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The Asian Industrial Policy Experience: Implications for Latin America

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Howard Pack, The Wharton School – University of Pennsylvania

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Marcus Noland's work encompasses a wide range of topics including the political economy of US trade policy and the Asian financial crisis. His areas of geographical knowledge and interest include Asia and Africa where he has lived and worked. He won the 2000-01 Ohira Masayoshi Award for his book Avoiding the Apocalypse: The Future of the Two Koreas (2000). He was educated at Swarthmore College (B.A.), and the Johns Hopkins University (PhD). He is currently a Senior Fellow at the Institute for International Economics and an Associate of the International Food Policy Research Institute. He was a Senior Economist at the Council of Economic Advisers in the Executive Office of the President of the United States, and has held research or teaching positions at the Johns Hopkins University, the University of Southern California, Tokyo University, Saitama University, the University of Ghana, the Korea Development Institute, and the East-West Center. He has received fellowships sponsored by the Japan Society for the Promotion of Science, the Council on Foreign Relations, the Council for the International Exchange of Scholars, and the Pohang Iron and Steel Corporation (POSCO). Noland is the coauthor of No More Bashing: Building a New Japan-United States Economic Relationship (2001), and author of Pacific Basin Developing Countries: Prospects for the Future (1990), and other books. He has written many scholarly articles. He has served as an occasional consultant to organizations such as the World Bank and the New York Stock Exchange, and has testified before the US Congress on numerous occasions.

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The LAEBA initiative results from an inter-agency Partnership Agreement signed on March 17th, 2001 between the IADB and ADB at the 42nd Annual Meetings of the Board of Governors of the IADB and the Inter-American Investment Corporation (IIC) in Santiago, Chile. The Partnership Agreement promotes the exchange of institutional and regional development experiences and expertise between the two regions.

The mission of LAEBA is to:

- Encourage comparative and applied research in the areas of economics, finance, business economics, and public policy of both regions.
- Provide an inter-regional framework for professional networks to collaborate on issues of mutual interest between the regions.
- Facilitate and inform the process of economic policy-making and private sector decisions through enhanced interaction among policymakers, academia, and the business community.

LAEBA’s activities is guided by an IADB-ADB Coordinating Committee and supported by a Secretariat.

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ABSTRACT

In the policy realm, the orthodox terms of engagement with globalization have been enshrined in the “Washington consensus” of secure property rights, fiscal discipline, sectorally neutral tax and expenditure policies, financial liberalization, unified and competitive exchange rates, openness to foreign trade and investment, privatization, and deregulation. Disappointing results in Latin America have contributed to a crisis of faith in Washington and the region, however. One response has been to augment the consensus with so-called “second generation” reforms such as strengthening prudential supervision of financial markets or competition policy.

Another impulse has been to reconsider the more dirigiste policies that the consensus marginalized. In this regard, Japan, Korea, and Taiwan are promoted as the poster nations that have derived great benefits from increasing integration with the international economy, without surrendering national autonomy in the economic or cultural spheres, in effect, beating the West at its own game. If the selective intervention policies pursued by the Asians were found to promote growth, this would run directly counter to the emphasis on sectoral neutrality embodied in orthodox economic policy prescriptions.

The fundamental questions addressed in this paper are:

- What policies did the Asians pursue and what was their impact?
- Could Latin American countries reproduce these policies and results, or are the “economic fundamentals” so different as to obviate the successful adoption of Asian-style industrial policies in Latin America?
- If Latin American countries chose to pursue such policies, how might the international economic system impede their implementation?
- Have there been unintended negative consequences to the adoption of Asian-style industrial policies that should be taken into consideration?

The paper aims to communicate to the Latin American audience both factual evidence regarding the Asian experience, and the possible implications of this historical legacy for contemporary Latin American economic development strategies.

Paper presented for the Latin America/Caribbean Economics and Business Association. We would like to thank Scott Holladay for research assistance.

The Asian Industrial Policy Experience: Implications for Latin America

Marcus Noland

Howard Pack

1. Introduction

In the policy realm, the orthodox terms of engagement with the global economy have been enshrined in the “Washington consensus” of secure property rights, fiscal discipline, sectorally neutral tax and expenditure policies, financial liberalization, unified and competitive exchange rates, openness to foreign trade and investment, privatization, and deregulation. However disappointing results in Latin America and other regions, and the Asian financial crisis of the late 1990s, have contributed to a crisis of faith in Washington and elsewhere. Public opinion surveys reported by Latinobarometro, for instance, indicate that support for such policies fell in virtually every country in Latin America between 1998 and 2002 (*The Economist*, 17 August 2002).

One response has been to augment this package with so-called “second generation” reforms such as strengthening prudential supervision of financial markets or competition policy. Another impulse has been to reconsider the more dirigiste policies that the Washington Consensus marginalized. Japan, Korea, and Taiwan are sometimes regarded as exemplars that have derived great benefits from increasing integration with the international economy, without surrendering national autonomy in the economic or cultural spheres, in effect, beating the West at its own game, by pursuing decidedly non-neutral policies with respect to the promotion of specific industrial sectors.

This, in turn, suggests a series of questions for policymakers considering these alternative paths: whether industrial policy defined as choosing individual manufacturing sectors to foster was indeed a major source of growth in these three economies, and if so, can it be replicated under current institutional arrangements, and if so, is it worth replicating, or, would Latin American countries today be better off embracing the suitably refined orthodoxy?

These issues are addressed in more detail in recent monograph (Noland and Pack 2003). This paper will summarize some of the results of that work with a focus on Latin America.

2. Non-Selective Policies Conducive to Economic Growth

The three nations engaged in both general measures to increase the growth rate and in selective industrial policy. Most of the discussion below considers the impact of efforts at encouraging one industrial sector, say, chemicals, while neglecting another, say clothing. But there were also measures that may have stimulated aggregate economic growth that were largely neutral in intent, if not in effect, in their sectoral impact. And, some of the measures may have helped all industrial sectors as a group without giving an advantage to individual branches. For example, the increase in saving encouraged by the governments in principle became available for use by all industries. These two aspects of economic policy, general stimuli and sector specific incentives are often conflated and it is useful to review the various economy-wide policies adopted to improve economic performance. Here we analyze the pattern in Korea – details in the two other countries differ but a similar pattern can be identified. Japan and Taiwan are discussed in detail in Noland and Pack (2003).

A variety of measures were adopted to encourage an increase in household saving rates. Unlike many countries that pegged their nominal exchange rate and experienced negative real rates on savings accounts due to inflation, reform in 1965 led to a positive if not very high real rate of return. In addition, the government made it difficult to borrow to finance consumption or housing, the latter by not allowing mortgage lending. Thus, households wishing to purchase housing or durables had to increase their saving to obtain the desired item. Other measures that encouraged household saving were limits on foreign travel and education, both of which also conserved foreign exchange. The combination of positive real rates and closed capital account partly explain the extraordinary saving and investment rates for several decades – the closed capital account insuring that domestic saving was available for domestic investment. These measures do not, however, constitute an industrial policy that was by itself selective among sectors. The increased capital formation would likely have contributed to economic growth even if the saving were allocated through a market clearing mechanism to investors.¹

In fact, the Korean government utilized the pool of saving to channel investment funds to specific sectors. But a salient point is that the closed capital account allowed firms to utilize the

¹ Those who believe industrial policy was an important component of Asian success implicitly argue that the increased investment would not have had as high a marginal return absent government choosing of sectors. And there are indeed many instances of high investment rates that have not led to rapid growth of output though in these cases, for example, Cuba and Russia among others, the weak link was hardly due to a laissez faire policy. Much of the evidence considered in our monograph addresses the question of whether industrial policy defined as intentional preferential treatment of individual sectors allocated investment to sectors with higher or more rapidly growing marginal product of capital.

funds channeled to them in activities that potentially had low marginal rates of return given that households did not have the opportunity of choosing foreign outlets for their saving and there was central allocation of much of the investment pool rather than a market allocation process. This may help to explain the phenomenon that was much commented upon after the onset of the Asian crisis in 1997, namely, the extremely low rates of return to capital in Japan and Korea though it is difficult to obtain measures of how long such low returns had prevailed.²

The Korean government took an interesting, but not sector-favoring, policy towards acquiring foreign technology. As in many dimensions, following the example of Japan, Korea did not encourage foreign direct investment in sectors in which it was technologically feasible to enter by the liberal use of foreign consultants and technology licensing agreements (Enos and Pak, 1987). It thus reversed the Latin American model (Mytelka, 1978) which was much more open to FDI but quite restrictive on technology licensing. One aspect of this was that the Korean government, though monitoring the technology licensing agreements signed by firms, did not override the terms of the agreements in terms of the size of initial payment, the royalty rate per unit of sale, nor the duration for which royalties were paid. But this laissez-faire policy did not discriminate among sectors.³ While it was conducive to closing the gap in technology between the Korean and OECD manufacturing sectors, the openness to licensing was not sectorally differentiated.

Finally, the Korean government sponsored constantly improving schools and universities. Moreover, enrollments in the latter increasingly came to be dominated by engineering and science students rather than humanities, law, and business majors. Again, such infrastructure investments were not sectorally biased – a chemical engineering student could find employment in food processing, textiles, or in heavy chemicals, the latter a sector promoted by the Korean government in the 1970s, the others ignored in the 1970s.

Thus, many of the policies often put forth as “industrial” policies were part of a broad array of efforts to encourage aggregate development, perhaps even industrial growth, but were not intended to discriminate in any manner say between electronics and machinery production. To examine and evaluate government efforts of this type, it is necessary to examine carefully and systematically the wide variety of evidence cited in our monograph (Noland and Pack, 2003).

The Korean and more generally, Japanese and Taiwanese experience did differ in

² For evidence on the rates of return in the Asian corporate sector see Claessens, Djankov and Nu (2000).

³ In Japan, there is some evidence that the efforts of the Japanese government to limit the size of royalty payments may have also differentiated among sectors. See, for example, Nagaoka, (1989).

important dimensions from that in Latin America in well-known ways. For most periods, macro economic policy was more responsible, deficit/GDP ratios on the average being much lower. Export growth, necessary to finance imported inputs was fostered by a combination of limiting domestic absorption and maintaining an appropriate and stable real exchange rate. Education expenditures as a percentage of GDP was not very different, on the average, from Latin America but a larger percentage was devoted to primary and secondary education rather than to universities. And the universities were themselves more connected to economic growth with the aforementioned high enrollments in engineering and science, though it is not clear that this was an outcome of government intrusion into students' decisions as much as a response to growing demand in the industrial sector which itself reflected the need for industrial firms to lower costs in order to export.

One useful perspective on industrial policy in Latin America is that it has already been tried extensively. The sixty-year experiment with import substituting industrialization was, in fact, an effort to encourage specific sectors that were perceived to need insulation from the competition of low cost imports in order to improve their productivity so that they could compete internationally. As is well known, these policies were not particularly successful in fostering growing productivity nor in accelerating the accumulation of physical and human capital.⁴ In important respects, the policies followed in Latin America were not very different from those of the three Asian countries: protection of nascent industries through tariffs and quotas, limits on interest rates paid by industrial firms (often at the expense of savers), and the establishment of state owned enterprises in a number of sectors. Yet the qualitatively similar policies did not work despite the arguably better industrial skill base and entrepreneurship in the Latin America countries circa 1960.⁵

A major difference, however, was the inability of ISI programs to progressively lower protection to force firms to become more productive. In contrast, the Asian countries, forced firms to improve their competitiveness by making continued protection in the domestic market contingent on export performance (World Bank, 1993). The political factors underlying this difference in economic policy are beyond the scope of this paper but the major point here is that industrial policy has already been attempted, on a scale no less intensive than in Asia, and it has not succeeded in Latin America. Of course, in the period of intensive industrial policy the Asian countries generally had better macro economic policy and it might be argued that the western hemisphere countries are now aware of the macro pre-requisites and can implement

⁴ For a review of the evidence see Pack, 1988 and Collins and Bosworth, 1996.

them. But, as our survey of the evidence suggests, the benefits may be sufficiently small, and the long-term risks sufficiently large, that nations may be well advised to avoid the extraordinarily difficult task of the ex ante identification of likely successful sectors. Hausman and Rodrik (2002) reach a similar bottom line conclusion, though from an analytically different starting point.

III. Was Industrial Policy Responsible for Growth in East Asia?

For analytical purposes one can distinguish between two roles that industrial policy might have played: encouraging the initiation of industrialization which might be relevant to very poor Western Hemisphere countries such as Bolivia and Haiti and the rapid development of higher value-added activities once industrialization is underway which is of greater relevance to middle-income countries such as Chile.

It is questionable whether the post-World War II experiences of Japan, Korea, and Taiwan have much relevance for the first issue. Both Japan and Korea had undergone significant industrialization before the war (indeed, Japan was one of the few countries capable of producing aircraft carriers), and in the case of Japan, at least, data limitations preclude much quantitative analysis of industrial policy prior to roughly 1960 – that is to say well after Japan's postwar recovery had begun.

The Asian experience is consequently of greater relevance for contemporary middle-income countries. But even here, a certain degree of caution is warranted.

Table 1 reports data for a number of countries from the mid-1950s on the levels of per capita income and human capital. What is immediately noticeable is that Japan and Korea had the world's highest ratio of human capital to per capita income. The physical capital stocks of both countries had experienced considerable wartime devastation, and as a consequence, the level of per capita income was relatively low. Yet at the same time the level of human capital was relatively high – i.e. the contemporary level of per capita income was a downwardly biased indicator of the underlying social capacities of these countries. Moreover, as shown in Figure 1, the rate at which they subsequently accumulated human capital was more rapid than other developing countries, including those of Latin America.

⁵ Long before the Korean effort in heavy and chemical industries that targeted, *inter alia*, the machine tool

Table 1. Human Capital and Per Capita Income, mid-1950s

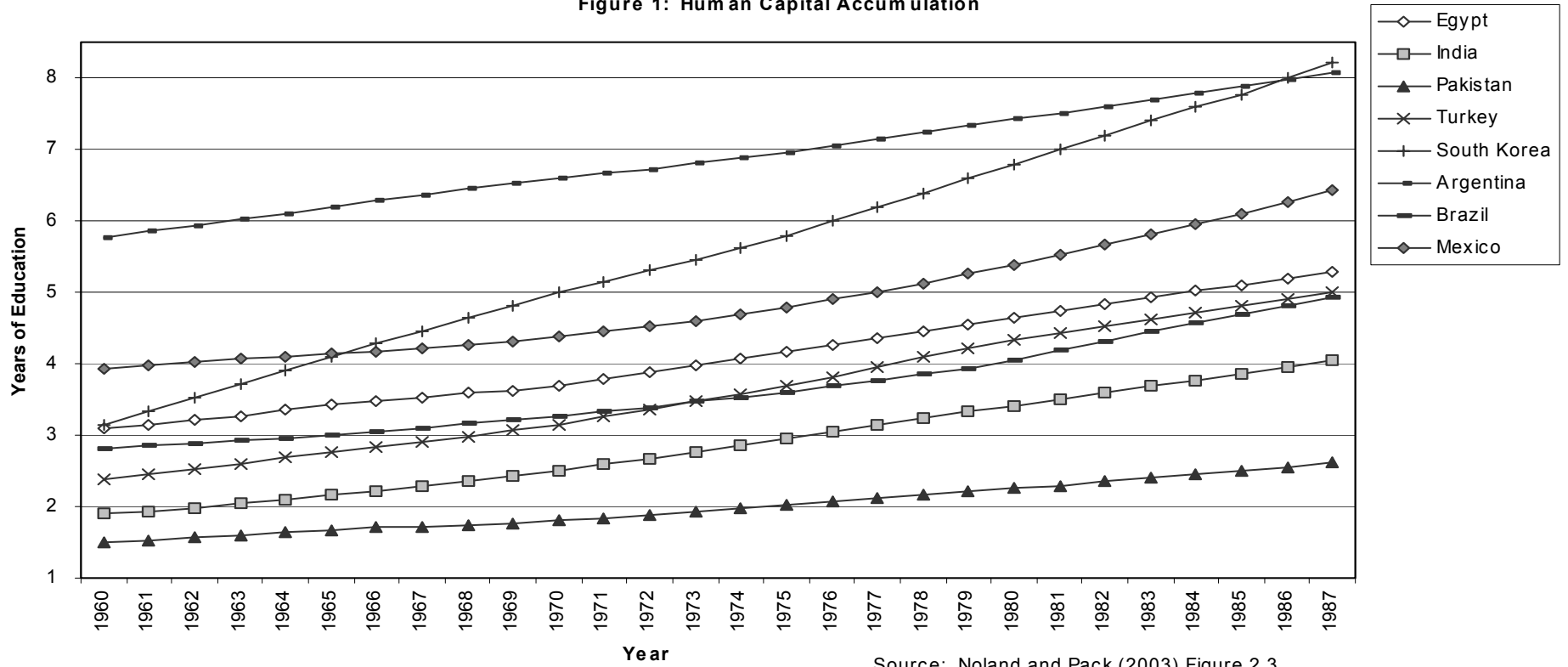
Country	Year	Human Capital Index	Per Capita Income	Ratio of Human Capital Index to Per Capita Income
Japan	1955	1673	519	3.2
Korea	1955	494	217	2.3
The Philippines	1956	738	277	2.7
Israel	1954	1200	609	2.0
Thailand	1955	302	181	1.7
Greece	1956	693	468	1.5
Malaysia	1957	334	351	1.0
US	1955	2293	2443	0.9
Italy	1956	787	971	0.8
Turkey	1955	267	365	0.7
Argentina	1955	760	1059	0.7
Mexico	1955	352	637	0.6
Spain	1955	389	652	0.6

Note: Human capital index is educational expenditure embodied in the labor force.

Source: Noland and Pack (2003) Table 2.1

sector, several Argentina and Brazil had thriving machine tool producers. See, UN, 1964.

Figure 1: Human Capital Accumulation



Source: Noland and Pack (2003) Figure 2.3

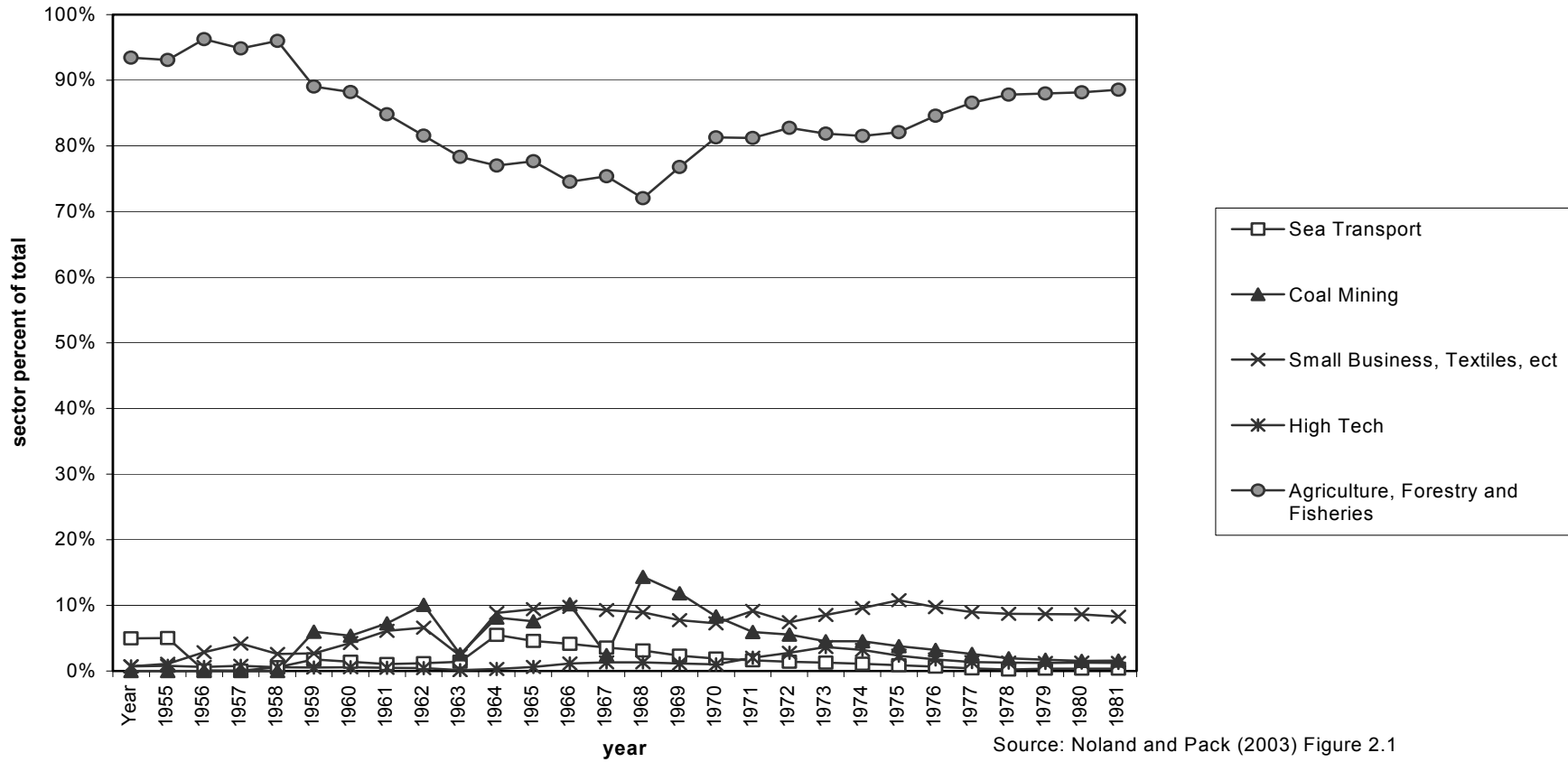
In sum, one could characterize post-war Japan, Korea, and Taiwan as economies which had experienced varying degrees of industrialization, undergone substantial political upheavals, and initially were attempting to re-establish production in sectors in which they had at least some prior experience. Even after this was achieved and they began to enter new industries and activities, they remained well behind the technological frontier defined by the US, and were essentially engaged in catch-up along a reasonably well-defined industrial path.

To this end it is quite clear that Japan, Korea, and Taiwan pursued a variety of selective intervention policies, including direct subsidies, indirect subsidies through public sector financial institutions, tax breaks, subsidization of research and development, international trade and investment protection, and lax competition policies, to name a few. What is at issue is whether these policies accelerated growth and development.

One can appeal to a variety of evidence to make this assessment including econometric studies of total factor productivity, input-output based studies of the likelihood of large cross-sectoral externalities, and case studies. A comprehensive review of this evidence is beyond the scope of this paper, but it is fair to say that evidence supporting the existence for growth-accelerating impact of industrial policies is modest. While it is relatively easy to document the impact industrial policy interventions in all three countries had on the composition of output and trade (i.e. resources were indeed being shifted), attempts to formally model the impact of industrial policy interventions uniformly uncover little, if any, positive impact on productivity, growth, or welfare.

The question immediately arises as to why this might be the case. Why would policymakers consistently intervene in ways that did not apparently enhance welfare? One possible answer is that the informational requirements for successful industrial policy interventions is not trivial, and that policymakers simply did not get the interventions right. Another, and possibly more persuasive explanation, is that these interventions were not undertaken by politically-insulated technocrats, but rather the actual pattern of interventions observed were largely determined by political competition among various self-interested groups. So, for example, it is striking to observe that in the case of Japan, where the cross-sectoral flows of publicly-directed resources are relatively easy to track, that for a period of decades more than 90 percent of on-budget subsidies went to the declining agricultural and mining sectors – not the emergent high technology sectors of popular lore (Figure 2). Indeed, it appears that during the heyday of Japanese industrial policy impact of public policy was on net a tax on industrial output – not a subsidy.

Figure 2: Sectoral Composition of On-budget Subsidies



Source: Noland and Pack (2003) Figure 2.1

Given the politicized nature of decision-making perhaps it is not surprising that evidence of the benefits of industrial policy interventions is elusive. The stylized conclusion that we reach is that industrial policies accelerated growth by perhaps 0.3 percent annually – non-trivial if maintained for decades, but not the predominant explanation of Asian achievement during a period in which these economies were growing at 10 percent a year.

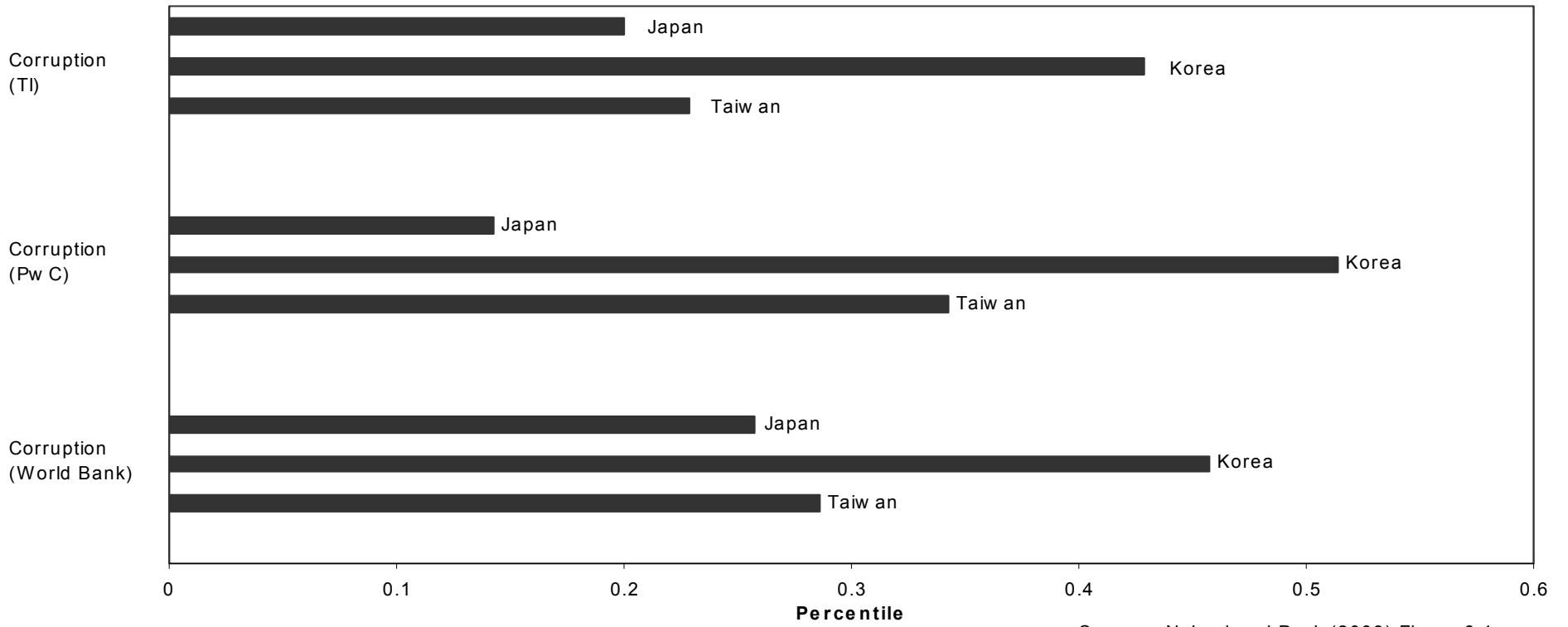
IV. Did These Policies Have Unintended Side-Effects?

The question then arises as to whether the implementation of selective intervention policies had unintended negative side-effects that should be weighed against possible positive benefits. The short answer is “yes.”

State intervention in the economy encouraged rent-seeking and corruption, and a dumbing-down of the financial system. Rent-seeking and corruption were encouraged by the simple fact that the state was handing out favors. As might be expected the number of firms and industries seeking to be beneficiaries of these policies steadily increased over time, and in the case of Taiwan, this was the explicit reason that the government moved toward a more functionally oriented commercial policy in the 1980s. An open issue is why, despite the acknowledged existence of corruption in all three economies, they lie closer to Denmark than to Nigeria in well-known cross-national surveys such as those done by Transparency International, PricewaterhouseCoopers, and the World Bank (Figure 3). It appears that in all three economies corruption has been concentrated at the top of the political system with decisions then implemented in a relatively efficient manner by a competent state bureaucracy (Figure 4).⁶ The Asians have by and large avoided the sort of “cascading” corruption that imposes a much larger burden on the economy.

⁶ Civil service positions in all three countries appear to convey both relatively high social status and remuneration. See World Bank (1993, chapter 4) and Campos and Root (1996).

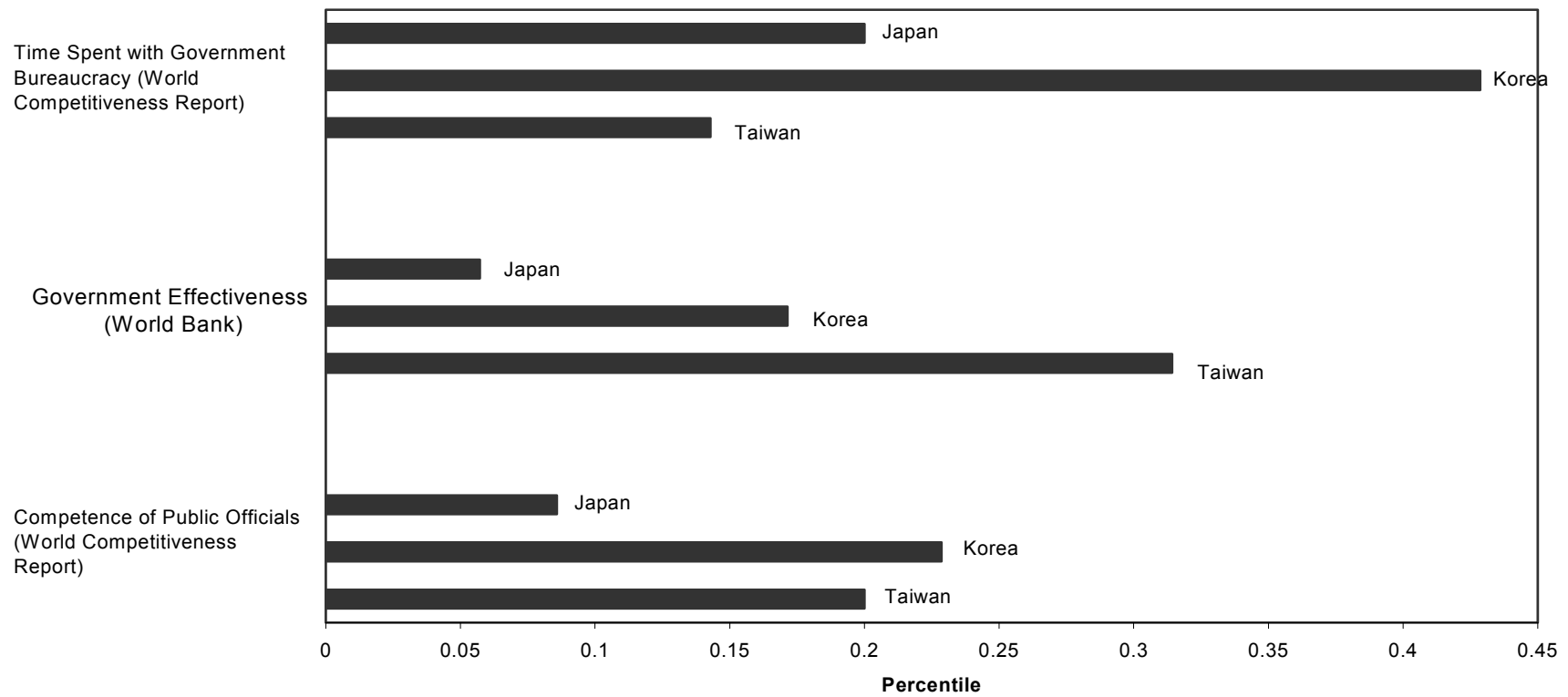
Figure 3: Corruption Rankings, Japan, Korea, Taiwan



Note: A larger value indicate higher corruption.

Source: Noland and Pack (2003) Figure 3.1

Figure 4: Governance Rankings Japan, Korea, Taiwan



Note: A smaller value indicate more effective government, more competent public officials, and less time spent with bureaucracy

Source: Noland and Pack (2003) Figure 3.2

Capital channeling also required the repression of the financial system. All three countries developed bank-centered financial systems, amenable to state influence. State influence in the allocation of capital, together with the fact that during the relevant period in all three cases industrial firms were largely following a technology path established by the US, which simplified management decisions, encouraged a bureaucratization of the banking function. As a consequence, bankers did not develop the necessary skills to evaluate alternative business plans and models. While we would not go so far as to blame the current banking problems, with expected net clean-up costs amounting to more than 10 percent of GDP in all three countries, on selective intervention policies, the industrial policy legacy clearly contributed to their financial sector difficulties.

V. Are these outcomes replicable?

Suppose that a policy maker in Latin America decides that the trade-off is worth it: she will risk rent-seeking, corruption, and financial repression for accelerated growth. Would such a policy maker achieve the same sort of outcomes observed in Asia – that is to say 0.3 percent additional growth annually with corruption closer to the Danish rather than Nigerian standard?

There are multiple reasons to think that similar policies applied in Latin America (and indeed, virtually everywhere else in the world as well) would fall short of this mark. First of all, Japan, Korea, and Taiwan are characterized by a high degree of political stability and a low degree of ethnic fragmentation compared to the typical Latin American country (indeed compared to the world average). Secondly, all have relatively equal distributions of income and wealth. All had income and wealth equalizing land reforms, in all three cases by governments that had weak ties to the rural elites (Table 2). It is difficult to imagine even the most progressive democratic governments in Latin America undertaking the sort of reforms in Japan during the US occupation, in Taiwan following the conclusion of the Chinese revolution and the decampment of the Kuomintang to Taiwan, or in Korea following the Korean War.

Table 2 Distributional Indicators, circa. 1960

	Gini Coefficient for Income	Gini Coefficient for Land
Japan	0.40	0.47
Korea	0.34	0.39
Taiwan	0.31	0.46
Simple Average	0.35	0.44
Argentina	0.44	0.87
Brazil	0.53	0.85
Egypt	0.42	0.67
Hong Kong	0.49	n.a.
India	0.42	0.52
Indonesia	0.33	n.a.
Kenya	0.64	0.69
Malaysia	0.42	0.47
Mexico	0.53	0.69
The Philippines	0.45	0.53
Singapore	0.40	n.a.
Thailand	0.41	0.46
Turkey	0.56	0.68
Simple Average	0.46	0.64

Source: Noland and Pack (2003) Table 4.1

Finally, the factor endowments of the Asia trio are different from almost every other country in the world -- and vastly different from the major Latin American countries. Figure 5 panels A-D are projections of labor, capital, human capital, and arable land endowments onto a two-dimensional diagram. The average world endowment is represented by the intersection in the center of the triangle of the three rays emanating from its vertices. As one gets closer to the corner then the relative abundance of that factor increases. So, for example, in panel A, it is clear that the three Asian countries are very land-scarce (i.e. they are far from the land vertex), and that Japan has a higher capital-labor ratio than Korea, which, in turn, has a higher capital-labor ratio than Taiwan. The Asian trio had a very high ratio of people to arable land, and subsequently accumulated human capital at an astonishing rate. Given their factor endowments, we would expect these economies to begin manufacturing activities relatively early in their development (as measured by per capita income), and to specialize relatively intensely in these activities. In such a situation, industrial policies are effectively "leaning with the wind" and a relatively non-controversial politically, giving rise to "growth with equity."

Figure 5A
 Endowment Triangle
 Labor, Physical Capital, Land ('68 data)

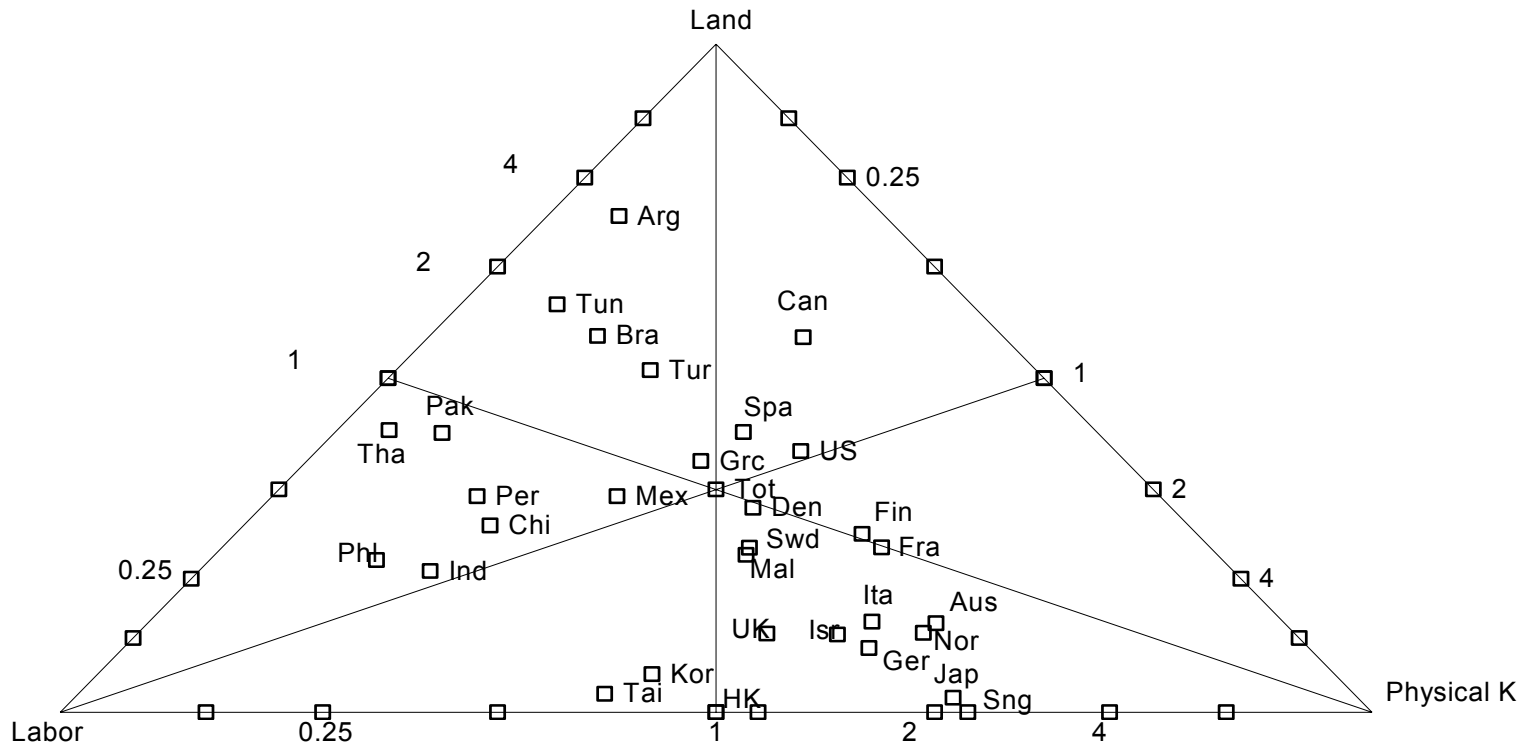


Figure 5B
 Endowment Triangle
 Labor, Human Capital, Land ('68 data)

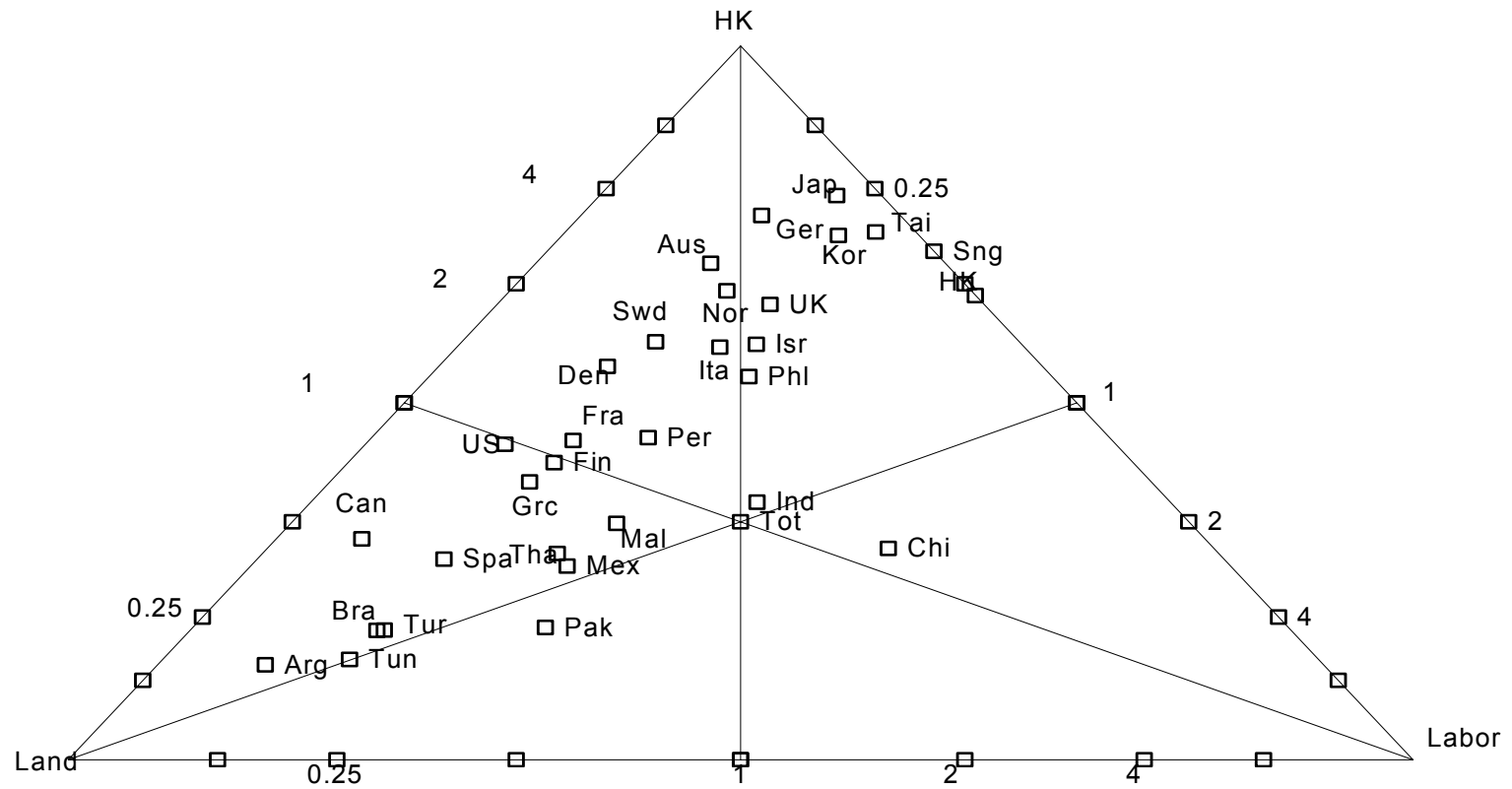


Figure 5C
 Endowment Triangle
 Land, Physical Capital, Human Capital ('68 data)

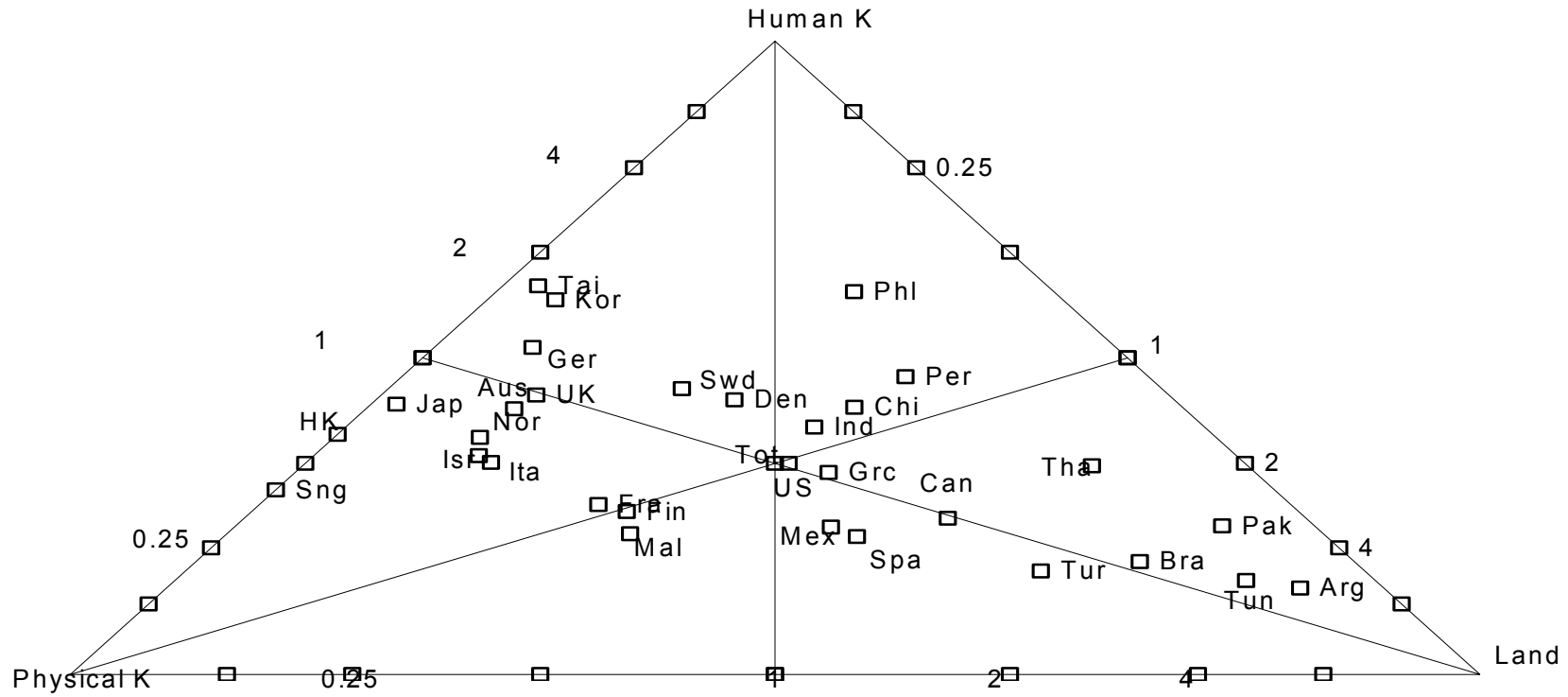
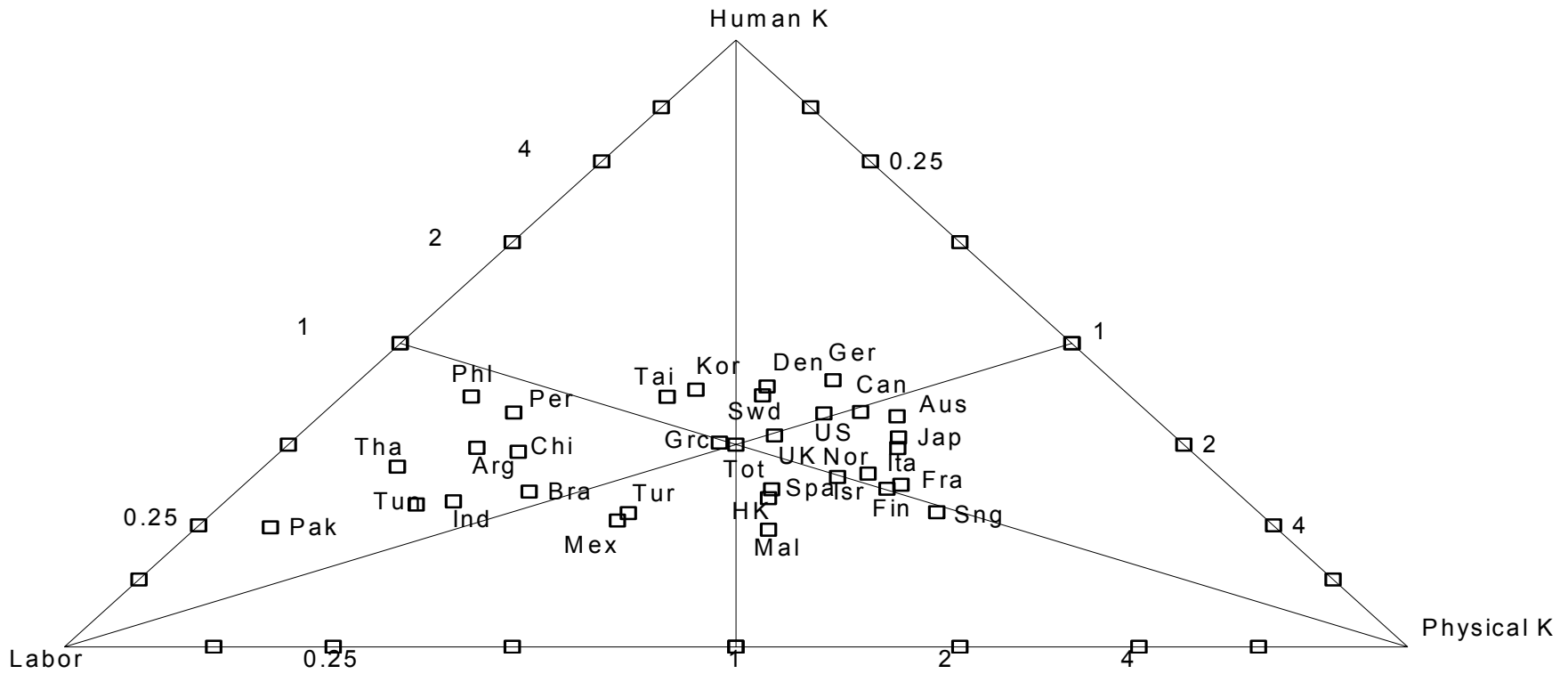


Figure 5D
 Endowment Triangle
 Labor, Physical Capital, Human Capital ('68 data)



In contrast, the median Latin American country is characterized by relative political instability, ethnic fragmentation, and considerable income inequality. In contrast to the resource-poor Asians, the typical Latin American country has much more arable land per capita (indeed Argentina has tremendous land-abundance relative to other countries in the world), and in some cases, substantial extractable natural resources, and are relatively scarce in both human- and physical-capital. As a consequence, industrial policies may be running counter to comparative advantage, and give rise to politically contentious struggles with the landed rural elite. The typical Latin American economy is more likely to generate “growth without development.”

Beyond these economic fundamentals, the institutional environment was more amenable to industrial policy a generation ago. Japan, Korea, and Taiwan had the advantage of developing during the Cold War under the GATT system. The former meant that the dominant players, especially the US, would not press their advantage too hard, and the dysfunctional dispute settlement system of the GATT was a weak instrument in any event.

Now the Cold War is over and the dispute settlement system of the WTO gives the dominant countries a stronger tool for pursuing their economic interests. The US, Japan, and the EU, for example, successfully pursued a case against Indonesian automobile development policies in the WTO.

The WTO has also tightened up the rules, making some things that the Asians did a generation ago such as export subsidies illegal. However countries with annual per capita incomes of less than \$1,000 are exempt from these strictures – so the poorer countries of the Western Hemisphere are free to subsidize exports – if they have the resources to do so.

VI. So What, if Anything, is to be Emulated?

The experiences of the Asian countries hold three obvious lessons for Latin America. First, political stability is important. Countries should try to maintain their own stability and act forcefully to encourage stability among their neighbors. No one will invest in an unstable environment.

And investment is important. The striking thing about the Asians is that they maintained high rates of saving and investment for a sustained period of time, in both physical and human capital. (With regard to the latter, the number of engineers that each of these three societies produced during their growth spurt is striking.) The secret of their success was not so much rapid rates of total factor productivity growth, but simply maintaining decent rates of total factor

productivity growth in the face of adding 30 percent of GDP to the physical capital stock year after year (Table 3).

Table 3 Rates of Growth of Total Factor Productivity

Country and Period	Growth of Output per worker, Q*-L*	Contribution to Q*-L*		
		Physical Capital per Worker	Education per Worker	Total Factor Productivity Growth
Korea				
1960-73	5.6	3.2	.9	1.4
1973-84	5.3	3.4	.8	1.1
1984-94	6.2	3.3	.6	2.1
Taiwan				
1960-73	6.8	3.9	.5	2.2
1973-84	4.9	3.0	.9	.9
1984-94	5.6	2.3	.5	2.8
Latin America				
1960-73	3.4	1.3	.3	1.8
1973-84	.4	1.1	.4	-1.1
1984-94	.1	.1	.4	-.4
South Asia				
1960-73	1.8	1.4	.3	.1
1973-84	2.5	.9	.4	1.2
1984-94	2.7	1.0	.3	1.5
OECD other than U.S.				
1960-73	4.8	2.3	.4	2.2
1973-84	1.8	1.1	.6	.2
1984-94	1.7	.8	.2	.7

Source: Noland and Pack (2003) Table 4.3

Export orientation was key. It is hard to imagine a closed economy that could maintain that kind of productivity of capital if it were trying to produce a range of products for the domestic market. Export orientation essentially accomplished three things: it provided a vent for output; it impeded the development of balance of payments problems; and finally, export performance provided a clear, neutral, standard to evaluate the performance of firms receiving industrial policy favors. As one old practitioner described it, “[the export statistics] were the only numbers that couldn’t be faked.”

In terms of Latin America, there are no easy ways of achieving the goal of political

stability, other than to communicate to the political leadership the stakes involved. Capital accumulation can best be encouraged through careful management of public finances. The accumulation of human capital, especially engineering talent, is difficult. Until better governance is achieved, Latin America is likely to suffer from an ongoing exodus of many of its most talented individuals. Policies can be designed, however, to encourage capital return, and the return of individuals. Indeed, policies to encourage the return of mainly US-based expatriate engineers, was a centerpiece of the successful development of Taiwan's high technology electronics industry.

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