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Table of Contents

[I. The Context of Development and the Sequential Logic of Asian Development](#)

Asian Tier One: Japan as the case of "Early Late Industrialization"
Asian Tier Two--Taiwan and Korea: "Cold War Late Industrialization"
Asian Tier Three--"Late Late Industrialization"
Vertical, Closed Networks: Japanese and Korean Networks
Vertical, Open Networks: U.S. Networks
Horizontal, Open Networks: Taiwanese Networks
Horizontal, Closed Networks: "Overseas Chinese" Networks
Can The System Be Sustained?

[II. Specifying National Market Dynamics: Stepping Beyond the Sterile Debate of States or Markets:](#)

A. Institutions, Policy Routines and Market Dynamics: Some Illustrative Examples
B. The Dynamics of National Systems: Market Logics and Policy Routines.
C. Political Coalitions, Policy Orientations

[III. A Brief Digression](#)

[IV. Conclusion](#)

The debate about the role of the state in economic development and industrial adjustment, which began in Europe, has a new test bed in Asia. Indeed, the task of accounting for both the dramatic pace and distinctive pattern of growth in Asia has begun to collapse the false dichotomies of "state versus market."⁽¹⁾ *The East Asian Miracle*⁽²⁾ has advanced the conversation or, better still, made a conversation possible. This paper develops three arguments opened by, but not for us satisfactorily developed in, that effort. *First*, policy interventions that work in one set of historical or institutional circumstances may fail miserably in a different set of circumstances.⁽³⁾ The timing of industrialization, Alexander Gerschenkron contended, set historically specific routes for economic development. Both the international context, defined by security and market

competitors, and the domestic tasks, defined by the requirements of leading industries at the moment of development, set in each era a range of development options. The tasks for government, and the capacities required to undertake those tasks, are defined by that range of options. There is not, in this logic, a universally proper role for the state but rather a need to match the capacities and policies of the state to the tasks posed by specific problems of a particular era.

Asian development may constitute a new challenge for North America and Europe, but whatever the role of the state, it does not provide a model to be copied. Indeed, the Asian development experience (that is the several national stories that compose it) does not constitute a single data set of parallel and comparable phenomena. The Asian development stories must be segmented into three tiers, each tier representing a different range of options and state tasks. Concretely, the Southeast Asian countries that are booming now do not have the option of embracing a largely-autonomous "Japan-style" or "Korea-style" development strategy. Rather, Southeast Asian countries have embraced a "regionalized" development strategy that hinges on joining the cross-national division of labor established by multinational corporations (MNCs) operating in Asia.

Second, regionally based cross-national production networks are a distinctive feature of this most recent period in Asian development. Economic development in Asia now depends on the ability of late industrializers to join the regional division of labor in ways that encourage technology transfer and spur value-added industrial development. The expansion of foreign direct investment in Asia has resulted in the emergence of multiple, uniquely-organized cross-national production networks. An overly great focus on the ***cross-national*** feature of these production networks implies a stateless, vaguely global development process, and obscures the importance of home country (investor) structures and strategies in defining the policy options available to late industrializers. MNCs are organized and behave in very different ways; institutional factors of the home country have implications for host country development options. The regionalization of economic development strategies suggests that the "state versus market" analytical distinction is even less relevant for contemporary late developers in Southeast Asia than it was in earlier periods (and even then the division was misleading). We must step beyond the sterile dichotomies of "state and "market" to define an approach in which we can at once consider the interplay among the firm strategies that are generating the cross-national arrangements discussed above, the home country policies that influence their character, and the host country choices.

Third, any argument about the role of the state and market must account not only for the pace of growth, but the pattern of trade and the composition of production. Certainly, without attention to such fundamentals as investment and education, for example, there is no plausible account of the rapid rates of expansion. Yet without attention to "market dynamics" and "policy routines,"

there can be no plausible account of the patterns of trade and the composition of production. And without attention to the interventions and active policies that underlie those market dynamics and policy routines, there can be no plausible account for the remarkable political success of maintaining coalitions for growth in the face of the inevitable and real disruptions that development brings, nor--in our view--for the distinct innovations in the organization of production that have advantaged Asian firms and which in part account for the pace of growth. Too often the debate about states and markets becomes sterile as advocates carefully select facts to support their position rather than to test their arguments, while at the same time disregarding the perspectives, arguments, and evidence of their opponents. This produces caricatures, not models. *The East Asian Miracle* begins to re-engage diverse discourses, but it stops short in significant ways. The third section here proposes an approach, a perspective, that is intended to address those shortcomings.

I. The Context of Development and the Sequential Logic of Asian Development

The debate about the role of the state in Asian development is intense precisely because of the dynamic economic growth across the region. In 1994 growth rates in every Asian country except Japan exceeded four percent. Even more impressively, several countries in the region--China, South Korea, Malaysia, Singapore, Thailand and Vietnam--experienced real growth of over eight percent.⁽⁴⁾ If projections to the year 2000 (which average seven percent) are correct, Asia's share of world income will soon surpass that of North America. In other words, Asian countries constitute a set of late industrializers that have successfully entered the international trading system--and on terms that so far appear sustainable. This is level of economic success that other late industrializers do not even begin to match. ⁽⁵⁾

The economic success of the Asian region has sparked scores of studies that attempt to pinpoint the determinants of Asian success.⁽⁶⁾ Many of these studies focus on the unique historical, geopolitical, cultural, or institutional factors of the region.⁽⁷⁾ Those analyses that consider the role of government interventions have been the most divisive. At one end of the spectrum lies a group of scholars who attribute Asian economic growth to strong government interventions. Another group of scholars claimed that growth occurred *despite* government interventions. A third group has argued that the interventions did not happen--at least not extensively enough to interfere with the market forces that drove economic development. Choose your answer and you select a political and policy agenda. Conversely, choose your political agenda and you are driven to a particular style of analysis.

Do the high performance Asian economies (HPAEs) constitute a single experience about a particular historical moment with sufficiently common tasks to achieve economic development that we can compare their several strategies?⁽⁸⁾ We think not. There is no single Asian miracle. Rather, the HP

categorization--a categorization that usefully highlights for comparison distinctive features of these Asian dynamos--also obscures significant differences among them. These countries did not develop at once, but in sequence. Their choices, we believe, were powerfully affected by the timing of development, their place in the Asian sequence. In the past, late-industrializers such as Germany, Japan and (to some extent) South Korea were able to follow largely autonomous "catch-up" policies of national development in order to achieve domestic growth and competitiveness in international markets. As countries industrialize, they can provide broad lessons for later industrializers, but at the same time they are changing the policy options facing those countries. This gives a sequential logic to economic development. The evident irony is that the sequence generates "models" for success that are depictions of the earlier development and not fully relevant to the tasks that confront the later-comers. Where there is extensive and intensive interaction between earlier and later industrializers--as there is in Asia--this sequential dynamic is intensified. Therefore, rather than focusing on "East Asian developers," we suggest that it is more useful to segment the regional development process into three tiers:

Asian Tier One: Japan as the case of "Early Late Industrialization"

Modern Japanese politics is a story of the political creation of a market system. The policies to support the creation of this system not only facilitated industrial development, but also reinforced the indigenous capacity to sustain technical development. Japan entered its industrialization phase in the nineteenth century--later than some countries in the West (such as Great Britain), but very early compared to the rest of Asia. While Japan actively borrowed from the West throughout its development, the Meiji Restoration of 1868 established a set of institutions and policies that were based on domestic innovation, the generation of indigenous technological know-how, and autonomous industrialization. Thus we must ask how a coalition for development was created and how such a coalition sustained development in the face of the inevitable costs and dislocations. But it is not simply the achievement of growth or its pace that requires explanation, but also the very distinctive patterns of trade and development, which are very different than in other advanced industrial countries.⁽⁹⁾ Was the pattern of Japanese growth simply a natural feature of its levels of savings and investment or a particular outcome of policy? ⁽¹⁰⁾

Shigeto Tsuru, a former President of the International Economic Association and Vice-Minister of the Economic Stabilisation Board in the immediate post war years, depicts a strategy of created advantages. The Japanese government shaped comparative advantage through policy and concerted action, and induced firms to embrace strategies that ultimately resulted in a particular trade pattern: Japan has tended not to import in sectors in which its firms have established a competitive position in international markets.⁽¹¹⁾ To explain both the pace and pattern of growth, Tsuru pushes beyond the ritualistic recital of such features as high savings rates.

Significantly, Tsuru steps beyond the evaluation of specific interventions and policies to present a distinctive market logic in the Japanese system. For example, before the war, the major *zaibatsu* were specialized and hesitated to launch new industrial ventures, but after the war the *keiretsu* groupings followed a "one set" principle that led to diversification. With the banks as the source of medium term and long term finance in this system, competition among the groups sparked a distinctive pattern of competition that meant over investment. The competitive pattern was characterized as resting on competitive entry by each group which combined with market share strategies that led to excess capacity and then to government strategies to manage markets. Similarly, using the story of the sewing machine industry, a first instance of "targeting", he suggests how now distinctive features of Japanese industry emerged. Small players made parts and competed as core assemblers contributing to the "network" production and supply arrangements. A balance of subsidy to assure advanced production technology and subsidy to support exports created that distinctive dynamic of domestic competition and aggressive exports. At the core of government action was a policy of administrative guidance. Various administrative mechanisms were used: privileged finance, tax arrangements, infrastructure investment, land reclamation, and even selective allocation of sugar quotas as a means of supplementary finance. Critical in the package was the system of low interest finance which channeled savings into industrial investment. In the end, the pieces fit together to create a system of protection and promotion that created massive production innovation and internationally competitive industries.

With such an analysis we step beyond the debate about "market" or "state" into a more interesting conversation about the "market dynamic" created by policy. The Japanese "market dynamic"--a dynamic that pushed firms to compete for market share through continuous product and process innovation--contributed to the radical production breakthroughs that have characterized Japanese competitive advantage in consumer durables since the mid-1980s.⁽¹²⁾ The power of that production system with its radical increases in productivity and quality were an important force in both the composition of production and trade. The policy strategy, rooted in the political need to accommodate traditional producers in order to maintain a growth coalition created distinct production innovations in some sectors--and entrenched backwardness in others.

Unless we understand the sources of power and the pattern of innovation, we easily fall into the trap of believing that Asian growth is simply a study in industrious investment and puritanical commitments to savings.⁽¹³⁾ The links between those shopfloor corporate breakthroughs that generated radical productivity increases, the market dynamic outlined above, and a policy mix of protection and promotion is less often recognized. These links are critical, however, because they generated a pattern of economic development that rested on a revolution based on product/process innovations in consumer durable goods. This gave Japanese firms an internationally competitive position

based on broad endogenous capabilities--including final products, subsystems, components and production equipment.

Asian Tier Two--Taiwan and Korea: "Cold War Late Industrialization"

Like post-war Japan, the Korean and Taiwanese governments played an active role in allocating the levels and composition of private sector investment, as well as by granting industry subsidies to the "winners" of domestic contests (as measured by export success). Like post-war Japan, Korean and Taiwanese growth was linked to aggressive export policies in an open international environment. Like post-war Japan, both benefited from U.S. economic and military assistance, as well as easy access to the U.S. market.

But differences are also clear. In contrast to Japan, Taiwan and South Korea did not enter the 20th century with a strong industrial base or indigenous technological capabilities; their economic development dates from the post-war period. Unlike Japan, these countries began the industrialization process by focusing on low wages as their primary competitive advantage. Because neither country had strong indigenous capabilities, they sustained export competitiveness through learning rather than through indigenous innovation.⁽¹⁴⁾ Such learning can occur through imitation (i.e., copying foreign practices and reverse-engineering foreign products) or apprenticeship (i.e., purchasing foreign licenses and investing in technical assistance).⁽¹⁵⁾ Japan--as the region's earliest industrializer--served as a critical source of technical knowledge for Korean and Taiwanese firms.

Differences are also evident in the development trajectories of Korea and Taiwan. The two countries had quite different industrial structures and political circumstances on the one hand, and adopted quite different policy strategies on the other. These initial differences were accentuated as the Korean and Taiwanese government policies encouraged different kinds of industrial organization. In a different language, they created quite distinct market logics with quite distinct consequences for firms strategies and patterns of innovation. Korea embraced a "bigger is better" approach to industrial organization, with a few highly-centralized conglomerates (*chaebol*) that consist of tightly-linked large and small firms that engage in a very broad range of production activities. By the end of the 1980s, South Korea's largest ten chaebol generated a full 23 percent of the country's manufacturing output. The two largest, Hyundai and Samsung, generate sales income equivalent to one-quarter of the domestic economy!⁽¹⁶⁾ This large-scale firm structure has been encouraged by systematic government policies that provided low-cost loans, government contracts and other preferences.

Small companies are not a critical feature of the Korean economy. Indeed, the incentives facing the *chaebol* are pushing them to even more expansion, toward attempts to maintain their competitive position through diversification rather than innovation. Samsung has begun to expand into automobiles, shipbuilding and other heavy industries. Meanwhile, Hyundai is expanding its electronics operations--and is considering moving into the steel business as well.⁽¹⁷⁾

The pursuit of scale and volume production has created a market logic with a series of dilemmas. The line of development has been until now very narrow. That is, Korea produces cars, but does not - as does Japan - control production and component technology; it produces computers, but does not control value added technology; it produces semi-conductors, but exports volume d-rams, 90 percent of production, and imports logic, power, and mixed signal processors as examples. The problem is how to back-fill. Large companies are trying to buy control of technological expertise in the U.S. and Europe. The question here is whether these acquisitions can be integrated into corporate-wide development. The government is trying to invest in institutions of technology development, but large companies are now largely independent and beyond the narrow contributions of such institutions.

In stark contrast, Taiwan has taken a "smaller is better" approach. Whereas Korean government policies favored large conglomerates, Taiwan's government policies encouraged small and medium enterprises to focus on certain sectors. With regard to the electronics industry, the Taiwanese government took responsibility for a range of activities that are difficult for small firms to manage. These included research and development, market research, training, and channeling technology to private firms. For example, Taiwan's electronics industry is dominated by entrepreneurial small and medium enterprises (SMEs) rather than large firms.

This industry structure has generated a different market logic--one predicated on speed, flexibility and specialization. Consider electronics, where Taiwan's industry is characterized by small entrepreneurial firms and some medium-sized firms (such as Acer). These small enterprises are reportedly able to convert an engineering concept into high-volume production in a period of three months.⁽¹⁸⁾ Speed and flexibility are tied not only to the smaller size of Taiwanese enterprises, but also to their strategy of inserting themselves as niche players into the production and distribution networks of other major MNCs operating in Asia. They have done so primarily by acting as subcontractors to larger firms, in original equipment manufacturing (OEM) and more recently, original design manufacturing (ODM).

In both of the Korea and the Taiwan cases, then, the interplay between a particular policy mix and industrial structure in a distinct political and institutional setting created distinct market logics. Unlike Japanese firms, neither Korean nor Taiwanese firms have broad control over their supply base. This has so far been a successful strategy, although how long it can be sustained is open to question.⁽¹⁹⁾

Asian Tier Three--"Late Late Industrialization"

Southeast Asian countries constitute yet a different "third tier" of late-developers. The defining characteristic of "late late industrialization" is the central role of cross-national production networks in spurring Asian economic growth. These cross-national production networks do not simply consist of expanding quantities

of foreign direct investment in Asia. Rather, these are increasingly integrated and complex networks that organize, across-national borders, research and development activities; procurement; distribution; product definition and design; manufacturing; and support services.⁽²⁰⁾ Japanese, U.S., Taiwanese, Hong Kong, Korean, European and other overseas Chinese multinational corporations are establishing these multiple, partially overlapping, partially competing cross-border networks.

The Southeast Asian host countries have encouraged MNCs to locate operations within their borders, and by doing so, have inserted themselves into regionally-based cross-national production networks. They have found that the managerial, technological, financial, and know-how requirements are prohibitively high to pursue "autonomous" learning strategies based on second generation technology and low labor costs (the route followed in South Korea). Consequently, it is difficult for these countries to emerge and compete as market *rivals* with Japanese, Korean, U.S. or other better-established firms. With global export markets clogged by the presence of Japan, Korea and Taiwan, and the series of other Southeast Asian countries clambering up the development ladder, a point of market entry for final product is not evident. At same time, the requirements of entry into the electronics industry, the sector currently seen as central to development, are increasingly daunting. Today, the industry requires huge initial capital investments. Mistakes in capital allocation can be fatal for a firm. To make matters worse, technology is changing so rapidly in some key competitive industries that capital outlays in one time period may be useless in the next. In such a competitive environment, "go it alone" strategies for a newcomer country without technological or production assets are likely to fail. For Southeast Asian countries dependent on MNCs for sophisticated technology and production know-how, the alternative has been to encourage the development of *complementary* relationships with these firms. The result though has been that to a large extent, the decisions of multinational firms (not host country governments) create and transfer technological innovation, marketing linkages and other beneficial spillovers throughout the region.

Low labor costs, expanding regional markets, and political/economic stability initially lured both Japanese and U.S. MNCs into these countries. The Japanese came for the local market and to export to third countries; the Americans came for the local market and to re-export back home.⁽²¹⁾ Japanese firms tended to set up overseas affiliates that produced low-end products--with production of more sophisticated, higher value-added products remaining in Japan. U.S. firms (as discussed below) tended to encourage technical specialization and the production of high-end products within the region. The importance of these countries as export platforms, in combination with difference in U.S./Japanese production strategies, generated a distinct pattern of "triangular" regional trade.⁽²²⁾ Asian host countries have relied heavily on Japan for components and technology, and on the United States for markets. This pattern has created enormous deficits: a U.S. trade deficit with the Asian region; and bilateral

imbalances between most Asian host countries and Japan. In other words, the trade patterns on which Southeast Asian industrialization rests (at least so far) depends on upstream support from Japanese firms and continued access to the U.S. and, secondarily, European markets.⁽²³⁾

The integration of local producers into broader production networks has generated advantages both for MNCs and for local firms. Particularly the American MNCs discovered the competitive advantage of relying upon local producers, both as efficient suppliers and often sources of product and process innovation. Largely in response to the competitive challenge posed by Japanese electronics firms in the 1980s, U.S. electronics firms gradually deepened the technological capacity and autonomy of their Asian affiliates. With this shift of more value-added production from the United States to Asia, regional affiliates began to produce more sophisticated components and complex subsystems. By the early 1990s, U.S. firms had implemented a regional production strategy based on technical specialization within Asia. The result was the creation of an alternative supply base for U.S. firms, hence allowing U.S. firms to avoid dependence on their Japanese competitors for critical components and technology.⁽²⁴⁾ Even Japan--considered by many analysts to have the most exclusionary overseas production networks (as discussed in the next section)--has begun to consider the strategic value of supporting the emergence of small- and medium-sized enterprises in ASEAN countries.⁽²⁵⁾

Increasingly perceiving their insertion into a cross-national division of labor as their best development option, Asian developing countries have embraced a broad range of policies to make their business environment attractive to multinationals as part of a broader strategy to develop domestic capacity. This means opening domestic markets and easing restrictions in trade and investment laws. Taken together such policies make it more difficult to shape the kinds of investments that enter the country--and to ensure that that the investments generate value-added production and technology transfer rather than simply utilize low-cost labor to for final assembly. In theory, imposing export ratios or domestic content requirements on MNCs would give governments greater ability to shape industrial formation and to encourage technology transfers. In practice, such policies have not been very successful. Government restrictions on multinationals run the risk of pushing MNCs to locate elsewhere; hence, the environment among most Asian host countries is one of ever-fiercer competition for investments.⁽²⁶⁾ The consequence of the cross-national networks and the host government policies to support them is that MNCs are playing a critical role in the economic development of the region: as MNCs expand their activities in Asia, they are at the center of technology creation and transfer. They are increasingly making production and strategic decisions that not only transcend individual countries but often require the interlinking of country strategies.

The success of this "regionalized" development strategy depends, ultimately, on the kinds of linkages that are created by local producers with foreign firms. If MNCs merely take advantage of low labor costs, they are unlikely to transfer significant technological capabilities to the host country. The result might be a "maquiladorization" effect of low wage factories and little value-added production--hardly the best route to national industrial development. By contrast, if inter-firm linkages create a trajectory that allows subsidiaries to move up the value-added production chain, the result is more economic dynamism and beneficial spillovers for host countries.

This will partly depend on whether the "triangular trade" logic of the region can be sustained. To the extent that Southeast Asian countries are used primarily as export platforms, the deficits associated with triangular trade are likely to create political tensions. Moreover, if Southeast Asia is foremost an export platform, at least some MNCs are likely to place a premium on the region's labor cost advantages rather than the need to transfer greater technological capabilities to local firms. But regional demand has been expanding dramatically. To the extent that MNCs begin targeting more of the production for the local market, they will have greater incentives to conduct more sophisticated activities (such as product customization and R&D) in the region.⁽²⁷⁾

In short, cross-national linkages are critical for successful industrialization, but importantly, the kinds of cross-national linkages that emerge will define the parameters of the industrialization trajectory. There is enormous diversity in the *types* and the *sources* of investment. Variations in the types of investments have provided Asian host countries with diverse opportunities for technology transfer and industrial upgrading. Although the motivations of MNCs for locating in Asia today often include traditional reasons (access to natural resources, access to local markets, or access to lower labor costs), many cross-border firm relationships in Asia have expanded to include a broad range of sectors, as well as complex non-manufacturing activities such as R&D and product design. Note, for example, the increasingly sophisticated activities of U.S. electronics firms in Asia. There is also a diversity of investors in Asia, unparalleled in any other late industrializing region. Investment began with American, Japanese, and (to a lesser extent) European firms, but they have been joined since the late 1980s by companies from South Korea, Taiwan, Hong Kong, Singapore, and even Southeast Asian countries investing in each other.

The multiplicity of networks with varied forms of inter-firm linkages and multiple motivations operating in the region may be an advantage that creates opportunities for technological upgrading and technology transfer. But this will not necessarily be accomplished via host country government policies to restrict or channel foreign investment flows. Host country governments have not had much success in controlling the kinds of investments--hence the kinds of firm linkages--that have been established within their borders. The organizational form of these cross-national production networks generally reflect home country corporate structures and domestic incentives. Certainly, as MNCs move from

home country bases to overseas locations, some organizational, managerial and production variations occur. Organizational and production strategies mirror the home country characteristics of the principal MNCs animating a network.

We illustrate this point by considering national variations in the networks in the electronics industry in Asia according to two broad dimensions:

Horizontal versus vertical networks. Are firm relationships structured among networks of peers who cooperate to forge long-term relationships? Or are they networks in which one principal firm dominates tiers of suppliers who in turn dominate their own suppliers?⁽²⁸⁾

Open versus closed networks. Are networks easily penetrable by outsiders, with shifting transactions based on exchange relations? Or are networks generally closed to outsiders, based on tight, not-easily-penetrable long-term relationships rather than exchange relationships?

Using the differences suggested by the vertical/horizontal and open/closed distinctions, we offer the following typology:

Varieties of Asian Production Networks

	Vertically-Integrated	Horizontally-Integrated
Open	U.S. networks	Taiwanese networks
Closed	Japanese/Korean networks	Overseas Chinese networks

Vertical, Closed Networks: Japanese and Korean Networks

Japanese overseas subsidiaries traditionally have been hierarchically organized to ensure that Tokyo retains the lion's share of decision-making authority and technological capability. This hierarchical organization has resulted in tight control over foreign affiliates as well as the creation of fairly "closed" production arrangements that have tended to exclude business ties with non-affiliated local and foreign suppliers.⁽²⁹⁾ In production terms, the model had assembly and low-end manufacturing being done in Asia, with higher-value added final production remaining in Japan. Japanese affiliates in Asia sourced sophisticated components from Japan-based subcontractors, often within their keiretsu family. The tight, vertically-integrated networks of Japanese firms are less likely than those of other countries to transfer technology to the host country. However, subsidiaries of Japanese firms are more likely to gain access to the Japanese market. According to our typology, then, Japanese networks tend to be vertically integrated and closed.

Like Japan, Korean networks are vertically integrated and closed. Korea's FDI activities, which have averaged a 72 percent annual growth rate during the period 1986-90, are organized in a manner that reflects the bias toward bigness in its domestic industrial base. Like Japanese firms, Korean MNCs have invested overseas to take advantage of lower prices. Their overseas affiliates have focused on assembly of final products, rather than higher value added production. This division of labor creates the same difficulties that Japanese MNCs have faced in attempting to meet local market demands and to do

effective product customization. Again, and unlike Japanese firms, Korean firms have attempted to resolve this problem with ever greater diversification.

Vertical, Open Networks: U.S. Networks

U.S. firms have organized their overseas affiliates differently than Japanese or Korean MNCs. U.S. firms have transferred more management authority and more value-added production to their Asian affiliates than Japanese firms. This has created a complex regional division of labor by which largely-autonomous affiliates engage in sophisticated manufacturing activities. As U.S. firms shifted more value-added production from the United States to Asia, regional affiliates began to produce more sophisticated components and complex subsystems. By the early 1990s, U.S. firms had implemented a regional production strategy based on technical specialization within Asia. The result was the creation of an alternative "supply base" for U.S. firms, hence allowing U.S. firms to avoid dependence on their Japanese competitors for critical components and technology.⁽³⁰⁾

The greater autonomy and technological skill of Asian affiliates has made the U.S. production model faster and more flexible than Japan's model. As Borrus has argued, during the 1990s this flexibility has been the key to competitive preeminence in the U.S.-Japan electronics rivalry. U.S. firms have focused their resources on product development, systems integration, and software (areas that have allowed U.S. firms to define de facto standards and maintain market leadership). At the same time, their Asian affiliates specialize in manufacturing components and final products, which not only creates low-cost, efficient production, but has also created new Asian competitors to Japanese firms in such areas as semiconductors, displays, and consumer electronics.⁽³¹⁾ According to our typology, U.S. networks are vertical and open.

Horizontal, Open Networks: Taiwanese Networks

As opposed to the hierarchical structure of Japanese and Korean firms, and as discussed in the previous section, Taiwanese firms have flexible firm networks. The firms in the networks are largely entrepreneurial firms specializing in one or two product lines. Supplier relationships are not vertically integrated, but rather consist of complicated, shifting relationships among firms. The focus of these networks on speed-to-market considerations necessitates multiple, short-term linkages based on exchange relationships and "temporary spider web" arrangements that endure only for the duration of a given contract.⁽³²⁾ In stylized terms, Taiwanese networks are horizontal and open.

Horizontal, Closed Networks: "Overseas Chinese" Networks

Ethnic Chinese-owned businesses in Taiwan, Hong Kong, Singapore and other Southeast Asian countries have created firm networks that are based on personal relationships rather than arms-length transactions.⁽³³⁾ These networks have been particularly effective in conducting business in China, where cultural and linguistic affinities give them an advantage. For example, the emphasis of overseas-Chinese networks on personal relationships (*guanxi*) has been an effective means of dealing with imperfections in China's legal system that would

otherwise make contract enforcement difficult. While it is impossible to measure "overseas Chinese investment" in Asia, there is mounting evidence that the formal and informal economic relationships among China, Taiwan and Hong Kong continue to deepen. These networks are horizontal, and closed (although the network boundaries may shift as personal relationships expand).

Can The System Be Sustained?

The question for Southeast Asian host countries, of course, is whether this fundamentally new development strategy relying on regional networks can be sustained. First, the existence of low wages and expanding domestic demand have so far continued to lure investments into the region. One might ask whether if either of these factors abate, will the enthusiasm of MNCs for Asian localities dim? Alternatively, may the expansion and upgrading of Asian investment hit a point of diminishing returns for MNCs? If so, the possibility exists that Southeast Asian countries will experience "hollow" growth, that is, macroeconomic growth but without national ability to capture and dominate larger portions of the value-added and technology. We prefer to pose the question somewhat differently. We ask whether these new network arrangements are in fact a fundamental production innovation of the sort generated by the Japanese now some thirty years ago. As important, does this arrangement benefit the shopfloor, which can thus sustain rising wages, or only provide advantages to the network nodes, the central MNC or its subsystem suppliers? If this is a production innovation with widely diffused gains, then the pace of development may continue. We are confident this is a fundamental production breakthrough, but uncertain about the consequences for the diffusion of gain.

Second, there are political questions as well. Does the liberalization which has facilitated economic growth and attracted international capital hamper the government's ability to ensure social stability? Capital controls allow governments to control inflationary pressures. Wage controls allow the governments to control employment levels. The results may not be efficient--or perhaps even sustainable in the long-term--but such controls allow the government to avoid extreme short-term socio-economic dislocations. For countries with limited resources, these controls may play the same role as do the advanced industrial countries' social "safety nets" of unemployment programs and social security programs. Host country government must walk a fine line, then, between, embracing the benefits of liberalization and risking the instability of economic dislocation. Indeed, the experience of "late late industrializers" suggests that although host country government strategies (what we have traditionally called the "state") may be less influential than the government policies of earlier industrializers--or at least, influential in quite different ways.

This leads us back, then, to the question of the roles for the state. What relevance does this three-tiered story of Asian development have for our theoretical understanding of the state's role in economic development? The "state/market" distinction--which presents a false dichotomy even for our

understanding of earlier industrializers--may be even less relevant for the experiences of contemporary late industrializers, which do not have the option of pursuing autonomous development strategies.

II. Specifying National Market Dynamics: Stepping Beyond the Sterile Debate of States *or* Markets:⁽³⁴⁾

How, then, can we systematically evaluate the role of the state in development in a series of historical settings and indeed across several regions? Particularly with national comparisons across regions and time periods, the context for firms and governments can be so radically different that narrow and specific comparisons can be misleading. If we are to do so, the economic analysis of government in the economy should not be posed simply or principally as a question of overcoming market failures or of solving coordination problems, as an estimation of its capacity to pick winners and its risks of selecting losers, or of an assessment of the "rents" capture by influence in government as well as the costs generated by state action in general. Similarly, a political analysis that focuses, for example, exclusively on the rents associated with individual policies or the existence of state administrative structures will simply miss the critical story of how coalitions for growth are constructed.

We require an integrated approach that can address: 1) the strategies of firms; 2) the particularities of the national market in which they are entrenched and the international market that sets many of their options; 3) the pattern of policy and national institutions which define the set of constraints and possibilities for central economic actors, principally firms; and 4) the political battle that animates the policy and institutions. The interplay of actors, we argue here, generates a distinct "market logic" and particular "policy routines."⁽³⁵⁾ It is those *market logics* and *policy routines*, and the role of the state in the interplay, that can be compared across countries.

Let us first generate a sense of what we mean by policy routines and market logics. It is not a question of whether governments *or* private actors have driven economic growth in Asian economies--or indeed, anywhere. It is the interaction of governments and private actors that creates the political, economic and institutional settings in which growth occurs. Each market economy is defined by institutions and rules that structure how buying, selling and the very organization of production takes place.⁽³⁶⁾ The crucial elements of that institutional structure are the markets for capital, (including markets for companies), markets for labor (including markets for managers) and the state as the maker of rules. A distinct "market logic" --that is, a pattern of incentives and constraints for public and private actors-- emerges from the interaction of these three variables. The market logic induces distinct patterns of corporate strategy (and government policy) and therefore encourages internal features of companies (and the government) that are unique to that country. Consider some examples of this way of thinking.

A. Institutions, Policy Routines and Market Dynamics: Some Illustrative Examples

i. Policy Routines and Corporate Organization in France⁽³⁷⁾

The French case illuminates how the institutional structure acts to generate policy routines. French political-economic institutions produced constant policy responses to a diverse set of industrial problems in the period from the end of W.W.II until the mid-1980s.⁽³⁸⁾ The basic institutional frame of French policy has been evident from the late 1950s. The French executive has the capacity to formulate and pursue an interventionist strategy: the executive has considerable autonomy from selective legislative interference; the administrative system is centralized with considerable discretion in its implementation of the law; and the financial system is under the influence of the state.⁽³⁹⁾ Since market relations among these groups were defined by the credit-based financial system of government administered prices, each circle contained a series of instruments for government intervention and influence in industry. The limits on that government influence were defined by 1) the political buffers of trade associations, which acted as insulation from state authority; and 2) the industrial structure, which consisted of non-competitive, tradition-bound small firms that had been historically protected from foreign threats while competition was organized at home. Consequently, the state preferred large projects with goals that could be centrally defined and large institutions with which it could deal directly.

The core French strategy for industry has also been evident. The French strategies in competitive industries concentrated on the means to control market signals and the creation of large domestic players to act in oligopolistic markets. The French solution worked when the tasks at hand required the mobilization of resources, when it was possible to define a limited number of technological results, and when the competitive market could be suppressed, controlled, or oriented by the state. Success is evidenced by Ariane, Airbus, the TGV, and the Minitel system. But when France could neither dominate nor negotiate the markets, it simply suppressed market signals and insulated its firms, hindering their adjustment. To limit dislocation, the government encouraged growth by merger rather than by victory of the stronger, often leading to awkwardly structured and clumsy giants. Not surprisingly, the strategy did not work when a company had to rapidly adapt its products and processes to changing international market conditions. As a result, the French position in consumer electronics and now high-volume digital electronics has been weak; its position in electronic components untenable.

The policy pattern and market logic are clearly reflected in French trade statistics. Overall, French trade reflects this pattern: it is strong in armaments and in heavy capital goods sectors (such as planes and trains), where government support is effective in developing products and selling goods; but consumer durable sectors and machine tool industries are weak, since these strategies are often harmful.

This pattern of policy, interestingly, had a powerful influence on corporate structure. Firms which depended on the state--whether for markets, subsidies, or rules--tended to mimic the structure of the state. They did so because the centralized state structure required senior corporate executives to connect to senior state officials. That mimicry was amplified by the system of Grandes Ecoles and Grands Corps that staffed senior levels of the state bureaucracy and of many private firms. The result were patterns of organization that were so typically French that they were attributed by many to French culture and styles of preferred authority relations.⁽⁴⁰⁾ Those authority relations, in fact, had historical origins in the creation of the French state; the spread of that pattern was forced imitation in some cases and learned styles of organization in others. However, in sectors where firms were not so protected by the state or insulated by protection from foreign rivals, the typical organization reflected the requirements of competition and were closer to international norms.⁽⁴¹⁾ In sum an historically rooted institutional structure generated a pattern of policy, a pattern of trade, and a distinct organizational style in government and corporations.⁽⁴²⁾

ii. Production Revolution in Japan: Corporate Responses to Institutional and Market Incentives⁽⁴³⁾

The Japanese case makes even clearer the meaning of a "market logic." Examining the production revolution begins to suggest how the composition of production and particular patterns of trade are created by distinct national market logics. Japanese firms responded in a rational and understandable fashion to the policy and institutional incentives that were historically created. The pattern of incentives generated a particular market logic that produced a distinct pattern of government policy and corporate strategy. The government acted as a gatekeeper to develop the technology in an insulated market under Japanese control. Japanese policy produced intense internal competition, but the competition it created was managed and controlled. In this system of intense but managed competition, pursuit of market share was the best way to pursue profits.⁽⁴⁴⁾ This had two important consequences: production innovation in the firm combined with a search for technology around the world, and waves of excess capacity translated into aggressive export policies that often blurred into dumping abroad.

Let us examine this more carefully. The logic rests on three aspects of the Japanese political economy noted above. First, the Japanese market was relatively closed to the implantation of foreign firms. Consequently, competition was restricted to Japanese firms. Second, there was a rapidly expanding domestic demand. Financial resources channeled to expanding sectors by government policy permitted firms to satisfy demand by building production capacity. Third, foreign technology was easily and readily borrowed. Under these conditions, market logic encouraged Japanese firms to aggressively pursue market share as a means of maximizing profits--goals traditionally assumed to be

contradictory. Formally, firms faced long-term declining cost curves.⁽⁴⁵⁾ They could jump quickly from one product/process generation to the next by borrowing technology abroad during the catch-up years of an expanding domestic market. That meant that as firms increased volume--ideally capturing more market share in the expanding market--costs would fall, allowing prices to drop to increase sales, thus starting the cycle over. A firm borrowing product or process technology abroad could drive down its costs by steadily expanding production, and also capture both scale and learning economies by building pricing and building capacity in anticipation of demand. Borrowing again, it could start the process over. The learning curve effect, even more than the emergence of scale economies, encouraged the Japanese firms to amplify their capacities to adjust, adapt, and "bear the risks that are associated with innovation."⁽⁴⁶⁾ Faced with long term declining cost curves, firms developed the ability to move new technology to market quickly, to price and to build capacity in anticipation of market, and to implement rapidly what they learned as production expanded. These became basic characteristics of Japanese companies.

As firms sought to maximize market share by heavy capacity investment, the result was excess capacity and excessive competition. This, in turn, led to efforts to regulate competition that included the creation of cartels or production controls negotiated among firms. Equally important, constant efforts to import and develop foreign technologies created a basis for government organized technology consortia which likewise structured and bounded competition. None of these arrangements is stable, but they have often served to bound or regulate the consequences of excess capacity.

The pursuit of market share spilled over into international markets.⁽⁴⁷⁾ Companies in Japan competed for market share, which required them to build production capacity in anticipation of demand. Excess capacity was almost inevitably the result. Since much of the production capacity was then a fixed cost, the temptation was to sell at marginal production cost in foreign markets. As long as the domestic market was insulated and foreign markets open for sale of excess capacity, Japanese firms had a constant incentive to build in anticipation of demand and off load the consequences of over-ambitious judgments onto foreign markets. In fact, when the domestic market became saturated, a group of firms would begin to export at the same time. The result, in the phrase translated from the Japanese debate, was a "down pouring of exports". The sudden flood of exports into the major export market--the United States--caused intense political conflict with America in a series of sectors beginning with textiles and continuing through sectors such as televisions, automobiles, and, later, semiconductors. The periodic battles over Japanese dumping are thus a function of the domestic pattern of competition in which market share is key.

The corporate practices fashioned in the era of rapid growth significantly affected the tactics of production organization in the factory. With large protected domestic markets and access to borrowed technology, Japanese firms were then encouraged to grow rapidly, to pursue market share, and to exploit increasing

returns. The key to organization became flexibility. Those Japanese firms that could organize themselves flexibly to capture the gains of introducing successive waves of borrowed technology had an advantage domestically. Competition among Japanese firms turned, in no small part, on manufacturing innovation and the introduction of new product. In fact, the particular strategies for production that emerged in Japan created distinct and enduring advantages in global markets.

B. The Dynamics of National Systems: Market Logics and Policy Routines.

There are then typical strategies, routine approaches to problems and shared-decision rules that create predictable patterns in the way that governments and companies go about their business in a particular political economy. These differences are clearly visible in the structure of advanced industrial countries. How do we understand these differences systematically? We need a framework treating the links among politics, institutions, and markets. Zysman has sketched a three-step approach to link institutional and social contexts to the dynamics of national market systems.

STEP 1: Each economy consists of *an institutional structure*. The institutional organization of politics and markets define the choices of each actor. It induces nationally specific political and economic dynamics. That institutional structure is a function of the country's distinct political and industrial development. Many critical institutions, social arrangements, and social groups predate modern societies and market economies; others are given a modern character, often by force, in a struggle over a variety of non-market issues. These institutions and arrangements, which often shape the form of modern markets, cannot be understood simply by a narrow analysis of economic calculus.

One implication is that an analytic understanding of the origins of a country's market institutions and rules is an essential part of the task of understanding how contemporary market systems operate. The progressive evolution of these structures defines evolving sets of constraints and incentives. Historians, the economists' awkward way of saying that history matters, and punctuated equilibrium, a convention to suggest that economic systems progress between periods when institutions define routines and periods when institutions and rules are themselves redefined, both point to the notion of movement from one institutional structure to the next.

STEP 2: That institutional structure of the economy, combined with its industrial structure in a more classic industrial organization sense, *creates a distinct pattern of constraints and incentives*. This defines the interests of the actors as well as shapes and channels their behavior.⁽⁴⁸⁾ The interaction of the major players generates a particular "policy logic" and a particular "market logic". Since the national institutional structures are

different, there are, as a consequence, many different kinds of market economies.

Each market economy is defined by the institutions and rules that permit it to function, or said differently, each national system can be defined by "institutional structure" of the economy that structures how buying, selling and the very organization of production take place. The crucial elements of that institutional structure are the markets for capital (including markets for companies), markets for labor (including markets for managers), and the state as the maker of rules. The task is defining the *patterns of incentives and constraint*.⁽⁴⁹⁾

STEP 3: Market logic, specific to a particular national institutional structure, drives corporate choice shaping the particular character of strategy, product development, and production processes in a national system. A specific market logic (and political logic) then induces distinct patterns of corporate strategy (and government policy), and therefore encourages internal features of companies (and the government) that are unique to that country. There are typical strategies, routine approaches to problems, and shared-decision rules that create predictable patterns in the way governments and companies go about their business in a particular political economy. Those institutions, routines, and logics represent specific capacities and weaknesses within each system.

The notions of dynamics and routines emphasize that we cannot treat the individual state actions in isolation. We must do more than analyze individual policy elements, we must consider how particular policies influence the market dynamics and policy routines. Consider *The East Asian Economic Miracle*.⁽⁵⁰⁾ The book analyzes a series of national development experiences in Asia. These individual analyses are themselves quite interesting and valuable.⁽⁵¹⁾ But there is no vocabulary or framework to consider the interactions discussed above. Nor are the shifting historical setting of the market problem and the timing of development examined. In identifying policy, actions are in a sense added up, rather than seen as generating interaction that creates a particular dynamic. When distinctions are made they are descriptive, not analytic. Consider the following statement:

The northern-tier economies--Japan, Korea, and Taiwan, China--halted the process of import liberalization, often for extended period, and heavily promoted exports. *Thus while incentives were largely equal between exports and imports, this was the result of countervailing subsidies rather than trade neutrality; the promotion of exports coexisted with protection of the domestic market.* In the Southeast Asian HPAEs, conversely, governments used gradual but continuous liberalization of the trade regime, supplemented by institutional support for exporters, to achieve the export push. the trade regime.⁽⁵²⁾

(Emphasis added)

First, note that the set of northern tier players correspond to our first two tiers of Asian development when a purely autonomous strategy was imaginable, while the Southeast Asian countries represent the third period when the policy problems were completely different since they fit into the era of emerging regional networks. Active state policies by northern tier and Southeast Asian countries would require different things. Second, and more problematic, the pattern of trade protection and export promotion with domestic contests allocating resources is precisely that which we described in the case of Japan. To "add" policies and conclude incentive were "largely equal" is to miss the market dynamics that were set at work. That policy mix created a distinct "dynamic" described above which generated excess capacity, production innovation, export downpourings, and an uneven development resulting from the overconcentration of investment in a few sectors and underinvestment in others.

Finally, the even more basic question is whether this policy mix generated the export oriented dynamic to which *The East Asian Miracle* points. That is, did the created competitive advantage, the learning economies, and the production innovation generate savings through exceptional profits and investment through exceptional opportunities? Or conversely, as might more conventionally be argued, did savings and investment generate market advantage? It would not be easy to disentangle these effects since some levels of endogenous investment are required and the question is the degree to which policy generated competitive advantage induces private and public investments. It is hard to see how the econometric analyses of aggregate data can distinguish the lines of causation since the effects would be interactive. Indeed, one might force the even more radical proposition and ask whether export oriented policies that drove competitive advantage and thus, arguably, induced an amplification of private public savings/investment that would change the mix of available inputs in fact contributed materially to the shift in comparative advantage. But we are still several steps short of done. Our discussion, and indirectly the analysis of *The East Asian Miracle*, underlines that it is not so much the fact of government intervention, but the way that resources are channeled (individual firm subsidy or rewarded contests for example) that determines competitive and distributive outcomes.⁽⁵³⁾ One issue is the policy mix, the pattern of the individual interventions that contributes to the market logic and policy routines. As important is the policy orientation, the weight toward productive or non-productive public action. Does subsidy in pursuit of political support inevitably mean economic inefficiency and slowed growth? It depends, we suspect, on who is subsidized and how.

C. Political Coalitions, Policy Orientations

Economic development always implies social dislocations and the radical transformation of lives and communities. In political terms, "losers" must be kept from interfering with the processes of development, while the "winners" must have the incentives and profits to sustain the market process. Unless those who are dislocated and disadvantaged are bought off and co-opted through

compensation (or simply beaten politically), an endless series of conflicts and disputes will disrupt the market. The policy trick is to contain opposition but not to subsidize the "losers" to such an extent that positive market signals are muted. In technical terms, policies must create incentives that sustain growth and innovation. Thus, if "losers" are compensated or insulated, the market incentives for "winners" must simultaneously be kept sufficiently strong to generate new economic activities, firms and sectors. When *The East Asian Miracle* focuses on the principle of shared growth in which leaders effectively promised that "as the economy expanded all groups would benefit,"⁽⁵⁴⁾ the authors directly address this political problem.

All successful political economies must at once find a solution to these twin problems, the political and technical tasks associated with allocating pain and gain. There is no single formula for solving them. Different policy avenues are available. However, the particular way in which problems are solved has distinct political, distributive and competitive consequences for any country and particular consequences for the "market dynamics" and policy routines that result. For example, in the French case a small elite reformed the State administration to orient it toward growth. It then used the instruments of the state to create flows of resources to losers to win their acquiescence and to winners to promote development--often seeming to step on the accelerator and the brake at the same time. What is critical in any single case is the balance of policy--whether to buy acquiescence from losers or to generate wealth creating opportunities--and the dynamic created by a mix of policy instruments.

More narrowly, market interventions can create economic rents or in political terms--pools of resources that can be allocated or captured by policymakers. Those rents can be defined as the "returns in excess of those generated by a competitive market," that is wealth creating, rather than simply transfers that advantage one group at the expense of another.⁽⁵⁵⁾ Again, development requires that those interventions at once orient the policy mix toward wealth creation activity and create the political support to sustain that orientation.

As a useful example of this interplay and balance of technical and political, let us consider the financial sector where one government policy strategy in pursuit of development has been to maintain artificially by administration low interest rates, rates below market equilibrium.⁽⁵⁶⁾ We will return a final time to Japan, where such policies were critical, as we have argued. (We could, of course, tell a similar story about France). Low interest rates raise the demand for capital, permitting the government to influence its allocation by rule and administration. Policies of low administered interest rates have often been labeled "financial repression," the suppression of market based supply/demand mechanisms in finance. The question is whether such low interest rates inherently dampen the supply of capital and distort its allocation by politically motivated loans. Or, rather, whether as part of a mix of policies, such strategies create "opportunities that induce economically efficient actions that private markets would not undertake because of a divergence between private and social returns."⁽⁵⁷⁾ The implication has

usually been that either government expropriates the wealth or provides it to political supporters, in either case that "financial repression" involves income transfer (usually for political reasons) that interferes with development. Rather than simply conceptualizing rents as wealth transfer, Hellman, Murdock and Stiglitz differentiate two types of preferential credit schemes. One, discussed above, is "financial repression" with its *transfer* to government or political supporters. They differentiate that from "financial restraint," which generates profit opportunities for banks and businesses. In financial repression government actors extract rents from the private sector and reallocate them to themselves or their supporters. In contrast, financial *restraint* can generate wealth creation opportunities that drive real growth. ⁽⁵⁸⁾ Thus, we can refer to "wealth creating" rents, and differentiate them from "transfer rents." Hellman et al argue, however, that what is important is not simply the policy of administratively lowered interest rates, but in whether the rents are wealth creating or transfers. We are not interested here in the precise mix of tactics that will permit financial restraint that generates private financial sector gains that are shared with industry to create wealth. Nor are we concerned here with the circumstances under which such actions might improve outcomes.

The analytic payoff for us is the connection between the technical tactics of development and the political tactics of sustaining support for development. We are concerned that a government can seek support either by designating *transfers* to its evident supporters whatever the economic consequences or whether it will seek support by generating the possibilities of wealth creation for a larger set of firms, which become its supporters. In the former, financial repression dampens growth: in the latter, financial restraint--the pursuit of political support for development--ends up creating market place winners and driving development. Thus, the creation of the coalitions to support growth and the character of the market dynamics and policy routines can be linked. Let us retell our story of Japan, which provides an excellent example of effective financial restraint policies that were tightly woven with the Liberal Democratic Party political strategies. Those restraint policies contributed substantially to the market dynamic discussed above. Post-war Japan was characterized by an array of government administrative mechanisms to shape private incentives, including privileged finance, tax arrangements, infrastructure investment, land reclamation, and even selective allocation of sugar quotas as a means of supplementary finance. ⁽⁵⁹⁾ "Window guidance" was the monetary arm of Japan's administrative guidance: a series of financial controls, incentives such as low-interest finance, and informal "suggestions" by the Bank of Japan designed to channel domestic savings into industrial investments. These mechanisms allowed the Ministry of Finance to assure high stable margins for banks and low cost long term investment funds to the industrial sector over several generations. The system was characterized by channels that linked undercompensated savings to underpriced industrial investment; these were non-market mechanisms operating with administered prices.

This financial restraint policy amounted to a crucial national strategic decision. Again, a distinct market logic emerged from this combination of readily available low cost capital, the assurance of banking profits, and the management of industrial risk so that lending losses would not disrupt either the financial system or particular financial houses. As argued above, Japanese firms were able to pursue aggressive strategies aimed at capturing market share precisely because they had implicit and explicit government assurances that the risks of these strategies would be muted. We repeat that this structure of industrial finance had a logical consequence: excess capacity as a result of the rivalry of industrial groups and their banking allies.⁽⁶⁰⁾ That excess capacity pressed firms toward production innovation in order to gain new market share and to remain competitive. Excess capacity also encouraged the emergence of mechanisms to support aggressive export tactics. Government interventions mattered, certainly, but taken in isolation, they tell us little about the dynamics of Japanese growth, and not about the politics of sustaining it. It is more illuminating to consider developmental economic strategy as a system filled with reciprocal consent by government and private players. The question of how policies affect market dynamics and how they generate support for government orientation are intertwined.

III. A Brief Digression

This institution based view of developmental trajectories demands in turn a theory of their nature, dynamic, and origin. A brief methodological indulgence will permit us to apply our approach to the question at hand: the role of the state in Asia. Economists tend to see institutions through the lens of the rational actor. For them, and those who adopt the approach of the economists, institutions reflect the possibilities, interests, and consequently actions of the multiple individual actors. Institutions spring up from the dynamics of a Lockean state of nature. By contrast the "new" institutionalism in political science has a Tocquevillian twist.⁽⁶¹⁾ It argues that the sources and consequences of institutions cannot be reduced to economic interests or interpreted exclusively through economic analysis. As important, economic interest cannot simply be understood as maximizing efficient operations; that is the analysis of efficiency will not reveal the objectives or calculus of the actors. That is, interests themselves are given form by their institutional context.

When we trace a narrative about the origins of institutions, the divergence in analytic stance is quite evident. A first perspective rooted in microeconomics assumes a Lockean state of nature. It explains the creation and organization of institutions in terms of the interests of particular individuals. Rational choices of microeconomic maximizing individuals are the basis for calculating interest. Mancur Olson posits the collective action problem asking what brings individuals to act together.⁽⁶²⁾ When he applies the notions to party and political interest groups, he posits that Lockean starting point. Time permits an accumulation of rent seeking groups that represent a form of economic arteriosclerosis that slows

growth. The mechanisms that generate broadly organized growth sustaining alliances cannot be analyzed within the original framework.

Other micro-economic based approaches do not seek explanation of the origins of the institutions but they examine or seek explanation in adaptive efficiency. As known, Oliver Williamson builds an organizational microeconomics, transaction-cost analysis, by positing agents (individuals) who seek to arrange their transactions in the most efficient manner. He also begins with a world of individuals. Implicit in Williamson is the notion that the only reason why advanced industrialized countries have economic market systems with firms of more than one person is to reduce high transaction costs. Those transaction costs are generated by "the transfer of a good or service across a technologically separable interface". Such costs are created by three forces: asset-specificity, bounded rationality, and opportunism. Asset specificity is defined in terms of the idiosyncratic nature of the object of the transaction (or, in a slightly different vocabulary, as the knowledge or other investment of one set of actors that is specific to the transaction that is being considered). Bounded rationality refers to the fact that actors can only absorb a certain amount of information and thus need to make decisions that control for their information capacities. Many contracts are incomplete. Opportunism, therefore, refers to the fact that individual actors will have incentives to exploit asymmetric information for their own interest.⁽⁶³⁾ Furthermore, contracts are not generally self-enforcing.

Certainly, both the problem of generating collective action and of structuring appropriate contracting arrangements to minimize transaction costs are significant questions that do drive behavior and shape institutions.

But social life does not begin in a state of nature and cannot be effectively understood as if it did. Nor can social behavior be fully understood by simply positing an existing set of institutions that bound choice at one moment. The initial focus of many organizational analysts on a single case, the American one, tends to reinforce the tendency not to explore the origins of the institutional structures that concern them.

The contrasting vision presented here argues that contemporary political economies operate within a set of national institutions whose origins matter to their influence on behavior. Those institutions were constructed by the politics of building a nation state and responding to sharp economic crisis that threaten social position not simply by the problem of organizing innovation and production. Crucially, the resulting institutions not only channel interests but affect the very definition of interests that drive behavior. Consider for example France. The French centralized structure reflects the historical route by which the Kings, seeking mechanisms of control and taxation, created a state structure and a revolution created a nation. That centralized structure so defined group interests that after the revolution there were few advocates of local power as means to practical ends. Rather the push for deconcentration of administrative authority (not really the power to tax and spend that we associate with local power in the United States) came when overwhelmed by administrative demands

the central bureaucracy itself launched reforms.⁽⁶⁴⁾ The very destruction of local power which was necessary for the modernizing elites to force post-W.W. II growth later precluded local initiatives and entrepreneurial responses to shifts in the global economy in the 1980s.⁽⁶⁵⁾ By contrast, the German nation, the community, preceded the creation of the German State. That national state was forged by Bismarck who used external threat to compress pre-existing principalities into a single political entity. Those principalities retained their identity and formed the basis of local power in modern Germany. The logic of contemporary economic life emerged along very different paths in different German localities. Indeed the diversity of industrial production, the co-existence of an economy of large giants and the zones of industrial flexibility, are rooted in local histories.⁽⁶⁶⁾

Let us extend this distinction between the socially "naked" organization and the socially "embedded" organization. The "embedded" organization is in a social structure of other institutions that facilitate as well as impede its activities.⁽⁶⁷⁾ Consider how an organization finds solutions to the need for collective action, the effort to devise appropriate contracting relations or to resolve the tension between principals and agents. For the socially "naked" organization the solutions must be imagined to be found within the individual organization or between the organizations directly affected by the problem. In that case, the analytic focus is on the particular organizations and the incentives that motivate actors within them as well as contracting law that defines the range of their arrangements. The law becomes the organizational link to the world at large. Conversely, for the socially "embedded" organization we can imagine that solutions to these organizational problems can be found in the relations to and resources of the institutions that surround it. These are not alternative perspectives in which one can be abandoned in favor of the other. Rather they illuminate different issues. Put differently, the institutional structure of political economy, rooted in the original politics of industrialization and modernization, bounds the problems that concern Olson, Williamson, and others. The basic structure of the national state creates options that delimit solutions within society.

Nations bring embedded institutional capacities to the policy tasks they confront. States will forever try to match their entrenched capacities to tasks and to extend their capacities--or when they cannot, to redefine the tasks.

IV. Conclusion

This essay has sketched an approach to the issue of how to embed notions of the "state" into economic arguments about development. By way of conclusion, let us summarize where we have come in this discussion.

First, there is not a single story of Asian development, not a single Asian miracle. Analytically it is a serious error to group the countries as a single set. Rather there is a sequence of development phases that are distinctly different, each involving a different role for the state. In a first phase, Japan was the true case

of autonomous development resting at least in part on a protected home market that, with considerable success, created not only an endogenous chain from final product position in advanced countries markets back through subsystems, components, and production equipment-- but also a veritable production revolution in consumer durables. In a second phase, Korea and Taiwan established market position in final product and elaborate subsystems such as monitors, and used domestic protection and promotion to achieve their goals. But the chain, in some cases backward to production systems as well as components and in others forward to final product, has been less complete. In a third phase, the Southeast Asian countries have inserted themselves into regional production networks, networks that have been spun by multinational corporations. Perhaps these networks are driving a new round of production innovations. However, host countries are at best able to support the position of their firms in that network evolution, not to drive or create the evolution or the networks themselves. The role of the state in each of these three phases should be considered differently, since the countries faced quite different possibilities and constraints on development.

Second, and more generally then, the place of the state in development has evolved with the timing of industrialization, with the market problems and security situation facing the countries in question. In the European sequence, the state in the early developer Britain created the social institution of the market place, but had a limited role in actual industrial development. With later developers forcing rapid development in the face of security threats and market competition, the state (that is the government administrative bureaucracy and political executive) played a large more direct role. Japanese experience, and that of Korea and Taiwan, seemed to confirm this notion that late development encouraged a role for the state. But the recent developments, suggest that something quite new is afoot. With the active promotional role of many of these governments, it is much too simple to suggest that the state's role has been eliminated or diminished. One analytic undertaking is to define what that new role for the state is in this era of regional production networks.

We suggest that distinct "strategic development tasks" confront the state in each era. Those strategic tasks must be defined, and then assigned to analytic categories such as "coordination" that allow us to treat them with the more standard tools of economic analysis. If different strategic problems suggest different categories of economic issue, then the appropriate response of the state over time can be more easily understood.

Third, the response to these "strategic development tasks" is not a product either of pure analytic economics or of pure politics. Rather the solutions, as suggested above, are created in an institutional context that defines an historically rooted trajectory of development. There are often a variety of solutions, not a single optimal answer, to the development tasks. But, the character of the response to these "tasks" is coded in the inherited institutional logic of a society and not simply created as institutional solutions to particular

market or political problems. In any case, the institutional legacy of the defining moments of industrialization and political development are likely to create or further entrench particular trajectories of development. We therefore need to look at the match between these strategic development tasks and institutional capacities brought to the task at hand. The obvious question is whether there are seemingly shifting roles of the state in development because there are new "strategic development tasks" or whether there are different capacities brought to bear by these societies.

Fourth, we require an explanation not only of the fact of development but also of the resulting composition of production and the patterns of trade that result from a given pattern of State intervention. The notion of market dynamics permits us to compare State activity across historical periods by looking at the patterns of market behavior. By focusing our attention on market dynamics rather than particular policies, we can account for broad national differences in the composition of production and trade patterns.

Footnotes

1. Our purpose is to introduce some tentative hypotheses in order to refocus old questions in a new light. The hypotheses offered here are rooted in extensive ongoing BRIE research regarding the organization and international trade activities of cross-regional production networks in Asia.
2. *The East Asian Miracle*, A World Bank Policy Research Report, (New York: Oxford University Press, 1993).
3. Alexander Gerschenkron, *Economic Backwardness in Historical Perspective* (Cambridge, MA: The Belknap Press of Harvard University Press, 1962).
4. Pacific Economic Cooperation Council, *Pacific Economic Outlook: 1995-96* (San Francisco: The Asia Foundation, 1995). See especially Table 1, p. 63.
5. *The East Asian Miracle*, op. cit., p. 2. If we use the World Bank's category of the Asian "high-performing economies," we find that eight Asian economies have since 1960 grown more than twice as fast as the rest of East Asia, three times faster than Latin America and South Asia, and a full five times faster than Sub-Saharan Africa.
6. For a good discussion of this literature, see Peter A. Petri, "The Lessons of East Asia: Common Foundations of East Asian Success" (Washington, DC: The World Bank, 1993).
7. Three explanations that are commonly offered for the success of East Asian countries include the role of the state in effectively creating economic advantage; differences in the way that foreign investment was managed in the region; and geopolitical factor that worked to the advantage of Asian countries. For various lines of argument, see Gary Gereffi and Donald Wyman (eds.), *Manufacturing Miracles: Paths of Industrialization in Latin America and East Asia* (Princeton: Princeton University Press, 1990); Stephan Haggard, *Pathways from the Periphery* (Ithaca: Cornell University Press, 1990); Alice Amsden: *Asia's Next Giant: South Korea and Late Industrialization* (New York: Oxford University

Press, 1989); and Robert Wade: *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization* (Princeton: Princeton University Press, 1990). For arguments about the role of culture in East Asian development, see Michio Morishima, *Why Has Japan "Succeeded"? Western Technology and the Japanese Ethos* (New York: Cambridge University Press, 1982) and Gilbert Rozman (ed.), *The East Asian Region: Confucian Heritage and Its Modern Adaptation* (Princeton: Princeton University Press, 1991).

8. The eight "HPAEs" are Japan, Hong Kong, the Republic of Korea, Singapore, Taiwan, Indonesia, Malaysia, and Thailand. The categorization comes from *The East Asian Miracle*, op. cit.

9. For example, Japan seems one exception to the industrial country pattern of intra-industry trade, tending not to import in those sectors in which it had managed to create competitive advantage in international markets. For a discussion of intraindustry trade, see Edward Lincoln, *Japan's Unequal Trade* (Washington, DC : Brookings Institution, 1990).

10. Laura D'Andrea Tyson and John Zysman tried to answer that question more than a decade ago contending that the distinctive interplay of policy and market structure generated a very specific set of firm strategies. See their "Developmental Strategy and Production Innovation in Japan," in C. Johnson, L. Tyson and J. Zysman, eds., *Politics and Productivity: The Real Story of Why Japan Works* (Cambridge, MA: Ballinger, 1989).

11. Shigeto Tsuru, *Japan's Capitalism: Creative Defeat and Beyond* (New York: Cambridge University Press, 1993).

12. Tyson and Zysman, op. cit.

13. For an argument that Asian growth has been based on increasing factor inputs rather than productivity growth, see Paul Krugman, "The Myth of Asia's Miracle," *Foreign Affairs*, Vol. 73, No. 6, Nov-Dec 1994.

14. See Alice Amsden, *Asia's Next Giant: South Korea and Late Industrialization* (New York: Oxford University Press, 1989).

15. See Alice Amsden and L. Kim, "The Acquisition of Technological Capability in South Korea," Mimeo, Development Research Department, Productivity Division, World Bank, Washington, DC, 1985, as discussed in Amsden, op. cit., pp. 20-21.

16. See "South Korea Survey" in *The Economist*, June 3, 1995, p. 12.

17. The expansion is heavily debt-financed: the debt/equity ratios of both corporations are about 300 percent.

18. See Jason Dedrick and Kenneth Kraemer, "A Tale of Two IT Industries," *Electronic Business Asia*, February 1995, p. 72.

19. For a discussion on strengths and weaknesses in Korea's and Taiwan's competitiveness in the electronics industry, see Dieter Ernst, *What are the Limits to the Korean Model? The Korean Electronics Industry Under Pressure* (Berkeley: Berkeley Roundtable on the International Economy, 1994). and Dieter Ernst, "New Opportunities and Challenges for Taiwan's Electronics Industry--The Role of International Cooperation," BRIE Working Paper 78, Berkeley Roundtable on the International Economy, July 1995.

20. See Dieter Ernst, "Carriers of Regionalization: The East Asian Production Networks of Japanese Electronics Firms," BRIE Working Paper 73, Berkeley Roundtable on the International Economy, November 1994.
21. See Dennis Encarnation, *Rivals Beyond Trade: America Versus Japan in Global Competition* (Ithaca: Cornell University Press, 1992) and Dennis Encarnation, "Brining East Asia into the U.S.-Japan Rivalry: The Regional Evolution of American and Japanese Multinationals," in Eileen M. Doherty, ed., *Japanese Investment in Asia: International Production Strategies in a Rapidly Changing World* (Berkeley: Berkeley Roundtable on the International Economy, 1995).
22. See Stephen S. Cohen and Paolo Guerrieri, "The Variable Geometry of Asian Trade," in Doherty, op. cit.
23. As we discuss below, whether the expansion of domestic demand in Asian host countries will fundamentally changes these trade and industrialization patterns remains an open question.
24. For a more detailed discussion, see Michael Borrus, "Left for Dead: Asian Production Networks and the Revival of U.S. Electronics" in the proceedings from conference on "The China Circle: Regional Consequences of Evolving Relations Among the PRC, Taiwan, and Hong Kong-Macao," Hong Kong, December 8-10, 1994, Publication forthcoming of the Institute on Global Conflict and Cooperation, University of California, San Diego. Borrus defines the "supply base" as the "local capability to supply the components, machinery, materials and control technologies (e.g., software), and the associated know-how, that producers use to develop and manufacture products."
25. MITI is exploring options with ASEAN leaders on ways to nurture competent host country SMEs that can provide components and lower-value-added production for MNCs operating in the country. According to one influential Japanese policy analyst, this cooperation is aimed at ensuring that SMEs are competitive not only in price but also in quality and delivery, "so as to be integrated in international specialization". Ipeei Yamazawa, "Promotion of SMEs for Industrial Upgrading in ASEAN: A Japanese Proposal for Industrial Cooperation," *ASEAN Economic Bulletin*, Vol. 11, No. 1, July 1994.
26. This is true especially where subsidiaries are being established in order to reexport to third country markets. Investors who hope to gain a foothold in a large or untapped domestic market may be more willing to accept restrictive host country policies. For example, China has been able to maintain heavy restrictions on FDI precisely because its large domestic market continues to attract overseas investors.
27. According to a MITI survey, nearly 70 percent of the firms investing in East Asia are now doing so in order to secure and expand the local or regional market. See MITI's *White Paper on International Trade* (Tokyo: Ministry of International Trade and Industry, 1994), p. 234.
28. It is easy to confuse vocabulary. Aoki would call the Japanese arrangement a "horizontal hierarchy" better able to process information than the more typical

American business arrangements he would label as a "decentralized hierarchy". The horizontal networks of peers represent a distinctly different arrangement. See, for example, Masahiko Aoki, *Information, Incentives and Bargaining in the Japanese Economy* (New York: Cambridge University Press, 1988).

29. For a more detailed discussion, see Ernst, "Carriers of Regionalization: The East Asian Production Networks of Japanese Electronics Firms," *op. cit.*

30. See Michael Borras, "Left for Dead: Asian Production Networks and the Revival of U.S. Electronics," *op. cit.*

31. See Borras, "Left for Dead: Asian Production Networks and the Revival of U.S. Electronics," *op. cit.*

32. Dieter Ernst, "New Opportunities and Challenges for Taiwan's Electronics Industry--The Role of International Cooperation," *op. cit.*, p. 3.

33. Of course, these categories are not mutually exclusive, but are rather meant to highlight some of the broad organizational differences in various production networks operating in Asia.

34. Section II is drawn largely from John Zysman, "How Institutions Create Historically Rooted Trajectories of Growth," *Industrial and Corporate Change*, Vol. 3, No. 1, 1994.

35. See John Zysman, "How Institutions Create Historically Rooted Trajectories of Growth," *op. cit.*

36. For the classic argument on the relationship between markets and social order, see Karl Polanyi, *The Great Transformation: The Political and Economic Origins of Our Time* (Boston: Beacon Press: 1957).

37. These arguments are drawn from John Zysman, *Political Strategies for Industrial Order : State, Market, and Industry in France* (Berkeley : University of California Press, 1977).

38. The same position was adopted in the "Reviews of Innovation Policies - France" (note by the Secretariat) French Examiners Report (1986).

39. Viewed from the vantage of a senior political executive, the French system could be understood as a series of circles of power and influence emanating out from a core defined by the prestigious *trésor* in the Ministry of Finance. The second circle would include the parapublic banking institutions, and the third, the commercial financial institutions.

40. See Michel Crozier, *The Bureaucratic Phenomenon* (Chicago: University of Chicago Press, 1964) and *The Stalled Society* (New York: Viking Press, 1973).

41. In earlier work, Zysman has told the story of how French business mimicked the structures of the state. He sought to show more generally that dominant organizations that control resources essential to subordinate organizations. A similar notion has recently been developed in the discussion of organization isomorphism. See for example, Paul J. DiMaggio and Walter W. Powell, "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organization Fields," in Powell and DiMaggio, eds., *The New Institutionalism in Organizational Analysis* (Chicago: University of Chicago Press, 1991).

42. However, that pattern of French policy is evolving in the 1980s. Its institutional structure is being reformed. The state's strategies and capabilities for industrial intervention are being redefined both by European integration and by domestic efforts to redefine the role of government
43. Drawn from Tyson and Zysman, "Developmental Strategy and Production Innovation in Japan," op. cit.
44. Tyson and Zysman, op. cit.
45. See Yasusuke Murakami, "Toward a Sociocultural Explanation of Japan's Economic Performance" in Kozo Yamamura, ed., *Policy and Trade Issues of the Japanese Economy: American and Japanese Perspectives* (Seattle: University of Washington Press, 1982)
46. Thanks to Nathan Rosenberg for this particular phrasing.
47. Murakami, "Toward a Sociocultural Explanation of Japan's Economic Performance," op. cit.
48. Alexis de Tocqueville makes the classic argument. See in particular *The Old Regime and the French Revolution* (Garden City, NY, Doubleday, 1955). Reinhard Bendix provides a useful explication of the argument in *Nation Building and Citizenship*, (New York: Wiley, 1964).
49. Joseph Stiglitz's excellent work on finance is one example. A particularly lucid non-mathematical presentation is "Financial Markets and Development," *Oxford Review of Economic Policy*, Vol. 5, No. 4 (1989). David Soskice's "Reconciling Markets and Institutions: The German Apprenticeship System" (Oxford University, July 1992) is a second example.
50. Our concern here is not to criticize this undertaking, which is remarkably successful and exceptionally valuable in extending the boundaries of debate. Rather, it is in exploring the limits of its analysis.
51. It should be noted, though, that there is a debate over the analytical categories embraced by the volume. The authors distinguish between the resolution of coordination problems and the creation of contests, on the one hand, and industrial policy (defined as sector specific activities), on the other. Some students of East Asian development, especially those who view state intervention as a key explanatory factor in understanding Asian growth, argue that it is often difficult to distinguish between "industrial policies" and policies to resolve coordination policies.
52. *The East Asian Miracle*, op. cit., p. 22.
53. For example, Amsden argues that the key to successful Asian development was not the mere fact of state intervention, but the kind of intervention that occurred. Specifically, she argues that the Korean state promoted economic development by granting subsidies that distorted relative prices in ways that sparked economic activity, but imposed performance standards on the recipients of subsidies. Firms that failed to meet performance criteria were penalized. See Amsden, op. cit., p. 8.
54. *The East Asian Miracle*, op. cit., p 13

55. This definition is taken from Thomas Hellman, Kevin Murdock and Joseph Stiglitz, "Financial Restraint: Towards A New Paradigm," Paper written for the World Bank EDI Workshop on the "Roles of Government in East Asian Economies: Rent Creation, Coordination and Institutional Development" held at Stanford University, February 10-11, 1995. On p. 1 Hellman, Murdock and Stiglitz stress this definition rather the conceptualization of rent as the income that accrues to an inelastically supplied factor of production.

56. For a good discussion of the debate about financial repression, as well as a comparative discussion of financial systems, see Stephan Haggard, Chung H. Lee and Sylvia Maxfield (eds.), *The Politics of Finance in Developing Countries* (Ithaca: Cornell University Press, 1993). There are other arguments regarding the dangers of financial repression. Some have argued that financial repression creates a bias toward overly capital-intensive investments; others have suggests that artificially low interest rates might create pressures for import-substitution manufacturing rather than export-oriented manufacturing or agriculture. On the former critique, see Stephan Haggard, *Pathways from the Periphery: The Politics of Growth in the Newly Industrializing Countries* (Ithaca: Cornell University Press, 1990) Chapter 9; on the latter see, for example, J. Fry, *Money, Interest and Banking in Economic Development* (Baltimore: Johns Hopkins University Press, 1988), pp. 143-53, 410-17, both as cited in Haggard, Lee and Maxfield, p. 7.

57. Hellman, Murdock and Stiglitz, op. cit.

58. Example of such underprovided services in competitive markets, according to Hellman, Murdock and Stiglitz, are the monitoring of investments and the provision of deposit collection. They stress that, for financial restraint policies to be create such positive effects, a number of conditions must be present, including: a stable, low-inflation macroeconomic environment, non-excessive taxation of the financial sector, and positive real interest rates.

59. See Shigeto Tsuru, *Japan's Capitalism: Creative Defeat and Beyond*, op. cit.

60. Tsuru, op. cit. See also Yasusuke Murakami, "Toward a Sociocultural Explanation of Japan's Economic Performance"; op. cit.; and Tyson and Zysman, "Developmental Strategy and Production Innovation in Japan," op. cit.

61. See Alexis de Tocqueville, *Democracy in America* (New York, A. A. Knopf, 1945) and *The Old Regime and the French Revolution*, op. cit., and John Locke, *Of Civil Government: Second Treatise* (New York: E. P. Dutton & Co., 1930).

62. Mancur Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups* (Cambridge, Mass: Harvard University Press, 1965).

63. See Oliver Williamson, "Comparative Economic Organization: The Analysis of Discrete Structural Alternatives," *Administrative Science Quarterly*, Vol. 36, 1991 and *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting* (New York: Free Press, 1985).

64. Peter Gourevitch, *Paris and the Provinces: The Politics of Local Government Reform in France* (Berkeley, University of California Press, 1980).

65. John Zysman, *Governments, Markets and Growth* (Ithaca: Cornell University Press, 1983).

66. G. Herrigel, "Industrial Order and the Politics of Industrial Change: Mechanical Engineering" in Peter Katzenstein, ed., *Industry and Politics in West Germany* (Ithaca: Cornell University Press, 1989).

67. Argued from a different perspective in the sociological literature, see M. Granovetter, "Economic Action and Social Structure, A Theory of Embeddedness" *American Journal of Sociology*, Vol. 91, No. 3, 1985. □