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LIMITS OF STATE STRENGTH

Toward an Institutional View of Economic Development

By RICHARD F. DONER*

I. INTRODUCTION

UNTIL the 1980s, political scientists and sociologists studying economic development attempted to explain why growth did not occur, occurred slowly, or occurred in a distorted, dependent form. The impressive economic performances of the East Asian newly industrialized countries (NICs) have changed this. Many noneconomists (as well as some economists) are now focusing on the political bases of development rather than underdevelopment.

There are differences among these analysts. Some distance themselves from neoclassical economics by emphasizing the importance of "getting the prices wrong"; others acknowledge the utility of market-conforming policies.¹ But common to recent studies of NICs is the belief that growth-promoting economic policies require certain types of domestic political institutions. Analysts have emphasized the utility of strong states in this regard.² Through an analysis of efforts to promote local auto manufacturing in Southeast as well as East Asia, this article argues for an institutional approach to development that goes beyond statism.

The resolution of collective action problems is central to statist writings. Development requires that private returns to individual activities be brought in line with the broader needs of national development.³ Two factors are presumed to obstruct such harmonization in developing

* The author would like to thank the following for useful comments on this paper: Michael Giles, Bill Liddle, Randall Strahan, and especially Greg Noble.

¹ On "getting the prices wrong," see Alice Amsden, *Asia's Next Giant: South Korea and Late Industrialization* (Cambridge: Oxford University Press, 1989), chap. 6. For a "modified neoclassical view," see Stephan Haggard, *Pathways from the Periphery: The Politics of Growth in the Newly Industrializing Countries* (Ithaca, N.Y.: Cornell University Press, 1990), 15.

² See, for example, Robert Wade, "The Role of Government in Overcoming Market Failure: Taiwan, Republic of Korea and Japan," in Helen Hughes, ed., *Achieving Industrialization in East Asia* (New York: Cambridge University Press, 1988); and Richard Luedde-Neurath, *Import Controls and Export-Oriented Development: A Reassessment of the South Korean Case* (Boulder, Colo.: Westview Press, 1986).

³ Mancur Olson, *The Rise and Decline of Nations* (New Haven: Yale University Press, 1982); Douglass C. North and Robert Paul Thomas, "An Economic Theory of the Growth of the Western World," *Economic History Review* 22, no. 1 (1970).

countries. One is the weaknesses of local capitalists. Entrepreneurs in developing countries are presumed to be either co-opted by foreign capital or largely inefficient. In the former case, the state must shoulder the burden of pursuing the national interest.⁴ In the latter, the state can empower the more efficient firms while facilitating a general shift away from rent-seeking and speculative behavior and toward capital accumulation.⁵

Conflicting policy goals and corresponding economic interests constitute the second factor seen to be an obstacle to development. For example, less developed countries (LDCs) need undervalued exchange rates to raise exports but overvalued exchange rates to lower the cost of foreign debt repayment and imports.⁶ As implementation studies suggest, the distributional consequences of contending policies and related reforms make the trade-off between individual and collective benefits especially difficult to reconcile.⁷

States may be defined as those institutions of elected and appointed officials directly responsible for formulating and implementing public policy. States are considered to be strong if they exhibit at least two features necessary to resolve collective action problems. First, they should be insulated from societal forces. Insulation permits officials to formulate policy and to mediate the influence of foreign capital independently of powerful distributional coalitions. Second, they should be sufficiently well organized to implement coherent policies. High levels of internal cohesion and centralization are presumed necessary if principal-agent and collective action problems within the state are to be overcome.

But recent studies have suggested questions about and qualifications to the approach. One set of questions concerns the purported organizational features of strong states. While institutional configurations of states in South Korea and Taiwan indicate internal cohesion, case studies reveal coalitions, preference differences, and decentralization of decision

⁴ See, e.g., Gary Gereffi, *The Pharmaceutical Industry and Dependence in the Third World* (Princeton: Princeton University Press, 1983), 48; Douglas C. Bennett and Kenneth E. Sharpe, *Transnational Corporations versus the State: The Political Economy of the Mexican Auto Industry* (Princeton: Princeton University Press, 1983); and Stephen J. Kobrin, "Testing the Bargaining Hypotheses in the Manufacturing Sector in Developing Countries," *International Organization* 41 (Autumn 1987), 186.

⁵ Stephan Haggard, "The Politics of Industrialization in the Republic of Korea and Taiwan," in Hughes (fn. 2), 264; Amsden (fn. 1), 23.

⁶ Amsden (fn. 1), 13. See also Wade (fn. 2). On economic policy reforms as collective action problems, see Haggard (fn. 1), 261-62.

⁷ Merilee S. Grindle, "Policy Content and Context in Implementation," in Grindle, *Politics and Policy Implementation in the Third World* (Princeton: Princeton University Press, 1980), 8-10.

making within these states.⁸ There is also variation in *nic* state structures that leads to cross-national differences in policy instruments and economic strategies as well as intrastate differences in behavior across social sectors and issue-areas.⁹ Finally, there is no guarantee that centralized structures lead to policy cohesion.¹⁰

A second set of questions concerns the utility of strong state preferences as well as the actual existence of such preferences. Autonomously developed preferences may reflect and enhance predatory behavior by state officials; instead of promoting innovations and productivity increases, such behavior can exacerbate informational difficulties.¹¹ Also, policy preferences of officials in ostensibly strong states may in fact reflect coalitional dynamics rather than independently developed policy options.¹²

Finally, there are questions as to the ability of even strong states to sustain policy implementation over time. Prior state commitments may be hard to break because they have generated powerful societal interests demanding the maintenance of such commitments; and economic reforms undertaken by state officials may weaken the state's coalitional base and thus subsequent efforts to impose its preferences.¹³

This study extends the critique of statism through a comparison of automobile industrialization efforts in five countries of East and South-east Asia—South Korea, Indonesia, Malaysia, the Philippines, and Thailand. I seek to explain variation in performance as measured by localization and exports. Section II of the study examines the five countries' goals and achievements in the automobile industry, the entry barriers facing them, and some alternative explanations for divergent performances.

Performance is in part a function of preferences expressed in the policy formulation process. Section III explores the nature and impact of public and private sector automobile policy preferences and evaluates the

⁸ Chung-In Moon, "Beyond Statism: Rethinking the Political Economy of Growth in South Korea," *International Studies Notes* 15 (Winter 1990), 24–27; and Gregory W. Noble, "Contending Forces in Taiwan's Economic Policymaking," *Asian Survey* 27 (June 1987).

⁹ Noble (fn. 8); Yun-han Chu, "State Structure and Economic Adjustment of the East Asian Newly Industrializing Countries," *International Organization* 43, no. 4 (1989).

¹⁰ Dennis Encarnation and Louis T. Wells, "Sovereignty en Garde: Negotiating with Foreign Investors," *International Organization* 39 (Winter 1986).

¹¹ North and Thomas (fn. 3), 10.

¹² Haggard (fn. 1), 264–65.

¹³ G. John Ikenberry, "The Irony of State Strength: Comparative Responses to the Oil Shocks in the 1970s," *International Organization* 40 (Winter 1986); and Chung-In Moon, "The Demise of a Developmentalist State? Neoconservative Reforms and Political Consequences in South Korea," *Journal of Developing Societies* 4 (October 1988).

statist assumption that the influence of local firms co-opted by foreign capital must be offset by the economic nationalism of state officials.

An even more powerful explanation of performance is the ability to resolve collective action problems that emerge during policy implementation. As discussed in Section IV, these problems include the reduction of excess capacity through rationalization; the procurement of inexpensive and technologically appropriate foreign resources; the improvement of local technological capacities; and the reconciliation of both upstream and downstream interests.

Such problems can be resolved by institutions—arrangements between units that go beyond arms-length relationships to define and specify “the ways by which these units can cooperate or compete.”¹⁴ States are certainly one such institution. But by using functionally demanding problems rather than specific actors as the starting point of my investigation, I seek to show that statism is not analogous to, but rather a component of, an institutionalist approach to development.¹⁵ I thus argue for a broader institutionalism that (1) incorporates private sector and public sector arrangements, (2) appreciates the coalitional bases of such arrangements, and (3) recognizes the utility of combining political support for local firms with pressure on them to conform to market forces.

An understanding of the roles of private entrepreneurs in the industrialization process is necessary to such an approach. Section V explores variation in private sector preferences and abilities to resolve collective action problems. Section VI reviews the institutional approach and identifies its benefits.

II. CHALLENGES OF AUTOMOBILE MANUFACTURE IN ASIA

South Korea, Indonesia, Malaysia, the Philippines, and Thailand all initiated local auto production in the 1960s and early 1970s. Each hoped to expand local content—the percentage of each vehicle actually manufactured domestically. Efforts to increase exports followed, earlier for the Philippines and South Korea, later for the other three countries. As shown in Tables 1 and 2, the cross-national results of these efforts have been uneven as measured by levels of localization and exports. South Korea has been the developing world's automotive success story, while Thailand has been Southeast Asia's best performer.¹⁶

¹⁴ North and Thomas (fn. 3), 5. On the distinction between formal and informal institutions, see Johan Myhrman, “The New Institutional Economics and the Process of Economic Development,” *Journal of Institutional and Theoretical Economics* 145 (March 1989), 50–51.

¹⁵ For an explicit identification of statism with institutionalism, see Haggard (fn. 1), 43.

¹⁶ For more critical views of South Korean automotive performance, see James P. Wo-

TABLE 1
AUTOMOTIVE LOCALIZATION LEVELS
(PERCENTAGE)^a

	Indonesia	Malaysia	Philippines	Thailand	S. Korea
1966-69	5	n.a.	n.a.	n.a.	21
1972-74	10	n.a.	25	11-15	60
1977-80	n.a.	10	30	30-35	n.a.
1981-84	45-49	n.a.	n.a.	35	92
1985-89	n.a.	50	35	60-65	90+

SOURCES: Indonesia: Chalmers (fn. 29), 5. Philippines: Susumu Watanabe, *Technical Cooperation between Large and Small Firms in the Filipino Automobile Industry* (Geneva: International Labor Organization, 1979), 56; Economist Intelligence Unit, *The ASEAN Motor Industry* (London: EIU, July 1985), 37; and interviews. Thailand: "Chaos Reigns in the Automobile Industry," *Financial Post* (Bangkok), October 26, 1973; *Business in Thailand*, April 1981, pp. 46, 78; "YMC Exceeds Local Content Requirement," *Bangkok Post*, December 9, 1987, p. 19; and "Saphawa Patchupan Khong Utsahakaam Rot Yon" (Present conditions of the automobile industry) (Bangkok: Industrial Economics Department, Ministry of Industry, August 1988). Malaysia: Jeffrey Segal, "Ambition on Wheels," *Far Eastern Economic Review*, December 24, 1982, p. 33; interviews; and "Proton's Task in Car Parts Industry," *Star* (Kuala Lumpur), June 9, 1989. Korea: Amsden and Kim (fn. 33), 3; and Economist Intelligence Unit, "Hyundai and the South Korean Motor Industry," *Japanese Motor Business* (n.d.), 82.

^a Percentages reflect localization for those vehicles that occupy the largest market niche and are targeted for localization (e.g., pickup trucks in Thailand, commercial vehicles in Indonesia, national car in Malaysia, passenger vehicles in South Korea).

At first glance, this variation in performance might be explained by domestic economic features, historical influences, the external automotive context, and/or state strength. A large (or potentially large) domestic market might be assumed attractive to TNCs and thus enhance host country leverage. Yet there is little correlation between performance, on the one hand, and human population or size and predicted growth of domestic vehicle market, on the other (Table 3). Nor do cross-national differences in existing industrial bases seem to provide adequate explanations. As late as the 1960s, Philippine engineering and metalworking firms were the most advanced in East Asia, and in 1979 industrial expertise in the Philippines was ranked on a par with that of Singapore and superior to that of the other three Southeast Asian countries.¹⁷ By the late

mack, Daniel T. Jones, and Daniel Roos, *The Machine That Changed the World* (New York: Rawson Associates, 1990), 261-63. For general background on initial auto policy measures of each of the five countries, see Konosuke Odaka, *The Motor Vehicle Industry in Asia* (Singapore: Singapore University Press, 1984); Richard F. Doner, *Driving a Bargain: Automobile Industrialization and Japanese Firms in Southeast Asia* (Berkeley: University of California Press, 1991), chap. 4; Economist Intelligence Unit (EIU), *The ASEAN Motor Industry* (London: Economist Intelligence Unit, 1984); Economist Intelligence Unit, "Thailand: Japan's Components Satellite?" *Japanese Motor Business*, no. 12 (June 1987); and Jong Gook Back, "Politics of Late Industrialization: The Origins and Processes of Automobile Industry Policies in Mexico and South Korea" (Ph.D. diss., University of California, Los Angeles, 1990).

¹⁷ T. W. Allen, *The ASEAN Report* (Hong Kong: Asian Wall Street Journal, 1979), 1:140-41.

TABLE 2
 AUTO PART EXPORTS FROM EAST AND SOUTHEAST ASIA
 (MILLIONS OF U.S. DOLLARS)

	<i>Indonesia</i>	<i>Malaysia</i>	<i>Philippines</i>	<i>Thailand</i>	<i>S. Korea</i>
1977	.10	1.5	6.7	1.4	3.1
1980	2.7	2.0	23.3	7.1	15.8
1984	.13	4.2	25.0	9.5	50.8
1985	.18	3.7	20.9	11.4	92.9
1987	n.a.	n.a.	n.a.	27.1	n.a.
1988	7.0	n.a.	n.a.	41.6	n.a.
1989	n.a.	n.a.	n.a.	50.0	n.a.

SOURCES: UN *Commodity Trade Statistics*, various years, except for Thai export figures for 1987-89, which come from Thai Ministry of Commerce data gathered by the author, and Indonesian figures for 1988, which are drawn from *Swasembada*, July 1988, 47, cited in Chalmers (fn. 29), 19 n. 14.

TABLE 3
 INDICATORS OF DOMESTIC AUTOMOBILE MARKET SIZE

<i>Country</i>	<i>Population in 1985 (millions)</i>	<i>Vehicles in 1980 (thousands)</i>	<i>Population per Vehicle in 1980</i>	<i>Predicted Annual Growth of Vehicle Population, 1982-95 (percentage)</i>
Indonesia	165.2	1,195	127.0	11.0
Malaysia	15.7	730	19.0	7.7
Philippines	54.7	1,050	46.0	9.2
Thailand	51.3	931	50.0	9.4
South Korea	41.1	528	74.0	11.4

SOURCES: Asian Development Bank, *Key Indicators of Developing Member Countries of ADB*; and Bittlingmayer (fn. 23), Table 2.

1980s the Philippine auto industry found itself at the "bottom of the ASEAN heap."¹⁸

South Korea did of course benefit from the industrial legacy of Japanese colonialism and automobile repair operations stemming from the Korean War.¹⁹ But the Philippine auto industry also expanded as a result of military conflict. Both World War II and the Vietnam War created market opportunities for Philippine auto parts firms and producers of modified jeeps left behind by U.S. forces.

The external context also does not explain different outcomes, since

¹⁸ *Far Eastern Economic Review*, April 20, 1989, p. 48. ASEAN refers to the Association of Southeast Asian Nations comprising the Philippines, Malaysia, Indonesia, Thailand, Singapore, and Brunei.

¹⁹ Note, however, that the division of Korea deprived the South of many of the major industries developed by the Japanese. Back (fn. 16), 99.

all five countries encountered similar entry barriers and dealt with the same set of auto TNCs. All of these countries initiated auto production in the late 1960s or early 1970s, a period when the industry's standardization and tendency toward "world car" production seemed hospitable to the relocation of auto manufacturing to LDCs.²⁰ During the 1970s, however, all faced rising entry barriers. Increased capital intensity and pressures on assemblers to keep production facilities close to home-based research and development operations and domestic parts suppliers reduced the allure of cheap labor. Especially important were Japanese manufacturing innovations that reduced minimum efficient economies of scale and required short-term delivery schedules from dependable suppliers, few of whom were found in the developing world. Shorter production runs also made it more difficult for LDC parts makers to master basic production technologies.²¹

Yet the external context also offered certain opportunities to each of the five countries. Contrary to expectations that increasing costs would lead to the demise of all but a few large firms, the international auto industry remained highly competitive. Particularly intense rivalry among Japanese automakers spilled over into export markets, especially Southeast Asia, and provided host countries with the opportunity to play assemblers off against one another.²² Also, the impressive growth rates of East and Southeast Asia constituted a significant attraction for automobile assemblers whose domestic growth rates were slowing down. General System of Preference rules and the yen's appreciation make several of these countries attractive as platforms for the production and export of parts and vehicles to North America and Western Europe.²³ The Japanese firms' strength in flexible manufacturing allowed them to enter

²⁰ In Asia, the tendency toward relocation took the form of a Ford-initiated regional production scheme in which the Philippines would play a major role. See Harold C. Livesay, "The Philippines as an Example of the Ford Motor Company's Multinational Strategy," in Norman G. Owen, ed., *The Philippine Economy and the United States: Studies in Past and Present Interactions*, Michigan Papers on Southeast Asia, no. 22 (Ann Arbor: Center for South and Southeast Asian Studies, University of Michigan, 1983). On the industry's general maturation, see Ben Dankbaar, "Maturity and Relocation in the Car Industry," *Development and Change* 15 (September 1984); Alan Altshuler et al., *The Future of the Automobile* (Boston: MIT Press, 1984).

²¹ On Japanese manufacturing process innovations, see Womack (fn. 16); Michael Cusumano, *The Japanese Automobile Industry: Technology and Management at Nissan and Toyota* (Cambridge: Harvard University Press, 1985).

²² On the sources of interfirm rivalry in Japan, see William Duncan, *U.S.-Japan Automobile Diplomacy: A Study in Economic Confrontation* (Cambridge, Mass.: Ballinger, 1973).

²³ On overall growth rates, see George Bittingmayer, *World Auto Demand* (Ann Arbor: Joint U.S.-Japan Automotive Study, University of Michigan, 1983). On the role of Southeast Asia as insurance for Japanese automakers, see David E. Sanger, "As U.S. Auto Makers Shut Plants, Toyota Is Expanding Aggressively," *New York Times*, January 1, 1991, pp. 1, 35.

and adapt to even small markets. Under these conditions, the five countries under study had no trouble attracting a constant stream of assemblers willing to make formal commitments to increased localization. The five countries also benefited from the overseas operations of parts firms willing to share automotive technology independently of the auto assemblers. And finally, despite the technological rejuvenation of their auto industries, each of the five had the potential of exploiting older, standardized production processes and products.

A more plausible explanation for variation in performance is institutional and political—namely, state strength. South Korea has been led by an autonomous and organizationally capable group of state officials. States in the Southeast Asian countries, on the other hand, are decidedly “softer,” less capable of making and implementing decisions independently of business and other social forces.²⁴ Yet the state strength argument falls short. The state in Thailand, Southeast Asia’s best automobile performer, is far from the region’s most autonomous, cohesive, or expert. Excluding Singapore (usually classified as a NIC), that distinction belongs to Malaysia.²⁵ Further, if the state strength argument is correct, we should expect to find auto policy achievements resulting from the initiatives and resources of government officials. But policy successes have reflected a much more complex set of public and private interests, even in strong-state South Korea. This is illustrated by the nature of state and private sector preferences regarding local auto manufacture, and by the role of state and private sectors in efforts to implement localization.

III. PREFERENCES ON LOCAL CONTENT

The process of obtaining TNC commitments to local content in the four Southeast Asian countries has been analyzed elsewhere and can be summarized briefly.²⁶ Localization began as state-led initiatives in the late 1960s and early 1970s. Officials granted TNCs access to the local market in exchange for commitments to gradual increases in local procurement of auto parts. These state initiatives were prompted by a variety of factors including the pursuit of nationalist import substitution policies, the de-

²⁴ See the essays in Hughes (fn. 2); and Donald K. Crone, “State, Social Elites, and Government Capacity in Southeast Asia,” *World Politics* 40 (January 1988).

²⁵ Harold Crouch, *Domestic Political Structures and Regional Economic Co-Operation* (Singapore: Institute of Southeast Asian Studies, 1984).

²⁶ Unless otherwise noted, this summary is drawn from Odaka (fn. 16); Doner (fn. 16); and Ian Chalmers, “Economic Nationalism and the Third World State: The Political Economy of the Indonesian Automotive Industry, 1950–84” (Ph.D. diss., Australian National University, 1988).

sire to save foreign exchange, and the wish to participate fully in a regional auto complementation program.²⁷

With some cross-national and intranational variation, local private firms soon became advocates of and participants in the localization programs. State officials throughout Southeast Asia consulted with domestic firms to obtain technical advice and/or political backing. By the late 1970s and early 1980s, local private sector pressure for localization expanded and began to match that of state officials. This pattern was in part the result of a continuing desire for access to expanding auto markets.²⁸ But it also reflected the weight of sunk investment. Having established production facilities, local firms fought to maintain and at times to expand localization targets. In some cases they were joined by the auto TNCs anxious to defend their own sunk investments or, as in the case of Mitsubishi's support for the Malaysian "national car," the investments of the broader home-based conglomerate. In sum, auto investments developed their own dynamic of local and even external support.²⁹

As noted, there has been some variation in this dynamic. In the Philippines, Malaysia, and Thailand the strongest backing for localization has come from local parts firms, a finding directly at odds with the assertions of dependency-oriented bargaining analysts.³⁰ Many of these firms began manufacturing replacement parts and were eager to expand into the original equipment market. Philippine parts suppliers were strong advocates of local manufacture but, due to the Marcos regime's relative insulation from most local firms, were not as successful at translating their preferences into policy as were their Malaysian and Thai counterparts.³¹ In Malaysia, private sector localization efforts were overshadowed by the state's national car project. The project was initiated in 1982 in part to strengthen the economic position of the ethnic Malay majority (60 percent of the population) vis-à-vis the economically powerful Chinese (30 percent of the population). Yet even here, local parts

²⁷ Evans Young, "Development Cooperation in ASEAN: Balancing Free Trade and Regional Planning" (Ph.D. diss., University of Michigan, 1981).

²⁸ The number of vehicles assembled locally went in Indonesia from 17,600 in 1971 to 108,600 in 1978 to 153,600 in 1984; in Malaysia from 25,000 in 1969 to 88,600 in 1979 to 124,000 in 1984; in the Philippines from 20,100 in 1969 to 52,900 in 1979 to 41,600 in 1983; and in Thailand from 11,700 in 1969 to 88,800 in 1979 to 110,700 in 1984. Figures from Doner (fn. 16), Table 3.10.

²⁹ For the Thai case, see Patcharee Thanamai, "Patterns of Industrial Policymaking in Thailand: Japanese Multinationals and Domestic Actors in the Automobile and Electrical Appliance Industries" (Ph.D. diss., University of Wisconsin, Madison, 1985). For Indonesia, see Ian Chalmers, "The Erosion of Nationalist Automotive Development Policy" (Paper presented at a conference on Economic Policy-Making in Indonesia, Bali, September 6-9, 1990).

³⁰ Bennett and Sharpe (fn. 4), 262.

³¹ Doner (fn. 16), chap. 5.

firms, most of which were owned by ethnic Chinese, were the primary source of pressure on Mitsubishi to ensure that the national car actually used parts from Malaysian firms.

In Indonesia, support for localization came not from parts firms but from those local assemblers able to afford it—the large business groups. Most of the latter were Chinese-owned, as opposed to ethnic Indonesian-owned, and were linked to Japanese capital. Assemblers were the more active proponents of localization in Indonesia, in part due to the general weakness of smaller firms and in part due to the fact that high-volume sales to the oil-rich Indonesian government held out the potential of efficient scale economies. Also critical was the fact that two of the larger assemblers belonged to business groups owned by Chinese, the ethnic group that dominates the economy but numbers less than 5 percent of the population. Compliance with localization measures was one way for Indonesian Chinese to prove their nationalist credentials in a country where ethnic tensions ran high.³²

The South Korean experience is consistent with the Southeast Asian pattern of state localization initiatives followed by expanding private sector participation and pressure. The state set ambitious state localization targets (100 percent set in 1969 and again in 1974) as well as developing numerous supporting measures, discussed below.³³ While these were important, the role of South Korean firms was just as significant. A 1962 effort by the head of the Korean CIA to assemble Nissan vehicles collapsed in 1963, in part due to protests from Korean auto parts manufacturers that the import of auto parts from Nissan would rapidly eradicate their home market.³⁴ A subsequent attempt by the Park Chung Hee government to consolidate the industry around one firm, Sinjin, as an assembler of Toyotas was also blocked by other Korean firms. Hyundai and others objected to Sinjin's monopoly and argued that the firm was too reliant on Toyota to manufacture a Korean car that would have many locally made components.³⁵

Hyundai subsequently took the lead in the fight for localization. It had assembled Cortinas with Ford since the late 1960s, but in 1972 broke off talks with Ford to build an engine plant. Hyundai insisted that the

³² Chalmers (fn. 26), 15–16, 19.

³³ Information on state policy initiatives is found in Chuk Kyo Kim and Chul Heui Lee, "Ancillary Firm Development in the Korean Automobile Industry," in Odaka (fn. 16), 287–93; Back (fn. 16); and Alice Amsden and Linsu Kim, "The Role of Transnational Corporations in the Production and Exports of the Korean Automobile Industry" (Boston: Harvard Business School Working Paper, 1985).

³⁴ Back (fn. 16), 119.

³⁵ *Ibid.*, 127.

venture produce Korean cars for export, while Ford wanted the venture to feed only into its own world sourcing network. Hyundai's efforts to maintain operational control contrasted not only with the more compliant positions of Sinjin and Daewoo in contract talks with GM, but also with the general position of the South Korean government. The government, concerned with maintaining the U.S. security presence after the Nixon Doctrine was announced, encouraged Hyundai to cooperate with Ford and pushed Sinjin to accept GM's terms.³⁶

Hyundai adopted a similarly independent stance in its 1980 negotiations with GM-Daewoo.³⁷ Following the second oil crisis the government attempted to promote greater economies of scale by encouraging a merger between GM-Daewoo and Hyundai. The latter blocked the deal because GM refused to cede control to the Korean firm: "GM wanted Korea to be one site for production of GM 'world cars' while Hyundai was adamant on continuing to produce a 'Korean car' for domestic and export markets."³⁸ By this time, Hyundai had already begun successful production and sale of its Pony and had designed plans for a new model, the Pony Excel, for export. Hyundai embarked upon the Excel project with minimal state support.³⁹

In sum, the East and Southeast Asian cases suggest that, over time, host country capitalists are as "nationalistic" as state officials. This does not, however, constitute an explanation for divergent levels of auto manufacturing. For one thing, cross-national variation in overall levels of economic nationalism is difficult to assess. More important, actual performance reflects national ability to implement formal commitments as much as to obtain them.

IV. IMPLEMENTATION, EFFICIENCY, AND COLLECTIVE ACTION PROBLEMS

Foreign auto assemblers often agree to support ambitious localization programs but subsequently attempt to lower original targets by arguing (often with justification) that local firms are too inefficient to meet original equipment requirements. In Southeast Asia this results in almost daily renegotiation of auto policies.⁴⁰

³⁶ Ibid., 138.

³⁷ Sinjin linked up with GM in 1972 and became GM-Korea after Toyota opted to concentrate on the China market. The firm changed its name to Saehan in 1977 but became Daewoo in 1982. Daewoo had bought out Sinjin's shares in 1978 after low profits depleted Sinjin's finances.

³⁸ Amsden and Kim (fn. 33), 5.

³⁹ Back (fn. 16), 185-86.

⁴⁰ Neil Hood and Stephen Young, "The Automobile Industry," in Stephen E. Guisinger and Associates, *Investment Incentives and Performance Requirements* (New York: Praeger, 1985), 156.

Implementing localization thus demands that host country firms become more efficient. They must be capable of providing necessary inputs for final manufacture at the quality and price required by the foreign firms whose brand is being produced and perhaps exported. Doing this involves a number of important but difficult tasks that entail the provision or diffusion of goods—positive externalities or public goods—necessary to national development.⁴¹ Such goods are often difficult to provide because, despite their probable contribution to industrial growth, the market (price mechanism) alone provides insufficient basis for their supply. Individuals have little incentive to express demand for these goods because they are difficult to price or market.

Market failures of this type can occur for several reasons. Underdeveloped factor markets may impede information flows and thus raise the transaction costs of providing such goods beyond the capacity of individual firms.⁴² The production costs of a good may also exceed the capacities of individual firms. Further, the lack of established property rights may mean that the benefits of such goods cannot be appropriated by potential producers. And finally, even if it is capable of providing a good, a firm may be discouraged from doing so by the fear of free riders.

The problem here is not one of nationalist preferences. It is rather one of market failure where individuals agree on the need for a good but cannot or will not provide it because of the problems outlined above. Such collective action dilemmas often justify state intervention. Below, I examine four general implementation tasks as collective action problems and argue that the state constitutes one but not the only institution capable of resolving such problems.

RATIONALIZATION: INCREASING ECONOMIES OF SCALE

Intense competition among a large number of auto TNCs that produce numerous, rapidly changing models has led to market fragmentation in

⁴¹ For the purposes of this paper, I generally refer to externalities and public goods as analogous phenomena. It is important to note, however, that they are distinguished by two factors: their intentionality and the uniformity of their consequences. The impact of a public good is intentional, whereas an externality occurs when the consumption or production activity of one individual or firm has an unintended impact on the production of another individual or firm. Also, a public good is one that "must be provided in equal quantities to all members of the community," whereas the positive or negative externality "consumed by the second parties may differ from that consumed by the direct purchaser." Dennis C. Mueller, *Public Choice II* (New York: Cambridge University Press, 1989), 25, 27.

⁴² The distinction between transaction and information costs is fuzzy at best. The former refer to the costs of running the economic system and are "the economic equivalent of friction in physical systems." See Oliver E. Williamson, *The Economic Institutions of Capitalism* (New York: Free Press, 1985), 18–19. The latter may be understood as a subset of transaction costs. See Johan Myhrman, "The New Institutional Economics and the Process of Economic Development," *Journal of Institutional and Theoretical Economics* 45 (1989), 43.

most LDC auto industries. The large number of assembly plants results in tremendous excess capacity. Multiple makes and models mean short production runs, uncertain demand, and more difficult learning curves for host country parts and component producers. The price of localization rises and the quality of locally produced goods stays low.⁴³

This fragmentation should be vulnerable to rationalization by ordinary market mechanisms. As assemblers are forced to meet more demanding localization targets, those with higher cost structures and low volume should be driven out of the market by rising costs, declining sales, and shrinking financing. Indeed, most assemblers agree that a reduction of makes and models would yield important externalities in the form of longer production runs, lower unit costs, and more rapid mastery of technology.

But such "normal" cost calculations are rarely operative.⁴⁴ The Japanese hold tenaciously even to low-volume market niches, due to their rivalry with other Japanese firms; a belief in the long-term growth potential of Asian auto markets; extensive financial reserves; the adaptability of new production processes to fragmented markets; and cross-financing, in which higher volume/high profit models subsidize losses from low volume/low profit models.⁴⁵ On the host country side, local groups involved in auto assembly often have sufficient political influence to resist exclusion. Such influence, combined with national commitments to import substitution, maintain tariffs that make auto assembly lucrative. The industry's profitability is further enhanced by the fact that the assemblers often do not have to meet official localization targets. In what becomes a vicious cycle, they claim that localization is impossible due to market fragmentation.

In response, developing countries in Asia have attempted to expand economies of scale by (1) imposing limits on the number of makes, the number of models, and the frequency of model changes, and/or (2) pro-

⁴³ On the problem in Latin America, see Rhys Jenkins, *Dependent Industrialization in Latin America: The Automotive Industry in Argentina, Chile and Mexico* (New York: Praeger, 1977). For Asia, see also Susumu Watanabe, *Technical Cooperation between Large and Small Firms in the Filipino Automobile Industry* (Geneva: International Labor Organization, 1979); Roger Tang, "The Automobile Industry in Indonesia," *Colombia Journal of World Business* (Winter 1988); Back (fn. 16); and EIU (fn. 16).

⁴⁴ Gregory W. Noble, "Between Competition and Cooperation: Collective Action in the Industrial Policy of Japan and Taiwan" (Ph.D. diss., Harvard University, 1988), 19-20.

⁴⁵ On production techniques, see Kurt Hoffman and Raphael Kaplinsky, *The Global Restructuring of Technology, Labor, and Investment in the Automobile and Components Industry* (Boulder, Colo.: Westview Press, 1988); and Womack et al. (fn. 16). On home-based rivalries, see Duncan (fn. 22). On the financial strength and long-term profit horizons of Japanese assemblers, see Martin Anderson, "Financial Restructuring of the World Auto Industry" (Cambridge: Future of the Automobile Program, MIT, 1982).

moting the commonization of parts among different models and/or brands. South Korea has clearly been the most successful in these efforts as measured by numbers of brands and models, by capacity utilization rates, and by reports of comparative efficiency. Malaysia comes in a distant second, followed closely by Thailand and Indonesia, with the Philippines a distant last.⁴⁶

To what extent were strong states responsible for these results? South Korea's success is due less to state-imposed directives than to a complex bargaining process between state and private sector. The South Korean government was only partially successful in initial efforts to impose limits on market entrants. In 1963, a government-mandated merger failed because the assemblers, who agreed on the need for a merger, were incapable of agreeing on an estimate of one another's assets. The state itself lacked the technical capacity to supervise the integration of nonstandardized facilities.⁴⁷ State officials then attempted to create a vertically integrated complex with seventy-five parts firms feeding into one terminal firm—Sinjin. By 1967 this plan was also abandoned under pressure from other major companies attempting to break into the auto market.

Subsequent government efforts to limit assemblers were more successful, however. The number of new passenger vehicle assemblers was limited to two, Hyundai and Asea. And in 1980, Hyundai was compelled to abandon its truck manufacturing operations, a move for which it received no financial compensation. However, as already noted, Hyundai was able to block the government's attempt to merge it with GM-Daewoo.⁴⁸

The problem of overcapacity has, moreover, continued, even with South Korea's success. A fourth firm, Ssangyong, was allowed to begin production of passenger cars; and the existing assemblers threatened "concerted action" if a new firm, the giant Samsung group, is allowed to enter the auto industry. Indeed, the need for collective opposition to new entrants has been a principal cause for the 1985 formation of an association of auto assemblers.⁴⁹

⁴⁶ For comparative figures, see Amsden and Kim (fn. 33); EIU (fn. 16); "South Korea: Japan's Off-Shore Assembly Base," *Japanese Motor Business* 14 (December 1987); and Doner (fn. 16), chap. 3.

⁴⁷ Unless otherwise noted, information on South Korean rationalization attempts is drawn from Back (fn. 16); and Kim and Lee (fn. 33).

⁴⁸ Nancy Langston, "Be unConfucian and Fire Your Chauffeur," *Far Eastern Economic Review*, February 19, 1982, p. 44.

⁴⁹ "Samsung Plan Upsets Korean Vehicle Makers," *Far Eastern Economic Review*, July 12, 1990, p. 75; Damon Darlin, "Korea's Car Companies Expand Like Crazy Despite Lagging Sales," *Wall Street Journal*, March 2, 1990; and personal communication from Nae Young Lee, University of Wisconsin, Madison.

South Korea's success in limiting models was the result of state actions that reinforced private sector initiatives. In 1970, assemblers were producing twenty-four different models and impeding long production runs by local parts firms. The government responded by mandating in 1975 that existing assemblers produce only models with 1.5 liter engines. This limit legitimized the strategy adopted by Hyundai. In 1973 the firm announced its decision to develop a single model, the Pony. This initiative was itself based on several years of rationalization within the firm. Since 1967, Hyundai had produced only one model—the Ford Cortina. Hyundai officials emphasize that their ability to manufacture the Pony was largely the result of six consecutive years' experience on the same car.⁵⁰

The initial auto projects of each of the four Southeast Asian states contained clear limits on makes and models.⁵¹ Only the Malaysian efforts have achieved significant results (as measured by the number of makes), and these have come only recently. From the mid-1960s through the early 1980s, Malaysian declarations of intent to reduce the number of assemblers were undermined by the state's own need to provide economic opportunities for Malay capital. Ethnic politics took precedence over efficiency, and this meant allowing new Malay entrants into the assembly sector. The requirements of market rationalization and ethnic redistribution were reconciled only in 1982 when the national car firm, Proton, began to produce vehicles in the country's largest auto market niche. This state-owned firm, established as a proxy for Malay capital, was to erode Chinese domination and serve as a training ground for Malay workers and managers. The national car, the Saga, immediately captured 80 percent of the market as a result of significant tariff advantages and informal warnings to rival Chinese-owned assemblers to avoid price competition with the Saga.

In Thailand, the Philippines, and Indonesia, pressure from influential assemblers made a mockery of state-imposed limits on makes and models, despite support for those limits by local parts firms and some assemblers. Officials then reverted to two quasi-market strategies. One was simply to assume that the costs of increasing localization would drive out

⁵⁰ H. D. Shim, "Background of Development of All-Korean Car, Pony: A Suggestion on ASEAN Car" (Hyundai presentation to a delegation from the ASEAN Automotive Federation, Seoul, n.d.).

⁵¹ On the Malaysian case, see Tan Bok Huai, "The Malaysian Car Project: A Financial Economic/Social Cost-Benefit Analysis" (Kuala Lumpur: Institute for Strategic and International Studies, 1985). On Thailand, see Thanamai (fn. 29). On Indonesia, see BPP, "Strategic Plan for the Indonesian Automotive Industry" (Jakarta: Agency for Research and Application of Technology/Stanford Research Institute, 1979); Chalmers (fn. 26); and Tang (fn. 43). On the Philippines, see Watanabe (fn. 43); and Rigoberto Tiglao, "Wheels within Wheels," *Far Eastern Economic Review*, March 29, 1990, p. 71.

those makes and models with low volume sales. To some degree this approach has worked, but its success has been limited by some major flaws. It puts the cart before the horse in assuming that the host country can in fact increase localization without make and model limits; it supposes that all foreign assemblers are equally sensitive to cost increases; and it neglects the domestic political costs of excluding influential entrepreneurs.

These problems have prompted the adoption of a second, more successful strategy that emphasizes the localization of models with large market niches: passenger vehicles with small engines in Malaysia, commercial vehicles in Indonesia and Thailand.⁵² As in South Korea, however, this quasi-market strategy has relied on and reinforced initiatives by large business groups. One initiative emphasizes the use of common parts. Working to implement state-supported engine projects for commercial vehicles, large private automotive groups in Thailand and in Indonesia have successfully pressed TNCs to cut costs by sharing facilities. In Indonesia, for example, the lead has been taken by the country's second largest conglomerate, Astra, an ethnic Chinese firm involved in both auto assembly and components production. Astra convinced Mitsubishi and Toyota to share machining operations for the production of major engine components.⁵³ In addition, as both assembler and parts producer, Astra itself has undertaken a form of intrafirm rationalization by incorporating several brands within its own operations. Astra has been able to integrate manufacturing processes and define product mixes in ways best suited to the overall efficiency of the firm itself.⁵⁴

Large business groups in South Korea and Malaysia contributed to rationalization in one further, albeit indirect, way—by their ability to diversify out of assembly operations. During the early 1980s, some South Korean firms moved out of auto production to concentrate in other areas such as marine diesels or electrical generating equipment. In Malaysia, the two largest Chinese-owned assemblers responded to the success of the national car by emphasizing the assembly of larger vehicles and diversifying into parts manufacture. In the South Korean case, state funds aided the transition; no such support was available for the Malaysian firms.⁵⁵

⁵² Doner (fn. 16), chap. 3; *Bangkok Bank Monthly Review*, July 1990, pp. 291–95.

⁵³ Doner (fn. 16), chap. 8; and interviews with Astra officials, July 1991.

⁵⁴ By 1990, Astra had secured the agencies for ten out of the twenty-two brands sold in Indonesia. Chalmers (fn. 29), 17. See also the description of Astra's flexibility in adapting new technology in "Manufacturing a Competitive Edge," *World Executive Digest* (Manila) (October 1991), 74, 76.

⁵⁵ On the South Korean merger movement, see Ron Richardson, "More Marriages Are

The severe distributional consequences of rationalization make it politically the most difficult of the four implementation tasks. That should mean that a strong state is a requirement for rationalization. And indeed, those countries with the strongest states, Malaysia and South Korea, did achieve the most effective limits on makes and models. But support for the statist position must be tempered by two qualifications. The first is the active role played by large business groups which, in part to promote their own efficiency, initiated model limits, encouraged commonization, and/or diversified out of targeted product areas.

The second qualification to the statist explanation is that even effective state rationalization measures were based on conducive national ruling coalitions. Malaysian and South Korean limits were implemented only to the extent that they were consistent with the broad coalitions of which those states were a part. In the Korean case, rationalization was compatible with a ruling coalition that included a small number of large indigenous firms.⁵⁶ Malaysian limits on automobile makes were possible only when they strengthened ethnic Malay interests but simultaneously allowed for a diversification by existing Chinese-owned assemblers.

Such rationalization was difficult if not impossible within Thailand's "moving equilibrium" of highly competitive political and economic elites.⁵⁷ The striking numerical inferiority of ethnic Chinese (under 5 percent) and the political strength of indigenous populism in Indonesia suggests the possibility of a Malaysian-style "national car" program to strengthen the economically weak ethnic Indonesians. Yet the weight of ethnic redistribution in Indonesia has been tempered by Chinese financial links to President Suharto and to the Indonesian military, as well as by the ability of Chinese firms to incorporate indigenous interests.⁵⁸ Finally, Marcos's desire to convert local entrepreneurs into the Philippines' version of Japan's *zaibatsu* or Korea's *chaebol* was defeated by several factors, only one of which will be noted at this point: the importance of foreign capital in Marcos's ruling coalition was too great to allow the exclusion of foreign assemblers.⁵⁹

Arranged," *Far Eastern Economic Review*, October 17, 1980, p. 91. On the Malaysian firms, see "Tan Chong Reduces Loss Despite Sluggish Market," *Star* (Kuala Lumpur), April 2, 1988; "Tan Chong Moves Upmarket in Face of New Challenges," *Star*, May 10, 1989.

⁵⁶ This is the central argument of Back (fn. 16).

⁵⁷ William H. Overholt, "Thailand: A Moving Equilibrium," in Ansil Ramsay and Wiwat Mungkandi, eds., *Thailand-U.S. Relations: Changing Political, Strategic, and Economic Factors* (Berkeley: Institute of East Asian Studies, University of California, 1988).

⁵⁸ Richard Robison, *Indonesia: The Rise of Capital* (London: Allen and Unwin, 1986).

⁵⁹ On local entrepreneurs as *zaibatsu*, see Bernardo M. Villegas, "Another View of the Philippines Economic Crisis" (Manila: Center for Research and Communication, 1984).

BARGAINING OVER FOREIGN RESOURCES

Host countries need more than long production runs if local firms are to become efficient manufacturers. They must ensure that competing foreign goods are not unfairly underpriced vis-à-vis local substitutes, while also guaranteeing access to those foreign inputs needed by local firms. Other things being equal, these problems are resolved by competitive market mechanisms. But competition may be undermined by collusion among foreign firms or by the restrictions on input sourcing in contracts between local suppliers and their foreign customers.⁶⁰ And local firms, once linked to a foreign firm, may lack information about alternative input suppliers.

Studies of South Korea have suggested that strong states are appropriate institutions for overcoming these problems of market failure. By virtue of their autonomy, expertise, scanning capacity, and overview of national economic requirements, Korean officials have established and imposed guidelines on foreign equity, technology transfer, raw materials provision, and sectoral allocations of foreign capital.⁶¹

This emphasis on the state as screening agency seems incomplete, however. Apart from state-dependent producers' associations, the studies make almost no mention of private sector roles in the Korean screening process.⁶² This neglect may be problematic if there is interfirm variation in ability to make use of state guidelines. There may be issues for which technical and information requirements exceed the capacities of state officials, even in South Korea. And finally, strong state explanations may have little relevance for the four Southeast Asian countries whose official screening capacities are weak but whose manufacturing growth suggests some private sector contribution to the mediation of foreign capital.⁶³ These issues can be explored in three areas of host country-TNC interaction critical to auto policy implementation.

⁶⁰ This is the flip side of the transaction cost economics argument concerning transaction-specific investments. Under certain conditions, such an investment by a local supply firm can provide it with some leverage vis-à-vis the foreign firm it is supplying. See Thomas P. Murtha, "Surviving Industrial Targeting: State Credibility and Public Policy Contingencies in Multinational Subcontracting," *Journal of Law, Economics and Organization* 7 (Spring 1991).

⁶¹ Russell Mardon, "The State and the Effective Control of Foreign Capital: The Case of South Korea," *World Politics* 43 (October 1990); Luedde-Neurath (fn. 2), 56-59; John Enos, "Government Intervention in the Transfer of Technology: The Case of South Korea," *IDS Bulletin* 15 (April 1984), 27-31.

⁶² Luedde-Neurath (fn. 2).

⁶³ On the lack of technological screening in the Thai auto and electronics industries, see Nathabhol Kanthachai et al., *Technology and Skills in Thailand* (Singapore: Institute of Southeast Asian Studies, 1987), 32-33. On the general lack of screening in Malaysia, see United Nations Industrial Development Organization (UNIDO), *R & D and Technology Policies (Medium and Long Term Industrial Master Plan—Malaysia, 1986-1995)*, vol. 3, pt. 6 (Kuala Lumpur: UNIDO and Malaysian Industrial Development Authority, 1985).

DELETION ALLOWANCES

When a foreign assembler agrees to procure components from the host country, it must remove or "delete" those components from the kit of knocked-down auto parts packed in its home country. The deletion allowance refers to the price reduction of the kit after the localized parts have been removed. All things being equal, if a part is listed at \$100, then the price of a \$10,000 knocked-down kit should be lowered to \$9,900 when that part is deleted and procured overseas. But the auto TNCs claim that such equivalent reductions are rarely feasible, due to the costs of actually removing a component as well as research and development expenses incurred in the development of the components. Since local firms cannot produce the part for less than \$100, the cost of a localized vehicle ends up exceeding that of one without local parts.

State and private sector officials in Southeast Asia complain that low deletion allowances are widespread forms of transfer pricing. Most assemblers, they claim, are consciously attempting to impede localization by raising its costs and discouraging local firms from investing in parts manufacture. Deletion allowances are allegedly smaller for critical components, and assemblers are in a solid position to suppress the deletion allowance for popular makes and models.⁶⁴

In Southeast Asia, initiatives in addressing this problem have generally come from state officials. Due to a lack of access to detailed price information, however, these efforts have been generally ineffective. Whatever progress has been made on this issue has resulted from private or joint public-private sector efforts. In the mid-1980s, Philippine officials succeeded in obtaining a Japanese commitment to reduce the prices of imported component kits. But the officials required information from Philippine nationals working for the auto TNCs and, even then, lacked sufficient leverage to implement the agreement.⁶⁵ In Indonesia, only Astra has been successful on this issue; the group has gathered comparative

⁶⁴ Paul Chan, "Economics of Regulation in Malaysia with Reference to the Motor Vehicle and Component Industry" (Photocopy, University of Malaya, Kuala Lumpur, 1984); and Paul Low, "Local Content Programme: The Manufacturers' Experience" (Paper presented at Seminar on Automotive Components Manufacturing—Technologies and Trends, Kuala Lumpur, May 15, 1985), 9. There is some cross-firm variation in deletion allowances. According to interviews, Peugeot granted generous allowances to its Thai operations in order to break into the Southeast Asian market.

⁶⁵ Also critical to the government's initial success on this issue was the willingness of Mitsubishi Motors to break with the other Japanese assemblers in complying with price limits. But this compliance reportedly came only in exchange for the government's loose interpretation of Mitsubishi's prices. Doner (fn. 16), chap. 7; and interview with official of Delta Motors, Manila, 1985.

price information from Thailand and Taiwan to induce larger deletion allowances by two of its foreign partners, Toyota and Daihatsu.⁶⁶

And in Malaysia, price limits on the national car were undermined by the failure of government officials to obtain any price guarantees from Mitsubishi in the initial contract. Subsequent official efforts to induce price limits were weak. Mitsubishi stated that any price reductions would have to come from the Malaysian side, through reduced tariffs or increased subsidies. Government officials were simply overwhelmed with the practicalities of getting the car assembled and distributed.⁶⁷ The price issue reemerged only when local parts manufacturers pushed the national car firm, Proton, to expand local procurement, to which Mitsubishi responded with minimal deletion allowances. As of mid-1991 this issue was being negotiated within a joint (public-private sector) Technical Committee on Local Content whose function is to investigate and coordinate the price and quality issues central to the localization program.⁶⁸

In South Korea, the deletion allowance does not seem to have been a problem for Hyundai, at least since the early 1970s, when it developed close ties to Mitsubishi. The Japanese firm purchased 10 percent of Hyundai's equity in 1982, provided some 30 percent of Hyundai's imported parts during the early 1980s, and has provided important technical assistance. But, as noted below, Hyundai has not bought assembled engine kits from Mitsubishi, preferring to diversify its sources for parts and technology.⁶⁹

LOWERING COSTS OF FOREIGN INPUTS

Reducing the costs of inputs used by host country firms is the flip side of raising deletion allowances. These inputs include subcomponents, production technology, intermediate goods, and raw materials. Some of them come directly from the assemblers or affiliated parts firms, others from independent sources.

⁶⁶ Interviews with officials of Astra, Jakarta, June 1985, and with officials of Japanese assembly firms, Bangkok, July 1991.

⁶⁷ Interviews with official of Malaysian auto parts manufacturers' association, Kuala Lumpur, July 1991; and "Tariff on Motor Parts for Saga to Be Lifted," *Business Times* (Kuala Lumpur), July 19, 1985.

⁶⁸ Doner (fn. 16), chap. 8; and interviews with official of Malaysian auto parts manufacturers' association, Kuala Lumpur, July 1991.

⁶⁹ Khee Young Kim, "American Technology and Korea's Technological Development," in Karl Moskowitz, ed., *From Patron to Partner: The Development of U.S.-Korean Business and Trade Relations* (Lexington, Mass.: D. C. Heath, 1984), 90-94; and Economist Intelligence Unit, "South Korea: Japan's Off-Shore Assembly Base?" *Japanese Motor Business*, no. 14 (December 1987).

In the South Korean case, Hyundai has been the major source of initiative in the procurement of foreign inputs. Diversification of suppliers has been one of its principal instruments in this regard. Unlike Sinjin, which tied up with GM, Hyundai opted for a more independent path following the dissolution of its partnership with Ford in 1972. From 1974 through 1976 Hyundai acquired manufacturing process techniques and technologies for power train components from Japan, internal combustion systems from England, and car designs from Italy.⁷⁰ Hyundai's equity collaboration with Mitsubishi followed a careful process of shopping around in which the Korean firm first rejected offers from Volkswagen, Renault, and Ford. Mitsubishi offered lower royalty payments and was the only auto TNC not to demand managerial participation in Hyundai. This allowed Hyundai to reserve "the right to compete directly in Mitsubishi's own markets and to import technology and parts from Mitsubishi's competitors." In 1979 Hyundai licensed over thirty different technologies to raise its standards to international levels. In some cases the firm has looked to different sources for the same type of technology, drawing fundamental concepts from a U.S. firm, for instance, while turning to the Japanese for help in practical applications.⁷¹

The South Korean state played an important role in this process. State agencies helped to identify basic technologies to be developed domestically versus those to be obtained from abroad; encouraged licensing rather than investment to separate foreign capital from foreign technology; and provided tax credits and other incentives to promote R and D among South Korean firms during the late 1970s and early 1980s.⁷² But the differences between Hyundai Motor Company and its major competitor suggest that state measures constituted at best a nurturing context within which group-level strengths came into play. Daewoo has been unable to achieve Hyundai's efficiency and independence. The latter's ability to obtain and absorb inputs, as described above, reflected its own independence and institutional strength. Hyundai reorganized its Department of Planning in 1973 and established its own research and development center in 1979 to obtain and adapt foreign technologies at the lowest price for the Pony and Pony Excel.⁷³

None of the Southeast Asian countries has approached South Korea's

⁷⁰ Kim (fn. 69); and Amsden and Kim (fn. 33).

⁷¹ The quote is from Amsden and Kim (fn. 33), 8. Information on the conditions of the Mitsubishi linkup also from Back (fn. 16), 191; and Khee (fn. 69).

⁷² Mardon (fn. 61); Amsden (fn. 1), 328; and Khee (fn. 69), 78-79.

⁷³ For evidence on Hyundai's superiority, see Amsden and Kim (fn. 33), 6-15. On Hyundai's initiatives, see *ibid.*; Back (fn. 16); and personal communication from Jong Gook Back, September 1990.

ability to obtain a wide variety of foreign inputs. But efforts have been made, and the more successful ones have been private sector initiatives. In Malaysia, pressure from local as well as Western parts manufacturers has compelled Proton to accept parts from foreign firms not affiliated with Mitsubishi.⁷⁴ In Thailand, foreign investments in the auto parts industry commonly include tied purchases of raw materials and intermediate inputs. Yet local equity remains strong in this sector, and the larger local firms have been active in reducing the costs and improving the quality of inputs by drawing on a variety of sources.⁷⁵ Indonesian efforts to diversify inputs failed due to Japanese resistance and a lack of political and technological sophistication on the part of the Western firms.⁷⁶ The major thrust for input cost reduction has come from Astra and its Technology Development Department. In some cases the firm has utilized competition among the brands it assembles to obtain cheaper prices for components and subcomponents. In other cases, the Technology Development Department has procured help from Taiwan in obtaining subcomponents and in depackaging Japanese technology. Simply threatening this strategy has, on occasion, impelled the Japanese to reduce the price of their goods.⁷⁷

DIRECT FOREIGN SUPPORT FOR HOST COUNTRY FIRMS

Assemblers can hinder the development of host-country manufacturing capacity by withholding direct technical and financial support from local suppliers. The failure to provide advanced prototypes, technical training, sufficient lead time for new products and product changes, and favorable terms of payment increases levels of uncertainty for local producers.⁷⁸ Foreign assemblers might withhold such support for at least two reasons. First, by perpetuating local supplier weaknesses, they can justify an assembler's preexisting opposition to localization, or they can reinforce an

⁷⁴ Interviews with official of Malaysian auto parts manufacturers' association, Kuala Lumpur, July 1991; and "ps to Get German Expertise," *New Straits Times* (Kuala Lumpur), July 22, 1985.

⁷⁵ On tied purchases in foreign investment, see Kanthachai et al. (fn. 63), 40. On the strength of local capital in the parts industry, see Thai Department of Industrial Economics, "The Automobile Parts Manufacturing Industry" (in Thai), Bangkok, Ministry of Industry, 1986. Information on efforts to diversify technology sources from interviews with officials from parts firms in Bangkok, July 1991; and Siam Nawaloha, "The Siam Nawaloha Foundry Co., Ltd." (Company report, Bangsue, Thailand, n.d.).

⁷⁶ *BRPT/Stanford Research Institute* (fn. 51); Chalmers (fn. 26), chap. 10; and Doner (fn. 16), chap. 6.

⁷⁷ Interviews with officials of Astra Technology Development Department, Jakarta, June 1985, and with officials of Japanese assembly firms, Bangkok, July 1991.

⁷⁸ For a discussion of these problems in the Mexican auto industry, see Bennett and Sharpe (fn. 4), 236. For the Philippines, see Watanabe (fn. 43). For South Korea, see Kim and Lee (fn. 33).

assembler's insistence on production of local components either under its own roof (vertical integration) or by transplanted producers of foreign parts.

Even where assemblers are more willing to procure parts from local suppliers, the provision of technological and financial support is often undermined by the absence of trust between the two sides. Such trust, reflecting the ability of assemblers and suppliers to move from a zero-sum relationship to a more iterated, cooperative one, has been a key to Japanese domestic success in the auto industry. The relationship can promote mutually acceptable criteria for analyzing costs, establishing prices, sharing profits, and transferring technology.⁷⁹ But such linkages are predicated on a willingness to reveal proprietary information about costs and production techniques, which host country suppliers in East Asia are often reluctant to divulge.

At first glance, the South Korean case suggests that pressure from a strong state can encourage assembler-supplier cooperation. During the late 1970s Korean parts firms were reported to suffer from late payments, low prices, high levels of competition, and little financial or technical support from the assemblers. This began to change in 1982, when the government mandated a series of financial and legal measures to strengthen small and medium-size firms. These efforts were followed by official promotion of the local parts association—the Korean Automobile Industry Cooperative Association.⁸⁰ But the South Korean case also reveals the importance of political pressures and broader coalitional arrangements. The Korean measures of the early 1980s were taken in large part to satisfy mounting protests against economic concentration. Subsequent state promotion of the parts association was part of a broader effort to regularize deliveries after disruptive auto industry strikes in 1987–88.⁸¹

Coalitional factors, reflected in financial systems, also help to explain the contrasting developments of Thai and Philippine parts firms. The relative lack of complaints from Thai producers about late payments

⁷⁹ Womack et al. (fn. 16) chap. 6. See also Michael J. Smitka, *Competitive Ties: Subcontracting in the Japanese Automotive Industry* (New York: Columbia University Press, 1991).

⁸⁰ On the weak links between assemblers and suppliers in South Korea, see Kim and Lee (fn. 33), 312–16. Measures to strengthen small and medium-size firms included financial and tax incentives for their modernization, promotion of cartels, requirements for frequent payment to suppliers, reservation of certain spheres for them, and a ban on prime contractors buying them out through stock ownership. On the impact of these measures in the automobile industry, see Amsden (fn. 1), 180–88. I am grateful to Nae Young Lee for information on state support for the Korean parts association. Interviews with officials of Malaysian auto parts manufacturers' association, Kuala Lumpur, July 1991.

⁸¹ On the political origins of support for parts firms, see Moon (fn. 13).

indicates a financial system that encourages prompt compensation and facilitates loans for small and medium-size firms through an informal credit system. More broadly, that financial system reflects political arrangements in which medium-size enterprises can and do exert influence.⁸² The problems of Philippine parts firms were part of the more general political weakness of medium-size firms under Marcos in which the financial system provided little monitoring or discipline of larger assemblers, whether foreign or locally owned.⁸³

Ethnic components of coalitional arrangements can also influence assembler-supplier linkages. The need to redress ethnic tensions can, for example, lead to weaker technical and financial linkages between assemblers and suppliers in countries with relatively strong states, such as Malaysia, than in those such as Thailand, where states exhibit less cohesion and leverage over the private sector. Malaysian parts firms, most of which are ethnic Chinese, balked at a Principal Purchase Agreement offered by Proton's Japanese partner, Mitsubishi. Presumably patterned after common Japanese practices, the agreement (1) requires the Malaysian firms to provide cost breakdowns without guarantees that the information will be held secret; (2) forbids the parts firms from raising prices, despite the yen's appreciation (which raised input costs); (3) demands that the parts firms surrender all patents and property rights on designs for Proton; and (4) permits only Proton to extend and terminate the agreement. The parts firms objected to such an agreement in part because of fears that Mitsubishi would simply produce parts itself after examining the suppliers' costs and profits and in part because of a reluctance to share technology from Western sources with Mitsubishi.

But while such concerns are also common among Thai parts firms, many Thai suppliers have concluded trust-based purchase agreements with Japanese principals. "Cooperation clubs" (assembler-led groupings of principal suppliers) have also grown rapidly in Thailand, but not in Malaysia. These groups, patterned after supplier cooperative associations in Japan, serve as channels of information about pricing policies, product development, management techniques, and new production technolo-

⁸² On the political arrangements, see Overholt (fn. 57). On the importance of informal credit markets, see Robert J. Muscat, "Government, Financial Systems, and Economic Development: Thailand" (Interim paper for workshop on "Government, Financial Systems, and Economic Development: A Comparative Study of Selected Asian and Latin Countries," East-West Center, Honolulu, November 30, 1990).

⁸³ Paul D. Hutchcroft, "The Politics of the Philippine Financial System" (Interim paper for the workshop on "Government, Financial Systems, and Economic Development: A Comparative Study of Selected Asian and Latin American Countries," East-West Center, Honolulu, November 30, 1990).

gies.⁸⁴ How then do we account for the Malaysian-Thai difference? Malaysian suppliers fear that ethnic Malay employees of Proton, benefiting from clear state preferences for Malay suppliers, will use price and technical information from the ethnic Chinese operations to establish competing parts firms. This has already occurred in at least one case. No such threat exists in the ethnically more harmonious Thai context.⁸⁵

Finally, the statist view fails to account for supply-side variation, that is, temporal and interfirm differences in assembler willingness to provide such support. Japanese assemblers, for example, have increased efforts to bolster local suppliers in Southeast Asia since the yen appreciation of the mid-1980s increased the attractiveness of those countries as export production sites. Further, due to differences in corporate cultures and overseas production strategies, some assemblers are more forthcoming than others with support for suppliers. Such inter assembler variation has been noted among Western firms operating in the Latin American auto industries.⁸⁶ Japanese assemblers, as a rule, tend to be much more active than U.S. firms in developing close relationships with East and Southeast Asian suppliers.⁸⁷ We also find that Hyundai maintains closer links with local suppliers than does Daewoo, probably because of the latter's heavy reliance on GM and its U.S. suppliers.⁸⁸ Finally, there are differences among Japanese firms. Isuzu, for example, perhaps because of its strong market position in Thailand, has been especially active in the promotion of its Thai cooperation club.⁸⁹

IMPROVING LOCAL TECHNOLOGICAL CAPACITY

The preceding cases involve problems of local firms that have already established themselves as original equipment suppliers to auto assemblers. But local firms may have difficulties even in obtaining an initial contract with an assembler. As of 1985, for example, Mitsubishi rejected all samples of original equipment parts submitted to it for the Malaysian

⁸⁴ Smitka (fn. 79), 151; interviews with Thai parts firm officials, Bangkok, July and October 1991.

⁸⁵ Ong Hock Chuan, "Parts Makers at Odds with Proton," *Star* (Kuala Lumpur), August 6, 1986, p. 10; Vong Nyam Ming, "Parts Makers Want Change," *Business Times* (Kuala Lumpur), June 16, 1986; interviews with parts association members, Kuala Lumpur and Bangkok, July 1991.

⁸⁶ Barbara C. Samuels II, *Managing Risk in Developing Countries: National Demands and Multinational Response* (Princeton: Princeton University Press, 1990). Interviews with officials of Malaysian auto parts manufacturers' association, Kuala Lumpur, July 1991.

⁸⁷ Interviews with representatives of local parts firms and with U.S. and Japanese assemblers in Kuala Lumpur and Bangkok, July 1991.

⁸⁸ Amsden (fn. 1), 184-85; and Amsden and Kim (fn. 33).

⁸⁹ Interview with local parts firms, Bangkok, July 1991. Smitka (fn. 79) analyzes the particularities of Mitsubishi's supplier links in Japan but does not extend the analysis to links with overseas suppliers.

national car, despite the fact that some of the parts had already been used as original equipment by other foreign assemblers operating in Malaysia. Mitsubishi's combination of technological strength and monopoly on quality control threatened to eradicate local parts firms.⁹⁰

To reduce these inequalities, developing countries must strengthen their own technological bases. But the high costs of such investments, their long-term payoffs, and opportunities for free riding discourage individuals from investing in technological infrastructure. This is, then, a classic problem of collective action in which an institution, often a state, is required either to make such investments directly and thus provide technology as a public good or to implement factor-market policies as inducements to private investment in technology—investment that will then spill over to other firms as positive externalities.⁹¹

South Korea's technological superiority constitutes strong confirmation for the importance of both direct and indirect state initiatives in this area. State agencies have established industrial standards, offered training in quality control, provided instruction on technology management, and supplemented the government-mandated in-house training efforts undertaken by business groups. Those without resources to operate in-house facilities must pay a levy used to finance company-based training plans in "approved training programs in external institutes and at company locations."⁹²

The value of state coordination is reflected in the clear consequences of its absence in Southeast Asia—especially in the Philippines, whose metalworking industry was one of Asia's most advanced during the 1960s. Southeast Asian state efforts, including numerous institutes designed to set industrial standards and disseminate technical information, have foundered on bureaucratic fragmentation, government budget deficits, and a lack of technical expertise on the part of government officials.⁹³

Even in this area, however, independent initiatives by private sector institutions—business groups and associations—can make contributions.

⁹⁰ EIU (fn. 16), 25, 34.

⁹¹ Mueller (fn. 41), 117.

⁹² UNIDO (fn. 63), 83. See also Amsden (fn. 1), 228, 239.

⁹³ On the Philippines metalworking industry, see Cerefino Follosco, "Developing the Engineering and Metalworking Industries in the Philippines" (Paper presented to the Symposium on Engineering Industries, Manila, April 25, 1985). On technological weaknesses and the failure of state efforts, see UNIDO (fn. 63); and UNIDO, "Manpower and Training," *Medium and Long Term Industrial Master Plan Malaysia 1986-1995* (Kuala Lumpur: UNIDO, August 1985), vol. 3, part 5, 74-89; Rodney Tasker, "Must Try Harder," *Far Eastern Economic Review*, March 8, 1990, pp. 28-29; Wit Satharakwit, "Results of Technology Diffusion in the Thai Auto Assembly Industry" (in Thai) (Bangkok: National Institute of Development Administration, 1983); and interviews in Bangkok, July and October 1991.

In South Korea, Hyundai has distinguished itself from domestic competitors through its capacity to generate skilled personnel from other industrial activities within the group. Workers in the group's first manufacturing affiliate, Hyundai Cement, gained experience in general skills that they then helped spread to the group's second manufacturing affiliate, Hyundai Motor Company.⁹⁴ In Southeast Asia, large groups have established in-house schools and technology development groups without special state incentives. Associations of parts firms in Thailand and Malaysia have been especially active in promoting technological self-strengthening at both industry and national levels, calling for greater public-private sector cooperation in the area of industrial standards and testing. The Malaysian association, for example, has pressed for a jointly run evaluative body to operate a manufacturer certification program. And in an explicit effort to pool resources and spread risk, it has established a worldwide liability scheme for its members.⁹⁵

RECONCILING DOMESTIC INTERESTS

Successful auto industrialization requires the coordination of various industries, sectors, and firms to ensure that external economies from any one activity are captured within the national unit. Such coordination is difficult since firms at various stages of production have different short-term interests. Consider the problems encountered by the Southeast Asian auto industries in the context of trade, fiscal, and credit policies.

Trade regimes must somehow reconcile the needs of upstream and downstream producers while satisfying government financial needs. Local parts firms demand protection from superior foreign goods; but these same firms want free access to the best and cheapest raw materials, intermediate and capital goods—many of which must be imported. This demand often encounters opposition from local suppliers of such inputs and/or from state officials unwilling to lose the revenue generated by existing protection. Thus, Indonesian firms producing auto body parts complain that the country's trade regime compels them to purchase locally made steel that costs more than foreign products and that cracks in stamping presses. In Thailand, the growth of local parts production is impeded by the fact that tariffs on ready-made parts are lower than the raw materials required by parts firms. In the Philippines, the influence

⁹⁴ See Back (fn. 16), 147; and Amsden (fn. 1), 267.

⁹⁵ On Malaysia, see "Liability Scheme for Motor Parts Manufacturers," *MACPMA News* 1/90 (May 1990); Low (fn. 64). On Thai efforts, see Laphli Sentusophon, "Proposals of Mr. Laphli Sentusophon" (in Thai) (Bangkok: Thai Auto Parts Manufacturers' Association, 1984).

of foundry owners defeated requests by auto parts firms for tariff revisions that would allow access to high-quality, imported castings.⁹⁶

Domestic fiscal structures may also impede localization. In Thailand, a business tax imposed on gross receipts of business transactions increases the cost of local inputs and discourages backward linkages in auto as well as other industries. The influence of a broad range of firms accustomed to evading taxes has blocked government efforts both to encourage backward integration and to increase revenue collections by shifting to a value-added tax. The result has been weak linkages between parts makers and local suppliers of intermediate goods.⁹⁷

Finally, indigenous manufacturers often need low-interest funds. But local institutions must be willing and able to allocate such financing, and able to do so in ways that discourage rent seeking by recipients. In Thailand, state officials have studiously avoided preferential credit schemes for industry.⁹⁸ In Indonesia, state financing has favored state-owned enterprises.⁹⁹ And in the Philippines, large sums were lent to the country's major locally owned automotive group, without any monitoring of the owner's use of the funds.

Thanks to adroit state interventions, South Korea has been more successful at reconciling diverse interests than the four Southeast Asian countries. In trade, the state has implemented a system of selective protection: localization of inputs such as steel is strongly encouraged, but imports are facilitated (through duty drawbacks) for end users who produce for export.¹⁰⁰ Preferential credit has been central to the auto industry's growth. Large auto firms benefited not only from state-subsidized inputs such as electricity and steel production, but also from a 1972 government order freezing curb markets. Without the latter measure, capi-

⁹⁶ For a general treatment of upstream-downstream problems in Indonesia, see Richard Robison, "Authoritarian States, Capital-Ownning Classes, and the Politics of Newly Industrializing Countries: The Case of Indonesia," *World Politics* 41 (October 1988), 66-67. On these problems in Thailand and Malaysia, see Industrial Management Co., *Tax System for Industrial Restructuring (Industrial Restructuring Study for the National Economic and Social Development Board: Final Report)* (Bangkok, 1985); and UNIDO (fn. 63), 15. Other information is drawn from interviews with officials of Thai parts firms, Bangkok, July and October 1991.

⁹⁷ On the Thai fiscal structure, see Thailand Development Research Institute, "The Impact of High Business Tax Rates on Tax Evasion of Industry," *TDRS Quarterly Newsletter* 2 (September 1987), 13-17. On the fiscal system's discouragement of linkages in engine production, see Siriporn Kamjanavirojkul, "A Case Study of Subcontracting System in Motorcycle, Diesel Engine for Agriculture and Refrigerator" [sic] (M.A. thesis, Thammasat University, 1987).

⁹⁸ Peter G. Warr and Bandid Nijathaworn, "Thai Economic Performance: Some Thai Perspectives," *Asian-Pacific Economic Literature* 1 (May 1987).

⁹⁹ Andrew J. MacIntyre, "The Political Economy of Finance in Indonesia" (Paper presented to conference on "Government, Financial Systems, and Economic Development," East-West Center, Honolulu, November 1990).

¹⁰⁰ Amsden (fn. 1), 301; and Luedde-Neurath (fn. 2).

tal accumulation would have been impossible for Hyundai and Sinjin, the country's largest debtors at the time.¹⁰¹ And, unlike in the Philippines, this support has not come at the expense of efficiency. Instead, the state has exacted performance standards from firms in direct exchange for subsidies.¹⁰²

Again, this evidence as to the importance of state intervention needs to be qualified. First, South Korean intervention often has a more specific political source than the autonomous preferences of strong state officials. The Heavy Industry measures that helped to launch Hyundai's efforts were part of Park Chung Hee's effort to legitimize his rule in the face of growing opposition from both inside and outside the ruling party. The move to freeze curb markets was a belated response to Korean Business Association pressure for relief from high indebtedness. Indeed, the association began a tax revolt after Park's initial indifference to its requests.¹⁰³

Strong states are also not necessarily the sole institutions capable of imposing discipline on local firms. Where the private financial system is less politicized than in the Philippines, commercial banks may act independently to monitor the behavior of industrial borrowers. During the early 1980s, strong intervention by Thailand's largest commercial bank led to a restructuring of the country's largest locally owned automotive groups.¹⁰⁴

The preceding discussion has affirmed the value of strong states in resolving collective action problems central to auto industrialization. South Korea's superior performance is inexplicable without reference to both direct and indirect actions by state officials. But the evidence also suggests that the statist view is incomplete. Politics, in the sense of both instrumental pressures and broader coalitional constraints, is critical to even strong state interventions. Further, the technical requirements of industrialization often exceed the informational and organizational capacities not only of soft states, such as those in Southeast Asia, but of strong states as well. Private sector bodies, especially business groups and producers' associations, constitute important alternative institutions of economic "governance," i.e., harmonizing and adapting exchange

¹⁰¹ Back (fn. 16), 146-47; Amsden (fn. 1), chap. 12.

¹⁰² Amsden (fn. 1), 146.

¹⁰³ Back (fn. 16), 144-46. On pressures for reform and state responses in the late 1970s, see Moon (fn. 13). For an excellent analysis of coalitions as both cause and consequence of industrial strategy, see Tun-jen Cheng, "Political Regimes and Development Strategies: South Korea and Taiwan," in Gary Gereffi and Donald Wyman, eds., *Manufacturing Miracles: Patterns of Industrialization in Latin America and East Asia* (Princeton: Princeton University Press, 1990).

¹⁰⁴ Interviews with officials of local parts firms and Bangkok Bank, Bangkok, July 1991.

among relevant producers.¹⁰⁵ Indeed, the further one moves into the industrialization process, the more critical such nongovernmental institutions become. But if the evidence has highlighted the importance of private sector institutions, it has also revealed that host country entrepreneurs are far from monolithic in their preferences and behavior vis-à-vis auto industrialization.

V. DISAGGREGATING THE PRIVATE SECTOR

The preceding section suggests the importance of local business interests in making and carrying out auto policy, a point neglected by most development studies. But it also reveals differences among local firms' formulation with regard to what may be broadly termed industrial nationalism, defined here as the willingness and ability to displace foreign firms by pressing for localization and investing in new productive capacity. We may identify and offer tentative explanations for three dimensions of such variation: subindustrial (assemblers versus parts firms); cross-national within subindustry; and within both the same country and subindustry.

Local parts firms in the Philippines, Malaysia, and Thailand were markedly more aggressive in their support for localization than were local assembly interests. A number of market- or product-based factors may explain this difference. Entry barriers are lower for parts firms than for assemblers. The wide range of parts incorporated in a motor vehicle and the opportunity to produce replacement parts allows local parts makers to begin with simple operations and gradually move up. Local assembly interests, on the other hand, are generally discouraged from independent expansion by high capital and technological barriers.¹⁰⁶ Parts firms are also motivated to expand their own manufacturing by delays in foreign deliveries, the high costs of foreign inputs, and the need to preserve scarce funds. Costs can be cut by exploiting cheaper local labor and by using more appropriate production processes. Such concerns are less relevant to local assemblers, whose operations are tightly linked to foreign assembly lines and are backed by local and foreign funds. A direct correlation between profitability and value added also encourages industrial expansion by parts firms. Assemblers obtain safe profits on the simple assembly of foreign kits. But for parts firms, low local content means no market.

¹⁰⁵ This concept of governance is developed in Williamson (fn. 42), esp. 112.

¹⁰⁶ Unless local assemblers can exploit low-technology product niches. Astra has done this in Indonesia by producing a basic utility vehicle.

We have also seen cross-national differences among assemblers or parts firms, as illustrated by the more aggressive localization efforts of Korean and Indonesian assemblers compared to their Malaysian and Thai counterparts. The structure of ethnic politics explains some of this variation. In Indonesia, support for localization has been an important instrument through which Chinese assemblers could prove their commitment to national and indigenous Indonesian goals rather than those of their own ethnic group. Chinese assemblers in Malaysia have also come under pressure to support auto localization defined in terms of nationalism and ethnic redistribution. But since the Malay-dominated state, with Mitsubishi's support, has established its own assembly firm, Malaysian Chinese have shown their nationalist loyalties by diversifying out of assembly and not opposing the national car. Ethnicity is, however, an insufficient explanation of cross-national differences among assemblers, since no ethnic pressures exist in South Korea. There, the weight of the state commitment to national industrial growth has been vital, a factor that, in Indonesia, reinforces support for localization.¹⁰⁷ The broader structure of ruling coalitions seem important in explaining other cases of cross-national deficiencies among parts firms. Parts producers in Thailand and the Philippines were both strong supporters of localization and rationalization. But the openness of Thailand's political system allowed small and medium-size firms opportunities for greater associational strength and access to policymakers than was the case in the relatively closed Marcos regime.

Finally, we need explanations for differences between firms of the same subindustry within the same country. The South Korean case suggests the importance of industrial origins in this regard. Hyundai Motor Company is part of a group originating in construction and cement. Cement production has strong "technomanagerial" spinoffs that encourage capital deepening and, as we have seen, the growth of other industries.¹⁰⁸ Reinforcing Hyundai's emphasis on manufacturing is the fact that automobiles were one of the firm's earliest manufacturing activities. Daewoo, on the other hand, began as a trading company, came to auto production relatively late, and did so not through internal growth but through its purchase of a complete assembly plant from Sinjin.¹⁰⁹

¹⁰⁷ Peter McCawley, "The Economics of Ekonomi Pancasila," *Bulletin of Indonesian Economic Studies* 18 (March 1982), 102-9.

¹⁰⁸ On the cement industry's spinoffs in South Korea, see Amsden (fn. 1), chap. 7. A similar link between cement production and heavy manufacturing is seen in the origins of Thailand's largest parts firm. The Thai firm Siam Nawaloha is part of Thailand's largest industrial group, Siam Cement.

¹⁰⁹ I am grateful to Nae Young Lee for his thoughts on the origins of Hyundai-Daewoo differences.

Access to political favors might also help explain variation in industrial nationalism, although in a somewhat negative sense. Consider the differences between Indonesia's two largest automotive assemblers, the Astra and Liem groups: both originated as suppliers to the military; but Liem's ties with President Suharto have been especially close, yielding state contracts and the opportunity to ignore auto localization requirements. Commercial, real estate, and financial activities outside of Indonesia constitute a critical component of Liem's activities. With less political clout, Astra has pursued growth that is based more on the market than on political favors. Domestic manufacturing and agro-industrial activities are the core of Astra.¹¹⁰

The Indonesian case suggests that the political structure most effective in promoting a shift of local capital from speculation to efficient capital accumulation is one that combines support for local firms with pressure on those firms to conform to market forces. It was precisely the lack of such pressure that led to the bankruptcy of Delta Motors, the Philippines' major automotive group, owned by a crony of Marcos. The Delta case presents an interesting contrast with Thailand's major components producer, Siam Nawaloha, and its parent Siam Cement. As part of the official Crown Property Bureau, Siam Cement has enjoyed financial and political advantages. But the relative balance of power among Thai political forces has forced Siam Cement to expand through performance rather than contacts.

VI. CONCLUSIONS

The five Asian auto cases reveal both the centrality of collective action problems in industrialization and the utility of strong-state intervention in resolving these problems. But the cases also suggest the need to qualify the functional justification for strong state intervention. The desire for market expansion and the logic of sunk investments may spawn economic nationalism on the part of local capitalists that equals if not exceeds that of state officials. Also, states may not offer the sole or the best institutional responses to collective action dilemmas inherent in industrialization. Business groups, producers' associations and/or public-private consultative bodies may solve free rider and informational problems. In some cases, such nonstate arrangements are second best, albeit politically necessary. But where implementation requires functionally specific knowledge and capacities, private sector arrangements may be best suited for the task.

¹¹⁰ I am grateful to William Liddle and Don Emmerson for views on Astra and Liem. For background, see Robison (fn. 58); and *Asian Wall Street Journal*, November 24, 25, 26, 1986.

This article thus confirms the utility of an institutional approach that is problem- rather than actor-driven. It begins with a recognition that many of the critical conflicts in the development process derive from collective action dilemmas. But as emphasized by Alexander Gerschenkron, corporatist writers, and recent literature in the new institutional economics, the institutions emerging to resolve these problems are not necessarily of the statist variety.¹¹¹ The present study thus confirms recent work on the particular contributions of private and public-private arrangements.¹¹² It parallels the conclusions of industry-specific studies of Japanese industrial policy. But, unlike most of these studies, the present article posits these conclusions within an explicit collective action and public goods framework.¹¹³

This study has also revealed different institutional responses to similar problems. A functional approach to the demand for institutions is thus an insufficient theory of institutional origins. We also need to understand

¹¹¹ Alexander Gerschenkron, "The Early Phases of Industrialization in Russia and Their Relationship to the Historical Study of Economic Growth," in Barry Supple, ed., *The Experience of Economic Growth* (New York: Random House, 1963); Frederic C. Deyo, "Coalitions, Institutions, and Linkages Sequencing: Toward a Strategic Capacity Model of East Asian Development," in Frederic C. Deyo, *The Political Economy of the New Asian Industrialism* (Ithaca, N.Y.: Cornell University Press, 1987), esp. 243-44; Peter Katzenstein, *Small States in World Markets: Industrial Policy in Europe* (Ithaca, N.Y.: Cornell University Press, 1983); Haggard (fn. 1), 267; and Mustapha K. Nabli and Jeffrey B. Nugent, "The New Institutional Economics and Its Applicability to Development," *World Development* 17, no. 9 (1990).

¹¹² An eloquent demonstration of the utility of work on private sectors is Dennis Encarnation, *Dislodging Multinationals: India's Strategy in Comparative Perspective* (Ithaca, N.Y.: Cornell University Press, 1989). See also Stephan Haggard, "The Political Economy of Foreign Direct Investment in Latin America," *Latin American Research Review* 24, no. 1 (1989). On Third World business groups, see Nathaniel H. Leff, "Entrepreneurship and Economic Development: The Problem Revisited," *Journal of Economic Literature* 17 (March 1979), 46-64; idem, "Trust, Envy, and the Political Economy of Industrial Development: Economic Groups in Developing Countries" (Unpublished manuscript, Columbia University Graduate School of Business, 1991); and Ashoka Mody, "Institutions and Dynamic Comparative Advantage: The Electronics Industry in South Korea and Taiwan," *Cambridge Journal of Economics* 14 (September 1990); and David Becker, "Business Associations in Latin America: The Venezuelan Case," *Comparative Political Studies* 23 (April 1990).

¹¹³ Two excellent studies of Japan that explicitly adopt collective action frameworks are Noble (fn. 44); and Mark Tilton, "Trade Associations in Japan's Declining Industries: Informal Policy Making and State Strategic Goals" (Ph.D. diss., University of California, Berkeley, 1990). Other studies of Japan include Richard Samuels, *The Business of the Japanese State: Energy Markets in Comparative and Historical Perspective* (Ithaca, N.Y.: Cornell University Press, 1987); Leonard H. Lynn and Timothy J. McKeown, *Organizing Business: Trade Associations in America and Japan* (Washington, D.C.: American Enterprise Institute, 1988); and Keijiro Otsuka, Gustav Ranis, and Gary Saxonhouse, *Comparative Technology Choice in Development: The Indian and Japanese Cotton Textile Industries* (New York: St. Martin's Press, 1988), esp. 87-89. On South Korea, see Tun-Jen Cheng, "Business Interest Associations in Export-Oriented Industrializing Economies: Theoretical Observations and a Korean Case Study" (Paper presented at the annual meeting of the American Political Science Association, Washington, D.C., 1988). A useful empirical study of a Southeast Asian case is Makarin Wibisono, "The Politics of Indonesian Textile Policy: The Interests of Government Agencies and the Private Sector," *Bulletin of Indonesian Economic Studies* 25 (April 1989).

why and how institutions are supplied.¹¹⁴ While providing no rigorous explanation for variation in institutional supply, this study has pointed to the impact of ethnic politics, industrial policy preferences, corporate origins, and, most important, ruling coalitions. Politics cannot be separated from policy: even for strong states, the choice of economic strategies must be consistent with the structure of a country's ruling coalition.

An approach that specifies the factors influencing institutional demand and supply has several strengths. Through its emphasis on the supply of institutions, the approach encourages consideration of "soft" phenomena such as symbols and community as well as "hard" factors such as incentives and coercion.¹¹⁵ The demand or functionalist side of the approach draws attention to the limits of state capacity in the implementation processes of strong-state countries such as South Korea.¹¹⁶ It also helps to explain economic growth in relatively weak-state countries such as Hong Kong and the Southeast Asian countries studied here.¹¹⁷ Finally, it shows the utility of a less zero-sum concept of power than that implicit in the statist literature. Development requires the consent, indeed, the active participation of diverse economic actors. State domination does not necessarily translate into national power. The latter is above all a function of active cooperation among capable groups rather than domination.¹¹⁸ Future research must explore the kinds of institutions that reflect and promote such cooperation.

¹¹⁴ Robert Bates, "Contra Contractarianism: Some Reflections on the New Institutionalism," *Politics and Society* 16 (June–September 1988), 393. For similar arguments, see Back (fn. 16); Samuels (fn. 113); and Haggard (fn. 112), 265.

¹¹⁵ Bates (fn. 114). For a more detailed discussion of supply issues, see David Feeny, "The Demand for and Supply of Institutional Arrangements," in Vincent Ostrom, David Feeny, and Hartmut Pichit, eds., *Rethinking Institutional Analysis and Development* (San Francisco: International Center for Economic Growth, 1988). For a discussion of the impact of states on business groups in Taiwan and South Korea, see Karl J. Fields, "Developmental Capitalism and Industrial Organization: Business Groups and the State in Korea and Taiwan" (Ph.D. diss., University of California, Berkeley, 1990). For an argument that sectoral institutions are in part a function of particular technological features, see Herbert Kitschelt, "Industrial Governance Structures, Innovation Strategies, and the Case of Japan: Sectoral or Cross-National Comparative Analysis?" *International Organization* 45 (Autumn 1991).

¹¹⁶ For studies of Japan along these lines, see Samuels (fn. 113); and David Friedman, *The Misunderstood Miracle: Industrial Development and Political Change in Japan* (Ithaca, N.Y.: Cornell University Press, 1988).

¹¹⁷ For an illustration of the role of private and public-private institutions in resolving collective action problems in Hong Kong, see David Yoffie, *Power and Protectionism: Strategies of the Newly Industrializing Countries* (New York: Columbia University Press, 1983), 94–95, 118. See also Deyo (fn. 111), 243–44.

¹¹⁸ John A. Hall and G. John Ikenberry, *The State* (Minneapolis: University of Minnesota Press, 1989), 14; Charles F. Sabel, "Studied Trust: Building New Forms of Cooperation in a Volatile Economy" (Unpublished manuscript, Massachusetts Institute of Technology, September 1990).