

**Asia's Labor-Driven Economic Development,
Flying-Geese Style:
An Unprecedented Opportunity
for the Poor to Rise?**

Terutomo Ozawa

Discussion Paper No. 40

Terutomo Ozawa
Professor of Economics, Colorado State University



Discussion Paper Series
APEC Study Center
Columbia University

July 2005

June 14, 2005

**Asia's Labor-Driven Economic Development, Flying-Geese Style:
An Unprecedented Opportunity for the Poor to Rise?**

Terutomo Ozawa

Professor of Economics, Colorado State University, Fort Collins,
CO. 80523-1771, U.S.A. (Email: T.Ozawa@Colostate.Edu)

Revised draft of the paper presented at the UNU-WIDER conference on “The Impact of Globalization on the Poor in Asia,” United Nations University, Tokyo, April 25-26, 2005. The author is grateful to Prof. Yasuyuki Sawada of Tokyo University for his valuable comments.

ABSTRACT

The notion of “shared growth” was introduced by the World Bank in recognition of East Asia’s rapid growth accompanied by poverty reduction. It emphasizes the criticality of pro-poor policies and institutional setups in the fast-developing East Asian economies. These individual countries’ efforts are, however, a necessary but not sufficient condition. There is a more essential, underlying region-wide mechanism that simultaneously promotes regionalized growth and specifically favors Asia’s working mass of unskilled labor. Such an efficacious mechanism is posited in the “flying-geese paradigm of comparative advantage recycling in labor-intensive goods.” The paper argues that a number of favorable factors have fortuitously coalesced to engender a considerably favorable condition for Asia’s rapid catch-up growth in which unskilled labor (the poor) can participate as their countries’ most vital input in labor-driven development.

Asia's Labor-Driven Economic Development, Flying-Geese Style: An Unprecedented Opportunity for the Poor to Rise?

Terutomo Ozawa

1. Introduction

Despite the financial crises of 1997-98, Asia as a whole has experienced rapid growth continually since the end of World War II (WWII). During the postwar Golden Age of Capitalism (1950-1971), Japan's per capita income multiplied six fold, enabling the country to join the advanced world. Shortly thereafter, the NIEs (Hong Kong, Singapore, Taiwan, and South Korea) achieved equally remarkable catch-up growth. In fact, Hong Kong and Singapore's per capita incomes soon surpassed their former mother country Britain's. Korea's economic growth was so successful that in 1996 it quickly joined the OECD, the rich men's club. ASEAN-4 (Thailand, Malaysia, Indonesia, and the Philippines), too, began to emulate the NIEs' achievements. More recently, China and India also have begun quickly to scale the ladder of economic development, emerging as members of the so-called "BRICs." (along with Brazil and Russia). Vietnam is likewise following suit. Thus, Asia's growth as a whole is characterized as a sequence of *staggered or lagged* catch-up events across the region, a pattern of what I call "tandem growth," which is well envisioned in the so-called "flying-geese (FG)" model of economic development.

Asia's recent economic development, especially in its early phases, has been simultaneously accompanied by impressive poverty reduction as a consequence of the sharp rise in demand—hence, incomes—for unskilled labor. In fact, this "unique" feature (a *double* play of growth and poverty alleviation) was already identified as "shared growth" by the World Bank's 1993 study of the development experiences of the "high performing Asian economies (HPAE)," the phenomenon in which "unusually low and declining levels of inequality, contrary to historical experience and contemporary evidence in other regions" (World Bank, 1993).¹

¹ The World Bank's original study did not include China as an HPAE, but would certainly have treated it as such if the study had been made more recently: "Recently China, particularly southern China, has recorded remarkably high growth rates using policies that in some ways resemble those of the HPAEs. This very significant development is beyond the scope of our study" (World Bank, 1993, p. 1).

Indeed, the incidence of extreme poverty practically disappeared first in post-WWII Japan and then in the NIEs. And there has also been a considerable reduction of abject poverty in ASEAN-4—and more recently, and most dramatically, in China. It is estimated by the Asian Development Bank (2004), for example, that the headcount ratio for \$1 a day in China decreased from 53.1% in 1984 to 26.5% in 2001, that in Indonesia from 37.8 per cent in 1984 to 7.5 per cent in 2002, and that in Thailand from 17.8 per cent in 1988 to 1.9 per cent in 2000. These are, indeed, remarkable accomplishments. India, too, has been experiencing noticeable alleviation in poverty, especially in urban areas, as a consequence of its recent stepped-up pace of economic development; the headcount ratio declined from 46.3 per cent in 1987 to 36.0 per cent in 2000—though, admittedly, the absolute number of the poor is still large.² Interestingly enough, therefore, poverty reductions have been occurring, again *flying-geese style* (i.e., in tandem), among these rapidly catching-up Asian economies. Given such a track record of poverty alleviation, most Asian countries are expected to meet without much difficulty the goal of the UN Millennium Project to halve the proportion of the population in extreme poverty (\$1-a-day line) by 2015.³

Then, the major question we must ask is: *Why has Asia as a whole—but especially East Asia, relative to other developing regions—been so successful in managing its economic growth so as to lessen poverty? Why hasn't the same phenomenon occurred evenly across the world? Is there any particular reason specifically endemic to East Asia?* So far, the usual answer is that the East Asian countries have adopted *both* pro-growth and pro-poor policies and established the appropriate institutional setups to achieve equality, as epitomized in the practice of “shared growth”—and also benefited from the region’s egalitarian tradition based on communitarianism stemming from many centuries’ rice paddy cultivation, as well as from the influence of Confucianism (or a “strong culture”⁴ adaptable to the forces of globalization).

² Despite the recent sharp decline in abject poverty, however, it should be noted that East, Southeast, and South Asia still had almost 690 million poor people in 2002 in terms of the \$1-a-day poverty line, and as many as 1.9 billion people on the basis of the \$2-a-day poverty line (ADB, 2004). Furthermore, a preliminary estimate indicates that the Indian ocean tsunami may add nearly 2 million more people to poverty (ADB, 2005).

³ “On the assumptions that (i) current rates of economic growth continue in most DMCs [developing member countries of ADB], but decline to more sustainable levels in the PRC and the Central Asian republics, and that (ii) distributions are no more unequal than those experienced in recent years, many DMCs are poised both to meet the MDG [Millennium Development Goal] target of halving the 1990 proportion of extremely poor by 2015 and to reduce the number of people living in extreme poverty” (ADB, 2004, p. 45).

⁴ A distinction between a strong culture and a weak culture is attributed to Samuel Huntington (Berger and Huntington, 2002).

This paper, however, argues that although such practice and tradition are no doubt instrumental and necessary for the desirable outcome, what matters most is the *distinct way in which East Asia has initiated, and continues, its catch-up growth--first by capitalizing on its most abundant asset, unskilled labor, for labor-intensive manufacturing for export at the start of their interactive development.* In this connection, what may be called the “flying-geese paradigm of comparative advantage recycling in labor-intensive goods” can provide a useful framework within which Asia’s effective poverty alleviation is explainable in a comprehensive fashion. The paradigm includes all the pro-poor attributes of economic activities (such as trade and investment) that have so far been identified--but rather separately in a fragmented manner and without any broad unifying frame of reference. Indeed, there is strong ground to argue that *those Asian countries that have actively participated in the flying-geese formation of labor-driven tandem growth are the ones that experienced significant poverty reductions.*

2. Globalization, Growth, and Poverty Reduction

To explore the globalization-growth-poverty nexus, one can take a reduced form of analysis and/or a structural form of analysis. It is generally accepted that there are three key events and two causal linkages among them: globalization affects growth, and such globalization-driven growth then impacts poverty (that is, in two logical steps), as illustrated in Figure 1. And two opposing views, positive and negative, prevail about the impact of globalization on poverty via growth. The positive view argues (i) that globalization favorably affects (fosters) developing countries’ growth and incomes for workers, thereby contributing to poverty alleviation, whereas the negative view holds (ii) that globalization aggravates poverty--whether or not it stimulates or stunts developing countries’ growth because globalization (via international businesses) entails inequality in favor of the rich and against the poor.

INSERT FIGURE 1 HERE

The negative view stresses the belief that the market-driven (capitalistic) process of economic development causes an adverse income distribution against the poor. On the other hand, the positive view argues that *even* with such an adverse income distribution effect, the growth effect of globalization (via freer trade and inward foreign direct investment) can more

than compensate for any income inequality--*so long as developing countries implement appropriate policy and set up necessary institutional arrangements.*

Each side has legitimate grounds to support their positions. For reasons to be discussed below, however, the general consensus among economists is that both “shrewd [on-the-field] observation and scientific evidence” are in strong support of the positive view, and that as summed up by Bhagwati (2004), “The scientific analysis of the effect of trade on poverty is even more compelling”(p. 52-53).

2.1. Scientific Evidence for Growth-led Poverty Reduction

Indeed, scientific evidence is strong. As shown in Figure 2, Dollar and Kraay (2001, 2002) found a close correlation between growth and poverty reduction by observing 92 developed and developing countries. A similar study was made—a similar result obtained--by the Asian Development Bank (2004) (Fig.6 of ADB) that focuses on developing countries alone (Figure 3). “In particular, growth of 1% is associated with a 1.5% decline in the incidence of \$1-a-day poverty on average” (ADB, 2004, p. 32). In the case of Asia (27 countries in East Asia, Southeast Asia, and South Asia), however, there is a much *stronger* relationship between growth and poverty alleviation (as shown in Figure 4). “Each 1% of growth is associated with an almost 2% decline in poverty incidence on average” (p. 33). In other words, the efficacy of growth in lessening poverty is as much as one-third *higher* for Asia. No doubt, if East Asia and Southeast Asia alone are studied by excluding South Asia where magnitude of poverty is very high, growth would be even more *pro-poor*; i.e., more effective in poverty eradication.

INSERT FIGURES 2, 3 & 4 HERE

Growth tends to cause an unfavorable distribution (in relative terms) against the poor. But if an economy grows vigorously enough (which is the case with capitalism, since it is the most powerful engine of development), there is a positive spillover effect from growth that more than compensates for the adverse distribution effect. And indeed, this is what has happened in Asia:

“[T]he driver of rapid poverty reduction in Asia has been growth and not distribution change. Indeed, the largest reductions in poverty in Asia have all taken place in the context of distribution changes that went against the poor. There were nine spells in which poverty declined on average by 1.5 percentage points or more a year. In each of these nine spells, distribution changes were such that poverty would

have increased in the absence of growth. In the case of *rural* PRC, for example, ... distribution changes alone (i.e., in the absence of any growth), would have increased poverty by 1.2 percentage points a year on average during the 1993-1996 spell. Nevertheless, poverty reduction was rapid over this period (4.8 percentage points a year on average) *because the positive growth effect more than matched the adverse effects of purely distribution change on the poor*. [These] episodes... have been experienced widely across the region, encompassing countries not only from East Asia and Southeast Asia but even two South Asian economies (namely, Bangladesh and Pakistan in the late 1980s and early 1990s)” (p. 35, emphasis added).

It should be noted, however, that the governments did proactively intervene to lessen the adverse distribution effect on the poor rather than focusing only on the pro-growth strategy. It cannot be overemphasized, therefore, that both policy and institutional arrangements need to be specifically crafted to enhance the positive growth effect and concurrently abate the negative distribution one. Asia’s practice of “shared growth” epitomizes such policy-cum-institutional matrices.

As early as the start of the 1990s, the World Bank (1993) took notice of the fact that the HPAEs achieved *both* high growth and income equality simultaneously, and reduced poverty to a much greater extent than any other economies in other regions:

...For the eight HPAEs, rapid growth and declining inequality have been shared virtues, as comparisons over time of equality and growth using Gini coefficients illustrate... The developing HPAEs clearly outperform other middle-income economies in that they have *both* lower levels of inequality and higher levels of growth. Moreover... improvements in income distribution generally coincided with periods of rapid growth... Given rapid growth and declining inequality, these economies have of course been *unusually successful* in reducing poverty... Increases in life expectancy have also been larger than in any other region...(emphasis added: pp. 31-32).

One legitimate question, then, is: “Why has growth served the poor in East Asia better than the rest of the developing world on average?” (p. 33). Why has the region been so “unusually successful in reducing poverty”? (p. 32).

One explanation so far given is that by the World Bank (1993). East Asia has been able to get the “policy fundamentals” right by way of (i) carefully limited and “market-friendly (pro-business)” government activities, (ii) strong export orientation, (iii) high levels of domestic savings, (iv) accumulation of human capital (via emphasis on universal education and vocational training, inside and outside of firms), (v) good macro-economic management, (vi)

effective acquisition of foreign technology and advanced knowledge through openness to licensing, inward FDI, and foreign training, (vii) flexible labor markets, (viii) land reform and productive agricultural sectors, and (ix) a conscious adoption of the principle of shared-growth (low income inequality with rapid growth).⁵

These Asian approaches are in sharp contrast, however, to the neoclassical stance to place full trust in the market mechanism, an approach best exemplified by the “Washington Consensus.” In the East Asian experience, rapid growth is consciously *governed* in such a way to moderate the adverse distribution change. As Bhagwati (2004, p. 52) put it, “It’s policy, stupid.” In reference to India’s experience,

... growth was *not* a passive, trickle-down strategy for helping the poor. It was *an active, pull-up strategy* instead. It required a government [of India] that would energetically take steps to accelerate growth, through a variety of policies, including building infrastructure such as roads and ports and attracting foreign funds (p. 54).

Here, Bhagwati’s growth model jibes with Stiglitz’s (2003) formulation of what he calls “a new paradigm of development,” a paradigm that is an amended version of the Washington Consensus.

... the rapid growth of most of the East Asian economies showed that development was possible, and that successful development could be accompanied by *a reduction of poverty, widespread improvements in living standards, and even a process of democratization*. ... these countries did not follow the standard prescriptions. In most cases, national governments played a large role (p. 81).

Stiglitz’s “new (i.e. post Washington Consensus) paradigm of development” constitutes a “more holistic approach to development,” whose features “were in fact, incorporated in the development strategies of the fastest [Asian] developers” (2003, p. 92). In other words, the new paradigm is built on, and modeled after, the successful experiences of East Asia’s shared growth. Stiglitz’s model, though not explicitly so stated, boils down to the notion of “social capacity” to learn from and catch up with the advanced world, a term that was coined by Ohkawa and Rosovsky (1972) and popularized by Abramovitz (1986). Such capacity depends on government policies and institutional setups to create a market-compatible, if not

⁵ All these features are often mutually augmenting and cumulatively causal. For example, a rapid rise in income with declining income inequality led to higher primary and secondary school enrollments (human capital formation), which in turn fostered further catch-up growth and a further drop in poverty. And these desirable characteristics/attributes are clearly advanced by appropriate government policies. Indeed, policy and institutional setups matter—in creating *market-compatible yet pro-poor* growth.

totally market-dictated, economy. The social capability requires more than mere (unconditional) acceptance of the so-called Washington Consensus (a set of “neoliberal” economic policy prescriptions).⁶

In this connection we may argue that growth under globalization (i.e., the globalization-growth link) can be best coordinated by market forces—that is, should be left fundamentally to the market by adopting market-enhancing policy if growth is to be most effectively maximized. On the other hand, however, growth-led poverty reduction (i.e., the growth-poverty link) ought to be coordinated proactively by policy and relevant institutional setups. In other words, we can have the best of the *both* worlds; growth (an increase in the size of the pie) should be market-driven, whereas poverty eradication (an equitable division of the pie) is the task assigned largely to both the state and the public (inclusive of enterprises) through appropriate policies. This is because poverty eradication is basically a public good (a social desideratum) which the market itself is poorly qualified, and incapable, of resolving. As Dunning observes, the market is “less well designed for the production and exchange of *public* or social goods and services than *private* goods and services” (2003, p. 32). It is, indeed, often said that “Like fire, the market is a good servant, but a poor master” (Eatwell, 1982).⁷ Put differently, the market is basically neither goal-setting nor goal-pursuing; it is goal-neutral at best and sometimes even goal-hindering. In essence, the market is merely a resource-allocative mechanism, not a goal-oriented and-fulfilling entity (Ozawa, 1996). Poverty amelioration is certainly a social *goal* of our human endeavor.

In short, the growth-poverty reduction nexus has been both conceptually explored and empirically verified throughout Asia where trade and investment have been liberalized and pro-poor policies and institutional arrangements are actively organized. Yet, as seen below, by contrast the nexus between globalization and growth seems still lacking in a comprehensive framework that can capture the more fundamental/underlying forces of global capitalism.

⁶ India has recently decided to keep outward-oriented development and economic changes on track when its government announced its budget and spending plans for fiscal 2005. Even at the cost of not trimming its fiscal deficit, New Delhi will focus on three objectives: job creation, infrastructure improvements, and social programs for the rural poor. All the three will moderate the adverse distribution effect of rapid growth (which India pursues by further opening up its economy for inward investment), hence will have a favorable impact on poverty reduction.

⁷ Some say that this famous statement was originally made by Joan Robinson.

2.2. Globalization and Growth

This section briefly reviews and summarizes the causality of globalization and growth as conceptualized so far by economists. In economics, trade and capital flows (notably foreign direct investment by multinational corporations) are naturally considered the major conduits of globalization impacting the growth of the developing world.

The nexus between trade liberalization and growth has already been well established as positive in terms of trade theory (i.e., trade is a national income-raising activity) and empirically so verified in most cases (for a survey on this topic, see Winter [2004]). Furthermore, the impact of trade on growth is examined with respect to two opposing trade policies; outward-focused export-led policy versus inward-oriented import-substituting policy. The former has proven growth-conducive, whereas the latter is not as much growth-conducive—or is even growth-stunting. East Asia, in particular, has succeeded in outward-focused export-driven growth. And it is often compared with Latin America which once experimented with, but suffered from, their inward-oriented import-substituting strategies and had to switch to the East Asian model.⁸ Strong export promotion is thus now regarded as more preferable—as the desideratum—for successful catch-up growth than import-substitution. Yet *what kind of goods a country specializes in and exports influences how trade impacts demand for labor, hence poverty.*

In this respect, the promotion of exports of primary goods has long been recognized as a less desirable strategy of economic development for many reasons—but particularly if technological progress, structural upgrading, job creation, and income distribution in favor of labor are aimed at as objectives. The so-called “Prebisch-Singer” thesis (Prebisch, 1950; Singer, 1950) was introduced in the 1950s to argue against primary-goods export expansion, since such exports are subject to the secular deterioration of the commodity terms of trade and as a consequence the primary exporting countries may experience a loss of growth and income. Similarly, the “immiserizing growth” theory (Bhagwati, 1958) stressed the danger of

⁸ It should be noted here, however, that most recently a revisionist movement has started. Ricardo Hausmann and Dani Rodrik, both of Harvard, are said to be challenging the idea of free-market style liberalization and advocating government subsidies on entrepreneurial projects (i.e., selective industrial policy) to ignite growth, since Latin America’s recent experiment with the Washington Consensus did not produce the expected results. See “Seeking Latin America Growth: Some Economists Argue Government Policies May Be the Solution,” *Wall Street Journal*, Feb. 23, 2005, A15. Their argument is similar to Stiglitz’s “new paradigm of development.”

expanding—and relying only on-- primary production for export because of the same (though short-run) terms-of-trade deterioration that causes negative growth.⁹ Furthermore, a sudden boom in resources exports (as often seen in oil exports) may cause the so-called Dutch Disease, with a sharply appreciated home currency undermining manufacturing and traditional exports.

On a financial level, moreover, resource extraction and revenues from primary exports in developing countries are as a norm heavily regulated and controlled by the governments and lead to corruption and inept management of fiscal budgets and programs. Some governments often experience financial crises due to the cumulative effect of the “feast-and-fast” cycle of public spending in which the windfall revenues from resource exports in the time of each commodity boom create more government-funded programs that are not cut, however, during the subsequent market bust. The end result is an inevitable fiscal crisis.¹⁰

On the other hand, a promotion of manufactured exports, especially labor-intensive goods in accordance with the Heckscher-Ohlin trade theory, is regarded as favorable for developing countries for two major reasons: (i) the demand for developing countries’ abundant factor, namely labor, rises (more than proportionately than for their scarce factor, capital); and (ii) the factor price (wage) magnification effect (the wage increases more than proportionately than the price of exports labor produces). In addition, other modern trade theories stress some dynamic benefits of trade such as increasing returns in manufacturing, and greater learning opportunities through contact with sophisticated customers in the advanced countries. (In fact, Indonesia’s success in poverty reduction is attributable to its development strategy of promoting labor-intensive manufactured exports, along with primary exports.)

As to the impact of inward FDI by multinational corporations on the growth of host countries, there are both the boon and bane stories. Graham (2000) distinguishes inward FDI in internationally competitive activities (competitive FDI) from one in internationally

⁹ It should be noted in passing that actually as early as the 1920s the so-called “Australian case for protection” argued against specialization and free trade in the primary goods which would lead to the problems of (i) diminishing returns in agriculture, (ii) an income distribution in favor of landowners but against workers, and (iii) a deterioration of the terms of trade (Irwin, 1996). In other words, Australia, which was eager to expand its population (thereby its national economy), needed the development of the manufacturing sector to attract and absorb immigration, and clearly understood that an expansion of manufacturing industry, not agriculture and mining, is the only viable long-term avenue to build a strong economy.

¹⁰ The “feast-and-fast” theory of a fiscal crisis was introduced by Arthur Laffer in his explanation of the dire financial quagmire of the state of California. This theory, however, is equally applicable to the resource-exporting developing countries’ fiscal problems.

noncompetitive activities (noncompetitive FDI). He relates the former to a situation in which the host country pursues export-oriented development policy, while the latter to the host country's import-substituting protection policy. This distinction actually clearly matches with a differentiation made much earlier by Kojima (1973) between “pro-trade” (export-creating) and “anti-trade” (import-substituting) FDI.

No doubt, FDI can thus be “designed” to become a positive link between globalization and growth. It should be noted that another form of capital flows, portfolio investment (“hot money”), is by comparison less desirable—and often disruptive for developing countries where the financial markets are underdeveloped, because of its speculative and short-term nature. International bank loans, which are mostly inter-bank loans, are considered not as desirable as FDI because of their relatively short-term commitments and volatility in loan renewals (though less volatility than hot money).

In sum, two forms of globalization linkage, trade and capital flows, have been well studied—but only separately without any unifying framework. That is to say, the existing studies cannot really explain *why trade and FDI in East Asia have been so strongly and so distinctly pro-growth and pro-poor simultaneously in the outcome*. There are actually more fundamental forces at work in producing rapid growth—hence a more substantial poverty reduction--throughout East Asia than individual country-specific pro-growth and-poor policies and institutions themselves can explain. (This is the crux of this paper.)

As will be seen below, the flying-geese model of comparative advantage recycling in labor-driven goods, which most cogently fits the East Asian experience, can provide a holistic/comprehensive/ integrative explanation by linking the process of globalization more directly with the successful decline in poverty in terms of a structural form of analysis.

3. Comparative-Advantage Recycling in Labor-Intensive Goods, Flying-Geese Style—in the Context of the Hierarchies of Countries and Industries

As introduced elsewhere (Ozawa, 1993), the model of “comparative advantage (or market) recycling in labor-intensive goods” is a comprehensive framework within which we can explain how Asian economies—first, Japan and then, the NIEs, the ASEAN-4, China, and Vietnam in tandem—have successfully initiated a succession of export-driven growth (by

developing and exporting labor-intensive goods mostly to the relatively open markets of the United States), the event that has proved to be most effective in poverty reduction. It is a restatement of the so-called “flying-geese” theory of economic development originally introduced by Kaname Akamatsu (*inter alia*, 1935, 1961),¹¹ and further elaborated, *inter alia*, by Kojima (2003, 2004), Kojima and Ozawa (1985), and Ozawa (2003, 2005).

¹¹ Akamatsu conceived three different patterns of FG formation: (i) an intra-industry sequential pattern of import-substitution-cum-export-promotion (import→domestic production→export or M-P-E), (ii) a sequential pattern, both intra-industry and inter-industry, of qualitative/structural improvements in manufacturing activities and industrial structure from low-end to high-end products (“from crude/simple to complex/refined articles” in Akamatsu’s own words), and (iii) an international (cross-border) sequential pattern of catch-up growth among a closely interacting group of countries aligned along, and moving up, the different stages of economic development. Akamatsu regarded the first pattern as the *primary/basic* one (which he found in his empirical studies of industrial development in prewar Japan), and the other two as the *derived* patterns. It should be kept in mind that Akamatsu’s findings were centered mostly on statistical studies and left the theoretical/ causal dimension of his findings largely unexplored. My restatement of his model concerns his second pattern.

For some reason, however, the third pattern, that is, a *lineup* of countries by stages of countries alone, has come to be widely accepted as *the* FG formation both in the media and in academia (though the academia, especially mainstream economics, has been much slower in accepting and expanding on the model). Moreover, Japan is erroneously interpreted by some advocates of the FG model and its critics alike as *the* lead goose that sparked the East Asian miracle.

This reformulated model (Ozawa, 1993, 2003, 2005) explains: (i) the stages of industrial upgrading pioneered and trail-blazed by two hegemonies of global capitalism (first under the Pax Britannica and later under the Pax Americana) which can serve as the *ladder* of economic development for the followers to scale; (ii) the catch-up growth of each Asian economy initiating from the bottom rung of the development ladder, i.e., labor-intensive manufacturing and exports (notably textiles and garments); (iii) the role of the U.S. markets as the major demand provider; (iv) the sequential recycling/relaying of the U.S. markets for labor-intensive goods from one Asian country to another; (v) the role of Japan—and more recently, the NIEs—as the crucial capacity (comparative advantage) augmenter for the lower-ranking follower-goose countries by way of FDI and technology transfer; and (vi) the resultant opportunity given to each follower goose to create demand for unskilled labor (so long as the labor market is kept flexible and appropriate government policies are adopted), thereby contributing to poverty reduction. In short, the reformulated model serves as a comprehensive framework to capture not only the static gains (allocative efficiency) of trade and FDI but also—and more importantly, the dynamic gains (adaptive efficiency) and poverty alleviation of economic integration.

3.1. Two Hegemon-Led Growth Clustering

First, let us take a quick look at how the modern industrial structure has been introduced—and has evolved in the world. The world economy has so far been led by two hegemonic powers (first U.K. and then U.S.). Indeed, U.K. and U.S. have been the very first lead geese for two periods; the former during the Pax Britannica of 1846-1914, and the latter during the Pax Americana of 1941 onward, respectively. And modern industrialization has been all molded as “derived” economic development under the forces of hegemon-led growth clustering (Ozawa, 2005). In fact, Akamatsu found a basic pattern of such a formation in the Japanese experience of industrial development under Pax Britannica-led growth clustering, when in the 1930s he first studied Japan’s pre-war industrial development.

Growth clustering is a phenomenon in which a hegemon economy (the lead goose) propagates growth stimuli to its closely aligned cohort of countries that are at various stages of development and structural transformation. The stimuli include dissemination of technology, knowledge, information, skills, and demand (via access to the hegemon’s home

market), and provision of development finance—and above all, transplantation of growth-inducing institutional arrangements of open market capitalism; this all contributes to the higher levels of industrial productivity, efficiency, and per capita income (i.e., economic growth). The lower-echelon countries (follower-geese) can “free ride” and thrive on these growth stimuli, so long as they are willing to follow in the ideological steps of the hegemon. In other words, there is what may be called “economies of hierarchical concatenation” (Ozawa, 2005) that the follower countries can reap from the forces of hegemon-led growth clustering.

At the same time, furthermore, the hegemon itself and other high-echelon countries (second- and third-ranking follower-geese) also benefit from rapid economic integration with lower-echelon countries (say, fourth-ranking follower-geese) as the latter’s vigorous economic development creates demand for goods (especially capital goods) and services (business-related) from the upper-echelon countries. In sum, the group’s synergistic interactions result in agglomeration economies, enabling the *entire* hierarchy of countries to mutually gain, grow, and prosper.

In fact, this mutual dependence has recently deepened around the world—but especially in the Pacific Rim between the United States (the first lead goose) and Asia’s catching-up economies (follower geese) in the form of what may be called “the Pacific Rim co-growth cluster” (Ozawa, 2004). The U.S. has become ever more dependent on capital inflows, while the rest of the world, especially East Asia, depends on their exports of labor-intensive manufactures to the United States to kick-start and promote their economic growth. Consequently, the U.S. runs a rising trade deficit, while absorbing capital inflows to finance the deficit. This development is also called “a global co-dependency” (Mann, 2004). There is good reason, however, why such co-dependency has intensified on the Pacific Rim, as will be explored below.

3.2. Five Progressive Tiers of Industry: The Ladder of Development

Under the two hegemonic regimes, furthermore, *a hierarchy of industries or the ladder of development* has come into existence. And as will be seen below, *this industrial hierarchy interacts, in the most cogent growth-conducive fashion, with the hierarchy of countries that exists in the present hegemonic world, especially in East Asia.*

What is the hierarchy of industries or a more popularly used phrase, the ladder of development? But it has not been clearly examined and defined, not to speak of its rungs. What are exactly the ladder of development and its rungs?

The world economy has so far witnessed five successive tiers of leading growth industry emerge in wave-like progression ever since the Industrial Revolution in England, the five tiers that are illustrated in Figure 5. The historical process of industrial development entailed the sequence of (i) “Heckscher-Ohlin” labor-driven light industries (e.g., textiles & apparel)¹² → (ii) “nondifferentiated Smithian” scale-driven, resource-intensive heavy & chemical industries (e.g., steel, machinery, & chemicals) → (iii) “differentiated Smithian” assembly-based industries (e.g., automobiles) → (iv) “Schumpeterian” R-D-driven industries (e.g., microchips & computers) → (v) “McLuhan” Internet-based industries (e.g., information-processing and – transmission) (Ozawa, 2005). These five tiers currently constitute the existing hierarchy of industries or the ladder of development.

INSERT FIGURE 5 HERE

What the Pax Britannica introduced were initially the labor-intensive light industries (the “Heckscher-Ohlin” stage/rung) and then the resource-intensive, scale-driven heavy and chemical industries (the “non-differentiated Smithian” stage/rung). In contrast, the Pax Americana created the highly components-intensive, assembly-based, genuinely consumer-oriented, and R&D-intensive industries (the “differentiated Smithian” and the “Schumpeterian” stages/rungs), and most recently, the Internet-enabled information-intensive industries (the “McLuhan” phase as an offshoot/extension of the “Schumpeterian” stage/rung). The information-technology (IT)-driven industries are built on “intellectual and

¹² The Heckscher-Ohlin industries include the primary sector such as agriculture and resource extraction. But primary production is not as conducive to long-term structural transformation as labor-driven manufacturing for a variety of reasons discussed earlier.

entrepreneurial capital” and strongly geared to the needs of final consumers. The New Economy is the latest creation of U.S.-led consumer capitalism.¹³

The driver of this structural transformation is technological progress and knowledge accumulation in the hegemon economy, and advances in sciences and technology have been basically capital-using and labor-saving—and not the other way around (Rosenberg, 1982). This characteristic is consistent with the rising factor endowment ratio of capital to labor *pari passu* with economic growth.

Obviously, the advanced countries no longer have competitiveness in lower-tier industries, especially labor-intensive light manufacturing industries (e.g., textiles & apparel) and resource-based “smoke-stack” low-tech heavy industries (e.g., steel). Ironically, their own technological progress—hence their successful structural transformation—has made it impractical for them to retain competitiveness in lower-tier industries. This is necessarily the inevitable outcome of “creative destruction” as emphasized by Schumpeter (1942). Labor-driven light industries (notably textiles) are the ideal “entry” industries for developing countries to start out with in their effort to climb the ladder of economic development. These industries, indeed, can serve as *jump-starters* of development by mobilizing the developing countries’ most abundant factor, relatively unskilled labor, to active employment—hence, the most effective *market-coordinated* way of reducing poverty. Being cognizant of this fact, many developing countries, particularly those still in the early stages of development, are eagerly producing and exporting textiles and apparel and standardized electronics goods as their major manufactured goods. Interestingly enough, this development strategy usually places female workers, especially from the poor rural areas, in great demand, since low-end manufacturing normally creates more jobs for female workers than for male workers for whatever reasons.¹⁴ Given their heavy reliance on this industry as a major earner of foreign

¹³ Trade under the Pax Britannica was largely motivated by search for resources and persistent differences in technology (i.e., differences on the supply side), for which the doctrine of comparative advantage (both the Ricardian and the Heckscher-Ohlin theories which explain to inter-industry trade) was pertinent. In contrast, trade under the Pax Americana has become increasingly knowledge-driven, scale-based, demand-sided, and intra-industry-oriented; hence new theories such as Vernon’s product-cycle theory, Linder’s income-similarity theory, and the monopolistic competition theory of trade have gained in explanatory power, especially for trade in manufactures. In other words, a history of theoretical development in international economics can also be told and examined in terms of the above stages model of industrial upgrading.

¹⁴ It is an important—often politically/emotionally charged—issue whether they are made better off or exploited as many feminists contend. But it is beyond the scope of this paper, since it requires careful analysis. For a balanced analysis, however, see Bhagwati (2004, especially Chapter 7).

exchange, these Asian textiles and apparel exporting countries are jealously guarding such industrial activity, as seen in the recent furor over the suspension of multi-fiber agreements that is likely to shift textiles production to China away from other poor developing countries.¹⁵

Furthermore, each advanced stage of structural transformation has produced a widening range of *vertically concatenated multi-stage industries (or segments)*, the upper end of which is highly capital intensive and technologically sophisticated, while the lower end is labor-intensive and technologically standardized—hence, the latter being more readily transferable to low-wage developing countries (see Figure 6). As a result, even higher-tier industries, especially automobiles, electronics, and telecommunications equipment, are transplanting or outsourcing their low-end production (mostly of standardized parts/components, as well as the low value-added, low-profit lines of finished goods) onto low-cost locations in the developing world. The same thing can be said about services such as back-office jobs, as seen in the growth of call centers in the developing countries, notably India.¹⁶

INSERT FIGURE 6 HERE

In the course of industrial progress the manufacturing activities, therefore, have become *vertically deep in production sequences, multi-process/stage-differentiable, and inter-process-fragmented and divisible*. In this connection, a division of labor between high-skilled and low-skilled jobs has deepened. And in the context of globalization, the developing countries are increasingly given the opportunities to specialize in, and export, labor-intensive goods—not only final consumer goods (ranging from textiles, apparel, and toys to TV sets, computer monitors, and low-end cars) but also standardized intermediate capital goods such as parts and components in electronics, telecommunications, and automobiles.

Moreover, it should be emphasized that thanks to the information technology (IT) revolution and advances in transportation, the capacity of *individual* firms itself in advanced countries—that is, at the firm level in addition to the economy and industry levels—to

¹⁵ For example, Cambodia whose garment industry currently “employs over 200,000 people, and accounts for 80% of the country’s exports” is in dire danger of losing this only flourishing industry. “Cambodia: rotten at the core,” *Economist*, February 19, 2005, p. 42.

¹⁶ It should be noted, however, that outsourced back-office jobs create demand not for unskilled labor but for skilled labor (usually, university graduates), hence causing a widening income gap. Yet the resultant rise in income—and economic growth—is likely to have a beneficial trickle-down effect on the poor.

fragment their own vertical intra-firm chains of value-added activities and outsource low-end (non-core) businesses to the developing countries has sharply increased.

In short, *both* industrial upgrading (of the *inter*-industry/stage type) and refined vertical concatenation (of the *intra*-industry/stage type) have created godsend opportunities for the firms in the advanced and developing countries--to pursue a new division of labor in productive activities across borders.

3.3. The United States as the first lead goose: The Originator of Concatenation Economies

What has happened in East Asia owes to the convergence of three earlier structural dynamisms: (i) the United States pioneered in the development of new R&D-driven industries such as computers and microchips, (ii) Japan moved up the ladder of development from the lower tiers by first modernizing the war-torn light industries and heavy and chemical industries (that had already been established before WWII) and then, by entering into higher-value-added industries, as its wages rose and its capital accumulation proceeded, and (iii) other Asian countries at lower stages of economic development also soon initiated their catch-up growth by developing labor-intensive manufacturing for export, one group of economies at a time in a staggered sequence (first the NIEs, then ASEAN-4, and more recently China, and Vietnam).

In the postwar period the United States, the hegemon of postwar capitalism, adopted a liberal trade policy toward Asia, especially during the Cold War. It has been providing the major market for Asia's exports of labor-intensive goods. And the U.S. import market for such goods, the market once captured but soon discarded by Japan, were quickly handed over to the NIEs, which in turn soon relayed it to ASEAN-4—and more recently to China and Vietnam. The successful growth of export-oriented labor-intensive manufacturing in Asia has been facilitated by FDI by multinational corporations not only from the U.S. and Europe, but also--and more significantly--from Japan, the NIEs, and even ASEAN-4, that is, from within East Asia itself. Multinationals' FDI and outsourcing normally transplant onto the developing host countries modern management, technology, and access to export markets so as to activate or reinforce the developing countries' comparative advantage in labor-intensive goods and

services (i.e., comparative advantage augmentation). Those developments have combined to produce the phenomenon of intra-regional recycling of comparative advantage in low-end manufacturing via FDI, as illustrated schematically in Figure 7.

***INSERT FIGURE 7 HERE**

3.4. The Role of a Second Goose: Japan--and then, the NIEs

In this connection, Japan has been playing a critical role as the second goose. It first captured the U.S. market for labor-intensive exports and then handing it over to other Asian countries by way of transplanting Japan's comparatively disadvantaged industrial activities through Japanese multinational firms' operations. Simultaneously Japan has been successful in scaling the ladder of development. As a consequence, Japan's rapid industrial upgrading has contributed to the spread of its low-end production of both the inter-industry and the intra-industry types to the rest of Asia. These structurally induced waves of overseas investment are depicted in Figure 8.

*** INSERT FIGURE 8 HERE ***

The evolutionary sequence of industrial upgrading—(I) labor-driven → (II) scale-driven → (III) assembly-driven → (IV) R&D-driven → (V) IT-driven—has been accompanied by its corresponding sequence of outward FDI and other business operations: (I') the elementary stage of offshore production (or low-wage-seeking investment centered on labor-intensive light industries, such as toys and apparel), (II') resource-seeking and house-cleaning types of investment by heavy and chemical industries, (III') assembly-transplanting type of investment (inclusive of the low-cost-labor-seeking type in parts, components, accessories, and low-end lines of products) by manufacturers of electronics and automobiles, and (IV') alliance-seeking (strategically networking) type of business operations in production, marketing, and R&D (often and increasingly via M&As).

The faster the pace of Japan's catch-up growth by climbing up the ladder of industrial upgrading, the greater the pressure on—and the easier for--Japanese producers to transplant disadvantaged (low value-added) industrial activities to low-cost locations in Japan's nearby countries so that they would be able to maintain and, in fact, enhance competitiveness in the world market (Ozawa, 2005). Structural upgrading is no doubt one of the major sources of

productivity growth, since it involves both technological progress and a reallocation of resources from low value-added and to higher value-added activities. And the subsequent rises in productivity lead to higher wages overall, but especially to higher wages for skilled workers (thereby giving incentives for workers to upgrade their skills). Japan's high societal propensity to seek higher education and for firms to give on-the-job training under job security prepared for, and facilitated, labor's adaptability to higher-productivity activities. The supply of low-skilled labor quickly declined, and such type of labor became a scarce factor. Japan's small archipelago and its nationwide network of compulsory universal education and public health did not allow the existence of any rural hinterland where an oversupply of uneducated and unskilled labor might have existed.¹⁷

The Japanese experience was soon to be replicated by the NIEs that followed Japan's footsteps. The NIEs all in turn have quickly graduated from the labor-driven phase of catch-up growth and transferred (recycled) their labor-intensive manufacturing (hence their shares of the U.S. markets) first to ASEAN-4 and more recently to China and Vietnam. This "orderly" recycling/relaying of labor-intensive manufacturing is rather endemic to East Asia, the phenomenon that no other region has so far been unable to replicate; herein lies the key clue to East Asia's rapid growth and impressive rise in the overall standard of living (hence poverty alleviation).

3.5. Empirical evidence

The above patterns of comparative advantage recycling as mirrored in the U.S. import markets for labor-intensive goods are clearly revealed in Figure 9. The vertical axis measures the shares of the U.S. market for labor-intensive manufactures captured by Japan, the NIEs, ASEAN-4, and China over the period of 1963-1997. It can be seen that on average, Japan lost its lead to the NIEs as the start of the 1970. The NIEs, in turn, were able to attain a rising market share until the early 1980s and then began to experience a rapidly declining share; in 1992 they were finally taken over by China. By 1997, the shares of both the NIEs and Japan had dwindled and fallen behind both China and ASEAN-4, whose exports of labor-intensive goods to the U.S. had started soaring in the mid-1980s onward. It is also interesting to note

¹⁷ How Japan used policies and institutional arrangements during its high growth period is explored in Ozawa (2005). The post-WWII land reform carried out during the occupation enabled about 4 million peasant households to acquire their own farmland and led to the eradication of rural poverty.

that the U.S. market shares of ASEAN-4 and China reversed in 1981 and that since then China's share has risen much faster than ASEAN-4's, more than doubling in the late 1990s. China's such soaring exports to the U.S. have been made possible by foreign multinationals' export-oriented investments and outsourcing operations attracted to, and induced by, China's low-wages after the adoption of its open-door policy in 1987. In 1995, for example, FDI inflows in China registered \$35.8 billion, while those in ASEAN-4 were \$12.0 billion, the former nearly three times more than the latter (UNCTAD, 1997).

INSERT FIGURE 9 HERE

The above patterns are also econometrically tested in terms of cointegration analysis (Cutler, Berri, and Ozawa, 2003), which not only affirms the pattern of comparative advantage recycling but also points out one interesting adjustment phenomenon: the first round of recycling from Japan to the NIEs was slower than the second round of recycling from the NIEs to ASEAN-4 (and from the NIEs to China). Why was this the case? There were several developments that were responsible for the phenomenon. First of all, Japan began to shift away from labor-intensive exports to more capital intensive ones (such as steel, ships, and machinery) as early as the 1950s. In other words, Japan's graduation from the labor-intensive stage was so swift that the NIEs were then not yet fully prepared to take over Japan's U.S. market share. The speed with which Japan moved up the ladder of development away from the labor-intensive tier is reflected in Figure 10, which shows that the ratio of labor-intensive exports to total manufactured exports from Japan declined precipitously from 40 per cent in 1960 down to as low as 6 percent in 1974. At that time, indeed, the NIEs (excepting Hong Kong) were still pursuing inward-looking, import-substituting strategies and were not in a position to immediately take possession of Japan's rapidly declining U.S. market share. It was not until 1965, for example, that Taiwan opened its first export-processing zone in Kaohsiung—and not until 1970 that South Korea set up an export-processing zone in Masan, the first landmark of their adoption of export-oriented policy. These zones soon hosted Japanese enterprises as the major foreign investors and joint venture partners. In short, there was thus a lag between Japan's retreat from, and the NIEs' full entry into, the labor-intensive export market.

INSERT FIGURE 10 HERE

In contrast, the market recycling from the NIEs to ASEAN-4 and China was better coordinated in timing. As the NIEs began to lose competitiveness in labor-intensive goods as a result of rapid growth in the 1970s, ASEAN-4 almost simultaneously, and then China in the 1980s, opened up for inward investment in these goods. In fact, the miraculous growth of the NIEs triggered China's decision to switch to an export-oriented development strategy. Moreover, both ASEAN-4 and China came to be assisted by export-oriented investments not only from the NIEs but also from Japan and the United States, enabling them to quickly build up labor-intensive exports. In addition, so far as FDI in China is concerned, the largest group of investors is neither from Japan nor from the United States but mainly from the ethnic-Chinese NIEs (Hong Kong, Taiwan, and Singapore) and the overseas Chinese diasporas in ASEAN-4. Consequently, there were much faster transplantations of labor-intensive manufacturing through the networks of ethnic Chinese businessmen from one place to another.¹⁸ (These geographical features are again endemic to East Asia alone, and not observable in any other regions.)

Reflective of the recycling of labor-intensive manufacturing for export, it is expected that FDI in East Asia's labor-intensive manufacturing is mostly from within East Asia itself—rather than from the advanced West.¹⁹ The multinational corporations from the latter are, on the whole, more likely to set up production in capital-intensive, high-tech manufacturing, though some (especially mass merchandisers such as Wal-Mart) are also active in outsourcing and procuring labor-intensive manufactures from the Asian suppliers. In contrast, Asian multinationals, especially from the NIEs and the Chinese diasporas, are more labor-intensive in manufacturing activities—hence more wage-sensitive and more capable of managing local workers in the Asian host countries.

This sequential process of comparative advantage recycling can continue down the hierarchy of economies by repeating the same experience each time. Obviously, a multiplication of derived incomes is not as exact as depicted above; the size of the labor-intensive, low-end markets “captured” by followers from the leader economy certainly varies each time, and the second-rank followers—and the third-rank followers—themselves in turn add to the markets to be handed down to still lower-rank followers. These added details,

¹⁸ For an earlier empirical work, see also Berri and Ozawa (1997).

¹⁹ For example, more than a half of FDI in ASEAN-4 are from Japan, the NIEs, and ASEAN-4 themselves, and the major investors in China are from the NIEs.

however, do not negate the main point. There is a significant effect of the tandem development-multiplier on the growth of outward-oriented, labor-driven economies in Asia, as low-end markets and industries are passed around and re-exploited among themselves.

Indeed, tandem development can alleviate one problem (the “fallacy of composition”) of outward-looking, export-focused industrialization: If the developing countries adopt such an export-dependent strategy all at once, will there be still enough markets for every country? Bela Balassa gave an answer in the affirmative:

The stages approach to comparative advantage... permits one to dispel certain misapprehensions as regards the foreign demand constraint for manufactured exports under which developing countries are said to operate. With countries progressing on the comparative advantage scale, their exports can supplant the exports of countries that graduate to a higher level (1989, p. 28).

This ideal process of supplanting “the exports of countries that graduate to a higher level” has indeed so far occurred from Japan and the NIEs to ASEAN-4 and to China. For a successful recycling of comparative advantages to occur, it is imperative for upper-echelon countries to climb up the chain value quickly and willingly relay their increasingly comparatively disadvantaged production onto lower-echelon countries. In other words, their capacities to metamorphose themselves structurally are one key enabling factor in comparative advantage recycling. In this regard, Japan and the NIEs, not to speak of the U.S., have clearly demonstrated such capacity in part because of their institutional flexibilities, particularly in the labor markets.

It should be noted, however, that the emergence of China as the world’s major labor-driven manufacturer is no doubt creating a problem to other developing countries that are in the same early phase of labor-driven development and are still unable to “graduate to a higher level,” as is largely the case with ASEAN-4 (and for that matter, many Latin American countries). Because of the pure size of China with its enormous labor supply, what is true for China (i.e., labor-driven development pays off for China) may no longer be true for the rest of the developing world as a whole—that is, a fallacy of composition).

4. Summing Up

In what way does this reformulated FG model, the model of comparative advantage recycling in labor-intensive goods, provide a useful framework of analysis to shed light on the unusually strong nexus of globalization, growth, and poverty alleviation in Asia, especially in East Asia? In the first place, as posited in the paradigm, the present hierarchy of industries that exists in the global economy provides the five-stage ladder of structural transformation any aspiring catching-up country could climb up, starting with the *most labor-intensive* segment of industrial activity. (Comparative advantage recycling is most workable in this segment.) For example, it is clearly quixotic for any developing country (where the abundance of unskilled labor is the potential basis for its comparative advantage) to try, in its early developmental phase, to take up the task of building capital-intensive high-tech manufacturing (such as automobiles and aircraft) or R&D-driven Schumpeterian industries. Such a country obviously needs to start out with the lowest tier of industry (i.e., low-tech Heckscher-Ohlin industries) which are commensurate with its labor abundance and level of technological sophistication—hence the most practical, most appropriate, and easiest ones to develop in terms of its natural potential for comparative advantage. At the same time, however, the higher tiers of industry, especially assembly-based manufacturing and Internet-enabled services also have created godsend opportunities for developing countries to participate in the low-end and labor-intensive segments of advanced industries.

Indeed, all the successfully Asian economies have been following such a natural sequence of orderly progression up the ladder of development, starting from labor-intensive production—natural in the sense of compatibility with their factor endowments and skill levels. The main asset of the poor countries for long-term growth, *whether* they are endowed with natural resources or not, is no doubt their abundant labor, which needs to be mobilized and activated for gainful employment as the *first* requisite of industrialization. After all, employment of unskilled labor is the *sine qua none* of any poor country's development and poverty eradication. Labor-intensive manufacturing is the mandate of early-stage development.

Fortunately, the United States as the hegemon of postwar global capitalism, has been willingly offering the developing countries, notably in East Asia, its domestic markets for

labor-intensive goods and services throughout the postwar period—during the Cold War for geopolitical reasons and more recently because of its high propensity to outsource production across borders to lowest-cost- possible locations anywhere in the world and control inflation at home. Indeed, this segment of the U.S. market has also come to be used as a tool of U.S. foreign aid, as seen in the African Growth and Stabilization Act, U.S. bilateral free trade agreements with some developing countries such as Chile and Jordan, and the Central American Free Trade Agreement.

It is against the backdrop of America’s relatively liberal trade policy that as one developing Asian country (first, Japan) has graduated from the labor-driven stage of development, those U.S. import markets for labor-intensive goods are being passed on/relayed to another country (the NIEs, then, ASEAN-4, and most recently China and Vietnam) in a staggered fashion, flying-geese style. And in this process, the paradox of “labor abundance as a labor shortage” has been observed repeatedly. The first lead goose, the U.S., has unarguably been the foremost *market (demand) provider*.²⁰ In the meanwhile, Japan and the NIEs as the second geese have so far been mostly the *capacity augmenters*, transferring and supplying all the necessary managerial, technical, and marketing skills, as well as intermediate goods—in the capacity of direct investors in, and procurers from, the lower-ranking follower geese, ASEAN-4, China, and Vietnam. As a consequence, demand for low-skilled labor has been expanding, thereby contributing to the reduction of poverty.

This favorable outcome can thus best be understood in terms of the flying-geese paradigm of comparative advantage recycling in labor-intensive goods, the paradigm that includes all the pro-poor attributes of trade, investment, and growth that have *fortuitously* created under the Asian Pacific co-growth cluster led by the U.S. In short, the evolving hierarchies of countries and industries have most cogently meshed and interacted with each other--at both market (unconscious) and policy (conscious) levels—in Asia to produce the most dynamic pattern of mutual economic growth the world has ever seen before. And this pro-growth system is providing an unprecedented opportunity for poverty reduction.

²⁰ It is said that China surpassed the U.S. in 2004 as Japan’s top trading partner. True, China replaced the U.S. as the largest exporter to Japan (\$57.6 billion from the U.S. vs \$61.7 billion from China). This reflects Japan’s own procurement-aimed FDI and OEM in China, as well as transmigration of export-oriented manufacturers from the NIEs to China, especially in IT-related electronics industries. Yet, the U.S. is still Japan’s largest market (\$118.6 billion to the U.S. vs. \$39.9 billion to China in 2002), though China is closing the gap at double-digit rates (e.g., a 28.2% jump in 2002). JETRO (2003).

It should be noted, however, that how long this regime of comparative advantage recycling lasts all depends on the capacity of the U.S. to absorb Asia's labor-intensive goods and services. Ironically, the U.S. dependency on imports and foreign savings continues to grow, and the U.S. trade deficits have consequently been ballooning. Fears are expressed that the rest of the world might no longer be willing to finance the ever-rising U.S. current account deficit, thereby leading to a crush of the dollar. If the Pacific-Rim co-growth cluster frays, therefore, the fortuitous opportunity so far created for the poor to rise may disappear. Perhaps, then, the subtitle of this paper may better read "An Unprecedented—and *Passing*—Opportunity for the Poor to Rise?" Most likely, however, it will last long enough for most Asia to accomplish the UN Millennium goal to halve the incidence of abject poverty (\$1-a-day line) by 2015.

References

- Abramovitz, Moses (1986), "Catching up, forging ahead, and falling behind," *Journal of Economic History*, 46 (2), 385-406.
- Akamatsu, Kaname (1935), "Wagakuni yomo kogyohin no susei [Trend of Japan's woolen product industry]," *Shogyo Keizai Ronso* 13, 129-212.
- Akamatsu, Kaname (1961), "A Theory of Unbalanced Growth in the World Economy," *Weltwirtschaftliches Archiv* 86 (2), 196-215.
- Asian Development Bank (ADB) (2005), *An Initial Assessment of the Impact of the Earthquake and Tsunami of December 26, 2004 on South and Southeast Asia* (January), Manila: ADB.
- ADB (2004), *Key Indicators of Developing Asian and Pacific Countries*, Manila: ADB.
- Balassa, Bela (1989), *Comparative Advantage, Trade Policy and Economic Development*, New York: New York University Press.
- Berger, Peter L, and Huntington, Samuel P., eds. (2002), *Many Globalizations: Cultural Diversity in the Contemporary World*, New York: Oxford University Press.
- Bhagwati, Jagdish (1958), "Immiserizing Growth: A Geometrical Note," *Review of Economic Studies*, 25: 201-5.
- Bhagwati, Jagdish (1988), "Export-Promoting Trade Strategy: Issues and Evidence," *World Bank Research Observer* 3, 1: 27-57.
- Bhagwati, Jagdish (2004), *In Defense of Globalization*, New York: Oxford University Press.
- Cutler, Harvey, Berri, David J. and Ozawa, Terutomo (2003), "Market recycling in labor-intensive goods, flying-geese style: an empirical analysis of East Asian exports to the U.S.," *Journal of Asian Economics* 14, 35-50.
- Dollar, David and Kraay, Aart (2001), "Trade, Growth, and Poverty," a working paper, Development Research Group, the World Bank.
- Dollar, David and Kraay, Aart (2002), "Growth is Good for the Poor," *Journal of Economic Growth*, Vol. 7, No.3.
- Dunning, John H. (2003), *Making Globalisation Good: The Moral Challenges of Global Capitalism*, Oxford, U.K.: Oxford University Press.
- Eastwell, John (1982), *Whatever Happened to Britain? The Economics of Decline*, London: British Broadcasting Corporation.

Irwin, Douglas A. (1996), *Against the Tide: An Intellectual History of Free Trade*, Princeton: Princeton University Press.

JETRO (2003), *JETRO Boeki Toshi Hakusho* [JETRO White Paper on Trade and Investment], JETRO, Tokyo.

Kojima, Kiyoshi (2003), *Gankogata Keizai Hattenron* [the Flying-Geese Theory of Economic Development]: Vol. I, Tokyo: Bunshindo.

Kojima, Kiyoshi (2004), *Gankogata Keizai Hattenron*: Vol. II, Tokyo: Bunshindo.

Kojima, Kiyoshi and Terutomo Ozawa (1985), "Toward a Theory of Industrial Restructuring and Dynamic Comparative Advantage," *Hitotsubashi Journal of Economics* 26 (2), 135-45.

Krueger, Ann (1982), *Trade and Employment in Developing Countries: Synthesis and Conclusions*, Chicago: University of Chicago Press.

Mann, Catherine L. (2004), "Managing Exchange Rates: Achievement of Global Re-balancing or Evidence of Global Co-dependency?" *Business Economics*, July: 20-29.

Ohkawa, Kazushi and Henry Rosovsky, H (1972), *Japanese Economic Growth*, Stanford: Stanford University Press.

Ozawa, Terutomo (1993), "Foreign Direct Investment and Structural Transformation: Japan as a recycler of market and industry," *Business and the Contemporary World*, 5 (2): 129-49.

Ozawa, Terutomo (1996), "Japan," in J. Dunning (ed.), *Governments, Globalization, and International Business*, Oxford: Oxford University Press..

Ozawa, Terutomo (2003), "Pax Americana-led macro-clustering and flying-geese-style catch-up in East Asia: mechanisms of regionalized endogenous growth," *Journal of Asian Economics* 13: 699-713.

Ozawa, Terutomo (2004), "The Chinese Miracle and the 'Flying-Geese' Paradigm of Catch-Up Growth," a paper presented at the 9th International Conference of the East Asian Economic Association, the Chinese University of Hong Kong, China, November 13-14, 2004.

Ozawa, Terutomo (2005), *Institutions, Industrial Upgrading, and Economic Performance in Japan: The 'Flying-Geese' Paradigm of Catch-Up Growth*, Cheltenham, U.K.: Elgar.

Prebisch, Raul (1950), *The Economic Development of Latin America and Its Principal Problems*, New York: United Nations.

Rosenberg, Nathan (1982), *Inside the Black Box: Technology and Economics*, Cambridge, U.K.: Cambridge University Press.

Schumpeter, Joseph A. (1942), *Capitalism, Socialism and Democracy*, New York: Harper & Row.

Singer, Hans W. (1950), "The distribution of gains between borrowing and investing countries," *American Economic Review* 40: 473-485.

Stiglitz, Joseph (2003), "Towards a New Paradigm of Development," in John Dunning (ed.), *Making Globalization Good: The Moral Challenges of Global Capitalism*, Oxford: Oxford University Press, pp. 76-107.

UNCTAD (1997), *World Investment Report*, Geneva: UNCTAD.

Winter, Alan L. (2004), "Trade Liberalisation and Economic Performance: An Overview," *Economic Journal*, 114 (February), F4-F21.

World Bank (1993), *The East Asian Miracle: Economic Growth and Public Policy*, New York: Oxford University Press.

Figure 1 Globalization, economic growth, and poverty reduction

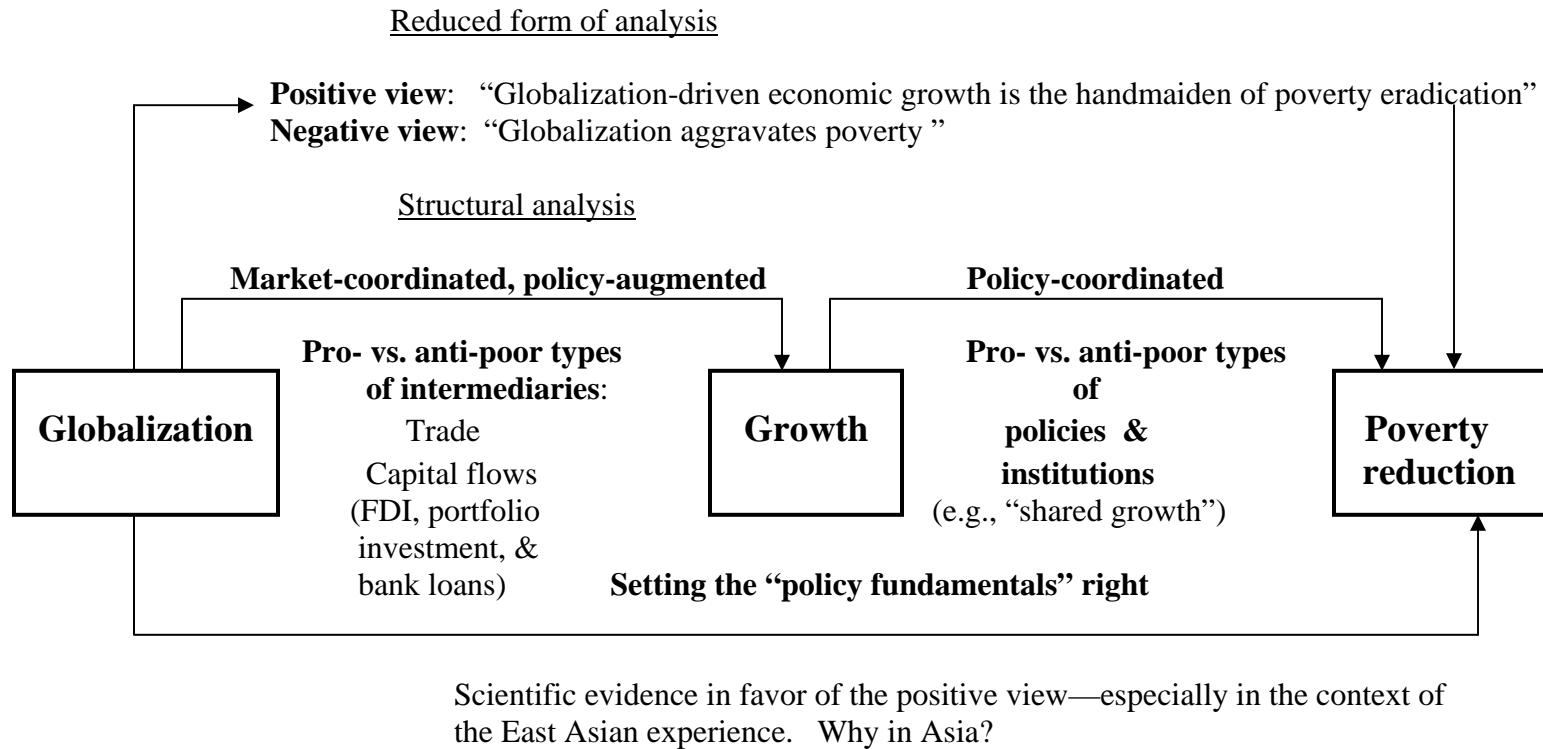


Figure 2

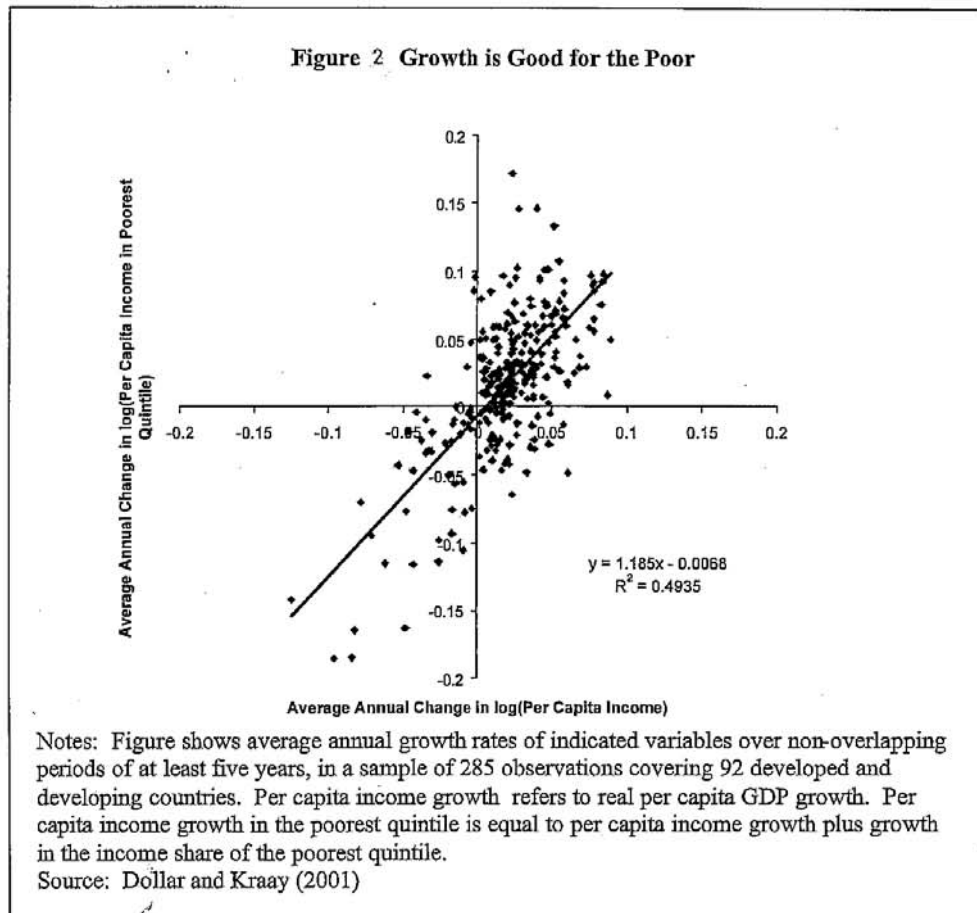
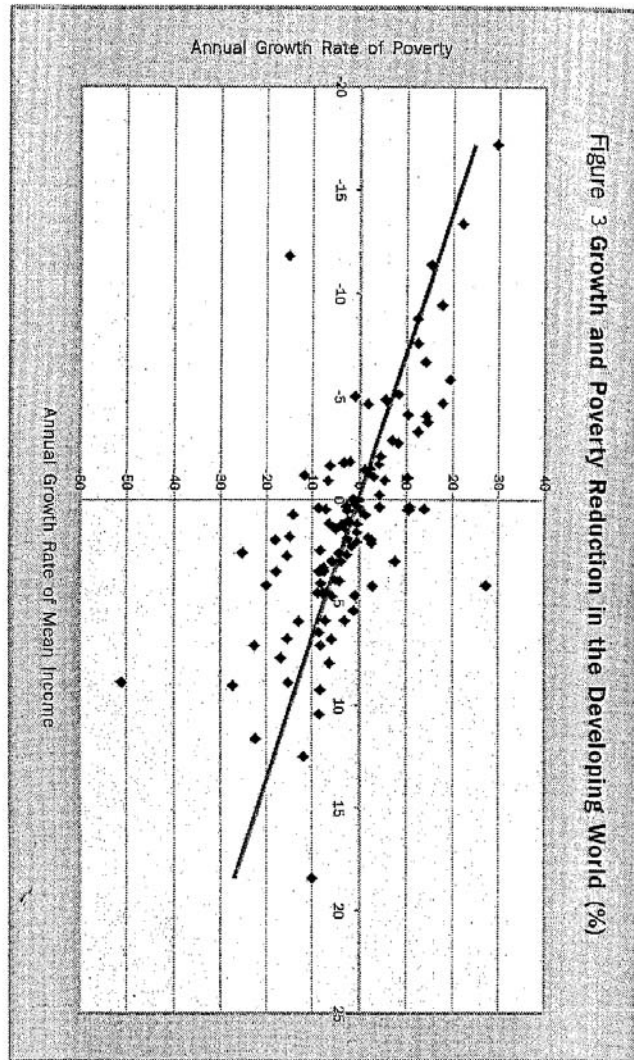


Figure 3



Source: ADB (2004)

Figure 4

Source: ADB (2004)

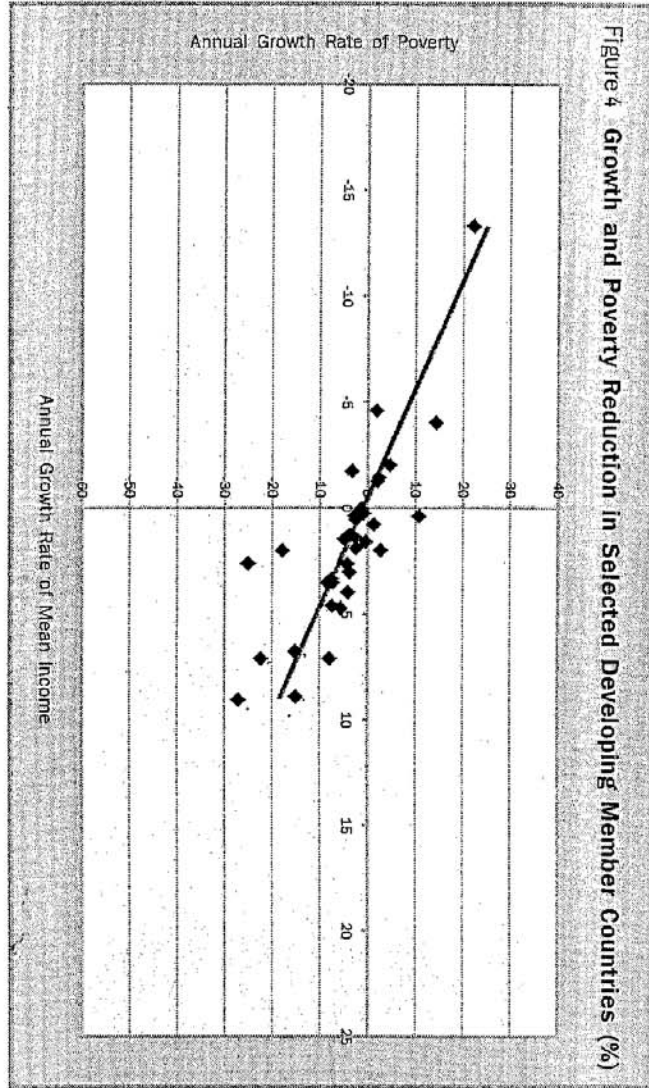
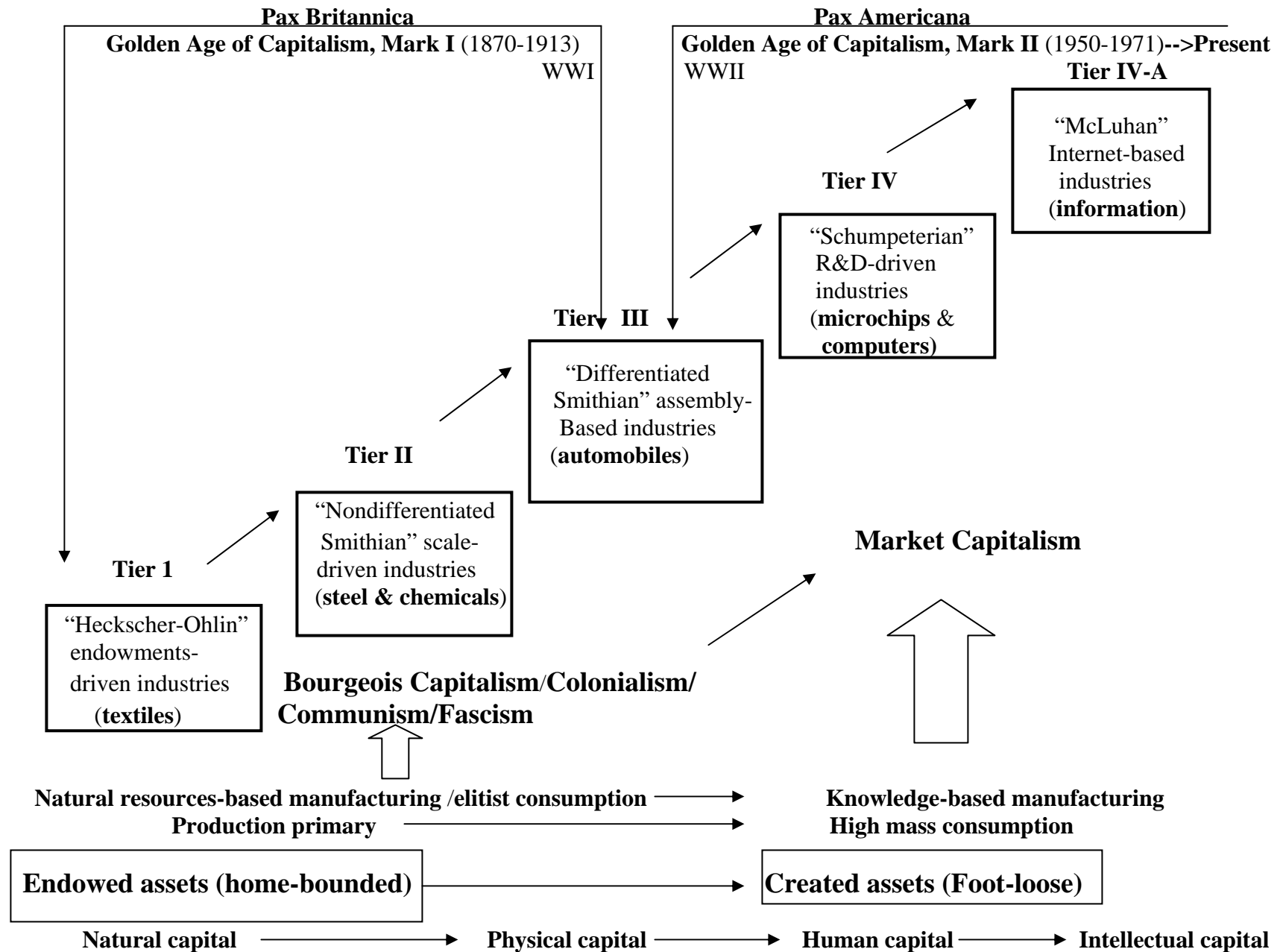
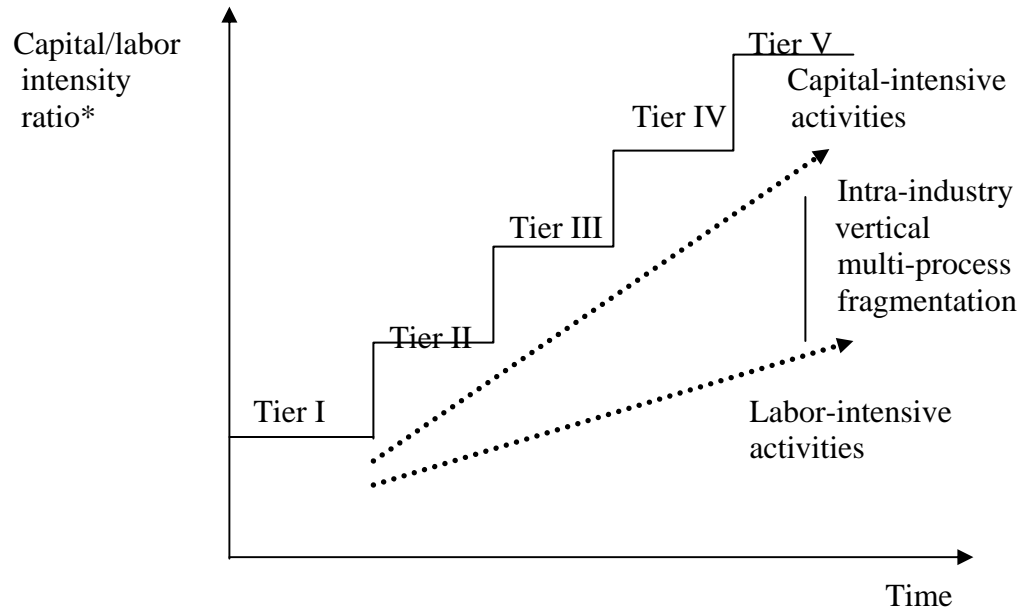


Figure 5 Structural upgrading under Pax Britannica-led and Pax Americana-led macro-clustering



Source: based on Ozawa (2003, 2005)

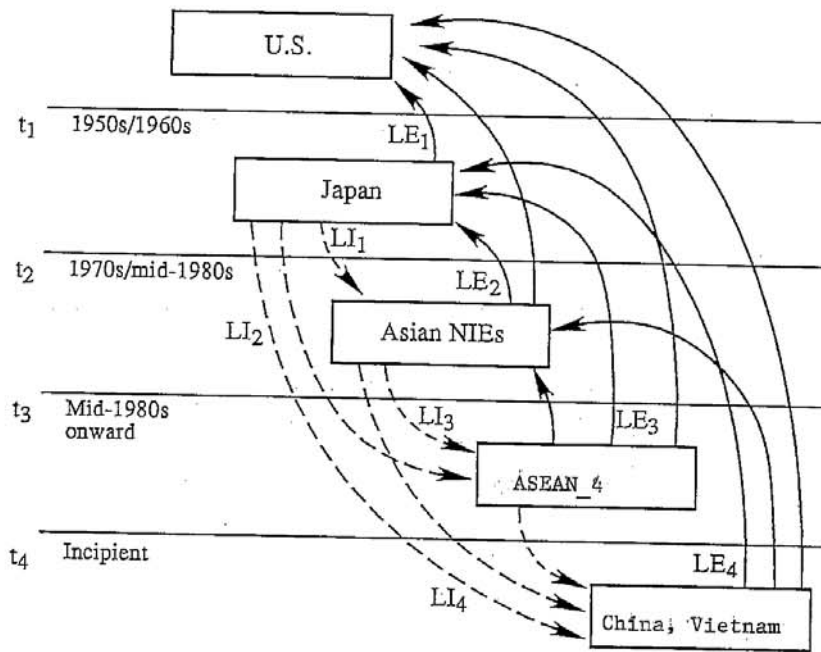
Figure 6 Fragmentation of production along the capital-labor intensity ratios



*Capital includes human capital.

Figure 7

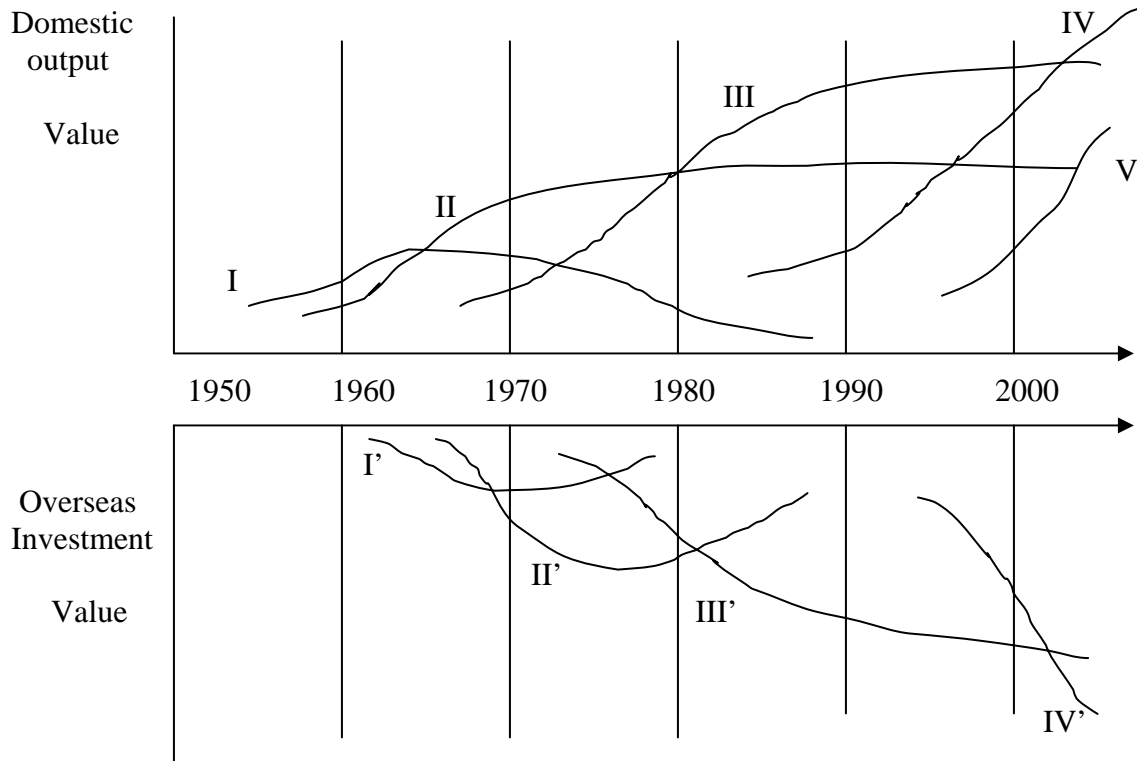
Figure 7 Comparative advantage recycling in labor-intensive manufacturing via FDI and outsourcing



LE: Labor-intensive exports ———
LI: Labor-seeking investment - - - -

Source: Ozawa (1993)

Figure 8 Japan's stages of industrial upgrading and outward FDI

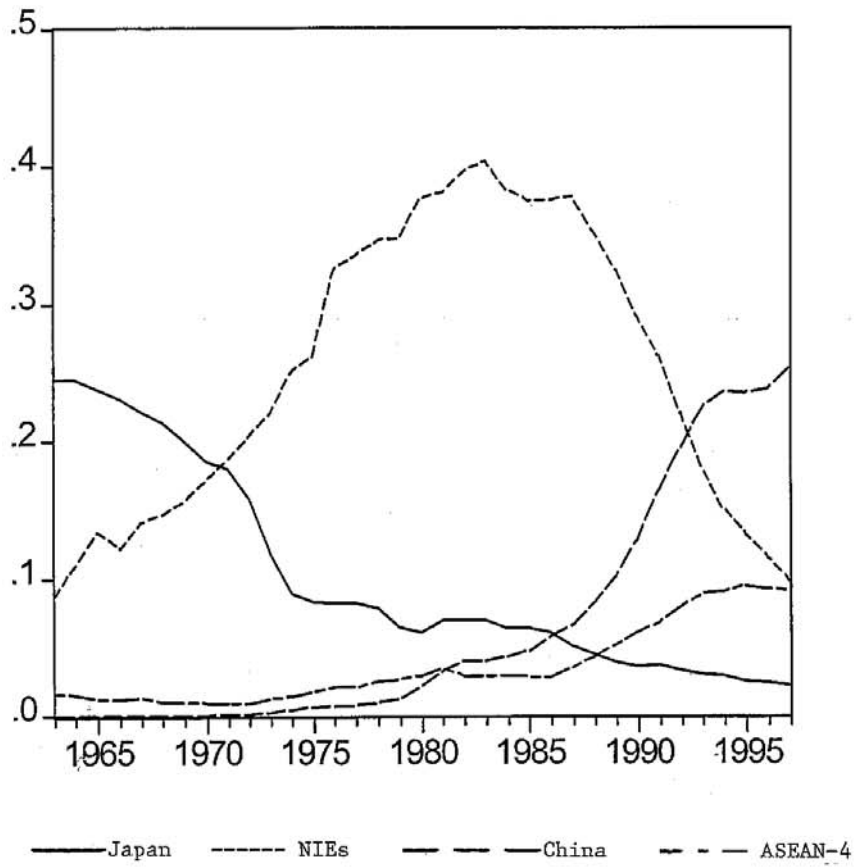


Note: I. Labor-driven growth
 II. Scale-driven growth
 III. Assembly-driven growth
 IV. R&D-driven growth
 I'. Elementary stage of FDI
 II'. Resource-seeking FDI
 III'. Assembly-transplanting FDI
 IV'. Alliance-seeking FDI

Source: based on Ozawa (1993, 2005)

Figure 9

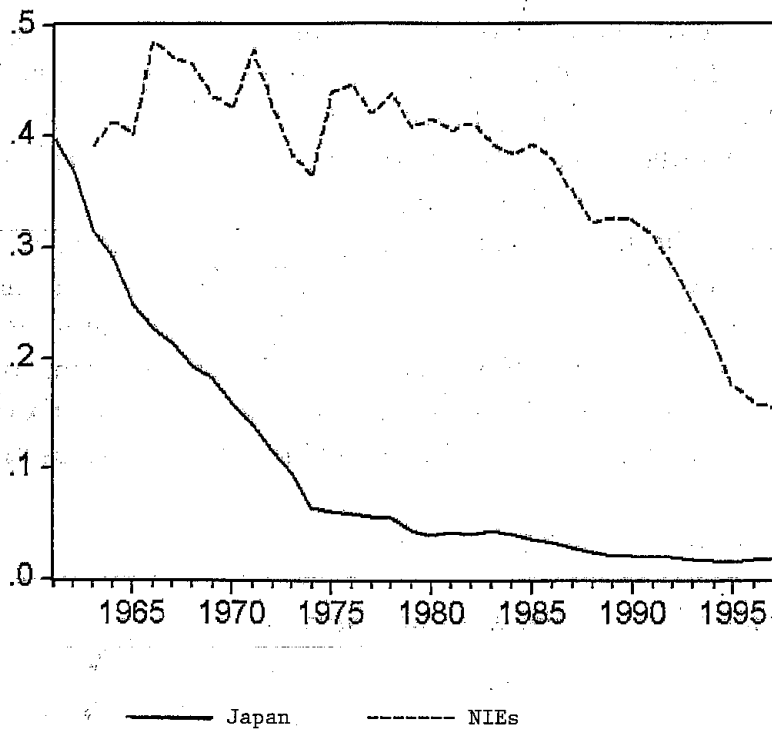
Figure 9 U.S. import market share for labor-intensive goods



Source: Cutler, Berri, and Ozawa (2003)

Figure 10

Figure 10 The ratio of labor-intensive exports to total manufactured exports: Japan and the NIEs



Source: Cutler, Berri, and Ozawa (2003)