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The East Asian Model of Economic Policy

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BELATED INTEREST IN THE DIVERSITY OF CAPITALISM

The last two decades have witnessed the rise of neoliberalism as the dominant vision of how our economies should be organized (for some critical reviews of the neoliberal doctrine, see Chang 1994a, chaps. 1–2, and essays in Chang and Rowthorn 1995).[1] In this revival of the old doctrine of laissez-faire, the early postwar consensus that capitalism has to be "tamed" in order to be saved from itself (Shonfield 1965 is a classic statement of this early consensus) has been overturned, and the virtues of the "invisible hand" are endlessly praised. Countries that do not conform to this doctrine are constantly chastised for being "backward-looking," and the (idealized version of) Anglo-Saxon capitalism, characterized by reactive (if not completely noninterventionist) governments and arms-length contractual relationships, is promoted as the "best practice" model.

During the same period, however, there have been a number of debates that focused on the differences between different "models" of capitalism with different goals, institutional structures, and policy tools. These debates were prompted by the very divergent economic performances of different economies, both developed and developing, all of which can be described as "capitalist" in the sense that they rely heavily (although by no means exclusively) on private property, profit motives, and market-type coordination of activities. Prominent debates in this vein include (1) the debate on financial systems and corporate governance, especially contrasting the Anglo-Saxon and the German-Japanese models;[2] (2) the debates on industrial relations, which include the debate on (mainly) Scandinavian social corporatism and the debate on the Japanese employment system;[3] (3) the

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1. The first two chapters of Chang and Rowthorn 1995 appear in Spanish translation in Chang 1996b.

2. Zysman 1983 and Cox 1986 are important earlier works in this literature. More recent influential works include Albert 1991 and Dore 1993.

3. On social corporatism, see Goldthorpe 1984, Schott 1984, Bruno and Sachs 1985, and Pekkarinen et al. 1992. On the Japanese employment system, see Dore 1987, Koike 1987, Aoki 1990, and Aoki and Dore 1994.

debate on industrial policy, especially, although not exclusively, in relation to the East Asian experience;[4] and (4) the debate on industrial districts, especially based on the experiences of Central Italy (Emilia-Romagna) and Southern Germany (Baden-Württemberg).[5]

Collectively, these debates have demonstrated how there are many different ways to organize production and distribution even within a basically *capitalist* institutional framework, and how these differences matter for economic performance. The common message from these debates is that economies which have the institutional mechanisms to generate more effective long-term-oriented cooperative arrangements regarding (technological and organizational) learning and investments (in human and physical assets) are likely to outperform the countries that predominantly rely on classic free market mechanisms, which depend on short-term-oriented, individualistic competitive forces that work through arm's length contracts (for a theoretical discussion on the institutional diversity of capitalism, see Chang 1997a).

It is interesting that this diversity in the institutional structure of capitalism has been there ever since "late development" began, that is, when the then "backward" nations like France, Germany, and the United States started trying to adapt British institutions to their own economic, political, and social conditions in order to industrialize (Gerschenkron 1966 is the classic work on this). The institutional diversity of capitalism persisted even through the heyday of laissez-faire, namely the period between 1870 and 1913, and has increased in many ways throughout the postwar period, although more recently there are increasing questions about the corroding effect of globalization on it (see essays in Berger and Dore 1996). However, it is only recently that the issue has received proper attention. What are the reasons for this?

First, during the first three decades of the postwar period, all advanced capitalist economies performed very well by historical standards, thus bestowing the name of the "Golden Age of Capitalism" on the period (Marglin

4. It was not just in East Asia where industrial policy played an important role. Before the 1980s, France conducted a very "East Asian style" industrial policy (Cohen 1977, Hall 1986). Some other European economies, especially Austria and Finland, are also known to have emphasized sectoral industrial policy (Vartiainen 1995). However, it is true that the debate of the 1980s was largely prompted by the success of East Asia. Summaries of the debate can be found in Johnson 1984, introduction; Thompson 1989, introduction; and Chang 1994a, chap. 3. The more recent phase of the debate revolved around the so-called East Asian Miracle Report by the World Bank (1993). See "Trade Policy: Infant Industry Programs and Export Promotion" (this chapter) for further details on the debate surrounding this report.

5. For example, see Brusco 1982, Piore and Sabel 1984, Murray 1987, Castells et al. 1989, and Dei Ottati 1994.

and Schor 1990; Cairncross and Cairncross 1992). Certain countries did so well that their performance was called miraculous (such as Japan and Germany), but even those underperformers, such as the United States and the United Kingdom, did well enough to prevent their underperformance from becoming a matter of serious political concern. Accordingly, there was relatively little interest in explaining why some countries were doing better than others, and consequently finding out how the better-performing countries organized their economies, until the "Golden Age" ended (in the mid-1970s).

Second, at least until the onset of their stagnation in the 1970s, the socialist economies seemed to pose a serious competitive threat to capitalism, and in the face of such a challenge, the differences between capitalist economies probably seemed less important. And given the cold war, there was a certain political interest on the part of the advanced capitalist economies in underplaying the perceived differences between themselves.[6]

Third, its vast economic superiority during the early postwar years made it possible for the United States, the standardbearer of laissez-faire doctrine in the postwar world order (although not before the War when it was itself a "catching-up" economy relying heavily on infant industry protection; see Chang, 2002, for details), to ignore what it later perceived as the canted playing fields created by the "abnormal" institutions of its trading partners (normality here being defined by the U.S. model of that particular historical moment). Various recent attempts led by the United States to standardize the institutional structure across different countries in the name of securing a level playing field, and all the intellectual trappings that go with such attempts, can be seen as a belated and somewhat pathological acknowledgment that such "abnormal" institutions have been important competitive assets of its trading partners.

Last, the underdevelopment of institutionally conscious economic theories until the 1980s may have been one reason behind the neglect of the institutional diversity of capitalism. The orthodox, that is neoclassical, economic theory is a theory about (very narrowly and peculiarly defined) markets, and is not able to adequately deal with other economic institutions of modern capitalism, such as firms, unions, and government regulatory regimes. This made it naturally difficult to discuss the institutional diversity of capitalism

6. So, for example, the early postwar attempt by the United States to remold the German institutional structure in its own image (or the propagandistic version of it) was quickly watered down, and consequently the German model allowed to develop, as soon as the cold war became serious in the 1950s. However, American-style "free market" rhetoric remained very strong in German political discourse, especially during the early postwar years (Shonfield 1965).

in a way that was acceptable to the academic establishment. The rise of institutional economics during the last two decades has prompted a wide range of empirical studies of diverse economic institutions, utilizing better analytical tools, and thus bestowing more "respectability" to comparative institutional analysis (e.g., Langlois 1986 and Aoki et al. 1990).

Whatever the exact weight that we assign to each of the above-mentioned factors in apportioning the blame for the relative absence of interest in the diversity of capitalism until recently, it is clear that now, compared to even, say, ten years ago, there is a much more widespread recognition of the issue. Moreover, there are now much richer theoretical and empirical literatures to draw upon in discussing it. Perhaps more pertinent for this collection, there is a growing interest in the application of certain successful "models" to less successful countries. Needless to say, such desire to learn from the successful countries has been the essence of "late development" efforts since the last century, but what makes this current phase interesting is that, for the first time in many years, the "best-practice" status of the Anglo-Saxon model is being seriously challenged—although the current crisis in Asia has generated a degree of Anglo-Saxon triumphalism (which I discuss later in the chapter). It is in this context that I want to place my discussion of the East Asian model of economic policy.

IS THERE AN EAST ASIAN MODEL?

The spectacular economic performance of certain East Asian countries after the Second World War, first that of Japan and then those of the first-tier NICs (namely, Korea, Taiwan, Singapore, and Hong Kong), has naturally generated a lot of interest in an East Asian "model." Since the war these countries have grown at roughly 6 percent per annum in per capita terms, which puts the growth rates of the first industrial nations during the "Industrial Revolution" (1–1.5 percent p.a.) to shame and even overshadows their records during the "Golden Age" (around 3 percent p.a.), thus making their postwar experience *literally the fastest economic transformation in human history.* And given the (belatedly acknowledged) differences in the institutions and policies of many East Asian countries from those found in the Anglo-Saxon economies, which (rightly or wrongly) have set the international norms, the model has been regarded by many as providing an obvious, and probably superior, alternative to the dominant Anglo-Saxon model.

As is well known, the talk of an East Asian model has generated many heated debates. And as in the case of debates involving other economic mod-

els, such as Scandinavian corporatism or Latin American import-substitution industrialization, these debates have involved questioning the desirability, sustainability, and replicability of the model. What makes the debate on East Asia unique, however, is that it also has involved questioning of the very *existence* of the model.

The classic example of this is the early mainstream argument that the East Asian countries succeeded on the basis of free market, free trade policies, namely, the kinds of policies and institutions that constitute the Anglo-Saxon model. If we adopt this interpretation, there is no point in talking about an East Asian model, because it is essentially the same as the Anglo-Saxon one. Although the fallacy of this interpretation has been widely exposed recently, it still has a remarkable staying power in popular policy discourse.

Later, other commentators have questioned the existence of an East Asian model from a different angle, namely, from the assertion that because the East Asian countries differ from each other in terms of their institutions and policies, it makes no sense to talk of a region-wide model. This is at one level correct, since the East Asian countries do differ among themselves in important ways. However, at another level, it is not very useful, because if we accept this line of reasoning, we will never be able to talk about a model that applies to more than one country. At least when we exclude the two city-states (Hong Kong and Singapore) and look only at the Big Three (Japan, Korea, and Taiwan), we can identify enough commonalities between them to warrant a talk of a model.

The World Bank (1993) has recently muddied the water in this debate even further by lumping the second-tier NICs (Malaysia, Indonesia, and Thailand) together with the Original Five (Japan plus the first-tier NICs) and arguing that there are really two East Asian models—the Northeast Asian one (the Original Five) and the Southeast Asian one (the second-tier NICs). The Bank then goes on to argue that the Southeast Asian model is more suitable for other developing countries because it is more market-oriented and therefore institutionally less demanding. Although the differences between the two groups are less than what the Bank makes them out to be, it is true that there are considerable differences in terms of institutions and policies between the Original Five (or more pertinently the Big Three) and the second-tier NICs. However, this is really diverting our attention from the real issue, because the original usage of the term "East Asian model" essentially referred to the Big Three, and certainly did not imply that all the countries in (the very broadly defined) East Asia are practicing one model (for further criticisms of this point, see Akyüz et al. 1998).

So when we talk about the East Asian model in this chapter, we are referring to the economic model of capitalism as practiced by the Big Three, that is, Japan, Korea, and Taiwan. Since it is an "ideal type," not all the details of the model match the real-life experiences of even these three countries, but that is no reason to reject it; some degree of generalization is necessary in any social science discourse. We will try to bring out the differences between these countries whenever they bring out important points, but will ignore them when they do not.

INVESTMENT POLICY

The first area of economic policy that we want to look at is investment policy. The role of physical investments as one of the main determinants of growth is theoretically central in many economic models and is empirically very well established by now. And it is well known that the East Asian countries have maintained very impressive investment ratios during their high growth period. Less well understood is how this has been possible.

The most conventional explanation of high investments in the East Asian countries is that they could invest a lot because they saved a lot. As for the cause of high savings, some believe that it was due to their Confucian culture, which emphasizes frugality and abstinence from instant gratification, but the critical limitation of this interpretation is that, like many other simplistic "cultural" explanations, it attributes a recent phenomenon (i.e., high savings) to a millennium-old cause (Confucian culture) (on the criticism of the simplistic version of "cultural" explanations of the East Asian success, see Dore 1987). Alternatively, it has been argued that high savings in these countries were encouraged by high real interest rates, but by now there is a rather widespread consensus that this explanation is not supported by evidence (e.g., see Stiglitz 1998).

In the end, it is doubtful whether it is high savings that is causing high investments, rather than the other way around. Although there is an ongoing theoretical dispute on the relationship between savings and investments, there is a growing opinion that investment, rather than savings, is the prime mover in the savings-investment-growth dynamic (see Studart 1995). Therefore, while we should not dismiss the important role that certain "savings policies" played in raising savings in East Asia (e.g., tax benefits for savers, a postal savings system that gave access to banking facilities to those in rural areas), we wish to concentrate our attention on how high and productive investments were made possible.

Maintaining "Stability," East Asian Fashion

Many commentators emphasize the importance of political and economic stability in encouraging investments, a position that probably has a particularly strong appeal in Latin America. Political and/or economic instabilities obviously shrink the potential investors' time horizon and discourage commitments of resources to projects whose returns are far in the future and often uncertain but which may be crucial for modern industrial development. The Keynesian notion of "animal spirit" and the notion of "investors' confidence" frequently used in policy discussions (if not in academic debates) reflect such concerns.

More recently, however, there has been a tendency among the mainstream economists to interpret this issue of stability very narrowly and basically reduce it to the achievement (or otherwise) of very low inflation (say, below 5 percent).[7] And in this context the East Asian countries have been often paraded as examples of the investment-boosting effect of low inflation.

However, the East Asian experiences, especially those of Japan and Korea during their earlier periods of development, do not lend much support to this argument. At least until the late 1970s, the Japanese and the Korean states have pursued what can be called a "pro-investment macroeconomic policy" (the term is from Chang 1993), which puts emphasis on maintaining high levels of investment, if necessary at the cost of moderate inflation.[8] For example, average rates of inflation (measured by the average annual growth of the consumer price index) in Korea were 17.4 percent in the 1960s and 19.8 percent in the 1970s, which were higher than the inflation rates found in many Latin American countries, for whose "troubles" inflation is often blamed, during the same period.[9] Even when they pursued "stabilization" programs (e.g., Korea in the early 1980s), their macroeconomic policy was fine-tuned to ensure that it did not kill off investor confidence (and thus investments), if necessary at the cost of allowing more inflation—a policy pattern that has obviously been broken in Korea recently by the

7. Some recent studies show, however, there is no statistical correlation between growth and inflation rate if the latter is moderate (say, less than 40 percent; see Bruno and Easterly 1994).

8. The Kuomintang government that has ruled Taiwan since 1949 has had a much greater aversion to inflation, since it has regarded its failure to control inflation as one reason why it lost the mainland to the Communists.

9. In the 1960s, the Korean inflation rate was higher than those of Venezuela (1.3%), Bolivia (3.5%), Mexico (3.6%), Peru (10.4%), and Colombia (11.9%), and was not much lower than that of Argentina (21.7%). In the 1970s, it was higher than those found in Venezuela (12.1%), Ecuador (14.4%), and Mexico (19.3%), and was not much lower than those found in Colombia (22.0%) or Bolivia (22.3%). See Singh 1995, table 5, for further information.

IMF's insistence on low inflation and budget balancing (for some criticisms of this policy, see Stiglitz 1998, Wade and Veneroso 1998, and Chang 1998a).

Controlling Capital Outflows and Inflows

In any country, especially in the early stages of development, capital flights have to be prevented in order to ensure that whatever investable surplus that is generated in the economy at least stays in the country, before one can contemplate making sure that it is reinvested in productive projects. However, capital flight was an even more serious problem for the East Asian countries, because of the constant (real and imagined) threats from their Communist neighbors. So until recently the East Asian states maintained very strict regimes of capital control. Every economic transaction involving foreign exchange had to be made through the banks under government ownership and/or control; indeed, in Korea those who attempted major capital flight risked actual capital punishment.

How important it can be to have an effective means of preventing capital control is particularly dramatically demonstrated by the case of Korea during the 1980s. In the buildup to the debt crisis of the early 1980s, there was virtually no capital flight out of Korea, which was then the fourth-largest debtor country in the world, while many other major debtor countries in Latin America suffered from massive capital flight, which was estimated by Sachs (1984) to have been sometimes as big as the total debt of the country. While strict capital control did not save Brazil from a downward macroeconomic spiral after the debt crisis (there was also very little capital flight from Brazil during the period), thus showing that capital control is only part of the story, it would be hard to deny that it was central to Korea's escape from a similar fate.

However much a government controls capital outflows, if it cannot control capital inflows, its control over the direction and pattern of investment will be diminished. In terms of their relations with foreign capital, the experiences of the East Asian countries during their high growth years diverged considerably, except that, contrary to some popular perception, none of them have relied heavily on foreign direct investment (more on this later). Japan during this period did not rely on any form of foreign capital inflow—little aid, no loans, virtually no FDI. Taiwan received a relatively large amount of foreign aid in the earlier stages of development (but not as much as Korea did), but did not borrow very much from abroad. While its reliance on FDI was higher than that of Japan or Korea, it was rarely above the international average (see Table 7.1). Korea received a lot of aid in the 1950s and the 1960s (but much less than countries like Chile did)

and borrowed a lot (but only under strict government control), but strictly controlled FDI. Although more recently these countries have relaxed many of these controls (with disastrous consequences in the case of Korea), it is important to note that controls on capital inflows constituted a main pillar in the East Asian country's investment policy (see Chang et al. 1998, and Chang and Yoo 2000 for further details on the role of capital account liberalization in the current Korean crisis).

13 Luxury Consumption Control

Securing the maximum possible amount of investable surplus by controlling capital inflows and outflows may be the first step toward guaranteeing its reinvestment, but there is still a long way to go before it is actually invested. One obvious hurdle is that the potential investor classes who control such surplus may consume it in "luxury" goods, rather than investing it—a problem that has been an exceptionally emotional issue in the Latin American development discourse, at least until recently.

Of course, the economics behind luxury consumption is not so simple as to allow us to say that higher luxury consumption necessarily reduces investments (think about Malthus or Keynes) or that restraint of such consumption necessarily requires government intervention,[10] but the issue is more than a "moralistic" one, contrary to what many mainstream economists believe (for a more detailed discussion, see Chang 1997b). Especially in many developing countries where imports of luxury goods (or the parts and components needed to produce them) usually have to chase after scarce foreign exchanges in competition with the capital goods that are necessary for investment (given the lack of a viable capital goods sector), control of luxury consumption becomes even more important for investment.

The East Asian countries, accordingly, imposed heavy tariffs and domestic taxes on, and sometimes even banned the domestic production as well as the imports of, certain "luxury" products, especially in the earlier stages of their development. For example, Korea and Japan have had literally the two lowest numbers of passenger cars per capita of any of the advanced and developing countries at the comparable levels of development.[11] For another example, in Korea, travel abroad for tourism was banned until the early

10. For example, following Max Weber's classic work, it is widely accepted that the Protestant ethic restrained luxury consumption by the entrepreneurial class in the early phases of capitalist development in Western Europe. I thank Chung H. Lee for reminding me of this important point.

11. For example, when their per capital GDP in 1985 international dollars reached $3,000, both Japan (in 1960) and Korea (in 1978) had five passenger cars per 1,000 people. In contrast,

Table 7.1 The Ratio of FDI Inflows to Gross Domestic Capital Formation for Various Regions and Selected Countries, 1971–1998 (annual averages)

	1971–75	1976–80	1981–85	1986–90	1991–95	1996–98
All countries	n.a.	n.a.	2.3	4.1	4.3	8.2
Developed	n.a.	n.a.	2.2	4.6	3.7	7.4
European Union	n.a.	n.a.	2.6	5.9	6.0	10.2
United States	0.9	2.0	2.9	6.9	4.2	9.7
Canada	3.6	1.7	1.0	5.8	5.8	12.7
Japan	0.1	0.1	0.1	0.0	n.a.	n.a.
Developing	n.a.	n.a.	3.3	3.2	6.4	10.1
Africa	n.a.	n.a.	2.3	3.5	5.8	8.3
LatinAmerica	n.a.	n.a.	4.1	4.2	7.5	15.1
Argentina	0.1	2.1	5.0	11.1	15.8	12.1
Brazil	4.2	3.9	4.3	1.7	2.2	12.5
Chile	−7.3	4.2	6.7	20.6	13.6	26.8
Mexico	3.5	3.6	5.0	7.5	11.8	14.5
Asia	n.a.	n.a.	3.1	2.8	5.9	8.4
China	0.0	0.1	0.9	2.1	11.1	13.8
Hong Kong	5.9	4.2	6.9	12.9	8.0	17.0
India	0.3	0.1	0.1	0.3	1.2	3.3
Indonesia	4.6	2.4	0.9	2.1	4.7	5.1
Korea	1.9	0.4	0.5	1.2	0.7	2.9
Malaysia	15.2	11.9	10.8	11.7	19.3	12.8
Pakistan	0.5	0.9	1.3	2.3	4.5	7.2
Philippines	1.0	0.9	0.8	6.7	7.4	8.9
Singapore	15.0	16.6	17.4	35.0	30.7	22.7
Taiwan	1.4	1.2	1.5	3.7	2.4	2.5
Thailand	3.0	1.5	3.0	6.5	3.9	11.7
Eastern Europe	n.a.	n.a.	0.0	0.1	8.4	10.2

SOURCES: UNCTAD, *World Investment Report (WIR)*, 1993, Annex Table 3 (1971–80); *WIR*, 1995, Annex Table 5 (1981–92); *WIR*, 1999, Annex Table B.5 (for 1993–97); *WIR* 2000 (for 1998).

1980s, and was since then heavily controlled, until it was (almost) fully liberalized in 1988 (there are still restrictions on the amount of money that one can take abroad for tourism purposes) (for more details, see Chang 1997b). The interesting thing is that, after the liberalization in 1988, Korea's foreign tourism expenditure increased fivefold in three years, thus suggesting that

at the same level of income, the corresponding numbers were 21 for Thailand (in 1989), 29 for Brazil (in 1973), and 65 for South Africa (in 1979). At the $5,000 level, Japan had 29 (in 1966) and Korea 20 (in 1987) passenger cars per 1,000 people. The corresponding numbers were 49 for Mexico (in 1977) and 104 for Malaysia (in 1990). Unfortunately, comparable data on Taiwan are not available after the mid-1960s, but until then it showed a similar, although somewhat milder version, of the Japanese and Korean pattern.

the low expenditure before the liberalization was not really caused by a "cultural" aversion to spending, as it is sometimes asserted, but was a result of government control.

One important, and usually ignored, function of control on luxury consumption is in the realm of politics. By restraining the extent to which the elite could enjoy their wealth for their personal pleasures, luxury consumption control in the East Asian countries helped to create the sense that there was a national "community" with a common project (in this case, economic development), whose burdens and fruits all the citizens were sharing in "fair" (if not equal) measures. Such sense of common project has contributed to the political stability of these countries, which then contributed to investment growth by shoring up investor confidence. Thus the political and economic stability of the East Asian countries was as much an outcome of deliberate government policy as it was because of the lack of distribution conflicts consequent to "equal income distribution," as it is frequently argued in the current literature (for a review of the literature propagating such view, see Alesina and Perotti 1994).

Disciplining the Recipients of State-Created Rents

Once the governments of the East Asian countries ensured that any invisible surplus was not wasted in luxury consumption, they still faced the problem of ensuring that the investments are made productively, since "bad" investments will simply waste resources and reduce the amount of surplus available for investment in the next round. Some would argue that the market signals will direct the investors into the right areas, but we know that this is simply not true as a general proposition. Especially in the context of late-development, industrial development requires the creation of rents by the state to induce investments in "infant" industries when there are already established producers abroad. However, the fact that the creation of rents by the state is necessary for development does not mean that it is sufficient. This is because, once they are awarded the state-created rents, the investors may have little incentive to raise productivity, as the market discipline has been temporarily weakened (or sometimes eliminated altogether). So it becomes crucial for the state to play the disciplinarian role.

The subject of state discipline has been rather extensively discussed elsewhere (and I discuss it later in this chapter as well), and thus does not require an elaboration here, but let us summarize what we regard as the main points that have emerged from the debate up to now (for further discussions see Toye 1987, Amsden 1989, Chang 1993, and Evans 1995).

The success of the East Asian states in disciplining the recipients of their rents can be attributed at one level to the famously (or notoriously, depending on one's position) enormous power that they have wielded over corporations through their control over bank credit and other financial sources. However, if it is to be used productively, this power has to be exercised with a commitment to productivity growth. In the East Asian case, such commitment largely stemmed from its brand of developmentalist ideology, which was strengthened in the cases of Korea and Taiwan by the necessity to compete with their Communist neighbors.

At a more practical level, state discipline in East Asia also owes its success to a number of factors. First of all, the choice of "strategic" industries was made with a high degree of realism (i.e., there was no Indian-style attempt to catch up across all sectors), although sometimes the choice seemed too risky to many people (e.g., Korea's forays into steel and shipbuilding in the 1970s). Second, the emphasis on exports made it possible for the state to judge enterprise performance relatively "objectively" by watching their performances in the world market, although it was by no means blindly accepting them as the only performance criterion. Third, the state policies were designed on the basis of detailed information on the state of the domestic and the international economies, which were collected from mandatory reporting by the state-supported enterprises and from various public and semipublic agencies (e.g., state trading companies, embassies), thus making them sensitive to the developments in world markets.

TRADE POLICY: INFANT INDUSTRY PROGRAMS AND EXPORT PROMOTION

In the early days of international fascination with the East Asian "miracle," that is, during the 1970s and the early 1980s, the export successes of the East Asian countries were often touted as living proofs for the validity of the doctrine of comparative advantage and free trade to deal with this problem (classic examples include Ranis and Fei 1975 and Balassa 1982). When subsequent researches showed that the trade regimes of these countries were full of tariff protections and quantitative restrictions and therefore could not be described as "free trade" regimes, some orthodox trade economists invented the notion of so-called virtual free trade (Little 1982; Lal 1983; World Bank 1987). It was argued that the anti-export biases of protectionist policies in the East Asian countries were canceled out by export subsidies, thus resulting in a "neutral" incentive regime which "simulated" the free trade outcome. There are numerous problems with this argument, which we

do not have time to go into (for a more detailed criticism, see Chang 1993; also see Yusuf and Peter 1985 and Wade 1990), but there are two main problems. The first is that the relative prices found in the trade regime of protection-cum-export-promotion are not necessarily the same as those under a genuine free trade regime, and therefore that it is not possible to say that the former trade regime "simulates" the latter.[12] Second, the argument ultimately relies on the doctrine of comparative advantage, which had been already rejected in the earlier round of the debate.

Our argument against the doctrine of comparative advantage, which lies behind the neoclassical justification for free trade, is not that it is logically flawed, but that it has very little to say about the relationship between trade, trade policy, and economic development. Let us explain why.

Economic development in a developing country requires importing technologies from more advanced countries and adapting them to local needs and capabilities, unless it is willing to reinvent the wheel, so to speak. And this is the process through which all countries after the first industrial nation, that is, Britain, industrialized. This gives the follower countries an opportunity to grow faster than the leader countries, since they can draw on the knowledge stock accumulated by the latter.

However, being a follower also has its drawbacks. The trouble is that, when a follower country tries to move into a new industry, it finds that its firms have to compete with the already well established firms from developed countries. In the face of such competition, it is necessary for the follower country to violate the principle of comparative advantage *deliberately* and protect the new, or "infant," industry from international competition until their national firms can attain internationally competitive levels of productivity. The success of the East Asian countries in effectively promoting their infant industries is too well known to require documenting in any detail (Amsden 1989; Wade 1990; Chang 1993), but at this point it is worth noting that this is how most other now-developed countries developed in the first place—including the United States, which was the most protected economy in the world in the late nineteenth and early twentieth centuries (see Table 7.2; also see Kozul-Wright 1995).

But then why have many developing countries failed to make their infant industry programs work? I argue that this is at least partly because they

12. The point is that it is the variance in the rates of protection across industries that matters rather than the average rate of protection. Following the logic of the "virtual free trade" argument, we would recommend a Londoner who is moving to New York to bring the same clothes that he used to wear in London, because New York has a "virtually mild weather," because its average temperature is similar to that in London, which has a genuinely mild weather.

Table 7.2 Tariff Rates for Selected Developed Countries in Their Early Stages of Development (the rates are for manufactured goods except for Japan, which are for all goods)

	1820	1875	1913	1925
Austria	n.a.	15–20	18	16
Belgium	7	9–10	9	15
France	n.a.	12–15	20	21
Italy	n.a.	8–10	18	22
Japan	n.a.	4[a]	20	13
Sweden	n.a.	3–5	20	16
United Kingdom	50	0	n.a.	5
United States	40	40–50	25	37

SOURCE: World Bank, World Development Report, 1991, p. 97, Box Table 5.2.
[a] Before 1899, Japan was made to keep low tariff rates through a series of "unequal treaties" with the European and North American countries.

lacked an export promotion strategy that was well integrated with the infant industry programs, the need for which was emphasized by the early proponents of Latin American import substitution such as Raul Prebisch but was subsequently ignored for various political and economic reasons. The development of infant industries requires the ability to export to earn enough foreign exchange to acquire new technologies (mainly by buying the machinery that embodies such technology but also by paying for technical licenses and technical consultancies).[13] Without a stable supply of the foreign exchange and hence of new technology, a developing country that has no independent R and D capability is likely to end up reproducing the obsolete technologies that it imported in the past—the most extreme case being North Korea. In other words, export success is a vital element in successful infant industry promotion, rather than some antithesis of it as depicted in the conventional criticisms of the infant industry doctrine. Given these considerations, the importance of export in a late-developing context cannot be overemphasized.

At this point, it is important to point out that, unlike in the conventional wisdom, the importance of export success does *not* mean that the country should adopt a "free trade" policy. As the experience of East Asia shows, achieving export growth in the earlier stage of development can be greatly helped by appropriate government policies.

To begin with, it is widely acknowledged that the export successes of the East Asian countries were greatly helped by the policies that kept their currencies slightly undervalued until the 1985 Plaza Accord, which drove their

13. Needless to say, there are sources other than exporting for foreign exchange, such as foreign aid and foreign direct investments. However, past experience tells us that, except for a small number of exceptionally placed countries, neither of these will be sufficient in the long run.

currency values up (Dornbusch 1996)[14]—a contrast to the early Latin American experiences where overvalued exchange rates hindered export growth. As important as exchange rate policy may be in the short run, a continued export success in the long run requires the emergence of enough new industries to ensure that newly emerging competitor countries do not compromise the country's foreign exchange earning capability. Hence the importance of infant industry promotion for export success, which completes a two-way feedback loop between infant industry promotion and export promotion.

In addition, financial support and critical "intelligence" from the government can be crucial in helping a firm export. The East Asian governments provided export subsidies (which, we should not forget, also violate the principle of comparative advantage). These subsidies took the forms of subsidized loans for exporters, tariff rebates on export inputs, or generous "wastage allowances" to the exporters using domestically scarce inputs (to permit them to sell some of the "wastes" in the domestic market at a premium). The East Asian governments also provided information on foreign markets, usually through the government trading agency (such as JETRO in Japan and KOTRA in Korea) but sometimes even through the diplomatic service. There were also efforts to promote the development of private sector organizations to perform these functions (such as exporters' associations, various industry associations, and general trading companies).

So if catching-up by developing countries requires violating the doctrine of comparative advantage (infant industry programs *and* export promotion), is there any place for this doctrine in designing trade policy for developing countries? I think there is.

The doctrine of comparative advantage helps us quantify the sacrifices a country is making in order to develop its infant industries, and therefore helps us avoid infant industry promotions of excessive magnitude and duration. However, that is just about it. The doctrine is a static framework, which tells us how much we can gain by specialization, *given* our current factor endowments, but not very much about what we have to do in order to improve our position over time, even as some leading neoclassical trade economists admit (Krueger 1980). To put it slightly differently, it can help us to know what sacrifices we are making *now* by protecting certain industries, but it does not help us predict what good (or bad) will come out of it *in the long run.* The whole point about infant industry protection is *not* to ignore the principle of comparative advantage altogether, but to violate it

14. A departure from such exchange rate policy stance contributed to the outbreak of the current Korean crisis. See Chang 1998a.

strategically, knowing that this will result in a loss in current income, but will make it possible, if properly done, to develop new industries which can put the country on a higher growth trajectory in the longer run.

To summarize, the secret of East Asian trade policy is its simultaneous and coordinated pursuit of infant industry protection and export promotion (sometimes the same industry was subject to both at the same time). These two goals are, contrary to the conventional wisdom, *not* mutually incompatible but interdependent. A successful infant industry program needs continued export success if it is to be sustained by a continued inflow of advanced technologies. In turn, a continued export success needs successful infant industry programs which can sustain the continued upgrading of export industries, as well as other state interventions in areas of exchange rate management, trade credit provision, marketing information service, and product quality control. In designing a successful infant industry program, the principle of comparative advantage can help, since it can give the policymakers some sense of what price their economy is paying in protecting certain new industries. However, the usefulness of the principle of comparative advantage stops just about there, since it does not tell us much about how an economy can maximize its "returns" from such protection.

INDUSTRIAL POLICY

The role of industrial policy—to be more precise, "selective industrial policy"—has been the most controversial dimension of the debate on the East Asian experience (for an updated review of the debate, see Chang 1999). As late as the late 1980s, many mainstream economists tried to simply ignore this issue by arguing that there was very little selective industrial policy practiced in East Asia. For example, as late as in 1988, one of the leading neoclassical trade economists, Bela Balassa, argued that the Korean state's role, "apart from the promotion of shipbuilding and steel . . . has been to create a modern infrastructure, to provide a stable incentive system, and to ensure that government bureaucracy will help rather than hinder exports" (Balassa 1988, S286).

Later, when the weight of the emerging evidence on the breadth and the depth of selective industrial policy in East Asia was just too great to ignore,[15] the mainstream economists grudgingly acknowledged its existence,

15. Details of the East Asian practices can be found in Magaziner and Hout 1980, Johnson 1982, Dore 1986, and Dosi et al. 1989 on Japan; Jones and Sakong 1980, Luedde-Neurath

but tried to insist that, perhaps except in Japan, it was at best irrelevant and at worst a failure—the so-called East Asian Miracle Report is the best example (World Bank 1993). However, the verdict on selective industrial policy in the "East Asian Miracle Report" has been subject to severe criticisms (e.g., see articles in *World Development* 1994, no. 4; Fishlow et al. 1994; and Chang 1995a, appendix),[16] and now many people accept that selective industrial policy has been on the whole successful in East Asia and may be applicable to other countries. Even the World Bank itself is now willing to acknowledge that selective industrial policy makes theoretical sense and can often be successful, although it still shows great reservation regarding its replicability in other developing countries, on the grounds that it is administratively too demanding (World Bank 1997, chap. 4; I discuss this point at greater length later in the chapter).

As the debate on the East Asian selective industrial policy is now fairly well known, I do not want to summarize it here. What I will try to do in the following will be to look at the East Asian experience in industrial policy in three areas that in my opinion need further attention. But before doing that, let me make some remarks on the most controversial theoretical issue in the industrial policy debate, namely, the relative merits of "selective" and "general" industrial policies.

Selective versus General Industrial Policies

In various debates on industrial policy, the contrast between "selective" (or "targeted") and "general" (or "functional") industrial policies has been frequently drawn. Those who are skeptical about state activism argue that "selective" industrial policy, which targets specific sectors or even firms, does not work because it often "distorts" market signals, is technically difficult to manage, and is liable to interest group capture and corruption. Therefore, they argue that industrial policy should be of a "general" kind, providing those "general" resources that all industries use but which are underprovided by the market, such as technology, skills, and the infrastructures for transportation and information transmission. Thus recommended are policies like investment in education, R and D, and infrastructure (see, e.g., Price 1980, Lindbeck 1981, and World Bank 1993).

1986, Amsden 1989, Chang 1993, and Evans 1995 on Korea; and Amsden 1985 and Wade 1990 on Taiwan.

16. A Spanish translation of Chang 1995a appears in Chang 1996b.

However, in a world of limited financial resources and limited administrative capabilities, there is always going to be some degree of "selectivity" in the conduct of industrial policy. For example, it may be thought that a generalized support for R and D, unlike, say, a subsidized R and D fund for a designated industry, does not involve selectivity. However, unless there are unlimited financial and administrative resources, devoting more resources to support R and D activities means that R and D intensive industries are now *implicitly* being favored over other industries. In this way, the so-called general industrial policy may end up targeting certain sectors without acknowledging it, with the consequent risk of policy incoherence.

Moreover, to be successful, many types of "general" interventions in the end have to entail explicit targeting. Let us take the case of human resource development. While supporting primary education involves relatively little targeting (but even here there could be some targeting in terms of ethnic groups or geographical locations), supporting science and engineering education in universities or even some types of "technical education" at secondary schools will require explicit targeting of the industries that are going to benefit from such supports, given the highly specialized nature of such education—for example, there is no point in producing too many electronics engineers in a country when the industry is still very underdeveloped, unless, that is, there is an explicit policy to develop the industry in the medium term (which is exactly what Korea did during the 1970s).

All in all, what is clear is that selectivity is not something that we can wish away. It has been with us all along, and it will always be. While there may be a "public relations" case for not explicitly using terms like "targeting" or "selective industrial policy," the practice itself is an issue that has to be, and in fact is being, routinely confronted by the practitioners of industrial policy. Indeed, it may be far better to explicitly acknowledge the inevitability of selectivity and openly discuss which sector to target in which ways, rather than try to pretend that there is no targeting going on, thereby increasing the danger of incoherence between different targeting exercises. Moreover, in countries with weak administrative capacities, policies that are more precisely targeted may in fact have a better chance of success because they conserve administrative resources. The crucial question, in conclusion, is *not* whether or not industrial policy should be selective, *but* how to be selective in the right areas in the right manner, given the overall industrial policy objectives.

3.2. Raising Infant Industries: Discipline, Economies of Scale, and Exports

Earlier we pointed out that, like in all the other stories of late development, industrialization in East Asia required protecting the domestic firms in

infant industries from international competition through tariff protection and other, nontariff barriers. However, in many other developing countries, similar exercises have produced unimpressive, and sometimes even very negative, results, and naturally the successes of the East Asian countries in raising infant industries have attracted a lot of attention.

Many commentators, including myself, have attributed the East Asian success in infant industry promotion to the ability of the state to impose discipline on the recipients of state-created rents, and by now this argument is widely accepted as the most important difference between East Asia and other developing countries (see, e.g., Toye 1987, Amsden 1989, Wade 1990, and Chang 1993).[17] However, there is a hitherto neglected element in the logic of infant industry programs that needs to be brought out more clearly, if we are to better understand the difficulties involved in designing the disciplinary measures—that is, the problem of economies of scale.

Many modern industries are subject to significant economies of scale, and if that economy is not exploited, it becomes difficult to achieve international competitiveness. However, the late-developing countries normally have small domestic markets, which seriously limits their firms' ability to exploit economies of scale. Moreover, at the earlier stages of development, many of the products from these industries fall into the "luxury" category, and allowing a rapid expansion of domestic demands for them may hurt capital accumulation, for as was mentioned earlier, luxuries are basically consumed by the investing classes. While the control of luxury consumption may be necessary in the earlier stages of development in promoting capital accumulation (as was done in the East Asian countries), such control restricts the domestic market size for many industries even further.

All this means that infant industry programs in the late-developing countries will have to operate under severe constraints on the ability of the domestic firms to exploit economies of scale. Faced with this problem, many late-developing country governments have imposed controls on entry (and exit) and capacity expansion in the industries concerned, and the East Asian countries have not been exceptions in this regard. Their governments have managed extensive regimes of regulation regarding entry and capacity in many industries with scale economy. The problem, however, is that, even with such controls, many domestic markets in many developing countries are still too small to fully realize an economy of scale. Given this, even when the hoped-for technological learning by the protected firms happens (as in the "ideal" infant industry promotion scenario), it is very difficult for them

17. Evans (1995) emphasizes that such discipline will be most successfully applied when the autonomy of the state is "embedded" in the concrete social structure in which it exists.

to achieve internationally competitive levels of productivity, since they operate well below the minimum efficient scale.

As a result, the only way to relax this constraint on productivity set by domestic market size is for the firms in the infant industries to export. However, the problem is that these industries were protected in the first place because their firms could not compete with the already established producers from the advanced countries, whether at home or in the export markets. So the developing countries trying to promote infant industries with scale economy are faced with a dilemma. They cannot become competitive in the world market without exporting, which will enable them to exploit scale economy, but they cannot export before they become competitive by raising their productivity.

The typical response by a developing country government to this dilemma has been to give up the export option but keep the protection. The problem with this solution is that this way the firms never "grow up" and remain "infants" for life. Needless to say, this has happened in certain East Asian industries—the Taiwanese passenger car industry being the best-known example. However, the East Asian policymakers often took different courses of action. Occasionally, they would "gamble" by encouraging, or even forcing, the domestic firms to build world-class capacities from the beginning so that they would be able to exploit the scale economy, with the positive side-effect that they were forced to enter the world market very early to avoid being stuck with an enormous excess capacity (the Korean steel and shipbuilding industries are the best examples). More typically, however, they initially accepted suboptimal production scales, but used a range of policy measures to bring forward the day when these firms could export and thus produce at more than the minimum efficient scales.

Some of these policies were precisely the export promoting policies that we discussed earlier, but the others were what are typically known as "selective" industrial policy measures aimed at raising the productivity of specific industries. They included (1) organizing mergers and negotiated market-segmentation in industries with too many producers with suboptimal scale so that maximum possible scale could be achieved; (2) subsidizing capital equipment upgrading through "rationalization" or "modernization" programs aimed at specific industries; (3) subsidizing R and D or training in specific industries directly or indirectly through the operation of public research or training institutes; and (4) spreading information on best-practice technologies in particular industries by various public or semipublic agencies.

The above discussion shows that the ways in which the state in a late-developing context can discipline the recipients of the rents that it has cre-

ated are significantly affected by the context of late development itself. The need to achieve scale economy compels the government to control entry into many industries, but frequently even this is not sufficient to raise the productivity of a domestic firm to international levels. The logical solution to this problem will be either to abandon the industry altogether, as the mainstream economists argue, or to make the firms start exporting as soon as possible, as the East Asian policymakers attempted to do (often successfully). Needless to say, export success by infant industries cannot be achieved under a "free trade" policy, and requires policy interventions that will raise productivity of the firms as well as policies to help them export.

5.3 Managing Competition: Allocative Efficiency versus Productivity

If economies of scale are taken seriously by the policymakers of a late-developing country with small domestic markets and thus a restricted number of producers in each industry, an obvious problem that its government faces is the existence of oligopolistic, or even monopolistic, markets. While there is no one-to-one relationship between the number of firms in an industry and the intensity of competition between them (in fact East Asia provides many examples of fierce competition in oligopolistic markets), oligopolistic markets pose greater challenge to the designers of competition policy. And in countries with serious infant industry programs, the resulting absence of competition from imports makes competition policy even more challenging.

In the mainstream competition policy discourse, the allocative inefficiencies created by the market powers of oligopolistic firms are regarded as the most serious problem facing the competition policymakers, and thus a vigorous Anglo-Saxon (or rather American) style antitrust policy is recommended to deal with the problem. Thus, even many neoliberal supporters of far-reaching deregulation would concede that antitrust policy is one area where government activism is legitimate and necessary (Chang 1997c). Restricting the abuse of power by the dominant firms through antitrust action has been certainly an issue in East Asia, but it was only a minor part of its competition policy, and its focuses were elsewhere.

First of all, as we pointed out earlier, the East Asian governments have deliberately created oligopolistic, or even monopolistic, market structures, in order to exploit scale economy as much as possible, if that was regarded as important in the particular industry concerned. Mainstream economists frequently ignore this point, but many estimates of the allocative inefficiencies arising from "noncompetitive" markets suggest only modest figures (1–2 percent usually), whereas the cost increase that follows from suboptimal

scale of production is known to be very significant in many industries. To put it differently, under the East Asian competition policy regime, economies of scale are more important than issues of market power.

Second, the East Asian governments have been deeply concerned with "excessive," "wasteful," or "destructive" competition. The notion of "excessive" competition has often been dismissed as a notion based on "irrational" fears of competition by ignorant bureaucrats, but it makes perfect sense once we acknowledge the importance of dedicated physical and human assets in modern industries (or what Williamson would call "specific assets"; see Williamson 1985). Given the existence of such "specific" assets, any failed project that follows an "excessive" entry (compared to what is warranted by the demand condition) leads to a "waste" of resources in the sense that the "specific" assets employed in the project may not be transferred to other activities without significant losses in their economic values (for further details, see Chang 1994a, chap. 3). As a result, the East Asian governments have tried to coordinate investments *ex ante* in order to prevent excess entry, but when excess entry materialized for whatever reason (e.g., erroneous projection, sudden changes in world market conditions, some firms defying the government plan, etc.), it organized (explicit and implicit) recession cartels, negotiated capacity-scrapping arrangements, or even forced merger and market-sharing programs, to reduce the "wastes" from excessive competition.

Third, the East Asian governments have willingly suspended antitrust actions and allowed firms to collude, when they thought that a suspension of competition was necessary for raising productivity (for a more detailed theoretical account, see Chang 1994a, chap. 3).[18] For example, the Japanese state has frequently allowed, and often taken the initiative in organizing, various types of cartels—to weather recession, to coordinate capacity expansion, to encourage joint R and D, to allow collusion in export markets, to promote technological upgrading by small firms, to phase out declining industries, just to name a few (Magaziner and Hout 1980; Dore 1986). In Korea, there existed no antitrust legislation until 1981, and even after that collusive behaviors were explicitly allowed in "promising industries" which needed to "increase R and D, improve quality, and attain efficient produc-

18. The German antitrust legislation, which has served as a model for the Japanese legislation since the latter's 1953 amendment away from the Anglo-Saxon elements imposed earlier by the American Occupation Authority, also provides many similar "escape" clauses to cartel and other collusive behaviors, especially by the small firms, when they are related to aims like "rationalization," "specialization" (i.e., negotiated market segmentation), joint export activities, and structural adjustments (Shin, 1994, 343–55).

tion scale," and in "declining industries," which needed to "scale down their capacities" (the quotations are from the Sixth Five Year Plan [1987–91] document; for further details, see Chang 1993). In Taiwan, where many large firms have been public enterprises, antitrust policy has had a different dynamic, but the Taiwanese state did not hesitate to promote mergers it deemed necessary for exploiting scale economy (see Wade 1990, 186–87). The above-mentioned policies frequently ossified the cartels and resulted in industrial stagnation in other countries, but the East Asian countries avoided such danger, because the suspension of competition was regarded as a temporary measure to achieve relatively well specified goals that were deemed necessary for productivity enhancement (although it can sometimes last quite long), and thus did not result in a general suspension of competition.

Many commentators have criticized the "lax" attitude by the East Asian governments toward antitrust policy as an evidence for the prevalence of corrupt collusion between the state and big business—or "crony capitalism," to use the currently popular terminology. However, the discussion here suggests that it resulted more from a (non-neoclassical) view of competition held by the East Asian policymakers that is very different from the one held by mainstream economists.[19] The emphasis of their (broadly defined) competition policy was on raising productivity in sunrise industries and managing smooth resource transfer out of sunset industries without the "wastes" that can result from unrestrained competition. And if it was necessary for those purposes, these governments were quite willing to restrict entry and capacity expansion (thus creating oligopolistic markets) and allow collusive behaviors among the firms, although these actions were taken with a clearly defined productivity-related goals and with a relatively clear time limit.[20]

3.4 Technology Policy: Controlling the Inflows and Raising Capabilities

The importance of technology in determining the competitiveness of a country needs no further mention. And recent developments in the literature on

19. Broadly, the view of competition held by the East Asian policymakers is close to what I call the "Continental" (mainly Germanic) view of competition, which is represented by some politically unlikely bedfellows such as Marx, Schumpeter, and Hayek, and which contrasts with the Anglo-Saxon view that is epitomized in neoclassical economics (for some classic works on this contrast, see Hayek 1949 and McNulty 1968; Chang 1994a, chap. 3, provides a more up-to-date discussion of this issue).

20. An added benefit of such a "managed competition" regime has been to slow down the competitive process to a pace that is economically and politically acceptable to the "losers" in the process, so that they would not block the necessary structural changes (Chang 1994b, 1996b). For a discussion of this point in the East Asian context, see Chang 1996a.

the economics of technology have shown that policy actions matter greatly for technological development (see essays in Dosi et al. 1988, Lundvall 1992, and Nelson 1993). For the more advanced countries, the importance of R and D policies has been emphasized (e.g., see Fargerberg 1996), but for the late-developing countries, technology policy needs to take a somewhat different form. Given the need of late-developing countries to import and assimilate technologies, policies that regulate the inflows of technology and that enhance the abilities to absorb the technology, rather than R and D policy, become crucial.

Unlike some other developing countries, which ostensibly pursued "technological self-sufficiency" only to end up reproducing obsolete technologies imported decades ago in the absence of independent R and D capabilities, the East Asian countries have always been keen to gain access to the most advanced technologies that they could handle. However, they have also been acutely aware of the need to regulate technology inflows in line with the broad industrial strategy and with the specific sectoral needs. So, for example, the government allowed or restricted the import of a certain piece of machinery, depending on whether the industry producing that machine was being promoted as a strategic industry, whether the sector using the machine could meet the urgent need for technological upgrading only with the imported machines, and whether the machine did not embody overly obsolete technology. Technology licensing was also carefully controlled in order to ensure that the right kind of technologies were imported on the right terms. Investments by TNCs (transnational corporations) were also heavily regulated, in the belief that accepting a "package" of finance, technologies, managerial skills, and other capabilities offered by TNCs is not as good for long-term industrial development as encouraging the national firms to construct their own packages, using their own managerial skills—obviously with some necessary outsourcing (on this point, see Helleiner 1989, Lall 1993, and Chudnovsky 1993).

East Asian policies toward TNCs deserve a special mention, given the current enthusiasm about globalization and the role of TNCs in it (for criticisms of the globalization thesis, see Hirst and Thompson 1996, Wade 1996, and Chang 1998c). The restrictive attitude of Japan toward TNCs is well known, but it should be noted that Taiwan and especially Korea also maintained rather restrictive regulatory regimes vis-à-vis TNCs (see Chang 1998b for details)—although Korea was compelled to abandon its under the terms of the recent IMF bail-out. Thus the East Asian governments imposed restrictions on the areas where TNCs could enter. And even when entry was allowed, they encouraged joint ventures, preferably under local majority ownership, in an attempt to facilitate the transfer of core technolo-

gies and managerial skills.[21] Policy measures other than the ones concerning entry and ownership were also used to control the activities of TNCs. For example, the technology that was to be brought in by the investing TNCs was carefully screened, and checked to ensure that it was not overly obsolete and that the royalties charged on the local subsidiaries, if any, were not excessive. For another example, in order to maximize technology spillover, those investors who were more willing to transfer technologies were preferred (unless they were technologically too far behind), and local contents requirements were quite strictly imposed.[22]

Policies that regulate the inflows of technology in East Asia would not have been so effective without the policies to enhance the capabilities of the domestic firms to absorb the imported technologies. Obviously, these included some policies that do not involve industry-specific measures, such as government funding and management of general education. For the purpose of more specialized skill formation, the East Asian governments also employed a range of measures (with certain country variations). They included (1) deliberate channeling of funding into science and engineering departments in universities, especially those related to "strategic" industries (e.g., electronics engineering); (2) public provision of specialized industrial training; (3) introduction of compulsory training schemes for large industrial firms (which are generally in those industries that were promoted as "strategic"); and (4) introduction of (German-style) skill certification systems that

21. For example, in the case of Korea, even in sectors where FDI was allowed, foreign ownership above 50 percent was prohibited except where FDI were deemed to be of "strategical" importance, which covered only about 13 percent of all the manufacturing industries (EPB 1981, 70). These included industries where access to proprietary technology was deemed essential for further development of the industry, and industries where the capital requirement and/or the risks involved in the investment were very large. The ownership ceiling was also relaxed if (1) the investments were made in the free trade zones; (2) the investments were made by overseas Koreans; or (3) the investments would "diversify" the origins of FDI into the country—namely, investments from countries other than the United States and Japan, which had previously dominated the Korean FDI scene. For details, see EPB 1981, 70–71. As a result of such policies, as of the mid-1980s, only 5 percent of TNC subsidiaries in Korea were wholly owned, whereas the corresponding figures were 50 percent for Mexico and 60 percent for Brazil, countries which are often believed to have had much more "anti-foreign" policy orientations than that of Korea (Evans 1987, 208). Because of the scarcity of large private sector domestic firms, the Taiwanese government had to be more flexible on the ownership question (33.5 percent of the TNC subsidiaries were wholly owned as of 1985; Schive 1993, 319), but Taiwan's reliance on FDI on the whole was for most of the time below the developing country average (see Table 7.1).

22. One thing to note, however, is that the targets for localization were set realistically, so that they would not seriously hurt the export competitiveness of the country—it was in fact the case that in some industries they were less strictly applied to the products destined for the export market than those destined for the domestic market.

encourage the workers to acquire specialized skills whose possession cannot be easily verified.[23]

Even before a late-developing country reaches the world's technological frontier, there comes a stage when it becomes necessary for it to be engaged in some R and D, because as the imported technologies become more and more sophisticated, even mere absorption of a technology may require some independent R and D. And as is well known, when they reached this stage, the East Asian countries all engaged in highly organized efforts to promote R and D (for the details, see the country chapters in Nelson 1993).[24] What is notable is that even when they started spending significant amounts in R and D, the efforts were concentrated in "applied" areas, often very precisely targeted by the government at particular end products with clear marketability, rather than in "basic" areas. Although this practice attracted criticisms from certain quarters for not leading to "genuinely creative" R and D, others argue that such a "goal-oriented" nature is a strength, rather than a weakness, of the East Asian R and D policies, since it means that R and D spending gets directly and quickly translated into advantages in product markets.

The importance of enhancing the level of technology in order to enhance the competitiveness of a country cannot be overemphasized. However, the kinds of things that a late-developing country has to do in order to increase its technological level are rather different from what the countries on the frontier have to do. They need to put more efforts into monitoring and controlling what kinds of technologies are imported by whom on what terms, and need to put more emphasis on enhancing skills on the shop floor. Technology policies in East Asia were neither aimed at achieving some imaginary technological self-sufficiency nor blindly following the market forces. They were based on a clear notion of gradual technological upgrading, which involved a careful control over the paths of technological evolution through controls over technology inflow and over the formation of the capabilities to absorb imported technologies.

23. Needless to say, many studies have emphasized the role of certain labor institutions, such as lifetime employment and company unionism, in the East Asian countries in encouraging specialized skill formation. However, except for pointing out the fact that the evolution of some of these institutions has been heavily influenced by their governments, the issue need not detain us here. On the role of labor institution in skill formation in East Asia, see Dore 1987, chaps. 2, 5, 7, and 8, for Japan; and You and Chang 1993 for Korea.

24. Given the absence of large private sector firms, the Taiwanese government has accounted the bulk of R and D expenditure, whereas in Japan and Korea, R and D spending by the private sector has been larger than that by the public sector except in the earlier stages of their development.

4 THE QUESTION OF REPLICABILITY

The question of replicability has been a persistent theme in the debate on East Asia. In the early days of the debate, when the mainstream economists recommended the supposedly "free market, free trade" model of East Asia to other developing countries, many Dependency theorists pointed out that there were too many historical, geopolitical, and perhaps cultural idiosyncrasies that made the model generally inapplicable, although they did not question the mainstream characterization of the model itself (on the curious similarities between the early mainstream and the Dependency interpretations of the East Asian experience, see Chang 1990; for criticisms of the "idiosyncrasy" arguments, see Chang 1995b, whose Spanish translation appears in Chang 1996b). Later, when it became clear that the East Asian countries were not succeeding on the basis of a "free market, free trade" policy, the mainstream economists adopted the Dependency style argument they had disparaged so much earlier and argued that the East Asian model could not be replicated, because its success was based on certain unique conditions which other countries do not possess (World Bank 1993 is the best example).

In the following, we examine two arguments in this vein that have recently become especially popular. The first emphasizes the importance of competent bureaucracy in successfully administering the kinds of "sophisticated" industrial and trade policies that the East Asian countries have used. The second emphasizes the difficulty of using the East Asian–style "non-market-conforming" trade and industrial policy instruments in the new international trading regime that came out of the Uruguay Round. How plausible are these arguments?

In response to the first, it should be admitted that a competent bureaucracy is certainly needed for an effective administration of East-Asian-style industrial and trade policies. However, it is not clear whether administering such policies necessarily requires more bureaucratic capabilities than other, supposedly "easier" policies such as macroeconomic policy. This would certainly depend on the extent of intervention and the sophistication of policy tools employed—for example, a deft management of exchange rates or interest rates may be more difficult than running a few industry-specific technological upgrading schemes.

More important, those who make this argument mistakenly assert that the well-developed bureaucracies of the East Asian countries were part of their historically determined "initial conditions." These countries had to spend a lot of time and energy in reforming their bureaucracies and training their bureaucrats before they could establish the kind of bureaucracies that

they have now (Cheng et al. 1998). It is instructive to note in this context that Korea was sending its bureaucrats for training to the Philippines and Pakistan until the late 1960s.

Anyway, since many Latin American countries were much more advanced than the East Asian countries until the early 1980s, it would be difficult to argue that they could not adopt at least some of the "sophisticated" policies practiced in East Asia because they lack the (bureaucratic and other) "capability." For example, as we can see in Table 7.3, in 1961, even the least developed of the Latin American countries in the sample, namely, Brazil ($129), had per capita income 1.6 times that of Korea ($82), manufacturing value added (MVA) 2.5 times that of Korea, and had only slightly lower ratio of literacy (61% vs. 71%). Even when we compare it with Taiwan, whose per capita income was essentially at the same level ($121 vs. $129), we find that Brazil had somewhat higher literacy ratio (61% vs. 54%) and 2.5 times the MVA. When we compare the East Asian countries with the other Latin American countries in the sample (Ecuador, Mexico, Chile, and Argentina), we find that the latter were all much more advanced than the former. If we accept that the bureaucratic capability of a country would be strongly correlated with the level of its economic development and broad human capital endowment, we find it difficult to agree with the argument that the Latin American countries cannot, or could not, adopt the East Asian style policy because of the lack of "capability."

More generally, we should point out that the view that countries need to have some "special" (bureaucratic and other) capabilities before they can adopt some economic "model" that is not predominantly "market-based" (such as the East Asian model) is based on the mistaken mainstream belief that while markets, as "natural" phenomena, can be transplanted anywhere, "institutions" (including the modern bureaucracy), as man-made things, cannot. However, recent developments in institutional economics have persuasively demonstrated, first, that the conventional dichotomy between markets and institutions is misleading, since markets themselves are institutions, and second that markets are *not* natural phenomena that develop spontaneously, but (like other institutions) have to be deliberately constructed. Indeed, if the market-based Anglo-Saxon model is so easy to replicate, why is it the case that most of the "success stories," be they German, Japanese, or Scandinavian, were based on some "deviant" model? The difficulty that many developing and transitional economies are currently experiencing with their neoliberal reforms is just another testimony to how hard it actually is to replicate the predominantly market-based Anglo-Saxon model. In fact, the establishment of market institutions required a lot of government interven-

Table 7.3 Initial Conditions

	1961 per capita income (current $)	1961 per capita MVA (1958 $)	Literacy rate circa 1960 (%)	1938 per capita MVA (1958 $)	Literacy rate circa 1945 (%)
Indonesia	49	3 (1958)	47	4	n.a.
Tanzania	50	4 (1958)	17	n.a.	n.a.
Pakistan	54	9	16	n.a.	18 (1951)
Zaire	67	11	31	n.a.	n.a.
India	69	11	24	6	19 (1951)
Kenya	72	12 (1958)	20	n.a.	n.a.
Korea	82	22	71	9	22 (1945)
Thailand	88	9	68	6	53 (1947)
Sri Lanka	122	18	61	16	n.a.
Taiwan	122	23	54	12	50 (1950)
Brazil	129	50	61	16	43 (1940)
Ecuador	143	26	67	19	n.a.
Ghana	179	8 (1958)	27	n.a.	n.a.
Philippines	200	16	72	13	52 (1948)
Malaysia (Malaya)	215	27	23	n.a.	38 (1947)
Mexico	279	83	62	45	57 (1950)
Chile	377	82	84	72	77 (1940)
Argentina	378	114	91	98	86 (1947)
South Africa	396	138	57	62	n.a.
Singapore	n.a.	n.a.	n.a.	n.a.	46 (1947)
Japan	402	227	98	75	n.a.
United States	2308	926	98	375	n.a.

SOURCES: The source for the MVA (manufacturing value added) figures is United Nations, Growth of World Industry, 1938-61 (1965). The sources for the 1945 literacy figures are UNESCO, Statistical Yearbook, UN, Statistical Yearbook, various years; and McGinn et al., Education and Development in Korea (1980), Table 17. The source for the 1960 literacy figures is World Bank, World Development Report, various years. The income figures for 1961 are from Kindleberger, Economic Development (1965), Table 1.1, except the one for Korea, which is from the Korean National Account Statistics.

tion even in the Anglo-Saxon economies in their early days (see Polanyi 1957 on Britain, and Kozul-Wright 1995 on the United States).

The argument that the East Asian model cannot be replicated elsewhere because of the uniqueness of their institutions sees those institutions as something immutable and thus underestimates the possibility of institutional adaptation and innovation. Like technologies, institutions (and indeed "culture" as a set of informal institutions) are subject to adaptation and innovation, and therefore should not be seen as something immutable that a country inherits from its past. Especially from the point of view of the late-developing countries, adapting imported institutions to the local conditions is

as important as, if not more important than, adapting imported technologies, and the East Asian countries themselves show how important and feasible such institutional adaptation can be.[25]

In response to the second argument citing the highly "liberal" post-Uruguay-Round world trading regime as a major constraint on adopting some of the East Asian policy tools, three points must be made (the following details are from Akyüz et al. 1998; also see Amsden 2000).

First, the conventional wisdom overestimates the policy "freedom" that existed in the pre-WTO international trading system. However, even the old GATT system imposed many restrictions on the kinds of policy tools. And as a result, the East Asian countries had to exercise a considerable amount of policy ingenuity and administrative and diplomatic skill to maintain some of their policies even under the pre-WTO system.

Second, while the WTO system does put more constraints on the scope of policy tools that can be used, the constraints are not as widespread and binding as they are usually argued to be. For example, the "balance of payments" clause, which, rather than the "infant industry" clause, had been the most frequently evoked justification for quantitative restrictions under the pre-WTO regime by the East Asian countries (and other developing countries), still exists under this new regime. Also, subsidies may be more strictly sanctioned against in the WTO system, but there are still "nonactionable"[26] subsidies such as basic research, agriculture, and regional development. And in the case of the poorest countries, some subsidies prohibited in other countries, notably export subsidies, are still allowed. Last, the agreements on so-called TRIPs (trade-related intellectual property rights) and TRIMs (trade-related investment measures) do constrain the scope for things like local contents requirements or compulsory technology licensing, but exceptions can be made (although not easily),[27] and a wide range of other measures that can serve similar purposes are not affected by these agreements (e.g., export performance requirements on TNC subsidiaries).

Finally, it needs emphasizing that the new trading regime does not prohibit many policy measures that have been used in the East Asian policy

25. The early Japanese experience is particularly instructive here. When the Japanese first embarked on the industrialization process, they had to import a lot of foreign institutions, picking what they though were the most suitable among the "best practices." So if we look at the early Meiji period, we find an institutional patchwork. The commercial law system was from France, their criminal law from Germany, the central bank from Belgium, the navy from Britain, the army from Germany, the education system first from America but later from Germany, and so on (for some more details, see Westney 1987).

26. This means that retaliatory action cannot be taken against these subsidies.

27. Local content requirements can be invoked under the balance of payments clause. Compulsory licensing is also allowed under special circumstances.

regime. Strategic credit rationing by the state, the use of domestic taxes to encourage or discourage particular activities, dissemination of information on export markets and best-practice technology by state agencies, direct and indirect controls on competition in strategic industries, and policies to encourage the formation of specialized skills are only some of the more important examples.

I would agree with those who express skepticism about the replicability of the East Asian model, if all they mean is that countries with different conditions may have to find different solutions to similar problems (for some theoretical discussion, see Chang 1997a). However, they often have a very exaggerated view about the superiority of the "initial conditions" of the East Asian countries (Chang 1998d), and have an unduly pessimistic view about other countries changing their conditions. So they believe that initial institutional (and cultural) conditions are almost perfectly binding and therefore countries which do not start with the East Asian sort of initial conditions cannot emulate them. One curious thing here is that most of these people do not seem to believe that the "initial conditions" may be equally binding when countries aim to imitate the Anglo-Saxon model that they typically recommend. The same sort of exaggeration, narrowness of view, and prejudice dominate the discussions on the effect of WTO trading regime. The pre-WTO trading regimes are described as somehow very permissive, the constraints imposed by the new regime are highly exaggerated, and the role of policy ingenuity in getting around these constraints is completely ignored.

5. THE END OF THE EAST ASIAN MODEL?

With the recent crisis in Korea and the prolonged recession in Japan, now there is a widespread talk of the end of the East Asian model. In contrast, the recent strengths of the American and the British economies are taken as proof that the Anglo-Saxon model is the best economic model there is.

While it is perfectly understandable why there is such a sentiment, we need to put things into perspective. To begin with, not all the East Asian economies are equally in trouble. Korea may have experienced a deep crisis, but Taiwan and Singapore did not. Indeed, it is interesting to note that the Asian countries that have recently experienced problems were either the ones that did not follow the "East Asian model" (the Southeast Asian countries and Hong Kong) or the ones that moved away from such a model (Japan and Korea).

Moreover, although the Japanese performance may have been inferior to those of the Anglo-Saxon economies during the second half of the 1990s,

the performance difference is a lot smaller than what is normally assumed. During the 1990s as a whole, the Japanese per capita GDP growth rate, at 1.4 percent, was only a fraction lower than that of the United States at 1.6 percent and superior to those of Switzerland (-0.4%), Sweden (0.8%), Canada (0.8%), Italy (1.1%), and France (1.3%) (data from the World Bank and the *Financial Times*). Also, according to the data from the *Economist* published in April 1999, in terms of productivity growth rate (that is, the rate of growth of GDP per worker), the United States, at 0.9 percent, was behind Japan, which was at 1.2 percent, between 1989 and 1998.

Moreover, the current economic troubles in Japan, and especially Korea, came about because those countries *departed* from the "traditional" East Asian model, not because they *adhered* to it. The current recession in Japan started when the asset bubble that built up following the financial liberalization in the late 1980s finally burst in the early 1990s. The recession that followed from it owed a lot to the refusal by the Japanese government to intervene quickly and decisively in the financial sector to clean it up in the manner that the ostensibly less interventionist U.S. government had with a similar problem, namely, the S&L crisis during the 1980s.

The recent crisis in Korea is a result of the rapid buildup of short-term foreign debts that had fed the investment boom between 1994 and 1996 that was made possible by the abandonment of traditional industrial policy measures (e.g., investment coordination, control on "excessive competition") by the Kim Young Sam government, which took power in 1993—although the Korean industrial policy had been weakening since the early 1990s. And what made this debt buildup possible was the ill-designed financial liberalization program that was started in 1993 by the same government. The departure from the traditional exchange rate policy also added to the problem (for further details on the Korean crisis, see Chang 1998a, Chang et al. 1998, and Chang and Yoo 2000; for the Asian crisis in general, see Wade and Veneroso 1998, Stiglitz 1998, Chang 2000, and Chang et al. 2001).

With Korea (voluntarily and involuntarily) deregulating its economy with an alarming speed to restore "international confidence" in it and with Japan accelerating its financial deregulation (if not deregulation in other areas) in response to its current recession, it seems that the East Asian model will be significantly watered down, if not abandoned, in the coming years. However, the evolutionary dynamics of economic institutions are too complex for us to say with full confidence that these economies will become "Anglo-Saxon" in the near future. After all, it was out of the very American institutional frameworks that were imposed by the U.S. Occupation Authorities after the Second World War that the famous "idiosyncratic" Japanese and

German models emerged. In addition, the changing fortunes of the major OECD economies in the coming years will deflate the overconfident Anglo-Saxon triumphalism and put the whole debate on a more sensible footing. It will be very interesting to watch what happens in Korea and Japan, as well as the United States, over the next several years.

6. LESSONS FOR LATIN AMERICA?

During the last twenty years or so, a number of attempts to explain the differential performances across different capitalist countries have generated a belated interest in the institutional diversity of capitalism. Such interest naturally makes us question the wisdom of neoliberal economics, which claims that there is only one efficient way of organizing a capitalist economy, namely an idealized version of the Anglo-Saxon economic model based on unconstrained markets with minimal state intervention—a view which is in the ascendancy at the moment. Among the "models" that challenge the dominant Anglo-Saxon model is the East Asian one, whose "economic" (as opposed to "social") dimension we examined in this chapter.

We have examined three broad areas of the East Asian model of economic policy—investment policy, trade policy, and industrial policy (including technology policy). We have emphasized how the constraints (and opportunities) imposed by the imperatives of late development shaped such policies in these countries, and how they overcame these constraints. In the process, we highlighted some policies which we regard as important but which have received inadequate attention even by those who are sympathetic to the East Asian model. These included, among others, (1) the pro-investment, rather than anti-inflationary, macroeconomic policy; (2) the control on luxury consumption, which served both economic *and* political functions; (3) the strict control on FDI, which is contrary to the popular impression that these economies (perhaps except Japan) have had an "open" FDI policy; (4) the integrated pursuit of infant industry protection and export promotion; (5) the use of export as a tool to exploit scale economy and thus to accelerate the maturation of infant industries; and (6) the productivity-oriented (as opposed to allocation-oriented) view of competition.

Then we discussed whether replicating the East Asian model in other countries is feasible. Noting that a wholesale replication of any socio-economic model, and not just the East Asian model, is impossible, we examined two "impossibility of learning from East Asia" arguments that are especially popular these days—one related to bureaucratic institutions, and

the other related to changes in the international trading regime—and found them both wanting. We pointed out that while both of them have a point, they are misinformed, exaggerated, and biased in their outlook. This discussion was followed by a short commentary on whether the current economic troubles in some (but not all) East Asian countries signify the end of the East Asian model. We argued that, first, the relative performances of the East Asian countries and the Anglo-Saxon economies need to be put into perspective, and, second, that the troubles in the East Asian countries mainly owe to their departures from the traditional model, rather than to their adherence to it. We also pointed out that the process of institutional evolution is difficult to predict, and therefore that it is not obvious that countries like Japan and Korea will emerge as truly Anglo-Saxon economies out of their recent troubles that have prompted them to adopt many Anglo-Saxon institutions.

The East Asian model of economic policy may look very different from some other models, especially the Anglo-Saxon one (but perhaps not their earlier reincarnations—e.g., the early U.S. model). However, they also share many characteristics with other models, especially those of many continental European countries and Latin American countries, not least because they all had to develop their policies under the constraints of late development. The interesting question, however, is not what these similarities are, but what are the crucial differences between the East Asian model of economic policy and those of continental Europe and Latin America.

With a view to drawing lessons for Latin America, I may point out some likely candidates: luxury consumption control (conspicuously missing in Latin America); an active use of export as a part of infant industry program (an especially big contrast with Latin America); a skillful management of domestic competition, based on a productivity-oriented view of competition; and active policies to promote technology absorption (policies toward TNCs being the biggest difference with Latin America in this area). However, my personal knowledge about most non–East Asian countries is too inadequate to make much progress here. A series of more systematic comparative studies will be needed before we can distill some useful policy lessons, and I regard the present volume to be a very useful launching pad for such efforts in the future.

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