamura 1986).¹⁷ In the United States, the present concern with ensuring competition (e.g., antitrust case Microsoft and the closer scrutiny of mergers) follows low priority accorded to antitrust starting in the Reagan administration.

Competition has been boosted by reducing bureaucratic restraints to competition. Licensing requirements to operate have been eased significantly in India, for example. The dismantling of restrictions to competition is an important condition of the support being extended by international institutions to the “crisis” countries.¹⁸

The greater challenge to competition policy lies in the identification of real—rather than bureaucratically generated—market power and enforcement of decisions to limit dominance. Contractual relationships between firms may reflect measures to increase efficiency, which is socially desirable. However, these same relationships can create entry barriers for other firms. Differences of opinion arise, for example, with regard to long-term vertical supply agreements and price discrimination (do these reinforce market power or are they principally efficiency enhancing). While sharp characterizations are difficult, the European competition policy laws regard certain contractual arrangements as *per se* anticompetitive, the U.S. laws require a more tailored, or *rule of reason*, analysis to each case. These differences arising from the different histories create a challenge for harmonization of competition policy.

¹⁷ On the limited development of competition policy in East and South East Asia, see Rong-I Wu and Yun-Peng Chu (1998).

¹⁸ Government-supported cartels, price controls, entry and exit controls, exclusive licensing, and public sector dominance are under review in Indonesia and other crisis countries.

International harmonization of competition policy. The Boeing-McDonnell Douglas merger brought to the fore the debate on international competition policy. U.S. authorities, under whose jurisdiction these firms ostensibly operate, had approved the merger. However, the European Commission questioned the appropriateness of the merger on account of its impact on Airbus Industries. The main concession required by the European Union competition commissioner, Karel Van Miert, was the abandonment of 20-year exclusive supply contracts to three U.S. airlines (American, Continental, and Delta). U.S. antitrust authorities and the European Commission clearly had different views on the anti-competitive effects of long-term supply contracts. Was the brinkmanship displayed a reflection of long-standing rivalry between Boeing and Airbus or does the case illustrate a more widespread problem?¹⁹

General agreement exists on the benefits of international competition in telecommunications. International long-distance telephony continues widely to be the preserve of government monopolies. Recent agreements within the WTO are designed to increase competition and create common standards for regulation. The U.S. Federal Communications Commission has proposed sharply reducing the large payments made to developing country telecom monopolies for the privilege of completing calls in those countries. In an editorial comment, the *Financial Times* (August 12, 1997), normally a critic of such unilateral action, concludes that “the benefits of a more efficient market for international calls” following from the FCC action “will be felt across the world.”

As with other issues on the “deep integration” agenda, a great diversity of government actions (e.g., procurement rules, aid to small and medium firms, cooperative industrial R&D) influence the extent of competition. Judging the influence of each of these to determine

¹⁹ Joel Klein (1998) claims that the problem is a serious one. He states that in the last year the United States authorities have imposed \$200 million in fines in “criminal antitrust cases involving international cartels.”

anticompetitive actions and behavior will be no easy task (Jacquemin 1994). F.M. Scherer (1994) has proposed a sequenced transition to an international competition policy. Beginning as a forum for the exchange of information in the early stages, an international body would gradually acquire teeth until it was in a position to define international standards for domestic competition policy and also to arbitrate on disputes between countries.

Interestingly, the United States has been lukewarm to the idea of an international competition policy. Joe Klein (1998), the assistant attorney general for the antitrust division in the U.S. Department of Justice, argues that it would be inappropriate to supplant the authority of the domestic system by international directives: "... decisions taken by competition authorities would plainly stray on to delicate territory, such as second-guessing the exercise of prosecutorial discretion and judicial decision-making." The appeal to sovereignty in this case is intriguing because in most other matters (e.g., intellectual property protection and the setting of environmental and labor standards), the U.S. has viewed a higher international authority as desirable.

Current trends, therefore, suggest an increasing emphasis on "an international culture of sound antitrust enforcement, built on the basis of shared experience, bilateral cooperation and technical assistance to countries just starting down this road." Also, "mutual assistance agreements" will be increasingly used to share evidence. A special challenge is to bring the sometimes arbitrary national antidumping proceedings within the purview of an international antitrust regime. For most developing countries this will imply building organizations and skills in an policy area where significant differences in international practice continue to exist.

Foreign direct investment. The wariness towards foreign investment has declined or even disappeared. The concern now is the opposite: of excessive and wasteful competition in the effort to attract investment. To that end rules are being discussed in different multilateral fora on the

harmonization of rules that reduce discrimination against foreign investors and, at the same time, limit competition for the investment.

The empirical evidence is, however, stubbornly unhelpful in making the case for greater foreign investment. Though some studies show a positive growth or productivity impulse from foreign investment, most continue to show little or no effect (for a recent review, see Blomstrom and Kokko 1997). Also, foreign investment may spur domestic competition only to a limited extent. For example, Malaysia's high levels of foreign investment are limited to key manufacturing sectors with no competitive impact on large parts of the economy, such as financial services and infrastructure delivery.

A level playing-field or "a race to the bottom?" While intellectual property protection is desirable to stimulate innovation, the rapid diffusion of knowledge (once the innovation is in place) raises world welfare. The diffusion of knowledge to poor countries has special merit (particularly where it relates to basic needs such as food and health). Weak protection of intellectual property in developing countries was not seen as a major threat until the mid-1980s when studies of questionable methodology by U.S. government agencies determined that the matter was indeed a serious one. The issue is now moot since most developing countries have signed on to uniform standards negotiated during the course of the Uruguay Round and backed by sanctions available under the WTO.²⁰

The debate on uniformity of standards has moved on two other contentious areas: environmental and labor. The phrase "race to the bottom" applies especially in these contexts. The fear is that countries with lax standards will gain "unfairly" as investors seek these "havens" with low

costs of environmental compliance and cheap labor. Those against common standards argue that diversity is a desirable objective in and of itself and, absent commonly agreed unifying principles, setting universal standards is improper (Bhagwati 1996); moreover, diversity is the source of differences in comparative advantage that generates international trade (Krugman 1997).

Two studies show little evidence of investor preference for locations with lax standards. Levinson (1996) examines investors' stated intentions as well as trade and investment flows to find that low standards at best have a marginal influence in some of the more toxic industries. Multinational firms find it easier to use the same techniques in developing countries as they do in their advanced home countries because they have greater experience with their home techniques. Moreover, the prospects of more stringent standards in the future makes early investment in pollution control equipment cost effective, by reducing the need to replace equipment at a later date. Rodrik's (1996) findings on labor standards are similar. Higher labor standards do result in higher costs of labor. There is also weak evidence that lax labor standards are associated with more labor-intensive exports. However, there is no evidence that higher labor standards deter foreign investment—if anything, countries with low standards deter foreign investors. These findings are consistent with other evidence that foreign investors are concerned about labor quality (Dasgupta, Mody, and Sinha 1997); where labor standards are low, labor quality is unlikely to be high.

But as with intellectual property, the march towards common standards in environmental and labor matters seems inevitable. Particularly for labor standards, the convergence is being driven by

²⁰ The concern has moved in the opposite direction. Intellectual wealth embodied in historical traditions, especially as regards the use of herbs and other indigenous materials for medicinal purposes, may be patented by aggressive international companies. Many view this as an unfair appropriation of knowledge.

“humanitarian” concerns.²¹ Virginia Leary (1996, p. 220) concludes that most “serious advocates, as well as opponents, of a social clause” agree that:

“...certain limitations on trade (or withdrawal of trade benefits) are justifiable in particular circumstances (failure to protect intellectual property, various exceptions listed in Article XX of the GATT), and that freedom of association, prohibition of child labor, and discrimination in employment are fundamental human rights standards which have been nearly universally accepted and should be upheld regardless of economic status.”

In this view, harmonization of detailed work conditions should be pursued through the “moral persuasion” of the International Labor Organization (ILO), but failure to adhere should not be subject to trade sanctions. However, violations of “fundamental workers’ rights” should, for moral reasons, result in limitations on trade. In its recent paper on child labor, the World Bank (1997) concedes the complexity of distinguishing between acceptable and unacceptable child labor and proposes lending and technical assistance to alleviate the problem. Provisions in loan agreements that require the borrower to “undertake to enforce its laws” are appropriate under the Bank’s charter (World Bank 1997). Rodrik (1996) proposes the mechanism of public hearings in which opposing interests would testify on whether fundamental values are indeed being violated in the production of the suspect exports.

Thus, the trends outlined imply new skills within governments to deal with more their complex mandates. Instead of directing private business into particular lines of activity through a variety of incentives, the task at hand is establish transparent rules and to enforce them. Though apparently more straightforward than selective incentives, setting and enforcing competition rules for industry (and more so, as discussed above, for infrastructure) is technically challenging and also requires sectoral expertise. If anything, the greater sensitivity of this new generation of policies to the

²¹ Commenting on child labor, World Bank (1997) says: “International concern, and interest in action is growing, as evidenced by the Amsterdam Child Labor Conference in February 1997 and the Oslo Conference in October.

different industry conditions and forms of market structure probably imply a greater level of industry specific knowledge for regulators to be effective. At the same time, the interface between business and ethics is assuming greater prominence.

Concluding observations

The evolving consensus—though incomplete—implies a reduced role for an activist government. There also is some consensus on the role that remains. The convergence outlined in this paper relates not only to ideas but also to their application in countries at very different economic levels of development.

The new generation of policies emphasizing greater competition and a “level playing-field” are implicitly thought to require less governmental action and hence a smaller amount of governmental human capital. However, there is no basis for such an assumption. Competition policy, for example, requires expertise on a wide variety of sectors. Compounding the problems is the fuzziness in the rules of competition policy. If implementing a 10 percent export subsidy is difficult, imagine the challenge of determining whether a firm is exercising market power or restraining trade. This is not to deny the relevance and importance of a good competition policy but rather to point out that the prospect of the government stepping back or of government agencies acting with reduced discretion may not be so realistic after all.

To keep up with the growing demands of competing in the international economy, East Asian governments and their hitherto sophisticated bureaucracies will need to shift gears and acquire new skills. This may be the time to consolidate the gains from the rapid trade-led growth by focusing on creating a stronger incentive structure for the efficient utilization of resources. Their traditions,

however, are an asset and a handicap. While the potential for adaptation to the new circumstances exists, the inertia from the old and tested ways of doing things may hold them back. Among other developing countries, China may have the wherewithal and the insulation from international pressures to stimulate growth with old-style East Asian instruments. However, China's experiments with regional growth centers may have wider applications.

On any contentious subject, appeal to empirical evidence is of little help. Did import protection "work" in East Asia? How effective were the different export promotion instruments? Did the various East Asian policies complement or work against each other? Or on more recent concerns: is there a "right" balance between competition and cooperation? How will harmonization of investment codes redirect the flows of foreign investment? Where evidence does exist, it seems to play only a limited role in formulating policies (environment and labor standards make virtually no difference to trade and investment flows but the pressure to impose uniform standards and use trade sanctions as the enforcing mechanism continues nevertheless). Perhaps, then, this is the most telling commentary on the swings in industrial policy: industrial policy will be what industrial policy will be. The story is yet to unfold: look out for the next consensus.

References

- Alba, Pedro, Stijn Claessens, and Simeon Djankov. 1998. "Thailand's corporate financing and governance structures." Processed. The World Bank, Washington D.C.
- Amsden, Alice. 1989. *Asia's Next Giant: South Korea and Late Industrialization*. New York and Oxford: Oxford University Press.
- Bhagwati, Jagdish. 1996. "The demands to reduce domestic diversity among trading nations." In Bhagwati, Jagdish and Robert E. Hudec. eds. 1996. *Fair Trade and Harmonization: prerequisites for free trade*. Cambridge, M.A.: The MIT Press.
- Blomstrom, Magnus and Ari Kokko. 1997. "How foreign investment affects host countries." *Policy Research Working Paper 1745*. Washington DC: The World Bank.
- Campos, Jose Edgardo and Hilton L. Root. 1996. *The Key to the Asian Miracle: making shared growth credible*. Washington DC: The Brookings Institution.
- Claessens, Stijn, Simeon Djankov, and Larry Lang. 1998. "East Asian corporates: growth, financing and risks over the last decade." Processed. The World Bank, Washington D.C.
- Collins, Susan M. and Barry Bosworth. 1996. "Economic growth in East Asia: accumulation versus assimilation." *Brookings Papers on Economic Activity* 2: 135-203.
- Dahlman, Carl. 1994. "Technology strategy in East Asian developing economies." *Journal of Asian Economics* 5: 541-572.
- Dasgupta, Susmita, Ashoka Mody, and Sarabajit Sinha. 1997. "Japanese multinationals: motivations and capabilities." *Policy Research Working Paper 1634*. Washington DC: The World Bank.
- Dornbusch, Rudiger. 1992. "The case for trade liberalization in developing countries." *Journal of Economic Perspectives* 6(1): 69-85.
- Egan, Mary Lou and Ashoka Mody. 1992. "Buyer-seller links in export development." *World Development* 20 (3):331-334.
- Finger, Michael. 1997. "GATT experience with safeguards: making economic and political sense of the possibilities that GATT allows to restrict imports." Mimeo. The World Bank.
- Ghemawat, Pankaj and Tarun Khanna. 1998. "The nature of diversified business groups: a research design and two case studies." *Journal of Industrial Economics* XLVI (1): 35-61.
- Goldman, Melvin, et. al. 1997. "Technology institutions and policies: their role in developing technological capability in industry." *World Bank Technical Paper 383*. Washington DC: The World Bank.

Government of Malaysia. 1998. "National Economic Recovery Plan: Agenda for Action." National Economic Action Council, Kuala Lumpur, August.

International Monetary Fund. 1997. *World Economic Outlook*. Washington DC.

International Monetary Fund. 1998. *World Economic Outlook*. Washington DC.

Jacquemin, Alexis. 1994. "Comments on Scherer." In Scherer 1994.

Jones, Leroy. 1987. "Jae-bul and the concentration of economic power in Korean development: issues, evidence and alternatives." In I. SaKong, ed. *Macroeconomic Policy and Industrial Development Issues*. Seoul: Korea Development Institute.

Kaplinsky, Raphael. 1998. "'If you want to get somewhere else, you must run at least twice as fast as that!': the roots of the East Asian crisis." Processed. Institute of Development Studies, University of Sussex, Brighton, U.K.

Khanna, Tarun and Krishna Palepu. 1997. "Why focused strategies may be wrong for emerging markets." *Harvard Business Review* July-August: 41-50.

Kohli, Harinder, Ashoka Mody, and Michael Walton, ed. 1997. *Choices for Efficient Private Provision of Infrastructure in East Asia*. Washington D.C.: The World Bank.

Kim, Eun Mee. 1997. *Big Business, Strong State: Collusion and Conflict in South Korean Development, 1960-1990*. Albany: State University of New York.

Klein, Joel. 1998. "No monopoly on antitrust." *Financial Times* February 13, 1998, p. 24.

Krishna, Kala. 1989. "Trade restrictions as facilitating practices." *Journal of International Economics* 26: 251-70.

Krugman, Paul. 1994. "Myth of Asia's miracle." *Foreign Affairs* 73: 62-78.

Krugman, Paul. 1996. "Making sense of the competitiveness debate." *Oxford Review of Economic Policy* 12: 17-25.

Krugman, Paul. 1997. "What should trade negotiators negotiate about?" *Journal of Economic Literature* 35: 113-120.

Kumar, Anjali. 1993. *State holding companies and public enterprises in transition*. New York: St. Martin's Press.

Lall, Sanjaya. 1998. "Putting knowledge to work." Background paper for the 1998 *World Development Report*. Washington D.C., The World Bank.

- Leary, Virginia. 1996. "Workers' rights and international trade: the social clause (GATT, ILO, NAFTA, U.S. laws)." In Bhagwati and Hudec. eds.
- Lee, Yeon-ho. 1997. *The State, Society, and Big Business in South Korea*. London: Routledge.
- Levinson, Arik. 1996. "Environmental regulations and industry location: international and domestic evidence." In Bhagwati and Hudec. eds.
- Mody, Ashoka. 1990. "Institutions and dynamic comparative advantage: the electronics industry in South Korea and Taiwan." *Cambridge Journal of Economics* 14: 291-314.
- Mody, Ashoka and Kamil Yilmaz. 1997a. "Is there persistence in the growth of manufactured exports? Evidence from newly industrializing countries." *Journal of Development Economics* 53: 447-470.
- Mody, Ashoka. ed. 1997b. *Infrastructure Strategies in East Asia: the untold story*. Washington D.C.: The Economic Development Institute, The World Bank.
- Nogues, Julio. 1990. "The experience of Latin America with export subsidies." *Weltwirtschaftliches Archiv* 126(1): 97-115.
- Nordhaus, William D. 1997. "Traditional productivity estimates are asleep at the (technological) switch." *Economic Journal* 107 (September): 1548-1559.
- Pack, Howard. 1994. "Endogenous growth theory: intellectual and empirical shortcomings." *Journal of Economic Perspectives* 8(1): 55-72.
- Pack, Howard and John Page. 1994. "Accumulation, exports, and growth in the high-performing Asian countries." *Carnegie-Rochester Series on Public Policy* 40: 199-236.
- Prowse, Stephen. 1998. "Corporate governance: emerging issues and lessons from East Asia." Washington D.C.: The World Bank Group.
- Roberts, Mark and James Tybout. 1992. "Sunk costs and the decision to export in Colombia." mimeo. Pennsylvania State University and Georgetown University.
- Rodrik, Dani. 1993. "Taking trade policy seriously: export subsidization as a case study in policy effectiveness." National Bureau of Economic Research, Cambridge, MA., Working Paper 4567.
- Rodrik, Dani. 1996. "Labor standards in international trade: do they matter and what do we do about them?" In Lawrence, Robert Z., Dani Rodrik, and John Whalley. 1996. *Emerging Agenda for Global Trade: high stakes for developing countries*. Policy Essay 20. Washington, D.C., Overseas Development Council.

- Rodrik, Dani. 1997. "The 'paradoxes' of the successful state." *European Economic Review* 41: 411-442.
- Sachs, Jeffery and Andrew Warner. 1995. "Economic reform and the process of global integration." *Brookings Papers on Economic Activity* 1: 1-118.
- Scherer, F. M. 1994. *Competition Policies for an Integrated World Economy*. Washington, DC: The Brookings Institution.
- Stiglitz, Joseph E. 1996. "Some lessons from the East Asian Miracle." *The World Bank Economic Observer* 11 (2): 151-177.
- Syrquin, Moshe. 1986. "Productivity growth and factor reallocation." In Hollis Chenery, Sherman Robinson, and Moshe Syrquin. *Industrialization and Growth: a comparative study*. Published for the World Bank by Oxford University Press.
- Wade, Robert. 1990. *Governing the Market: Economic Theory and the Role of the Government in East Asian Industrialization*. Princeton, N.J.: Princeton University Press.
- Williamson, Oliver. 1975. *Markets and Heirarchies*. New York: The Free Press.
- World Bank. 1993. *The East Asian Miracle: Economic Growth and Public Policy*. New York: Oxford University Press.
- World Bank. 1994. *World Development Report: Infrastructure for Development*. New York: Oxford University Press.
- World Bank. 1997. *Child Labor: Issues and Directions for the World Bank*. Human Development Network, Social Protection Group, The World Bank, Washington D.C.
- Wu, Rong-I and Yun-Peng Chu. Editors. 1998. *Business, Markets and Government in the Asia Pacific*. London: Routledge.
- Yamamura, K. 1986. "Caveat Emptor: the Industrial Policy of Japan." In Paul Krugman. ed. *Strategic Trade Policy and the New International Economics*. Cambridge, MA: The MIT Press.
- Young, Alwyn. 1995. "The tyranny of numbers: confronting the statistical realities of the East Asian growth experience." *Quarterly Journal of Economics* 110(3): 641-680.

Table 3: Provision of infrastructure: East Asia races ahead

Country	Electric power generation (millions of kilowatts per 100 persons)			Telephone connections (number of connections per 100 persons)			1970
	1970	1992	Annual growth rate, 1970- 92 (percent)	1975	1993	Annual growth rate, 1975- 93 (percent)	
Hong Kong	34.0	154.0	13.4	6.7	51.0	11.9	23.0
Japan	66.1	165.4	8.0	30.8	46.8	2.4	146.1
Korea, Rep. of	8.8	61.7	17.6	4.0	37.8	13.3	11.5
Malaysia	8.7	36.0	12.5	1.6	12.6	12.2	143.1
Singapore	31.0	126.8	12.4	12.3	43.5	7.3	58.3
Thailand	3.7	22.1	16.0	0.6	3.7	10.9	27.0
Brazil	11.8	35.8	9.7	2.2	7.5	6.9	53.1
Chile	22.9	35.4	3.7	3.0	11.0	7.5	79.1
Ghana	7.7	7.5	-0.2	0.3	0.3	-0.7	53.6
India	3.0	9.2	9.9	0.2	0.9	7.6	59.3

Source: Ashoka Mody ed. 1997. " *Infrastructure Strategies in East Asia: the untold story* ." Washington D.C.: The World Bank.