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Ghana's Development: Strategic Lessons from Asia

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GHANA SEMINAR PAPERS: ABSTRACT

In December 1991, four members of HIID gave a seminar in Accra, Ghana, on the lessons from Asian experience for accelerated development in Ghana. The seminar was sponsored by USAID under the CAER contract. The seminar was attended by officials of the Government of Ghana, oflficials of the foreign aid community, and prominent Ghanaian business people. The five papers in this collection are the edited versions of the transcript of that seminar.

The major lessons emerging from the East and Southeast Asian experience for Ghana's accelerated development are:

- Saving rates need to be raised substantially in Ghana; in the medium term, this is likely to require tax reforms that generate higher revenues and continued restraint on the growth of government consumption.

- Over the longer term, several financial market reforms will be essential to help increase private saving and to allocate saving more efficiently.

- More open trade and foreign exchange regimes should (i) introduce competitive forces into the economy that will eventually cause capital and other factors to be used more productively; (ii) generate more rapid employment growth; and (iii) attract foreign capital.

- Food and export agriculture must be emphasized in a country where agriculture accounts for about half of gross domestic product; if agricultural growth lags, average income growth cannot accelerate much from its current rate.

- The credibility of government policy to foreign and domestic investors depends upon firmly maintaining the new, more open policy regime throughout the current move towards democratic government in Ghana.

GHANA'S DEVELOPMENT: STRATEGIC LESSONS FROM ASIA

PROCEEDINGS OF A SEMINAR OF OFFICIALS AND BUSINESSMEN
ACCRA, GHANA, DECEMBER 10-11, 1991
SPONSORED BY USAID/GHANA UNDER THE CAER PROJECT

HARVARD INSTITUTE FOR INTERNATIONAL DEVELOPMENT

SESSION I

THE MACROECONOMICS OF ACCELERATED GROWTH

Michael Roemer

Seen by an observer who has been away from the country for almost twenty years, Ghana has made impressive strides. Just to list the measures that Ghana has taken since 1983, and particularly in the last few years, suggests a country whose effort ranks close to those of the Asian countries we are here to discuss:

- foreign exchange rate auctions and exchange control liberalization, in which Ghana has gone much further than almost any of the Asian countries;
- improving prices for cocoa farmers;
- reform of the banking system;
- turning government deficits into surpluses, also ahead of most Asian countries;
- the beginning of tax reform;
- privatization of several state enterprises;
- trimming the civil service by numbers that would be considered daunting in most other countries; and
- shifting government expenditures towards infrastructure and human services in a way that will help to improve development in the future.

What more could anybody ask of Ghana? Or what more could Ghana ask of itself? Why are we here today to discuss other models, when Ghana may be establishing a model of its own?

The answer to these questions is fairly basic. Ghana's impressive efforts have so far yielded a GDP growth rate of 5 percent a year, excellent by the standards of Sub-Saharan Africa in recent years, indeed, excellent by the standards of Latin America and South Asia. Yet, with Ghana's population growth, GDP growth of 5 percent a year results in a modest annual per capita income growth, 2 percent a year. At that rate, it will take Ghanaians 17 years to reach the average income levels they had achieved by 1974 and 35 years to double their average per capita income. A rough standard is that countries need to double average per capita incomes every 20 years, every generation, to keep people fairly content that their welfare is improving and to avoid instabilities which will weaken if not destroy development. Ghana is far from that standard right now and obviously sees itself the need to move towards a higher standard of growth.

The Institute for International Development at Harvard has therefore been asked to come here for these two days to talk about the development of East and Southeast Asia in an effort to suggest a menu of possibilities that Ghana should consider to accelerate its growth. The Institute's credentials for doing this include extensive research and policy advising in several countries of both Asia and Africa, including South Korea, Taiwan, Indonesia, Malaysia, and Thailand; as well as in Kenya, Tanzania Zambia, Ethiopia, The Gambia, and, of course, Ghana itself. Because we work directly for the governments of these and other developing countries, the Institute combines the perspective of scholars with that of practitioners of development policy. Thus we identify very much with the aims of this group of policymakers and investors, and understand both your search for new policy initiatives and the constraints under which you operate.

Asian Performance

The nations of East and Southeast Asia, including Japan, Korea, Taiwan, Hong Kong, Singapore, Malaysia, Thailand, and Indonesia, have developed at rates that are unprecedented in world history. The four newly industrialized countries--Korea, Taiwan, Hong Kong, and Singapore--have increased their average per capita incomes by 6 to 7 percent a year over almost a quarter of a century, as shown in the table. Three Southeast Asian countries --Indonesia, Malaysia, and Thailand-- have improved their average incomes by 4 percent a year over the same period, 1965 to 1989. This contrasts with a still respectable 2.5 percent average

COMPARATIVE ECONOMIC PERFORMANCE, 1965 - 1989: EAST/SOUTHEAST ASIA AND GHANA

A. GROWTH RATES: 1965 - 1989

Country	Income per capita	Exports	Primary exports	Manuf'd exports	Manufac-turing	Total factor prod'y
South Korea	7.0	22.0	13.5	24.3	16.6	4.3
Taiwan	7.3	15.5	4.2	19.1	12.0	5.3
Hong Kong	6.3	8.0	4.9	8.0	n.a.	3.9
Singapore	7.0	6.0	3.5	7.0	10.4	2.7
Indonesia	4.4	6.8	5.3	16.5	12.3	2.6
Malaysia	4.0	6.5	4.2	15.7	n.a.	1.7
Thailand	4.2	10.2	6.8	24.3	10.0	2.2
Ghana	**-1.5**	**0.4**	**-0.3**	**9.1**	**3.2**	**-1.4**
Africa (SSA)	0.3	3.9	-0.1	1.3	n.a.	-0.6
All dev'g ctry	2.5	4.1	2.1	7.2	7.2	0.5

B. RATIOS TO GDP, IN PERCENT: 1989

Country	Exports	Primary exports[a]	Manufac-turing	Gross domestic invest.[b]	Gov't revenues	Broad money
South Korea	34	2	26	28	18	41
Taiwan	59	5[c]	n.a.	23	37	147
Hong Kong	135	4	21	26	n.a.	n.a.
Singapore	191	40	26	41	28	93
Indonesia	26	18	17	23	18	42
Malaysia	74	41	n.a.	27	26	68
Thailand	36	17	21	25	18	65
Ghana	**19**	**17**	**9**	**8[d]**	**14**	**15**
Africa (SSA)	25	22	11	18	n.a.	n.a.
All dev'g ctry	21	10	20+	24	n.a	n.a.

[a] Share of total exports.
[b] Average over 1968-88.
[c] 90% in 1955; 54% in 1965.
[d] 16% in 1989.

growth for all developing countries, but with absolutely no growth in per capita income for Sub-Saharan Africa as a whole since 1965.

These Asian countries are also characterized by rapid growth of exports, and most observers have concluded that their rapid export growth had a great deal to do with the rise in per capita incomes. In Korea and Taiwan, exports grew by more than 15 percent a year for a 24-year period, while exports in the other Asian countries grew by 7 to 10 percent a year, still very rapid. On the average, developing countries' exports have grown around 4 percent a year and that includes Sub-Saharan Africa. Manufacturing growth has been over 10 percent a year in all of these Asian countries, compared to only 7 percent a year for the developing countries as a whole.

What is behind these growth rates? At a first level of analysis, there are two factors behind rapid economic growth. First is the level of investment, the share of national income that is being put into saving and investing and therefore into future growth. In the Asian countries, the ratio of investment to GDP has been between a quarter and two fifths of gross domestic product. That level of investment can seem staggering: in Taiwan, for example, only 60 percent of current income in consumed. But other countries of the world have also done pretty well in investing current income, many of them exceeding 20 percent of income over the past several years.

The crucial difference between the rapidly growing countries of East and Southeast Asia and the rest of the world has been the increase of productivity. Economists measure the growth of productivity by first estimating the share of GDP growth due to increases in the capital stock and the labor force; comparing that result to actual growth of GDP; and counting the residual as the growth of total factor productivity, the increase in output per unit of factor inputs.

In Korea, Taiwan and Hong Kong, productivity has grown at 4 to 5 percent a year. In other words, GDP growth was 4 percent a year faster than it would have been if the only contributions to expansion had come from investment and growth in the labor force. Thus more than half of the increase in GDP per capita was due to productivity growth. In the other Asian countries total factor productivity has grown at 2 to 3 percent per year. In contrast, the developing countries as a whole experienced productivity gains of only 1 percent a year and Sub-Saharan Africa has seen a *decline* in total factor of productivity over this 24-year period, 1965-1989. The important difference in growth rates, therefore, has to do with the difference in factor productivity growth. Much of the economic reform agenda of Ghana, of the World Bank, of the East and Southeast Asian countries, really addresses the question of how a country manage to increase its total factor productivity more rapidly than it in the past.

In the case of Ghana, however, we also have to address the question of investment ratios, because Ghana has been investing a relatively small share of its income. Even using much improved performance for Ghana in the last 5 or 6 years, it is evident from the table that Ghana's investment ratio remains below the standards set by East and Southeast Asian countries. Thus for Ghana a program of accelerated growth must encompass both higher investment--which means less consumption--and substantial productivity gains.

Dimensions of Comparison

What strategies did the Asian countries employ to achieve unprecedented development and how can Ghana benefit from their example? First a disclaimer: there is no single Asian model of accelerated development. The East and Southeast Asian countries present the world with at least two models of development, really with a spectrum of models, as we shall see in a few moments.

It is useful to discuss the Asian models in terms of five dimensions:

- first, natural resource endowments;
- second, macroeconomic management and stabilization;
- third, the mix between governments and markets as guiders and controllers of development;
- fourth, the structural adjustments that took place in the Asia countries, adjustment that are also taking place in Ghana; and
- fifth, the impact of structural adjustment on poverty and income distribution.

It will become apparent that the four newly industrialized countries, with the possible exception of Taiwan, are not so relevant to Ghana as are the three Southeast Asian countries, Indonesia, Malaysia and Thailand.

Natural Resource Endowments

The most compelling reason for Ghana to look towards Southeast Asia is that the countries have similar natural resource endowments. Ghana is relatively well-endowed with natural resources, including minerals, gold and bauxite; tropical forests; and, most important of all, tropical farmland and climate that have made Ghana an especially productive grower of cocoa, palm oil, rubber, and no doubt other crops which could be developed and perhaps are being developed.

On the basis of natural resources, then, we can rule out two Asian countries without further consideration: Hong Kong and Singapore. These are city states, with no natural resource base and, more importantly, no rural population to be concerned about. Most developing countries are largely rural and are urbanizing. Hong Kong and Singapore hold no lessons for those countries unless, in the case of Hong Kong, one considers China as the hinterland. Korea does have a rural sector, but it was never a fulcrum of development, and it has no natural resources to speak of. These three--Korea, Hong Kong, and Singapore--had no choice but to industrialize rapidly, so their entire strategy of development centered on manufacturing for export. That is not necessarily the case for the other Asian countries and need not be the case for Ghana, unless you choose it to be. All of us will argue that single-minded attention to industrialization would probably not be the best choice for Ghana.

The other newly industrialized country, Taiwan, is a mixed case because, although it has no natural resources, its industrialization began in the rural sector. Indeed, in 1955 when Taiwan began its export drive, 90 percent of its exports came from farm products, mostly from vegetables and fruits. Even in 1965, after 10 years of very rapid growth, over half of Taiwan's exports came from agriculture and many of its manufactured exports were processed farm products, particularly canned pineapples, mushrooms and the like. When manufacturing did develop in Taiwan, it remained based in the countryside, carried out predominantly in small-scale units using a rural-based labor force. So Taiwan holds some lessons that we should keep in mind.

It is the three Southeast Asian countries, however, that offer the models more relevant for Ghana, primarily because of their natural resource endowments. Thailand, with generous amounts of farmland and water for irrigation, is the world's largest exporter of rice. It also exports rubber, cassava, and sugar. Indonesia is closer to Ghana in its resource endowment, though Indonesia does have substantial petroleum reserves that put it in a different category. Nevertheless, Indonesia's recent, impressive export growth, though based mostly on manufactures, has also depended importantly on a wide range of tropical wood and farm products, including the same crops exported by

Ghana. Indonesia is also well endowed with rice land and water, and its prosperity has depended partly on successful efforts to improve farm productivity and feed itself.

Malaysia is perhaps an even better example than the others. It is a country of about Ghana's population, with very generous endowments of the same tropical lands and climate that Ghana has. It exports palm oil, rubber, cocoa, timber, and tin, similar to Ghana. Oil deposits make it different from Ghana. But in another respect Malaysia and Ghana share a common problem: neither is so generously endowed with farmland as the other Southeast Asian countries and have more difficulty producing enough for their own consumption grains.

The crucial observation for Ghana is that these three Southeast Asian countries have depended, and continue to depend, substantially on the growth of their primary exports to fuel development. Primary exports grew between 4 and 7 percent a year from 1965 to 1989 in these countries, which helped them to sustain total export growth of 7 to 10 percent a year. Even in 1989, after 24 years of fairly rapid growth of non-primary exports, primary exports were half of total exports for Thailand and two thirds of total exports for Indonesia.

It is also crucial to know that these three countries invested heavily to sustain and improve their productive base of primary exports and domestic grains. Malaysia based its early development strategy on its natural resource endowment. In the 1950s, Malaysia was an exporter of tin, palm oil, and rubber. Rubber was to Malaysia then what cocoa has always been for Ghana: a major, even dominant export, with apparently no growth prospects. From the perspective of the 1950s, Malaysia could look forward to increased competition from synthetic rubber, which would replace natural rubber in most uses. Yet Malaysia, against the advice of smart economists like us, invested in research into new rubber varieties that reduced the cost of growing rubber and enabled them to continue competing in world markets. It also invested in the research and planting of new, lower-cost varieties of palm oil which enabled Malaysia to become the world's principal exporter of that commodity as well.

Indonesia made similar investments. Its oil wealth was partly invested in irrigation systems and other rural infrastructure that increased the productivity of rice farming and enabled the fifth largest population in the world to become self-sufficient in rice, its staple grain. Indonesia also invested in a range of tropical crops, including rubber, palm oil, cocoa, coffee, tea, spices, pineapple, and others, taking full advantage of its varied soils, topography, and other agronomic conditions. Indonesia has for many years managed its exchange rate to ensure that farmers of these exports remain profitable, and did so despite the strong tendency for oil revenues to move the exchange rate in the wrong direction.

Because many economists deprecate the contribution that primary exports can make to development, it is necessary to remind ourselves that primary exports can play a major role in development, as they have in Southeast Asia. The direct contribution to GDP growth is obvious. When primary exports come from small farmers or even from plantations that are large employers of rural labor, then primary exports create rural jobs and incomes, benefits that are targeted directly to the greatest concentration of poor people in almost all developing countries. In Taiwan the strategy of integrated rural development based on exports has contributed to achieving one of the most egalitarian income distributions in the world. In Indonesia, investment of oil wealth in rural areas helped to reduce the incidence of poverty from more than half the population in the early 1970s to less than 20 percent by the late 1980s. Thus Taiwan and Indonesia's rural-based strategies helped both countries to grow rapidly while directly reducing poverty, an approach that may be within reach for Ghana.

Exports of minerals, such as gold and bauxite in Ghana, can also generate substantial savings, as can farm exports under some conditions. Primary exports generate foreign exchange, a point that would seem too obvious to mention. Yet many African countries, Ghana among them, have neglected their primary export base and suffered from a shortage of foreign exchange that shut down their industries and virtually halted their development in the 1980s. Asian countries, by exploiting their raw material base, also ensured that industry and other sectors were well provided with resources for growth. The ready availability of foreign exchange also enabled Asian countries to maintain stable economies, which in turn attracted investors. The kind of instability that results from foreign exchange shortages increases risks and reduces the profitability of investment, deterring investors. Finally, in Asia primary exports have in some instances led directly to industrialization, witness canned vegetables in Taiwan and wood products in Malaysia and Indonesia (as well as Ghana).

Governments versus Markets

The second issue is the mix between government controls and markets as regulators development. We are living in an era of revolutionary changes in the management of economies. In the 1950s and 1960s, when Kwami Nkrumah was president of Ghana, he was followed the advice of leading economists when he decided to industrialize the country by intervening in the economy, setting up public corporations, subverting markets, and substituting government decisions for private decisions under market competition. Such was the conventional wisdom in those days, when the failure of markets was considered the principal barrier to rapid development. Conventional wisdom today is virtually the opposite: the failures of government intervention loom much larger than the failure of markets to guide development.

The consensus is always shifting, and today we are heading back towards a recognition that some government regulation is essential in a well-functioning market economy. It may be a paradox, but in order to have more liberal markets, it may be necessary to have better regulation. At a minimum, government needs to stabilize the economy; promote competition and stop predatory practices; and regulate financial companies, banks, insurance companies and pension schemes to protect consumers who are making life-long investments which depend upon the sound management of financial institutions. More creatively, governments can accelerate development by aiding the establishment to missing markets and institutions, such as the provision of efficient rural credit or the marketing of government and other securities. And there remains the classic government role of building infrastructure, something the private sector does sporadically and inefficiently if at all. Today's consensus, as enshrined by the World Bank in the *World Development Report 1991*, is that government intervention ought to support, not interfere with, markets in their natural function of regulating economic activity.

How have the Asian countries handled this mix between markets and government intervention? They have handled it in different ways, which is reason there is no single Asian model. Hong Kong and Singapore are probably as close to laissez-faire economies as a country can get, but they have already been ruled out as examples for Ghana. Japan and Korea provide a very different model, one that many policymakers in other countries would like to emulate. These governments have intervened forcefully in their economies. However, the single-minded goal of intervention was to force private firms to reach ever rising export targets. Korea, for example, intervened in a number of ways. Large-scale exporters received subsidized credits from government-controlled banks, while other manufacturers had to pay much higher interest rates on the informal or curb market. Government protected domestic markets against imports, but granted access to those markets primarily to firms that met stringent export targets. Thus protection became an export incentive, which is very different from the experience in most countries. Taxation was highly discretionary. Successful exporters could avoid or evade taxes, but taxes were collected strictly from non-exporting firms. Infrastructure was built to reduce costs for exporters. When economic incentives were deemed insufficient, moral suasion and much stronger tactics were used to force firms to meet their export targets. Finally, to make such an interventionist strategy feasible in a complex economy, government encouraged the growth of large conglomerates, called *chaebol* in Korea, which become the major exporters, investors, employers, and innovators through which government exercised its will over the economy.

This system had three hallmarks which must be kept in mind. First, the government generally intervened to push the economy in directions it was tending towards in any case. Second, the ultimate test of success was always determined by the market itself, specifically by the foreign market: unless an investment or an intervention led to growing exports, it would be abandoned. Third, although in Korea, as in Japan, interventions gave enormous power to government bureaucrats, by and large this power was not used to enrich those who had it. Private interest was subjugated to the public interest, as public power was used to promote private exporting. This last characteristic of the Korean (and Japanese) model is what makes it so difficult for other countries to imitate.

The Southeast Asian countries, the three countries that may provide more relevant examples for Ghana, realized either implicitly or explicitly they could not manage a development strategy like that of Korea. Their governments are based on systems in which economic advantage and political power are closely intertwined. Under these political-economic systems, particularly in Thailand and Indonesia, it is difficult for a civil servant to act single-mindedly in the public interest against all the private interests that pervade government. The line between public and private interests is extremely difficult to draw. The biggest companies in Indonesia, for example, are owned by families that staunchly support the country's political leadership, especially financially, and whose investments are often made jointly with members of the political leadership and their families. Decisions made in the public interest must run a gauntlet of pressure from these powerful businessmen and their political patrons to ensure that no important private interests are jeopardized. Such systems are called *clientelistic* by political scientists, a description that can be applied to a large majority of developing country governments.

In clientelistic systems, economic policymakers cannot rely on disinterested civil servants to manage a development strategy, acting in the public interest and eschewing their own private interests, as happened in the Korean system. Instead, policymakers need a system that organizes economic activity to achieve development goals with a bare minimum of human intervention, a set of rules that operate outside the political arena, a *deus ex machina* if you will. The market is precisely such a mechanism. In the majority of countries marked by clientelistic political systems, where public and private interests cannot easily be disentangled, markets are therefore likely to be better regulators of development than are governments.

The economic reforms, called *structural adjustment*, that have dominated development strategies in the past decade have been tailored to meet this need for market-oriented development.

All three Southeast Asian countries have undertaken strategies that depend increasingly on market mechanisms to allocate resources and stimulate growth, and their economies have thrived. I will describe Indonesia's comprehensive reforms in a moment. Taiwan's outstanding development record was achieved with a dose of Korean-like intervention, but depended heavily on dynamic small firms operating in highly competitive markets.

Ghanaians are in the best position to judge where their country fits in the strategic spectrum between Korea's pro-market intervention and a more market-guided strategy. The country's history until 1981 suggests to me that government intervention in the public interest was not a reliable basis for development, but conditions have changed in the last decade. In making that decision, however, the place to look is not to the recent past but to the future, under the next government rather than the present one. The question to ask is, what system is the least vulnerable to breaking down in the face of insistent private interests, and at the same time promises brisk economic growth? The experience of Southeast Asia suggests the answer: market-based strategies are more likely to achieve these conditions than are strategies that depend upon strong government interventions. Do keep in mind, however, that government will still have a major role to play in regulating markets, building new market institutions, and providing infrastructure so that markets themselves become more efficient regulators of development.

With this audience it is not necessary to explain how markets regulate activity and achieve dynamic economies. However, it is important to keep in mind one key element of a market system which can be damaged by unfavorable government attitudes and policies. In markets it is the profit mechanism that provides dynamism, that attracts investors, stimulates innovation, encourages risk-taking, and ultimately fuels accelerated growth. In market economies, it is entrepreneurs, investors, managers, even traders who respond to profitable opportunities and make the market work to create growth. With their profits will come employment and a reduction in poverty in countries like Ghana, as it has in Southeast Asia.

In many countries, unfortunately, these heroes of development are considered villains, oppressors, enemies of the poor. Governments in Ghana have not been immune from such attitudes. Yet if the entrepreneurs, traders and others sense that government is hostile or even skeptical about their activities, they are less likely to take the risks that are essential to move the economy ahead. Trust in the profit mechanism must be substantial, if not total, because half-hearted endorsements of market mechanisms are unlikely to achieve accelerated growth.

Macroeconomic Management

The third dimension of Asian development is macroeconomic management and stabilization. Development economists, the International Monetary Fund, the World Bank, USAID and other donors have pressed hard on macroeconomic stabilization as an essential first step towards economic reform for renewed growth. Why have we had this preoccupation with inflation, the balance of payments, budget deficits, and debt repayment for the past decade? The reason is that unbalanced, destabilized economies scare away investors and skew investment away from productivity-enhancing activities, preventing accelerated growth.

In unbalanced economies, investors recognize that at some point government will have to shock the economy to curb inflation and balance its payments, or else lose control altogether. Investors risk substantial loses through reduced government spending, suppressed private demand, stringent monetary policy, and exchange rate devaluation. If inflation is not curbed, investors face sharp changes in relative prices, intensifying the risk of losses. In such unstable environments, whether inflation and deficits are curbed or not, investors require higher-than-normal profits to compensate them for higher risk. The inevitable result is that less investment takes place, so unstable economies are likely to have lower rates of investment and slower growth.

Moreover, in inflationary environments, investors and managers are unlikely to contribute much to improving productivity. When inflation is rapid, investors have to worry about protecting their assets from rising prices. They therefore invest in land and gold instead of investing in plant and equipment; and devote time to managing financial assets instead of attending to cost-cutting or seeking new markets. Yet it is investment and productivity that an economy needs to achieve rapid growth.

All the East and Southeast Asian countries have been notably successful at managing their economies to achieve stability and reduce risk. There have been examples of growth with inflation in Asia. Korea's inflation was in the teens for several years in the 1960s and 1970s, though it was never out of control. The more open economies of Southeast Asia contained inflation at levels below 10 percent a year for the most part. Ghana itself has done very well in this regard so far, reducing inflation below 20 percent in recent months, though it has some distance still to go.

Comparisons with Asian countries suggest that Ghana still faces some serious problems of macroeconomic management. I have already noted that the share of GDP devoted to investment has been very low in, 16 percent in recent years compared to 23 to 41 percent in the Asian countries over a quarter century. The table also shows that the level of monetization--the ratio of money (M-2) to GDP is only 15 percent in Ghana, suggesting that the public has little faith in the banking system. In Asia, where financial markets have been important to development, monetization has reached 40 percent of GDP and more, up to 100 percent in Taiwan.

Ghana's tax effort has also been weak. Taxes average only 14 percent of GDP compared to 18 to 28 percent in the Asian countries. It may seem paradoxical that a country moving towards a market-based strategy should also want to improve its tax effort. But there are several reasons why this would be advantageous. First, by taxing incomes or consumption and investing the proceeds, government can increase the saving and investment rates, a basic step towards accelerated growth. Second, government will need additional resources to play its essential role in market-led development, especially investment in infrastructure. Third, Ghana's recent growth has been achieved with high levels of foreign aid, which may not continue indefinitely. Increased taxes, converted into government savings, could enable Ghana to weather a reduction in aid levels without a fall in the growth rate.

The elements of sound macroeconomic management are becoming increasingly understood by economists and policymakers in developing countries. Good management starts with balanced government budgets, or at least with reduced deficits. When deficits are large and financed by the banking system, they create excessive growth of the money supply, fueling inflation. If government instead tries to finance its deficit by borrowing from the public, it crowds out private investors from financial markets, reducing private investment. Moreover, should the deficit arise from government consumption rather than investment, then borrowing from the public also reduces the national saving rate. Ghana has already achieved this essential element of sound macroeconomic management by substantially reducing its deficit, even running a surplus if foreign aid is counted as revenue.

Once the budget deficit is under control, the second element can be achieved: moderate growth in the money supply. The money supply should be increased only enough to accommodate

- the rising demand for money due to growing incomes;

- the increased demand due to development of the financial system, which implies increasing rates of monetization; and
- a moderate rate of inflation.

A by-product of sound monetary policy is interest rates that exceed the rate of inflation by enough so that the real rate of interest reflects the scarcity of capital.

A third feature of sound macro management is an open, smoothly functioning market for foreign exchange. Controls over access to foreign exchange should be minimal, with the goal of achieving a convertible currency. Indonesia has managed a fully convertible currency for over 20 years, a policy that has enforced strict budgetary and monetary discipline on the government and given investors greater confidence. To operate a system with minimal controls, it is necessary to manage the exchange rate so that the real value of the currency is maintained over time despite inflation. This assures investors, especially those in the export sector, that their profits will not be eroded by an overvalued exchange rate.

Maintaining a steady real exchange rate has been a central feature of economic policy in all the East and Southeast Asian countries and could be considered the single most important policy in their successful export strategies. The precise mechanisms for maintaining steady real rates can differ. In most Asian countries the government used nominal exchange rate devaluations for most of the past 25 years. More countries now use a crawling peg, as Indonesia has done since 1986, after three major devaluations. Ghana has gone a step farther with its managed float. The elements of sound foreign exchange management seem to be in place in Ghana, with the potential for further moves towards full convertibility.

Finally, I want just to mention the problem of managing cyclical swings in foreign exchange earnings, the problem of

Dutch disease. This ailment is endemic in economies, such as Ghana and the Southeast Asian countries, that depend heavily on the export earnings of a few commodities. When export earnings fluctuate, the demands of macroeconomic management are greater, because countercyclical policies must be employed to avoid destabilizing incomes, jeopardizing both investment and long-run development. Government can compensate for these fluctuations by:

- allowing foreign reserves to accumulate during booms (by sterilizing them) and subsequently to fall during export recessions;
- managing a counter-cyclical fiscal policy with surpluses during booms succeeded by deficits during recessions; and
- maintaining countercyclical monetary policies.

Describing these policies in detail would require a much longer paper. The point is, however, that Ghana, like the Southeast Asian countries, will have to manage such a countercyclical macroeconomic policy if it is to sustain accelerated growth through the booms and recessions of cocoa prices.

Structural Adjustment Programs

Structural adjustment is the term given by the World Bank to economic reforms that establish the market as the principal regulator of development. Three kinds of structural adjustment have been important in Asia:

- trade and industrial reforms,
- financial market reforms, and
- tax reforms.

I will deal with each of these in some detail.

The essence of trade and industrial reforms in Southeast Asia has been to turn these economies from inward-looking ones to outward-looking ones, away from import substitution and towards export promotion or the outward-looking strategy. There are two reasons for doing this. One is that export markets provide greater scope for a country--particularly a small country like Ghana--to gain economies of scale and to meet international standards quality and cost.

Second, the external market introduces into the domestic economy the kinds of competitive forces that economists believe are necessary to stimulate rapid gains in factor productivity and income growth. The outward-looking strategy is employed not only because exports are needed for development, but because external competition forces a country to put productivity growth at the top of its agenda. Large countries can try to use the domestic economy to generate competitive forces, but in a country the size of Malaysia, Thailand, or even Indonesia, all of which are much bigger than Ghana, intense domestic competition is not an option in many industries.

Indonesia has imposed a very thorough-going trade and industrial reforms that can serve as an example for Ghana. The first reform, promulgated in May 1986 as oil prices were falling and the country faced a major crisis, was to establish a mechanism that allowed exporters to obtain imports both duty-free and without regard to formal import licensing and other controls. Later that year the Indonesian government devalued the exchange rate by about 45 percent and from that time has maintained a crawling peg has kept the value of its currency constant in real terms, as already described. Then the government embarked on a series of deregulation packages in which import licensing was relaxed, sector by sector, so that all manufacturers, not only exporters, could get access to imported inputs. This process of deregulation is still going on. The fourth step was a general but moderate tariff reform, not unlike Ghana's, which is proceeding gradually to make rates both lower and more uniform. The response to these four approaches to trade reform has been a dramatic rise in manufactured exports, growing at around 30 percent a year since 1985, and accelerated growth of industrial output and employment.

Ghana has already taken many steps towards opening its economy to the outside world. It has devalued the exchange rate and now maintains a floating rate, a more radical reform that in Indonesia or most any other developing country. Increases in the domestic price of cocoa are an important start in opening the domestic cocoa economy to world market forces. Even though the country may want to continue to stabilize domestic cocoa prices, it should probably further reduce the disparity between world and domestic farmer prices. The improved marketing of gold is another significant incentive for exporters.

Liberalization of the rules under which exporters are required to surrender their foreign exchange earnings helps to create a positive climate for investment in exports; Ghana should consider going further, completely eliminating surrender rules as part of a shift to currency convertibility. And Ghana has begun to provide export finance, which is not part of Indonesia's strategy. The one aid to exporters that seems to be lacking in Ghana is the easy, automatic, duty-free access to imported inputs, the measure that was probably pivotal in releasing the energies of Indonesia's manufacturing exporters.

Some general economic measures have also been important to turn Ghana's economy outward. The realistic pricing of petroleum and other energy resources ensures that world scarcities are better reflected in the domestic economy. And productivity-based wage setting can be one step in a necessary realignment of wages to reflect international competitiveness.

A second area where Indonesia has made major strides is <u>financial market reforms</u>. These are important for three reasons. First, reforms are needed to correct the distortions in interest rates and credit allocations that result from government controls over many years. Second, reforms enable financial markets to play an important role in reallocating capital from the protected industries that had been profitable to the export industries, newly profitable as a result of trade reforms. This role for financial markets is particularly important if the country wants domestic entrepreneurs to be leaders in the charge towards an accelerated growth. Third, reforms are needed to encourage the development of financial markets: the deepening of financial intermediation, the creation of new instruments for people to invest in, and the establishment of new financial institutions. A better developed financial system can itself will encourage investment because people will have better ways of saving. In Ghana, with monetization equivalent to only 15 percent of GDP, financial market development is crucial so that financial institutions can encourage saving and channel those savings to more productive investments.

Indonesia went through a series of financial market reforms that were quite fundamental. The first step, which dates back to 1970, was currency convertibility, which firmly attached Indonesia's financial system to the world market in general and to the Singapore market in particular. Then in 1983 the country freed up all interest rates to be set, in principal at least, by the commercial banks based on market conditions. In 1988 began a series of even deeper reforms including the end of credit allocation and the beginning of the end of government-subsidized credits. In 1988 the banking system was also opened up to new entrants both from domestic and foreign banks. Branch banking was made much simpler. Rural banking was encouraged. The essence of these reforms was to make the banking system more fluid and more competitive, so that the state-owned banks no longer dominate the flow of credit.

Indonesia has also encouraged the growth of non-bank financial institutions, especially insurance companies and pension schemes. It is in the process of passing a series of laws to providentially regulate banks, insurance companies, and pension schemes. Such regulations are needed to give consumers confidence in purchasing insurances and pensions, which in turn can mobilize large flows of saving for productive investment.

Another pivotal reform has been a rural credit program, discussed in the paper by Donald Snodgrass, under which credit is allocated on commercial terms to small borrowers in rural areas, financed by savings, also raised in rural areas on commercial terms. Default rates on these small-scale, rural loans at market interest rates is only 3 percent and the government bank which does this makes a substantial profit.

Monetary policy is also being reformed, though hesitantly. The central bank began to auction its own paper as a means of influencing the money supply and interest rates. (Because the government cannot legally run a deficit, there are no treasury bills in Indonesia; Ghana may face a similar situation.) However, the auction does not yet function as a free market, nor is there an effective secondary market in central bank paper that is needed make indirect control over monetary policy effective. The result of financial and monetary reform has been a dramatic financial deepening in Indonesia, where broad money now accounts for about 40 percent of GDP.

Ghana has made important strides towards financial market reform. Budget surpluses of recent years have removed government credit from the banking system, which provides scope for a non-inflationary expansion of credit to the private sector. A new law addresses providential regulation of the banking system. The provision of an agency to take over nonperforming loans from banks' portfolios, replacing them with government paper, is an important innovation, one that Indonesia has not yet made, though it has a similar problem. New capital adequacy requirements are part of a world-wide trend that should eventually increase the public's confidence in the financial system. And increased lending rates by the bank of Ghana to the commercial banks is a move towards more realistic pricing of funds to reflect inflation and the real scarcity of credit.

These are important measures but, based on Asian experience, there remain some equally significant policies on the agenda for financial reform. Interest rates should be determined by lenders in response to market conditions, not by the government, although of course monetary policy will exert a powerful if indirect influence over rates. Credit ceilings probably ought to be relaxed and eventually removed entirely. To an outsider familiar with Asia, it would appear that the banking system in Ghana could use an infusion of competition. This could be accomplished by opening the system up to new banks, whether domestic or foreign.

The third structural adjustment, tax reform, has been important in developing countries all over the world for a two reasons. First is the need to deepen government's revenue base for the reasons I have already described. Second, perhaps even more important, in many countries the tax system has been a hindrance to development, because of widely varying rates, excessively high marginal rates, and capricious enforcement.

The Indonesian reforms are instructive. A major part of Indonesia's tax reform included some very simple, basic changes in tax administration. For the first time, a unique number was assigned to each taxpayer to ensure that authorities could identify and trace all aspects of any taxpayer's transactions with the tax administration. Computers were introduced to make tax administration more efficient and to enable senior managers and auditors to trace transactions between taxpayers and tax collectors. Tax codes were rewritten to ensure that the rules were transparent and taxpayers could clearly understand their obligations. An important aim of the new rules was to remove as much discretion as possible from the tax authorities, which in turns removes the obvious temptation to settle tax disputes outside the system with side payments, rather than within the system through legally required tax payments.

The second aspect of Indonesia's tax reform was a change in the tax structure to reduce the complexity and the range of rates on all of taxes, direct taxes on incomes and indirect taxes on sales. Where tax progressivity is important to improve income distribution, exemptions rather than high marginal rates prove to be more effective, because high tax rates engender greater evasion, especially by the rich. (By and large, expenditure policies that favor the poor are more effective than progressive tax structures, especially in developing countries.) Indonesia also lowered its corporate tax rates to a world standard so that foreign investors are not deterred by the domestic tax structure and do not require tax holidays which themselves erode the tax base. The key to the reform, then, was to recognize that high tax rates are not enforceable, while lower rates would broaden the tax base and raise tax revenues.

Indonesia's reform contained one major new tax, the value-added tax, making it one of the first developing countries to have adopted the VAT; many more countries have adopted it since. The key to the value-added tax is to keep it simple. In Indonesia, it was first applied only to manufacturing, and only one rate was legislated: the government could decide what rate to charge in any year, but was required to charge the same rate to all payers, making administration simpler and reducing the possibility and incentive for evasion.

HIID, which worked on the Indonesia reform from the beginning, has since helped to reform tax regimes in Kenya, Malawi, and the Dominican Republic, and several other countries have reformed their tax systems. Tax reform could be important in Ghana for the several reasons already cited: its low tax effort; the potential to turn increased public revenues into increased national saving; the demands for finance for infrastructure investment; and the need to replace foreign aid with domestic saving.

Poverty and Income Distribution

The issue of poverty and income distribution will be discussed in the papers by Richard Goldman and Donald Snodgrass, but a few closing remarks about income distribution are in order here. There has been considerable concern in the economics literature and among policymakers about the impact of stabilization and structural adjustment on the poor. The experience in East and Southeast Asia with market-based, export-oriented strategies of development provides a clear lesson: There has, at the very least, been no worsening of the income distribution or the incidence of poverty. And there is no doubt that outward-looking reforms have led to a reduction in poverty, because they have stimulated accelerated income growth without a marked worsening of the income distribution.

These promising results occur through a number of mechanisms which I will mention just briefly. First, when exports, such as cocoa in Ghana or rice in Thailand, come from small farms, the beneficiaries of an export-oriented strategy are among the poorest producers in the economy, so the reduction in poverty is direct and immediate. Second, small firms, who are often squeezed out of regulated markets, get much better access to inputs and to customers in a deregulated environment. Small firms, of course, are important employers of the poorest workers.

Third, in the early stages of development under an export-focused strategy, markets automatically favor production in the more labor-intensive firms, because these units have a comparative advantage over more capital-intensive production. Thus employment was created rather dramatically, for example, in Korea, where surplus labor was absorbed within a few years of the first outward-looking reforms. The combination of freely functioning labor markets and weak unions, with wages set entirely by market forces, produced rapidly rising wages about five years after reforms began. That has not yet happened in Indonesia and may not happen in Ghana, but the prospects are better if growth is rapid. Fourth, when credit is allocated by market forces, it goes to those who have the most productive uses for funds, who can pay the highest interest rates. In economies with large numbers of relatively low-paid workers, such as Ghana and the countries of Southeast Asia, these high-productivity investments are also likely to be relatively labor intensive.

On all these counts there is ample evidence in Asia and in Africa to suggest that a more open and more competitive strategy will be the most effective approach to increase incomes for those who are the poorest in the economy.

<u>Answers to Questions from the Floor</u>

1. *On the question of promoting savings:* Any tax economist would be loathe to suggest that we ought simply to exempt investment from taxation. But a similar set of incentives can be accomplished by shifting the tax system away from taxes on profits and saving, and towards the value added tax, with an exemption for capital goods. But a tax system should probably not move completely in that direction, because profit-earners need to pay their share of investments in infrastructure and other government services that contribute, not only to rising incomes, but also to increasing profits. Indonesia, by lowering

its company tax rates, has eliminated all tax holidays yet has been attracting investors in record numbers.

2. *On exporters depending on the bureaucratic system for benefits:* Aids to exporters, whether duty rebates, access to imports, or retention of foreign exchange earnings, need to be automatic and easy to obtain without delay and at little cost. An incentive that requires a bureaucrat's decision is of less benefit to the exporter, especially if he is about to make a major investment that will take years to pay off and depends upon government assistance to be profitable. Indonesia handled this issue by establishing an export agency that gave favored access for imports and duty drawbacks to successful exporters who established good accounting methods and were honest in their dealings with the agency.

3. *On the advantages of exporting cocoa in world markets that discriminate against primary commodities:* Given any trade situation that a country faces, whether the international playing field is level or not, the individual country can improve its well-being by basing its decisions to export or not on the basis of comparative advantage. This comes down to a judgment about the profitability for the economy of investing in any given exportable commodity. In the case of cocoa, the decision should turn on whether the cocoa price is likely to support profitable investments in the industry, and what the alternative uses of the land and labor would be. What else would Ghana export? Or what would it import substitute instead? In other words, how else would the economy generate foreign exchange? The relevant cocoa price for this decision is not this year's price, but the estimated price in 1995 or 2000. My guess is that Ghana will continue to profit from exporting cocoa, and despite this year's low prices investments ought to be made, particularly investments that focus on lowering the costs of growing and then marketing that cocoa. Investments made in the infrastructure and marketing

structure will benefit whatever you decide to export, whether from agriculture or industry.

4. *On the equilibrium exchange rate:* The aim of exchange rate management should be to maintain a steady incentive for exporters over many years. It is less important precisely what the real exchange rate is, though it is important not to maintain an overvalued real rate, one that provides insufficient incentives to bring exports up to acceptable levels. If inflation in Ghana remains at 10 percent, and in Europe or the United States is at 4 percent, there needs to be a 6 percent nominal devaluation of the cedi each year to make up for the difference and keep the real rate steady. That is what the Asian countries have done, maintain a constant real rate in the face of inflation, and these exchange rate regimes have been successful in encouraging investment in export industries.

5. *On the transition between the inward-looking, import substitution system and the outward-looking, market-based system:* Import substitution played a role in all the countries of Asia. It was the principal approach in Korea and Taiwan up to the time of their reforms. There was a period during which investments were made in import-replacing industries that later became export oriented when the incentive regime became more outward-oriented jolted producers and investors towards export markets. This transition was easier in East Asia than it might be in Ghana because reforms also achieved high levels of saving and banking systems were working reasonably well to channel that saving into productive investment. The process of a jolt to the incentive system and a reorientation of investment flows has been repeated in Indonesia in recent years; the transition in Malaysia and Thailand may not have been as abrupt.

6. *On government aid to companies facing insurmountable debt:* Private companies ultimately have to bear the burden for their

decisions. That's the essence of the profit-based, free market system. Private investor are encouraged to earn and keep their profits and to get rich. But if you they make losses instead, they are allowed to fail. That's the nature of the system, a system that produces benefits for most (but not all) of its participants. Note, too, that firms were allowed to fail even in those countries, like Korea, where government intervened heavily to support particular industries. However, one set of reforms that may have been neglected is a set of mechanisms making it easier for firms to default on their debt without necessarily going out of business. In the United States, bankruptcy laws accomplish that. They have been much maligned, especially by creditors and labor unions, for making it too easy for owners to avoid repaying debt and other obligations. But some mechanism for failure is an important part of a market system.

7. *On the advantages of Asian countries with "nearby" markets:* The markets of Asian countries were not nearby. They sell most of their exports to the United States and increasingly to Japan. Very little trade flows among the Asian exporters themselves. Ghana's proximity and access to the European Community is probably more advantageous than any market access enjoyed by the Asian exporters. They did, however, have a huge advantage in timing. East Asian exporters began their rapid growth at a time when world markets were growing much faster than is true today, and when foreign investment was more buoyant. However, the Asian markets themselves continue to grow, there may be some opportunities for the later comers such as Ghana to exploit those Asian markets and to attract investment from them. And although developments in Eastern Europe may well divert potential investment from elsewhere, these reforming economies will in time also provide additional markets for countries like Ghana. To be successful, Ghana does not need a large share of the world's capital or its markets; a small country can do very well, even in

difficult circumstances, by staying just a step ahead of it competitors.

9. *On the debt burdens of Asian countries:* Asian countries had debt, substantial debt in the cases of Korea and Indonesia, but their growth was not encumbered by debt. It is not difficult to service debt, even up to the equivalent of, say, a third or more of export earnings, if exports are growing at 10 percent a year or more. The key to sound debt management is to establish conditions under which debt is channeled into productive investments that contribute directly to the growth of exports and income. Of course, the outward-looking, market-based strategy accomplishes this automatically to the extent that debt is undertaken by private producers. Government, however, needs to discipline itself to borrow limited amounts to finance a growth-oriented development budget.

SESSION II

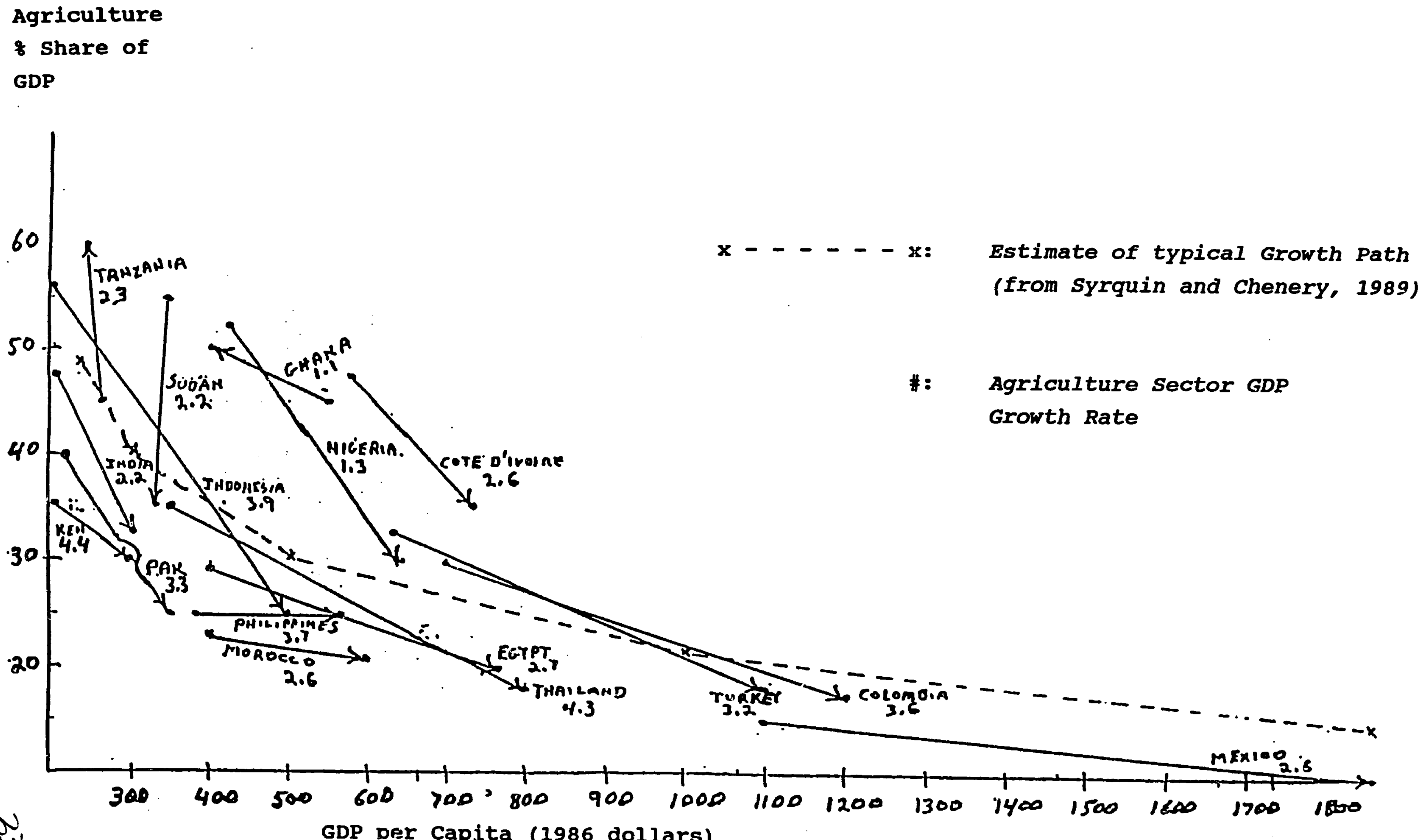
FEATURES OF ASIA'S AGRICULTURAL DEVELOPMENT AND ITS IMPACT ON ECONOMIC DEVELOPMENT

Richard H. Goldman

In Asia there are many factors which contributed to the strong economic growth performance in recent decades. But in virtually all cases rapid agricultural sector growth was an important part of the story. There is an apparent paradox that occurs in the development process. As economic development proceeds, agriculture's share in gross national product declines. In contrast, there are few examples of successful development that do not also involve dynamic agricultural sector growth. This declining share of agriculture in GDP as GDP per capita grows is shown for a number of countries in Figure 1. The countries in the upper left have high agricultural sector shares in GDP and rather low agricultural and national income per capita. It is apparent from the figure that a number of these countries have experienced substantial economic growth in recent years, and as this has occurred agriculture's *relative* role in the economy has declined. It is also a reversible process, as Ghana has discovered. When countries are going through an economic decline, often the agricultural sector holds up better than the rest of the sectors and agriculture regains its share.

Many people have observed this relationship and decided that agriculture has relatively little to contribute to the growth process. That is an important misunderstanding. It is quite possible that unless agriculture grows at a healthy rate, the transition to the lower right hand part of Figure 1 does not occur. The reason the agricultural sector share of GDP declines is not because agriculture grows slowly, but because in the growth process agriculture grows more slowly than the rest of the

FIGURE 1: *Change in GDP Per Capita and Agricultural Share of GDP: 1965-1986*



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economy. The recent record for Southeast and South Asia provides an important example. The growth experience of these countries for two recent periods, 1965-1980 and 1980-1987, is shown in Table 1. The countries are ordered according to their GNP growth rates in 1965-1980.

TABLE 1: *Agriculture Contribution to GNP Growth*

	GROWTH RATE				AGRICULTURE			
	Agriculture		GNP		Share of GNP (%)		Contribution to GNP Growth (%)	
	'65/'80	'80/'87	'65/'80	'80/'87	'60	'87	'65/'80	'80/'87
Indonesia	4.3	3.0	8.0	3.6	56	26	30	22
Malaysia	5.8	3.4	7.4	4.5	28	22	21	17
Thailand	4.6	3.7	7.2	5.6	32	16	20	11
Philippines	4.6	1.8	5.9	.05	26	24	20	86
Pakistan	3.3	3.4	5.1	6.6	40	23	26	12
Sri Lanka	2.7	3.1	4.0	4.6	28	27	19	18
India	2.8	0.8	3.7	4.6	47	30	36	5
Bangladesh	1.5	2.4	2.4	3.8	53	47	33	29

SOURCE: The World Bank

Some of these countries began the period with very high shares of agriculture in their gross national product. Indonesia is an important example because its agriculture GNP share, about 50 percent, was even a little higher than Ghana's current share. Some of the other countries, such as Malaysia, with its large mineral exports, had lower, but nevertheless reasonably high, shares of agriculture in GNP.

The percent of agricultural sector growth to overall GNP growth in each of the time periods is shown. Of the countries having the best performance of GNP growth during 1965-1980, Indonesia, Malaysia, Thailand and the Philippines all had agricultural sector growth rates that were among the highest in the world. It is evident from Table 1 that agriculture contributed a fair amount to the growth process. For example, 30 percent of economic growth in Indonesia during that period came from agriculture; in Thailand, Malaysia, and the Philippines the share was 20 percent.

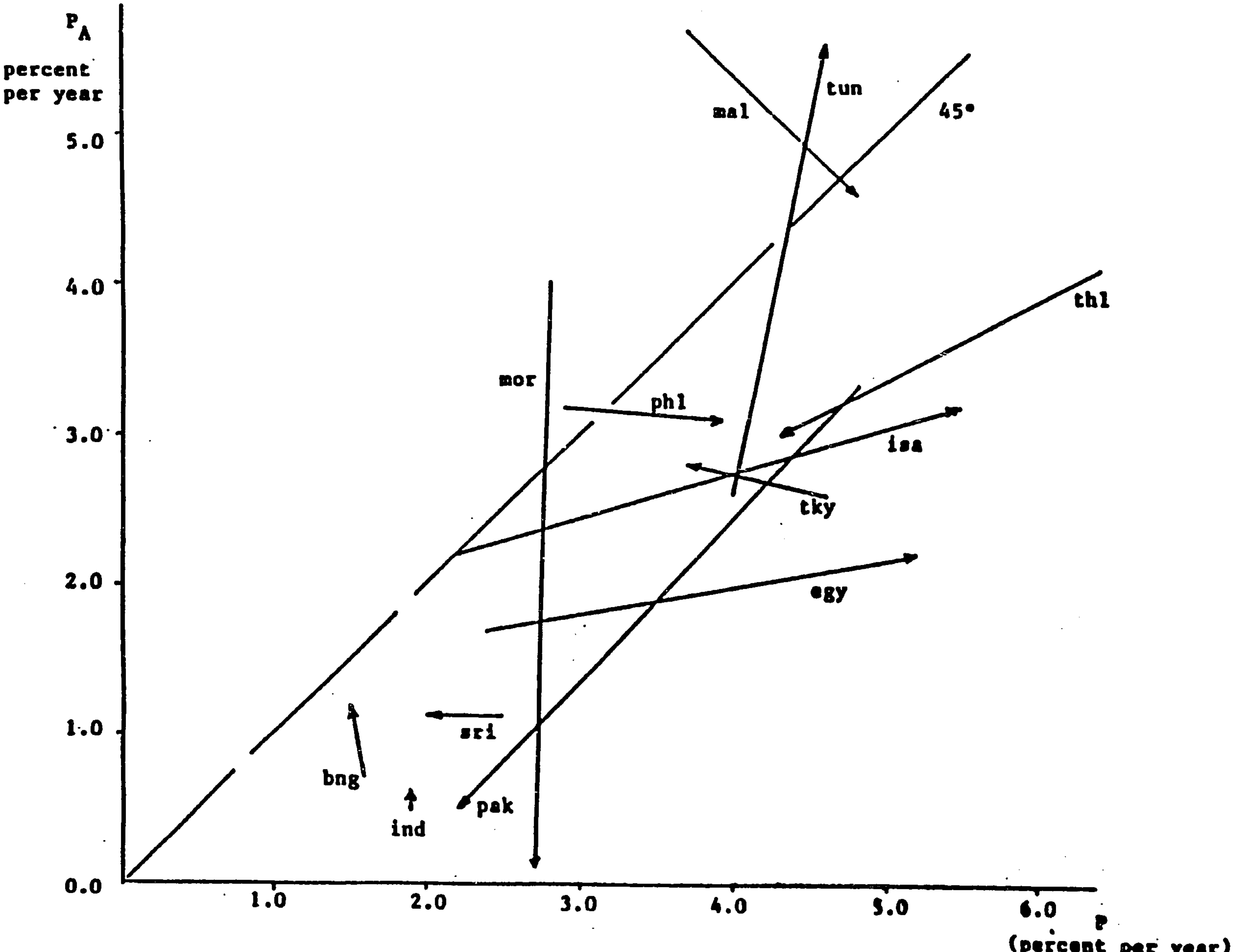
Agriculture's contribution to general economic growth depends upon its sector growth rate and on the initial share of agriculture in GNP. Agriculture will not grow rapidly if it is starved for resources, particularly transportation, marketing, research, and infrastructure; nor if farmers and the marketing system face poor incentives due to pricing policy, marketing and trade barriers, and mismanagement of the foreign exchange rate. All of the successful developing countries of Asia supported their agriculture sectors in strategic ways. On the other hand, each of these countries used tax and trade policies and financial intermediation to transfer to the non-agricultural sectors a portion of the economic surplus generated from rapid agricultural growth. Rural labor, food, foreign exchange earned in agriculture and agricultural raw materials were important sources of growth in the non-agricultural sectors. Agriculture can contribute to overall growth, while its own share of GNP declines, with policies and strategies that provide sufficient incentives for agricultural growth while at the same time promoting *efficient* investment of part of agriculture's growth dividend in non-agricultural sectors.

In Ghana, the current agricultural share of GNP is about 50 percent and GNP is projected to grow at five percent annually over the next five years. This is a lower growth rate than that achieved by any of the successful Asian countries. Some World Bank/Ministry of Finance projections show only 2-2.5 percent agricultural growth in Ghana, which is substantially lower than growth rates achieved in Asian agriculture. If GNP grows by 5 percent, and if agriculture is only going to grow at 2-2.5 percent, then agriculture will contribute about 25 percent to total growth during the next five years. This contribution is slightly higher than in Malaysia and Thailand and slightly lower than in Indonesia during their early growth periods. But during this period in Malaysia, Thailand and Indonesia, GNP growth of 7 or 8 percent was achieved, supported by agricultural sector growth in excess of 4 percent. If Ghana wishes to approach the growth rates of Asia, agriculture will almost certainly have to grow faster than 2.5 percent.

There is another important feature of Asia's economic growth process which relates to the level of rural incomes. In countries where agricultural growth is not accompanied by employment-creating growth in the non-agricultural sectors, then rural wage rates and incomes do not rise, and agricultural growth is offset by rural population growth. Inefficient public investment programs, overvalued exchange rates, and urban subsidies that promote excessive use of capital rather than labor all result in slow aggregate growth and even slower growth in labor productivity. Without discussing this in greater detail, Figure 2 suggests that the more successful Asian countries have promoted strategies that raised aggregate as well as agricultural labor productivity. Improvements in rural income have resulted not only from agricultural growth, but also from investment and technical change in non-agriculture which has increased labor demand and raised general labor productivity. This is further evidence of the strategic interactions between agricultural and non-agricultural growth as economic development takes place.

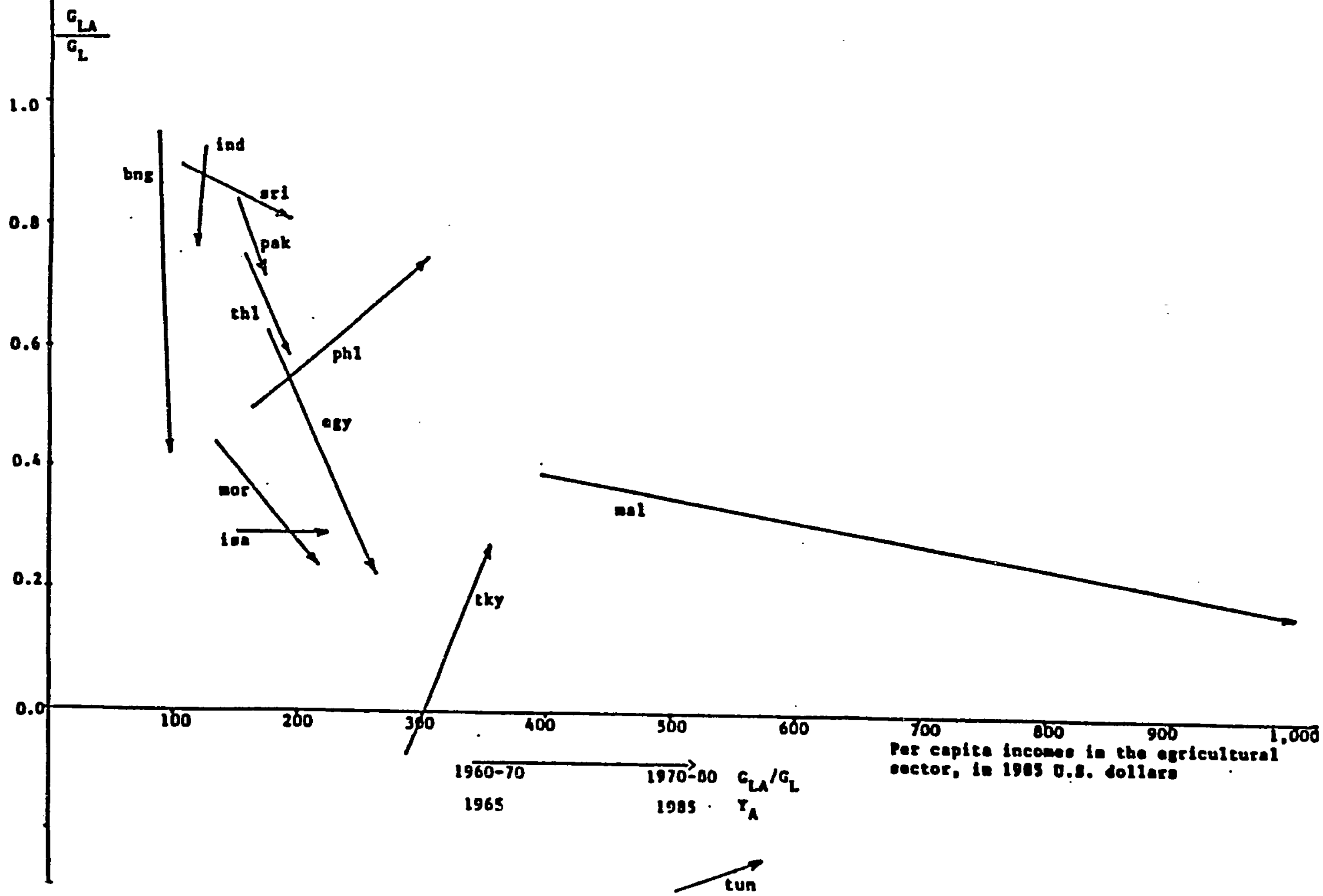
In a similar vein, Figure 3 shows the growth rate of the agricultural labor force relative to total labor force growth. A ratio of less than one means that employment of labor in the rest of the economy is growing faster than it is in agriculture. When

FIGURE 2: *Relationship Between Growth in Productivity of Agricultural Labor Force* (P_A) *and Growth Productivity of the Total Labor Force* (P), *1960-70 and 1970-80*



SOURCE: C. Peter Timmer, ed. 1991. *Agriculture and the State: Growth, Employment, and Poverty in Developing Countries*. Ithaca, NY: Cornell University Press

FIGURE 3: *Growth Rate in Agricultural Labor Force* (G_{LA}) *Relative to Growth Rate in Total Labor Force* (G_L), *Compared with Per Capita incomes in the Agricultural Sector* (Y_A), *1965/1985*

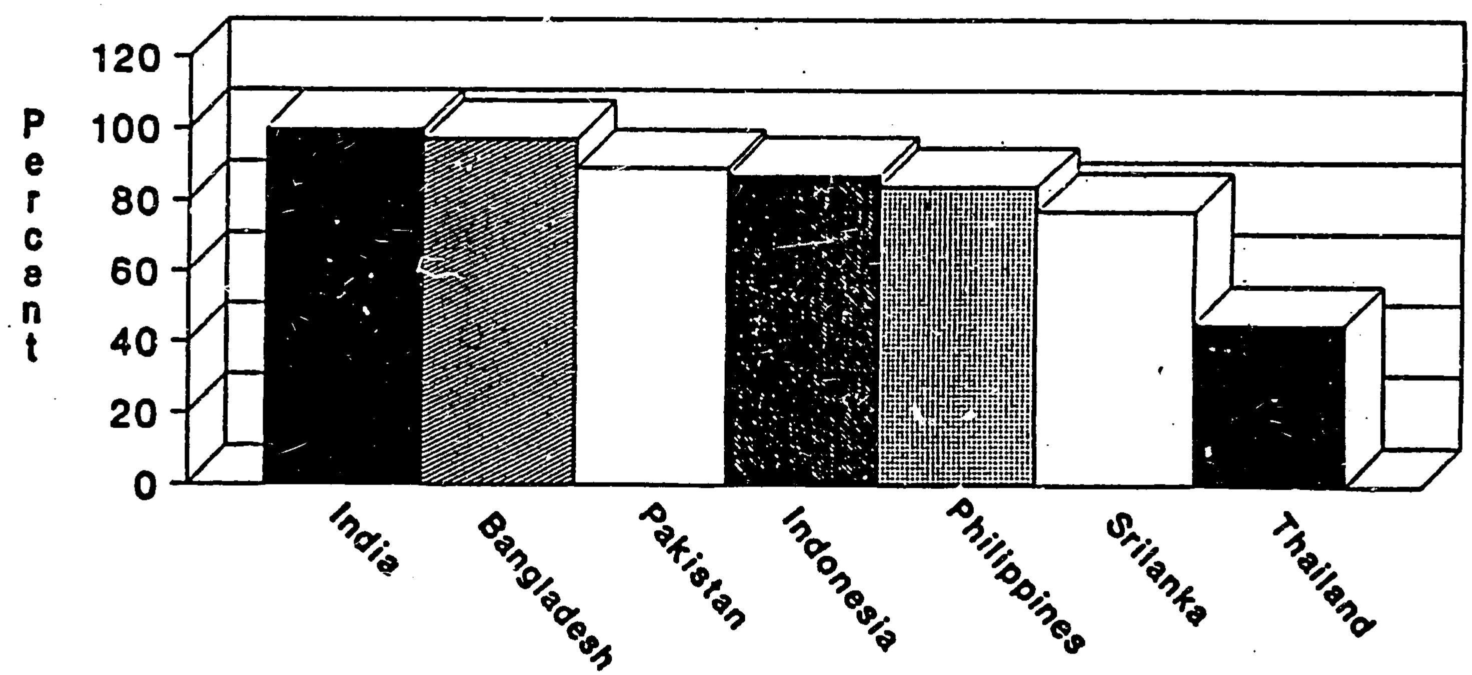


SOURCE: C. Peter Timmer, ed. 1991. *Agriculture and the State: Growth, Employment, and Poverty in Developing Countries*. Ithaca, NY: Cornell University Press this occurs simultaneously with rising per capita incomes in agriculture, it means that growing labor productivity in the non-agricultural industry is drawing labor away from agriculture, thus raising agricultural incomes. When relatively low agricultural labor growth coincides with low and slowly growing agricultural income, it is a sign that labor leaves agriculture not because the non-agricultural labor market is dynamic, but because returns to labor are low *throughout* the economy and more so in agriculture.

Asia's agricultural growth has involved both food production and agricultural primary exports. The two are not always easy to distinguish because some countries have become food exporters over time. Land was important in the process of agriculture growth in all the countries, but in most cases growth required substantial investment in the improvement of land, rather than the simple expansion of agriculture to under-utilized land. Figure 4 gives an indication of agricultural land use relative to potential in many Asian countries. With the exception of Thailand, most of these countries show agricultural land use that is much closer to potential than is the case in much of Africa. This means there is still quite a bit of room for land-based agricultural expansion in Africa, as there was in Thailand and in Malaysia (which is not shown in the figure).

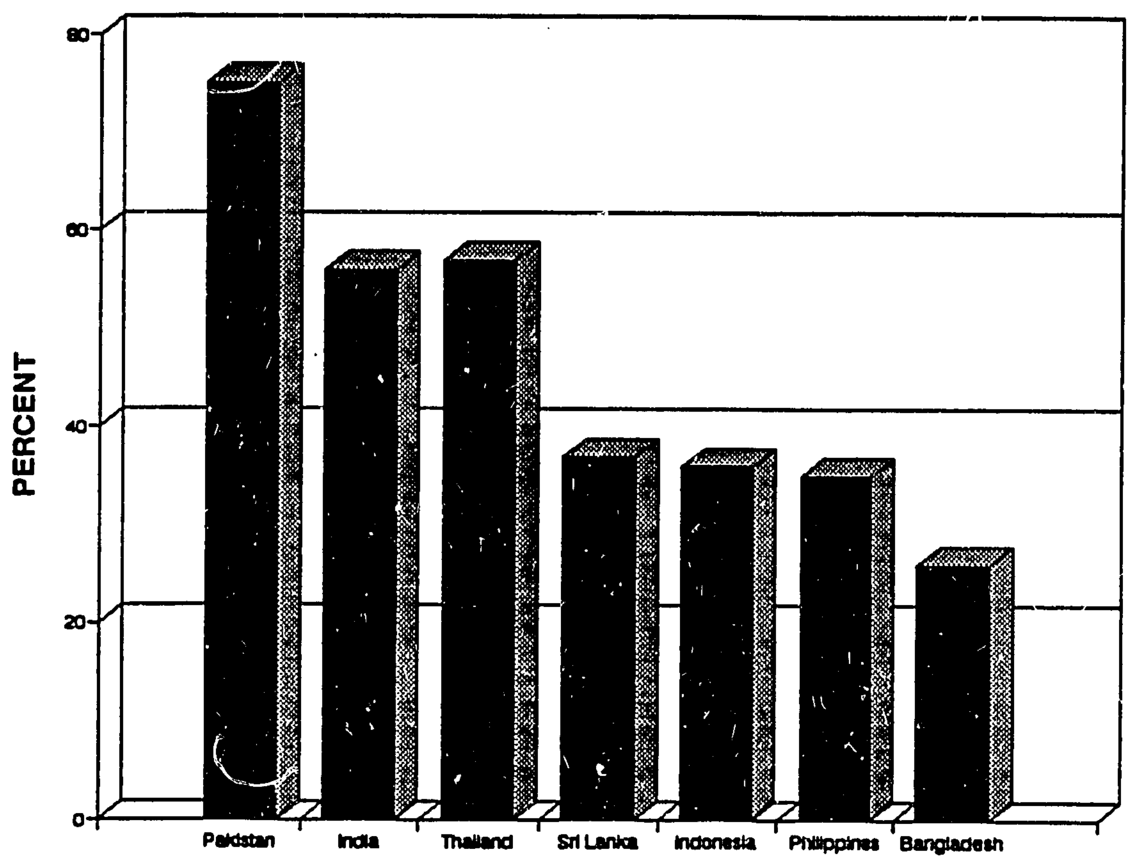
Land quality is an important source of agricultural growth. Figure 5 shows that good quality land as a share of the total agricultural land varies quite a bit among Asian countries. There are many examples of countries that have done very well in agriculture, such as Indonesia, the Philippines, and Sri Lanka, despite not having an abundance of high quality land. But in these countries much of the growth was concentrated on the better land.

FIGURE 4: *Percentage of Land In Use to Potential: Selected Asia, 1982/84*



SOURCE: FAO

FIGURE 5: *Share of Higher Quality Land in Total Land Use: Selected Asia, 1982/84*
(HIGHER QUALITY = IRRIGATED + GOOD RAINFED)



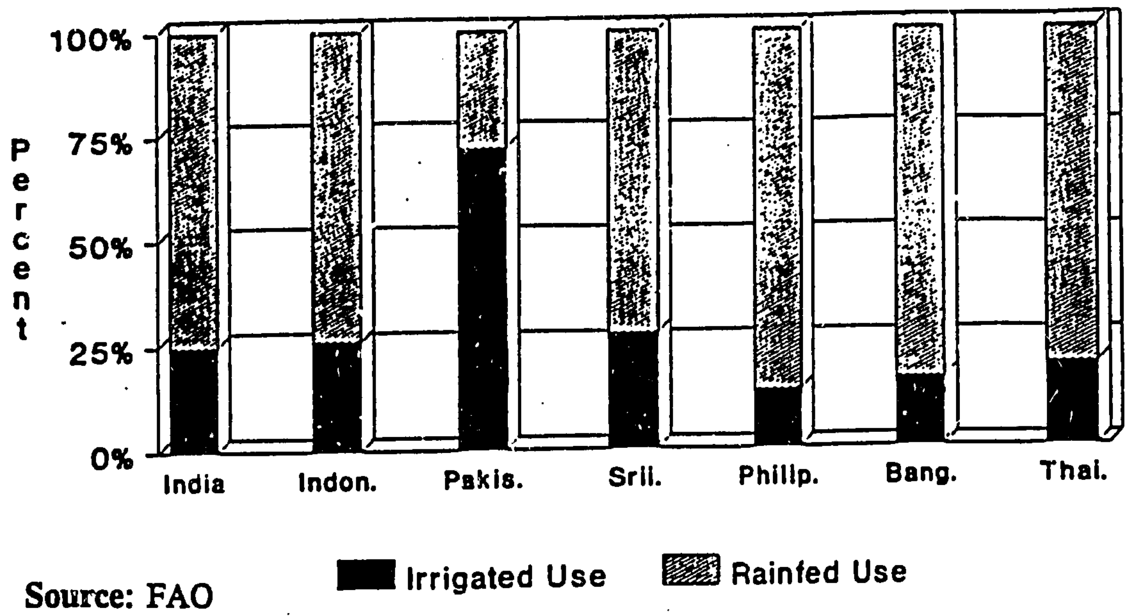
SOURCE: FAO

A key difference between Asia and Africa is the availability of irrigated land. As revealed in Figure 6, irrigated land constitutes an important share, though rarely more than 25 percent, of total agricultural land in most Asian countries. This land has been particularly important as a source of growth in food production in Asia. The relative importance of area growth versus yield growth in the expansion of Asian rice production over three periods of time is shown in Table 2. Since the mid-1960s, yield growth has dominated in most Asian countries. This reflects the impact of Green Revolution rice varieties, suggested in Figure 7. A further disaggregation of sources of growth in rice production is summarized in Table 3. Focusing on Southeast Asia, it is clear that irrigated land and fertilizer use drive the expansion of rice production in all countries except Thailand and the Philippines where non-irrigated land played an important role.

Despite the role of irrigation, it is important to note that a good deal of agricultural expansion in Asia has taken place on rain-fed land. In some cases this has happened with food or feed crops, such as with rice and maize in Thailand and the Philippines and cassava in Thailand. Even more important has been the success of primary tree crop exports, particularly rubber and palm oil in Malaysia. This expansion is the fruit of substantial investment in research and development of higher yielding varieties; coordination between private and public sector institutions; and sound international marketing that resulted in very profitable export drives, despite falling world prices for both commodities. These are important examples for African countries such as Ghana.

No country in Southeast Asia achieved the major portion of its agricultural success by trying to become self sufficient in food. Some countries, such as Malaysia, tried and for a time almost succeeded. But an important component of Malaysia's

FIGURE 6: *Percentage of Agricultural Land Irrigated: Selected Asia, 1982/84*



Source: FAO

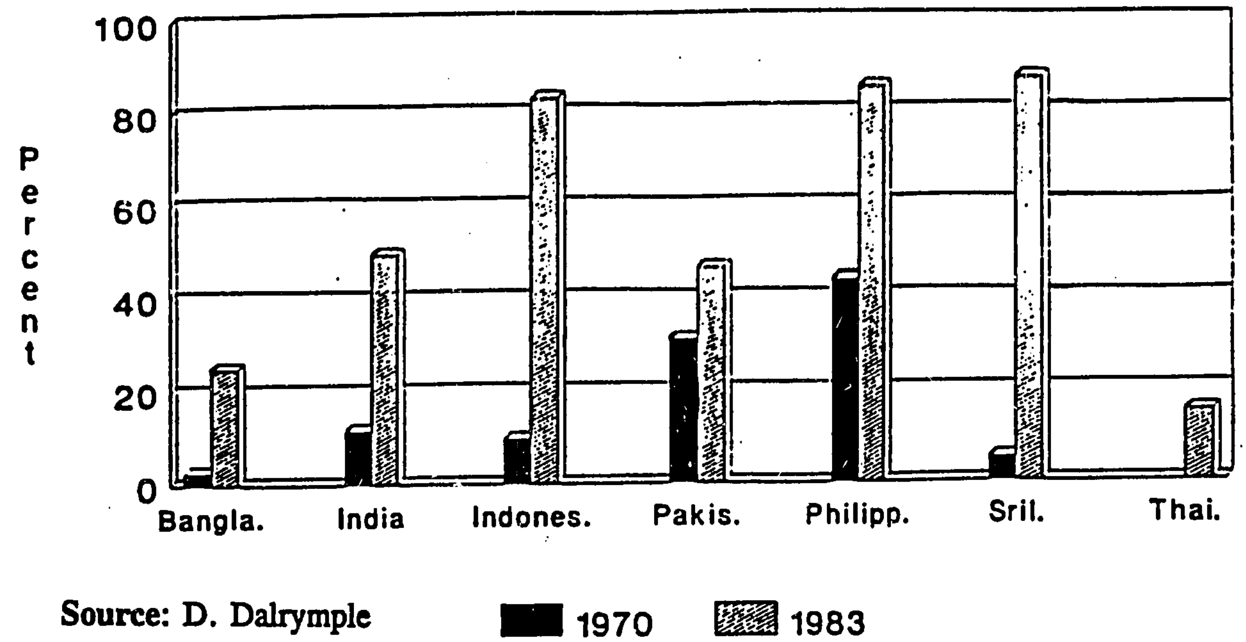
TABLE 2: *Rice Production Growth Rates, and Relative Contribution of Area and Yield to Output Growth, 1953-77*[a]

Region & country	1953–67 Output growth rate (percent)	1953–67 Percent contributed by Area	1953–67 Percent contributed by Yield	1967–72 Output growth rate (percent)	1967–72 Percent contributed by Area	1967–72 Percent contributed by Yield	1972–77 Output growth rate (percent)	1972–77 Percent contributed by Area	1972–77 Percent contributed by Yield
East Asia									
China	2.50	19	81	4.00	53	47	2.50	54	46
Japan	2.40	19	81	−2.50	—	—	0.90	—[b]	—
South Korea	2.80	52	48	2.40	—	—	5.40	10	90
North Korea	5.60	60	40	5.00	35	65	6.20	23	77
Taiwan	2.90	3	97	−0.10	—	—	1.40	23	77
Southeast Asia									
Burma	2.30[c]	69	31	1.10	28	72	2.70	26	74
Indonesia	2.60	49	51	6.40	24	76	3.30	46	54
Laos	3.50	100	0	1.70	—	—	0.70	60	40
W. Malaysia	4.60	59	41	6.90	59	41	−0.20	—	—
Philippines	2.60	53	47	3.10	20	80	5.80	27	73
Thailand	3.90	49	51	2.00	75	25	3.80	86	14
Vietnam	3.40	38	62	3.70	21	79	1.10	—	—[b]
South Asia									
Bangladesh	2.80	36	64	−0.10	—	—	2.80	27	73
India	2.60	48	52	3.10	23	77	2.90	30	70
Nepal	1.40	62	38	1.40	72	28	0.30	—	—[b]
Pakistan	5.30	62	38	5.90	4	96	5.20	87	13
Sri Lanka	4.80	46	54	5.30	44	56	1.50	13	87

Source: Derived from data in appendix tables.
[a]Based on 5-year averages centered on the years shown.
[b]Not calculated because area or yield declined over the period.
[c]Based on 5-year averages centered on 1958 and 1967.

FROM: R. Barker and R. Herdt, *The Rice Economy of Asia*

FIGURE 7: ***Share of High Yielding Varieties of Rice in Total Area: Selected Asia***



Source: D. Dalrymple

TABLE 3: ***Annual Percentage Rages of Growth Attributed to Growth in Irrigated Land, Nonirrigated Land, Fertilizer, and the Residual, 1967-77[a]***

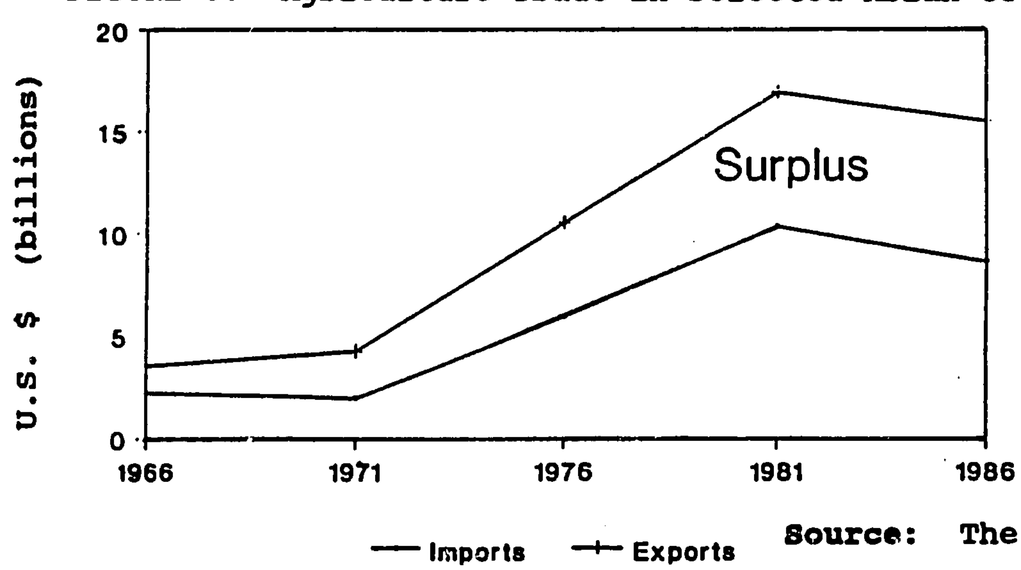
Region & country	1967–72 Total	1967–72 Irrig. area	1967–72 Non-irrig. area	1967–72 Fer-tilizer	1967–72 Resid-ual	1972–77 Total	1972–77 Irrig. area	1972–77 Non-irrig. area	1972–77 Fer-tilizer	1972–77 Resid-ual
East Asia										
Japan	−2.50	−3.60	0.0	1.20	−0.10	0.90	−0.40	0.0	0.30	1.00
South Korea	2.40	1.40	−1.70	2.00	0.70	5.40	0.50[b]	—[c]	1.30	3.60
Taiwan	−0.10	−0.30	−0.50	−2.60	3.30	1.40	−1.20	1.50	4.40	−3.40
Southeast Asia										
Burma	1.10	0.40	−0.10	0.20	0.60	2.70	0.30	0.40	0.80	1.20
Indonesia	6.40	1.50[b]	—	2.30	2.60	3.30	1.50[b]	—	2.90	−1.10
W. Malaysia	7.20	5.40	−0.20	0.90	1.00	1.50	0.90[b]	—	—	—
Philippines	3.10	0.80	−0.20	1.80	0.70	5.80	0.60	0.90	1.00	3.20
Thailand	2.00	0.20	1.30	0.20	0.40	3.80	—	3.20	1.00	−0.50
South Asia										
Bangladesh	−0.10	0.90	−0.80	0.30	−0.40	2.80	0.0	0.70	0.60	1.50
India	3.10	0.50	0.20	2.00	0.50	2.90	0.50	0.40	3.00	−1.10
Pakistan	5.90	0.40	0.0	1.50	4.00	5.20	4.50	0.0	1.80	−1.10
Sri Lanka	5.30	2.50	−0.10	0.70	2.20	1.50	0.40	−0.20	0.60	0.70

Source: Derived from data in appendix tables.
[a]5-year averages centered on the years shown.
[b]Data not available to separate contribution of irrigated from nonirrigated area.
[c]Data not available.

FROM: R. Barker and R. Herdt, *The Rice Economy of Asia* success was very high consumer rice prices, which deterred consumption. However, even Malaysia recognized the prohibitively high marginal costs of continuing to bring more and more land under irrigation to keep up with population and income growth. The countries that grew the fastest promoted the portions of their agriculture that had international comparative advantage, using good research, good policies for getting agricultural practices and inputs into farmers' hands, and good marketing systems. In general agricultural growth was supported with balanced macroeconomic policy and a stable real exchange rate. The end result of all this was the dramatic increase in net agricultural exports from Asia shown in Figure 8.

There are some features about pricing policies in Southeast Asia that are important to note. All countries assessed agricultural exports with border taxes in order to support general revenues. In all countries, governments attempted to stabilize

FIGURE 8: *Agriculture Trade in Selected Asian Countries*



Source: The World Bank

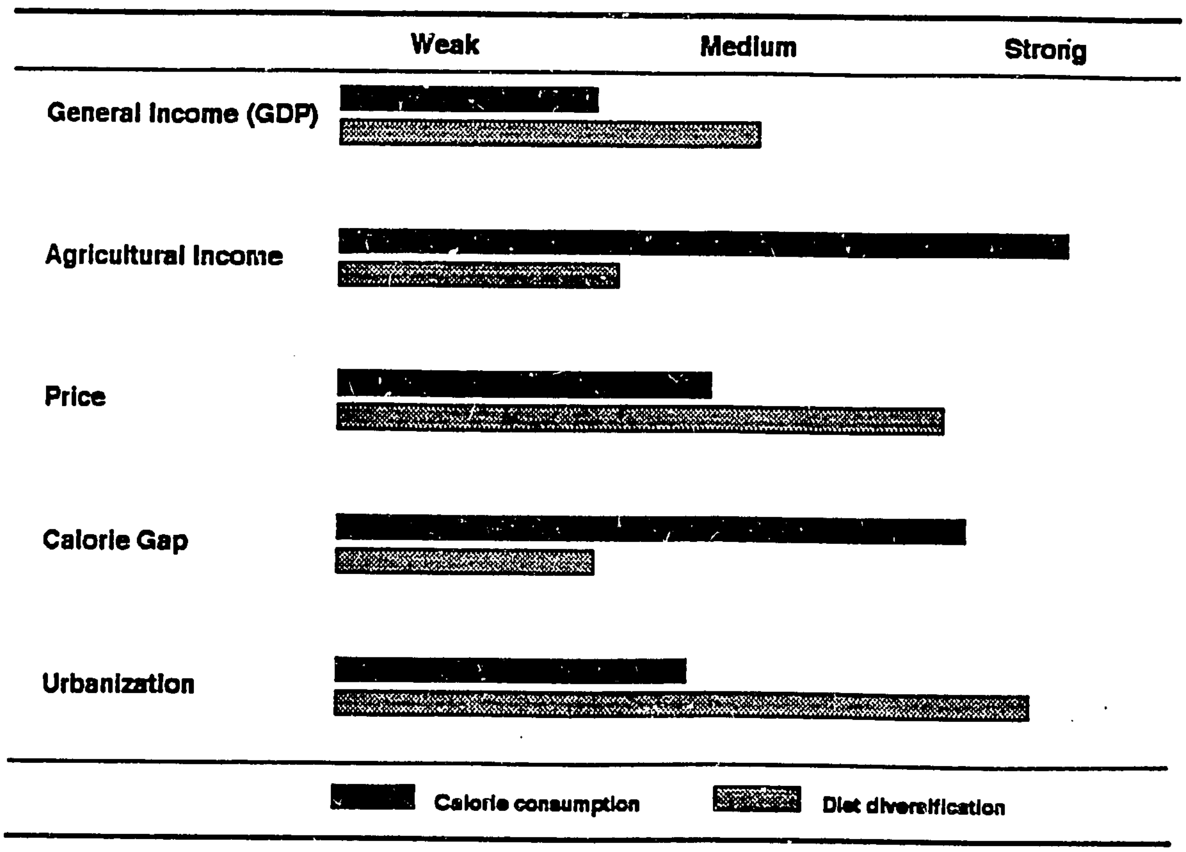
rice prices in domestic markets. Over time these policies sometimes resulted in modest protection relative to the world market. These policies, which in some African countries have led to disastrous results, were employed in the context of a larger economic environment which was very different from that found in many African countries. First, inflation was not allowed to get out of control in these countries, so that stabilizing the domestic price of rice did not result in large subsidies for imports. Correspondingly, with the exception of the Philippines, foreign exchange rates were well managed and did not become badly overvalued. This resulted in a very positive incentive system for the agricultural sector, which mostly produces tradable commodities. The exchange rate regime was reinforced by improvements in marketing infrastructure which tended to support farm prices and rural employment. Finally, new production technologies lowered farmer's costs of production. In this environment, governments could directly intervene in agricultural prices to satisfy important economic and social objectives without disrupting the generally positive agricultural incentive system.

What did Asian countries do with their Green Revolution food output? Most of these countries were net importers of rice on the eve of their Green Revolutions. One might expect, all other things being equal, that a very large increase in domestic production would simply substitute for imports, resulting in no change in the total availability in those commodities. On the eve of the Green Revolution, however, calorie consumption in these countries was generally quite low. The Green Revolution coincided with a dramatic increase in per capita food consumption and, consequently, a more gradual move toward self-sufficiency.

This consumption expansion was driven by demand forces with some assistance from consumer pricing policy. If demand or purchasing power among the relatively poor had stagnated, even though production of calories was growing, consumption growth would have been unimpressive.

The results of an investigation into the sources of demand for food are summarized in Figure 9, where the sources of demand for calories are measured by the black bar, with the other bar showing how the same factors influence the *relative* growth in demand for major staples, i.e. factors influencing diet diversification. The analysis highlights five different factors: the general increase in per capita income; the growth in agricultural sector income per rural inhabitant; the impact of real price changes; the calorie gap, a proxy for the level of food poverty; and urbanization.

FIGURE 9: FACTORS INFLUENCING AGGREGATE FOOD CONSUMPTION



The results show that the demand for aggregate calories is positively, but not strongly, influenced by a general increase in per capita income. Rural incomes, for which agricultural income growth is a proxy, has a much stronger impact on the demand for calories. There are a couple of reasons for this. One is that if small farmers are growing more, their families are usually eating more of what they are growing. There is an element of that process going on in Asia's agricultural growth. But there is another process as well: agricultural income tends to generate a lot of non-agricultural income in rural areas. When the agricultural sector grows rapidly, this generally promotes employment diversification and growth in rural income more generally through, among other things, the demand for services and small-scale manufacturing. These rural people have a high propensity to consume foods. Their calorie consumption is low and their energy expenditure is high. That's why agricultural income growth generates a large demand for calorie consumption.

The other feature which is important to recognize is that urbanization has a strong influence on consumers' choice of foods. In Asia, the process of urbanization has generally led to a reduction of demand for rice and an increase in demand for wheat-based products and other foods. In Africa, the process seems to result in less demand for root crops and maize and a relative increase in demand for rice and wheat-based products.

In summary, Asia's record of economic development has produced four important lessons for Ghana regarding the role of agriculture. First, in all cases rapid economic growth in Asia was accompanied by rapidly growing agricultural sectors. As shown earlier in this paper, the two must go together particularly when agriculture constitutes a large initial share of GDP, as it did in these Asian countries and as it does in Ghana. Another aspect of this growth contribution is that countries with a conducive agroclimatic environment, cheap labor, and expensive capita, usually have many of the prerequisites for comparative advantage in agricultural production. Growth strategies for agriculture can make efficient use of investment resources and generate critically needed foreign exchange to support expansion of other economic sectors. Finally, a growing agricultural sector places income in the hands of relatively poor people, thus stimulating important demand linkages in the economy.

The second important lesson is that agricultural growth must be supported by strategic investments. Research and development of new agricultural technologies, not only for food crops but also for primary export commodities, was critical to the success of Asia's economic development. A well designed and well managed agricultural research program will probably have a high rate of return in Ghana. The other category of strategic public sector investment is infrastructure. In Asia quite a bit of attention has been given to irrigation investment. Perhaps the more important lesson for Ghana comes from payoff to investment in transportation and communication infrastructure. Recent studies of Asian growth have identified the importance of these investments in the development of agricultural marketing systems.

A third lesson from Asia is the responsiveness of the agricultural sector to improved incentives. Relative prices within the agricultural sector influence the choice of crops, particularly the choice between tradable and non-tradable commodities, and the consequent foreign exchange earning capacity. Relative prices between the agriculture and other sectors influence the rate of investment in agriculture and the rate at which people, particularly younger adults, migrate out of the agricultural sector. The responsiveness of agriculture to price changes is substantially influenced by the extent and quality of public sector investment in technology development and rural infrastructure.

Finally, Ghana can learn from its own experience, with reinforcement from Asia, the lesson about the importance of macroeconomic stability. Instability tends to penalize most the sectors of the economy which have the greatest capacity to produce efficient and labor-using growth. Short run policies aimed at overcoming the negative results of poor macroeconomic policies tend to introduce marketing rigidities, discourage investment, and ultimately contribute to poor macroeconomic performance.

Repairing the damage caused by poor macroeconomic performance is a long-run process. Evidence from Asia suggests that a healthy agricultural sector is important to the growth process, particularly in its early stages. The agricultural sector, particularly after years of neglect, has only a limited capacity to grow in the short run. Successful longer run growth both of agriculture and the economy as a whole will require implementing the lessons from Asia.

SESSION III

FOREIGN INVESTMENT IN SOUTHEAST AND EAST ASIA: LESSONS FOR GHANA

Louis T. Wells, Jr.

Private Sector Managers

One of the striking things in every country that has undergone the kind of change that Ghana is experiencing is the impact of economic reform on the private sector, and particularly the dramatic impact on the job of the private sector manager. The degree of impact has differed somewhat from one Asian country to another, depending on the starting point for reform. Nevertheless, in all the countries of East and Southeast Asia where reform has taken place, the job of the private sector manager has changed dramatically over the past few years.

The change has occurred for two reasons. First, with economic liberalization comes a loss of protection from competition. Second, with an inflow of foreign direct investment, there is a change in the structure of industry. Sometimes the foreign investor is a competitor; sometimes the foreigner is a customer for local business. But in any event, economic reform changes the business environment.

Increased competition and the new environment affect how top management in private business spends its time. In countries where the development strategy focuses on import substitution, as much as 80 to 90 percent of the time of top management is spent dealing with government. The important tasks of management in an inward-looking economy consist of obtaining foreign exchange permits, seeking licenses to do things, making sure that protection stays in place, and so on. Managers make money for their firms through these activities, rather than through managing plants more efficiently or marketing products better. With liberalization and a more outward-looking economy, the job of management changes dramatically. After reform, management finds little reward from seeking protection; subsidies and licenses diminish in importance; usually foreign exchange is freely available. In contrast to the old activities, management time is spent on what may be viewed as more traditional management jobs: running the factory, making sure costs are low, and marketing the product. After reform, such activities might consume some 70 to 80 percent of management time. Such a shift has been apparent in Indonesia. The shift has been less obvious in Korea, because Korean firms were pushed very early, even in the import substituting days, to export. As a result, costs mattered more even before liberalization. In Indonesia and elsewhere, wiser managers saw the change coming, and some of the more successful responded before the need was apparent to all. In anticipation of change, they began spending more time on managing the factory and on marketing, gaining a headstart on others. Managers who did not make the shift are now, in many cases, finding their enterprises in deep trouble.

In sum, the impact of economic reform on the manager's job is significant, with or without an increase in foreign investment. But the entry of foreign investors intensifies competition for local markets, making costs and marketing even more important. Foreign investors also have access to overseas markets, but local firms could become their suppliers only if they could produce consistently high quality products at low costs. Again, more traditional management tasks seem to pay off.

Patterns of Foreign Investment

In none of the Asian countries that we have been discussing has foreign direct investment been a large source of capital. That is a very important point to remember, because it is tempting for the government policy makers to think that the foreign direct investor is going to fill the gap in a country short of capital. In fact, foreign direct investment has played a small role as a percentage of gross fixed investment in most countries. In

Africa, the contribution has been running about 4 percent of gross fixed investment; in Asia, only 2 percent. The larger figures in Africa reflect the more important role of raw material investment. In Latin America the corresponding figure is about 4 percent, and in all developing countries together, around 3 percent. The Asian experience, confirmed by other developing countries, teaches us that a shortage of capital is not likely to be solved by foreign direct investment.

That is not to say that foreign direct investment has been unimportant. It has been important in providing technology, in providing access to export markets, and, to an extent, in providing jobs.

Table 1

EMPLOYMENT FROM FOREIGN DIRECT INVESTMENT AS A PERCENT OF TOTAL MANUFACTURING EMPLOYMENT

Korea	10 %
Malaysia	20 %
Philippines	9 %
Singapore	55 %
Taiwan	17 %

Source: UNCTC, for recent years.

Table 1 shows employment from foreign direct investment as a percentage of total manufactured employment for five Asian countries. The role of foreign direct investment has been much more significant than its contribution to total capital would suggest. Singapore is the extreme case, where foreign direct investment is very large and has accounted for more than half of the employment in manufacturing. Since Singapore has no significant agricultural sector, a large role for foreign investment in manufacturing employment also implies a large part of overall employment. At the low end, in Korea and the Philippines, something like 10 percent of manufacturing employment has been provided by foreign direct investment, still a greater share than the contribution of foreign investment to total capital formation.

Table 2

SHARE OF FOREIGN AFFILIATES IN EXPORTS OF MANUFACTURES

Korea	25 %
Malaysia	35 %
Philippines	52 %
Taiwan	26 %

Source: UNCTC, for recent years.

Even more important is what foreign direct investment has done for export sectors. Look, for example, at the share of foreign affiliates in the export of manufactured goods from four countries in East Asia (See Table 2). Even in Korea, where foreign direct investment has been less important for total employment than in many other countries, about 25 percent of manufactured exports nevertheless have come from foreign affiliates. In Singapore the percentages would be even larger than for the countries shown in Table 2. In fact, as I will argue later, these figures understate the roles of such firms in developing manufactured imports, since foreign investors often serve as catalysts for local firms to export.

Foreign investment has been growing rapidly in recent years in Southeast Asia. But the sources of that investment are somewhat surprising. In Indonesia over the past two years, about two thirds of the foreign investment projects have come from Korea and Taiwan. Of that investment, about two thirds is export oriented, if one counts as export oriented an investment where 80 percent or more of the output is exported. Much of the rest of Indonesia's foreign investment has come from Hong Kong, Singapore, and Japan; very little has come from North America or Europe. Data for Thailand show a larger percentage of projects from Japan, though Taiwan is also a major investor. Thus, the wealthier developing countries account for a great deal of the foreign investment in the region. Singapore is an exception: U.S. investment, largely in the electronics sector, has been more important. Malaysia has also attracted substantial American investment in electronics.

The data on sources of investment in Southeast Asia offer lessons for Ghana. Foreign investment, especially export oriented investment, may well come primarily from East Asian countries. The reasons for the outflow from these countries are quite clear. Korea and Taiwan in particular have undergone dramatic change recently. The currencies of both countries have appreciated, making it more expensive for firms to export from those countries. Both countries have lost their access to the generalized system of preferences (GSP) in industrialized countries. And both countries are subject to strict quotas on a number of their exports, particularly textiles. As a result, firms from those countries have sought new export bases that offer lower costs and access to quotas and preferences in the markets of Europe and North America. Some developing countries have actively sought these investors to take advantage of these opportunities.

The inflow of such investment has affected local firms in Southeast Asia in important ways. Two or three years ago, a large influx of investment began coming into Indonesia from Korea to make athletic shoes, for example. As Korean plants became established in Indonesia, the major buyers of these shoes, Reebok, Adidas, Nike, and others, followed their contract manufacturers to Indonesia. As soon as their buying offices were set up in Jakarta, local firms had the opportunity of approaching these buyers and offering to manufacture the same kinds of shoes. Local firms also began to offer the Korean manufacturers the inputs, such as canvas, that those firms were importing from Korea, at lower prices with faster delivery. The local buying offices of Nike, Reebok, or Adidas could determine whether the inputs met their quality standards. This foreign investment from Korea made it possible for Indonesian firms to enter new export markets and to supply inputs to new exporting firms.

Mauritius is a country that recognized this pattern explicitly and early. As a result, the country sent missions to Hong Kong to recruit garment-making firms to Mauritius. In Hong Kong firms were subject to quotas and rising wage costs. Mauritius had lower wages and, as an ACP country like Ghana, had better access to the European Community than most Asian sites. Quite a few Hong Kong firms did invest in Mauritius, with results similar to those in Indonesia. Buyers from Europe began to visit the new plants in Mauritius. Firms owned by Mauritian entrepreneurs set up factories to supply those same buyers. Ghana might well try to emulate the success of Mauritius and some Asian countries in using foreign investors to export and to serve as catalysts for local firms to export.

Government's Role

Asian countries established a conducive environment that attracted foreign investment. The first reaction of most countries that decide to welcome foreign investment is to ask whether the country's incentives are large enough. And incentives in most developing countries have meant tax holidays.

There have been a number of studies that examined the impact of tax incentives on the decision of foreign investors whether to invest in a country or not. The results of those studies are quite consistent. For most investors, tax incentives--tax holidays in particular--play either no role or a very minor role in their investment decisions. (None of the studies has dealt with mining.) Other factors are much more important in the investment decision.

The findings are, in fact, a bit more complicated. What the studies have shown is that tax holidays have no detectable effect on foreign investment for investors who will produce for the domestic market. They have a very small effect on investors that are to supply export markets. In addition, some studies have asked whether tariff protection has an effect on foreign direct investment. The answer seems to be different from that governing tax incentives: protection has a large effect on the decisions of firms that want to serve the domestic market; rather obviously, it has no effect, or maybe a negative effect, on firms that are looking to sell in export markets.

One of the best illustrations of the limited importance of tax incentives comes from the experience of Indonesia, which decided in 1983 to eliminate all its tax holidays. Previously, the country had offered investors a complex package of tax holidays: up to 5 years of tax holidays were very common. In the context of a general tax reform, the Indonesians decided to do away with tax holidays and simply offer all firms an attractive income tax rate. They moved from a 45 percent corporate income tax rate to a 35 percent rate. In preparation, a careful study, using data from foreign investors, examined the impact on foreign investors of a 45 percent corporate tax rate plus 5 years tax holidays, versus a 35 percent tax rate and no tax holidays. That study concluded that the discounted rates of return to investors under the two possibilities would be virtually identical. Thus, it was concluded, investors would be essentially indifferent between the two possibilities.

The first reaction of many people to the abolition of tax holidays was that the Indonesians had made a major mistake. When they looked at the foreign investment figures in the year the tax holiday disappeared, they discovered that investment had seemingly dropped dramatically. But soon foreign investment in Indonesia began to climb sharply. Today the concern in Indonesia is how to slow down investment, because the country is receiving more than its infrastructure can accommodate.

We now know, with hindsight, why foreign investment fell in the first year of tax reform. There were three reasons. First, a number of foreign investors saw the change coming, and applied early to receive their approvals the year before tax holidays disappeared, gaining the lower general rates along with the tax holidays. Second, the foreign investment authority pre-dated some of the approvals so that they were assigned to the previous year, for the advantages investors would receive. Both of these reasons are evident in the especially large investment figures the year before the change. Third, at the time of the change, Indonesia underwent a deep recession because of a drop in the price of oil. Thus, the year the tax holidays were eliminated was not a great year for investment anyway.

A system where some companies are under tax holidays and some companies are not is a real burden on tax authorities. In August I visited two companies in Indonesia. The two companies were really one big factory, but there were two separately incorporated entities. They were incorporated separately because one company had started with a tax holiday for 5 years. As it expanded its line, another company was created on paper to obtain a new tax holiday after the original one had expired. Now how can the tax authorities allocate overhead between these two companies? Management will allocate most of the overhead to the taxable entity, not the nontaxable firm. Such a situation is likely with tax holidays, and poses insurmountable administrative problems.

Although a country cannot depend on incentives to attract investors, it may be that Ghana should maintain some tax incentives as a signal to investors that the country welcomes them. If so, there are ways of adjusting tax incentives to minimize their cost to the treasury. For example, make sure that the investor has to take depreciation -- even accelerated depreciation -- during the tax holiday period. Some countries allow the expensive option of delaying depreciation until the tax holidays are over, reducing tax payments for many more years. Similarly, limit loss carry-forwards from the tax holiday period. Since most investors lose money in the very early years, loss carry-forwards simply extend effective tax holidays. Better approaches to these technical issues can save a lot of money, but still give the appearance of offering significant incentives and thus a welcome to investors.

Unlike tax incentives, some policies do seem to play a significant role in attracting foreign investment. Every piece of research that has examined the decisions of foreign investors has found that the ability of the foreign firm to remit profits is very important. Most of the successful Southeast Asian countries have a currency that is fully convertible for the foreign investor. In some countries, a few restrictions remain on the books, but in fact, the foreign investor is free to remit earnings.

Second, there needs to be a quick and predictable approval process for investors. Whether the answer is yes or no, the foreign investor wants to know soon whether he can invest in the country. The outcome of the review process should be reasonably predictable at the outset, so that the would-be investor has a good idea in advance whether a project will be approved or disapproved.

In Southeast Asia, this increased certainty has been given to the investor in at least two countries that I know: Thailand and Indonesia. Indonesia, for example, long issued a list of industries open to foreign investment, a list that was vague and ill defined. Recently, this "positive" list was changed to a short "negative list." A list of acceptable projects almost always becomes very long and complex. Change to a negative list meant the introduction of a fairly clear, and short, list of industries that are closed to foreign investment. As a result, prospective foreign investors know before they go through the approval process whether their proposed projects will or will not be approved.

In Indonesia, it used to take one or two years to get a foreign investment proposal approved. Now theoretically it takes only some 30 days. In practice, it may take somewhere between 30 and 60 days, still a dramatic change from the past. One of the results has been to make Indonesia much more attractive to smaller firms, because smaller firms have found it particularly difficult to assign managers to negotiate with government officials for one or two years. Small investors have played a fairly important role in export development in Southeast Asian countries. The lesson is clear for Ghana: Small investors will, or should, play a fairly important role, and to attract them, approvals should be quick and predictable.

Ownership rules have had some impact on foreign investment decisions as well. I believe that all the countries, except Indonesia, in Southeast Asia now allow foreign investors 100 percent ownership if they export most of their output. Export firms are defined differently in different countries, but most countries would define a firm as an exporter if it sells 80 percent or more of its output abroad. Indonesia remains an exception, but Indonesia now requires only 5 percent domestic ownership for such a firm, and allows temporary 100 percent ownership in certain cases.

Especially critical in attracting export firms has been a mechanism that allows export firms to obtain duty exemptions on materials needed in their manufacturing process. The procedure has worked somewhat differently in different countries, but all of the East and Southeast Asian countries that have attracted export firms have had some kind of effective mechanism for exempting the exporter from duties on imports, or for providing rebates of duties on materials that go into exports.

Indonesia, for example, established a very effective exemption program. Officials learned that very few investors trust rebate programs, since it usually takes months to get duties back under such a rebate program, if exporters ever get rebates at all. Ministries of finance everywhere are much better at collecting money than they are at paying out money. As a result, investors have a strong preference for an exemption system over a rebate system. I would be surprised if investors in Ghana are any different.

If Ghana adopts such a system, it will have to include some safeguards, of course. In Indonesia, exporters have to put up a bond at the outset until they prove that they are honest and keep good books. The bond and bookkeeping requirements make sure that firms do not get away with selling duty-free imports locally. Indonesia has proved that there are effective but simple mechanisms that protect the treasury while encouraging exports.

Of the tasks that must be undertaken to attract foreign investment, reform of the approval process has generally proved particularly difficult. Almost all of the East and Southeast Asian countries have had some sort of screening process requiring foreign investors to apply for permission to establish facilities in the country. Hong Kong has been the important exception. There, the foreign investor has been free to invest without going through any kind of government screening. Thailand has been a bit more complicated. There, if a foreign investor wanted any kind of incentive, he had to go through an approval process with the Thai Board of Investments. If, however, the investor did not require incentives, it was free to invest without approval.

There have been legitimate reasons for the wide-spread approval processes in developing countries. They had their origins in legitimate fears that were common in those countries during the days of import substitution policies. I conducted a study a few years ago in one Southeast Asian country when the country still offered fairly high protection from imports. In the study, I examined the economic impact of projects proposed by foreign investors. The results of the study appear in Table 3. The findings are summarized in the first column of figures. The numbers, calculated under various assumptions, measure the percentage of the particular group of projects proposed by foreign investors that would have been harmful to the economy. Although there are weaknesses in the study, the results suggest that something like 30-35 percent of the projects proposed by foreign investors would have been harmful to the economy. "Harmful" is meant in a strict economic sense: the return on national resources used was less than 10 percent. In fact, in most harmful projects the returns were negative. It would seem then, that an approved process might be called for to attempt to reject those proposed investments that are harmful.

Two other studies have attempted to measure the economic impact of foreign investment in developing countries. They have all yielded very similar results. One concluded that about one third of foreign investment is harmful. Another concluded that about two thirds of foreign investment is beneficial. The emphasis on harm or benefit reflects the orientation of the particular

TABLE 3

Social Cost-Benefit Analysis of 50 Proposed Projects

Assumptions of Model	Distribution of 50 Projects by Social Rate of Return		
	Percentage of Projects with SRR of Less than 10%	(of which, % negative)	Percentage of Projects with SRR of 10% or more
No Tariff on Foreign Inputs[a]:			
Market prices reported by investor[b]	40%	(85%)	60%
Market prices except labor[c]	36	(94)	64
Market prices except energy[d]	44	(91)	56
Market prices except labor, energy, and foreign exchange costs[c,d,e]	32	(81)	68
20% Tariff on Foreign Inputs[f]:			
Market prices reported by investor[b]	28	(100)	72
Market prices except labor, energy, and foreign exchange costs[c,d,e]	26	(85)	74

[a] Assumes that prices for imported inputs as reported by the investor did not include 20 per cent duty imposed by government.
[b] Assumes that prices paid by the investor for all inputs reflected the value of the input to the economy; that is, market prices equal shadow prices.
[c] Assumes that the shadow price of labor was 70 per cent of its market price; that is, some 30 per cent of the project's wage bill went to workers who would be unemployed or underemployed in the project's absence; for all other inputs, market prices equal shadow prices.
[d] Assumes that the shadow price of energy was twice its market price; that is, energy used by the project could be sold on world market at a price 100 per cent higher than its domestic price; for all other inputs, market prices equal shadow prices.
[e] Assumes that the shadow foreign-exchange rate relative to the U.S. dollar was 120 per cent of the official rate; that is, the effective foreign-country cost of the project was greater than reported because the host country's currency relative to the dollar was overvalued by 20 per cent; for all other inputs, market prices equal shadow prices.
[f] Assumes that prices for imported inputs as reported by the investor included a 20-per cent duty; the recalculated price of imported inputs equal 80 per cent of the reported price.

Source: Dennis Encarnation and Louis T. Wells, "Evaluating Foreign Investment," Theodore Moran (ed.), Investing in Development: New Roles for Private Capital (Washington: Overseas Development Concil, 1985).

researcher. The important thing is that three studies, using different methodologies, have come out with relatively similar numbers. When they look at foreign investment projects in countries that have fairly high protection, something like a third are very questionable in terms of economic benefits to the host country.

Particularly important, in thinking about success, is the relationship between protection and harmful foreign investment. Table 4 is a bit complicated. It breaks down the projects in my study by industry and ranks the industries in order of the percentage of the projects that were harmful to the economy. Notice the measures of protection for each industry next to the percentage of harmful projects. There is perfect correlation between these two numbers. That is, the higher the tariff rate, or the higher the protection, the more likely it was that a foreign investment project was going to be harmful.

Now what does that mean for screening or approving and rejecting foreign investors? High rates of protection generate more harmful proposals and more need for screening. But, as a country liberalizes, opening the economy to imports, the odds of a foreign investment project being harmful decline sharply. If a country follows a policy of import substitution, with high protection, it has a legitimate reason to worry about foreign investment projects being harmful. As the country opens the economy, it has less reason to worry about foreign investment projects. This basic fact has been reflected in the actual policies of most of the East and Southeast Asian countries. As they have liberalized their economies, they have also paid less and less attention to screening foreign investment. The result has been a shorter and shorter period for the approval process.

As a country liberalizes, it can develop some simple rules of thumb to identify a few projects that might be harmful, and

TABLE 4

Protectionism and Social Profitability

Industry	Tariff Rate on Competing Imports: Nominal[a]	Tariff Rate on Competing Imports: Effective[b]	Percentage of Projects with Social Rate of Return of Less than 10%
Export-Oriented[d]	0%	0% or less	0%
Import-Substituting,[e] of which:			
Chemicals[f]	about 10%	26%	30
Pharmaceuticals	20–25%	150	33
Textiles	50–100%	191	50
Autos	about 100%	717	70

[a] Derived from government sources.
[b] Derived from a World Bank report on effective protection in the country.
[c] Assumes that prices paid by the investor for all inputs reflected the value of the input to the economy; that is, market prices equal shadow prices. Also assumes that prices for imported inputs included a 20-per cent duty; the recalculated price of imported inputs equals 80 per cent of the reported price. See Table 1, Market prices reported by investor.
[d] Includes all projects that export a majority of their output; most exported 100 per cent of their output.
[e] Includes industries with three or more projects selling the majority of their output in the domestic market.
[f] Excludes pharmaceuticals.

Source: Dennis Encarnation and Louis T. Wells, "Evaluating Foreign Investment," Theodore Moran (ed.), Investing in Development: New Roles for Private Capital (Washington: Overseas Development Concil, 1985).

thus subject to more analysis. Other projects could be accepted quickly and safely, if trade barriers are low. A result of a quick process is that more foreign investment is attracted. Accelerated approval and increasing foreign investment have occurred throughout Southeast Asia.

The argument for tight screening, even in countries with protection, is weakened when one examines the actual procedure in Asian countries. None of these countries, in spite of what they said, did a very good job screening. Most of them asked for a great deal of data from prospective foreign investors; the impression was that they were doing serious economic cost-benefit analysis. In fact, they conducted such analysis extremely rarely, primarily when the World Bank was looking over their shoulders. The loss they experienced as they began to screen less was not as much as it would seem from surface impressions. In fact, my study, referred to earlier, discovered that the screening process was just about as likely to result in approval for projects that were harmful as for those that promised net benefits to the economy.

Even though little if anything would be lost as the screening processes becomes quicker, a number of Asian countries have still had difficulties in getting the approval processes to move as fast as they wanted. The usual action, as governments have decided to speed up the process and make it easier for the foreign investors, has been to set up something called a "one-stop shop." Unfortunately, the results have led some foreign investors to call these organizations "one-more-stop shops," because they often have proved more of a hindrance than the help they were intended to be.

These failures provide lessons. The most effective investment authority in Southeast Asia is in Singapore. The Singapore Economic Development Board, as it is called, is differentiated from some of the less successful one-stop shops primarily by the fact that authority to make decisions rests in the Economic Development Board itself. Those agencies that have not worked well have been denied the authority to make decisions. The less successful are ones where decisions have remained in some sort of board or committee that sits above the one-stop agency. In these cases, the one-stop agency becomes an administrative organization that collects data from the foreign investor, but passes the decision up to its board, resulting almost inevitably in slow decisions.

Singapore's unusual step of granting the full authority to make decisions for almost every kind of investment to the Economic Development Board is a politically difficult one. It means that the ministry of finance, the ministry of industry, and whatever other ministries might be affected by foreign investment have their authority removed in an area that is important to them. Not many countries have gone as far as Singapore.

Even where decision making rests elsewhere, most of the one-stop shops have tried to help the investor with the follow-on permits for land, utilities, and so on. Again, the record shows a mixture of success and failure in Southeast Asia. In some cases, the one-stop shops have actually brought into the agency people from the ministry or the authority that has to grant the permit. They have insisted that the representative have the authority to sign permits. On occasion, the effort has worked. In other cases, one-stop shops have simply tried to guide the investor through the permit process. This approach has generally been less successful.

The handling of <u>technology</u> differed from that of foreign direct investment in Southeast Asia. Unlike Latin America, the Asian countries did not have elaborate schemes to regulate the imports of technology. Except for Korea and Japan, all these countries stayed out of this area. They did not try to control payments for technology fees; they did, for tax purposes, try to audit such payments. For tax measures, it is important to avoid high deductions for all transfers to the home office: for technology, for overhead, or for other costs. The Asian countries viewed the import of technology largely as a tax problem, not as something to be regulated separately. In contrast, in Latin America a number of countries tried to regulate technology flows, but almost all of those countries have now backed away from the attempt.

Finally, let me say a little about investment promotion. Economic reform has generally gone farther than simply welcoming foreign investors. A number of countries have actively sought such investors, through aggressive marketing programs. The experiences of the Southeast Asian countries differ considerably. Singapore's Economic Development Board has been very effective as a marketing organization. Some of the other countries, Indonesia and Thailand, for example, have been less effective in selling the country as a place to invest. They have depended more on luck and external factors to lead investors to the country; they have concentrated on making the country more attractive once a potential investor discovers the country.

Singapore's success can be illustrated by the case of Apple Computer. Singapore's Economic Development Board decided early that the Apple computer company should come to Singapore for manufacture. This was apparently before Apple had even considered going to Southeast Asia. The Economic Development Board sent representatives to Apple to tell them why the company should build a plant in Southeast Asia, and why Singapore was the right place for that plant. They got the investment.

Indonesia, in contrast, has depended much more on the fact that the Korean won and the Taiwan dollar have been revalued, that labor costs have gone up in those countries, that firms in those countries needed a cheaper site for manufacture, that Thailand was becoming overheated, that the Philippines looked politically unstable, and that the closest country with low wage rates that met the criteria of investors was Indonesia. Indonesia's success in attracting foreign investors rested less on promotion on the part of the country, and more on creating an acceptable environment, and on luck.

What are the prospects for Ghana? I suspect that Ghana is geographically out of the mainstream for this kind of investment. Thus, I think Ghana will have to convince firms to come to the country, since few firms will simply seek out Ghana as a place to build facilities. Thus, Ghana will have to do some marketing to sell investors on coming to the country. Luck, probably, will fail.

Some research has been done on how successful investment promotion agencies function. There are important lessons from the experiences of others in this area as well. Probably the two most successful developing countries in marketing themselves for investment are Singapore and Costa Rica. And probably the most successful more advanced country is Ireland. All have done very similar things, and provide lessons for Ghana.

The first lesson is to give serious thought to the strategy of investment promotion. There are three kinds of activities that promotion agencies undertake. One is image building; that is, advertising, sending general investment missions abroad, and so on. The mistake that most investment promotion organizations have made is to think that these activities will generate investment. They do not. Taking out ads in the New York Times or the Financial Times or Newsweek or Time does not generate investment. It may establish the preconditions for investment, but it does not cause firms to come to a country.

The second kind of activity, the investment-generating one, leads investors to the country. The principal method is personal selling. That is the kind of activity that I described for Singapore, where the agency identified a company that had reasons to invest in Singapore and sent representatives to call on its management. Costa Rica and Ireland have also concentrated on personal selling. Advertising and other image building activities play a role. Sometimes a country has to let the investor know of its interest and changes in the investment climate. But image building is no more than a first step.

The third kind of activity that promotion agencies undertake is servicing investors. The belief is that if existing investors are unhappy in the country, other investors will be discouraged. Thus, investment promotion agencies try to help existing investors, and also to help potential investors who visit the country. If Singapore knows that a potential investor is going to visit Singapore, the Economic Development Board will meet that investor at the airport, arrange a schedule for him, accompany him on all of his visits, and make sure that he sees things that are attractive to him, not only as a business person, but as an individual who might live in Singapore. Thus, they will make sure that the manager sees the schools his children might attend, golf courses, activities that his spouse might enjoy, and so on. That is a real marketing effort. But that is what a really successful investment promotion agency has to do.

The investment promotion agency that does a really good job has thought through its mix of these three elements of strategy. Every investment agency that is successful makes some room for each element, but the mix differs from case to case. If a country has dramatically changed its investment policy, and that fact is not terribly well known, the country should probably want to put more emphasis on image building at the outset, simply to inform investors of the new welcome. If the country and its policies are well known, promotion activities can go straight to personal selling. The appropriate mix depends on the country and the time. But if the promotion organization thinks of these as the elements of a mix, then it can design a strategy that makes sense for its own particular situation.

Promotion can be an expensive activity. As a result, an agency must target very carefully. It must decide what countries will receive the promotion efforts, and what industries investors are likely to come from, and what kinds of companies in those countries and industries are potential investors. No country can afford to take out ads frequently in the Financial Times and the New York Times. And no country can afford to visit every possible investor in the world. A country cannot establish investment promotion offices everywhere. Thus, it is very important for an agency to decide which candidates are serious targets for its country and not waste resources on others.

To target, a country must ask what advantage it has over other countries when it goes out to market itself. Costa Rica decided, among other things, to enter the market in the United States for cut flowers. That was a result of very careful analysis of the country's competitive advantage. Mauritius looked at its favored ACP access to the European Community for textiles, and then marketed itself first as a site for textile manufacture. Ghana must similarly ask what kind of investor it is likely to be able to attract and then go out after that kind of investor.

I suspect that most of Ghana's investors will, in the end, come not from the United States, Europe, or Japan; rather, they are likely to come from East Asia. That does not make promotion easier, since Ghana will be dealing with places where the business culture is different, where languages are different, and where it is a little more difficult to obtain data on firms that might come to the country.

One way of predicting the likely kinds of investors is to look at countries that are industrializing just ahead of the country in question. If there is a country that is in some ways similar to Ghana, and is a little ahead of Ghana in attracting foreign investment, look at what it has done, what kinds of firms have invested there, and then go after the same ones. I can tell you, for example, a lot about who is going into Indonesia next by looking at Thailand's recent experience.

A promotion program does not have to be expensive. Costa Rica has run an effective promotional program with a very small budget. CINDE, Costa Rica's promotion agency, has carefully thought through where its investors might come from, and exactly what industries and what size firms are serious candidates. CINDE did not rent an expensive Manhattan office, but had the manager they sent to New York work out of his home in Connecticut. The office was very successful, the result of several factors. First, CINDE knew exactly what kind of investors it wanted and could attract. Second, CINDE paid a large bonus to the official for attracting those investors. Third, CINDE had a very effective monitoring system to make sure that it knew what the officer was doing every month. The manager had to report which companies he visited and CINDE tracked each company. The manager was rewarded according to whether such companies invested or not. Such a control and performance-based system is a difficult thing to install within a civil-service structure. Many of the countries that have done well have set up their promotion agencies outside the civil service structure. Thus, they can install such systems and they pay enough to attract marketing-oriented people to the organization.

Although the Costa Rican agency was financed by AID and was entirely outside the government structure, some promotion organizations have been more mixed in structure, having characteristics of both private and government organizations. The goal is still to escape the constraints imposed by the usual civil-service rules.

In Asia and elsewhere it has proved very difficult to convert an organization whose past job has been primarily saying yes or no into an organization that tries to attract investors. Old attitudes concerned with safeguarding the country, rather than trying to attract new investors, change only with great difficulty. Either a new organization must be established or very careful changes must be made in the old organization if new attitudes are going to be reflected in the bureaucracy.

The experiences of promotion agencies in other countries offer further lessons, especially in terms of what kinds of activities are particularly unlikely to be successful. Four "don'ts" stand out:

First, do not waste money and officials' time preparing pre-feasibility studies. Potential investors place little value on the work that government officials do in the way of projecting income from their investments. More important, preparing pre-feasibility studies is based on an assumption of investment behavior that is simply not accurate. Pre-feasibility studies are based on an assumption that there are lots of investors with money who are looking for projects. That is not the way most foreign investment occurs. Most foreign investment takes place because there is a business that has a need for a presence in a particular kind of country. Almost always, the investor is going to stay in the same kind of business that the investor has been in at home or wherever he is operating. Rather than looking for some industry in which to invest, the firm is investing as a part of the strategy of developing its own business. If a shoe business in Korea is the investor, that investor is interested, for example, in a different site to manufacture shoes. That Korean investor is not simply looking for some sort of project in Indonesia. Most investors who might come to Ghana will also be coming in a business they know already. They know the figures for their own business better than any government official. Ghana must, however, make the country an attractive place to invest, and inform them of that fact. Ghana must provide information, such as availability of raw materials and so on. But the feasibility study is the investor's task, not the government's.

Second, do not rely on your foreign service personnel in embassies and consulates as a way to promote foreign investment. It simply does not work. Indonesia has tried it, as have a number of other countries. With one exception - Canada - they have all failed. There are good reasons for failure. Foreign service people are good people, and well trained, but their careers are made up of doing things that foreign service people do: diplomatic kinds of things, not commercial activities. Further, the promotion organization has no way of controlling foreign service personnel, or rewarding them for good performance in investment promotion. As a result, they do not spend the time on investment promotion, especially on going out and visiting prospective investors.

Third, do not promote too early. If the environment at home is not right for foreign investment, do not try to sell the country abroad. A marketing specialist would provide the same advice to a manufacturing firm: do not try to sell something that is a bad product. It is going to be harder to sell later if you induce people to try it too early. So get things in order at home before promoting abroad.

Fourth, do not sit in an office to conduct foreign investment promotion. The official must go out and call on investors. That is a difficult activity to organize, but it is what works. Singapore, Costa Rica, and Ireland have actually sent people out regularly to visit managers to try to convince them to invest in their countries. They have been successful; efforts based solely on office work have not.

In conclusion, establishing policies and, particularly, institutions that will attract foreign investors is not an easy task. Nor is success likely to bring huge sums of capital to the country. Yet, foreign investment does have a significant role to play in growth, particularly in providing access to foreign markets and knowhow.

SESSION IV

HUMAN CAPITAL FORMATION AND UTILIZATION: LESSONS FOR GHANA FROM ASIAN EXPERIENCE

Donald R. Snodgrass

Introduction

The experience of Asian countries can teach us a great deal about the contribution to development of human capital formation and, within that topic, education, defined broadly as the process of learning useful skills. In addition to human capital formation, these countries offer examples of effective human capital utilization, which is a vital complement to human capital formation. Investing in people provides few if any benefits for national economic development unless the policy framework encourages those who have been trained to use their skills in ways that contribute to development. Finally, our chairman has asked me to say something about policy formation and the role that policy research units ("think tanks," as they are popularly known), can play.

The Role of Human Resources in Economic Development

The importance of human resources for economic development can be illustrated with a little anecdote that could be titled "The Cloudy Crystal Ball." In 1965 I was a young macroeconomic advisor working in the Economic Planning Unit in Malaysia. At that time, because of ethnic strife within the Federation of Malaysia -- political conflict between the Malays who ran the government and the ethnic Chinese who ran most of the economy -- Singapore was expelled from the Malaysian Federation, in which it had been placed by British post-colonial maneuvering, and suddenly made an independent country. The consensus among economists at the time was that this was an economic disaster for Singapore. Such a small country was not thought to be economically viable. At that time, Singapore lived by providing financial, trading and transportation services to other countries in the region. But these nations were becoming more nationalistic and wanted to do these things for themselves. The general forecast was for doom and gloom.

What actually happened, as everyone knows, is precisely the opposite. Singapore prospered, in time becoming one of only five non-oil developing countries to enter the ranks of the developed countries in the past 25 years. It did so by averaging nearly 10 percent a year in economic growth, which took it from GNP per capita of perhaps $2,000 in 1990 prices in 1965 to more than $10,000 today. Essentially, this was all done by human resources. Singapore is a tiny country with no agriculture, no natural resources beyond its excellent harbor and strategic location, really nothing but its people. In developing through reliance on human capital, Singapore in many ways repeated the performance of some of the East Asian countries, starting with Japan, which also developed with no significant natural resources.

The best one-line explanation I have heard of how Singapore did it is that it decoupled itself from the Southeast Asian regional economy and linked itself to the world economy. Singapore's development strategy was a set of highly imaginative schemes to put its human skills to work in activities geared to the dynamic parts of the world economy. We heard something about what they did in manufacturing from Lou Wells. Among many other things, they also established a highly successful international airline, an economic activity that overcame the country's geographic limitations in much the same way as the Dutch and Norwegian merchant fleets had done in earlier times. Singapore also promoted tourism to a level that exceeds all other countries in the region, even though one would have to say it has fewer tourist attractions (other than shopping) than any other Southeast Asian country. They made a big thing of selling handicrafts from neighboring countries (there are no Singapore handicrafts). They have been absolutely brilliant at this whole process.

One lesson from this story is the familiar one that we live in an increasingly interdependent world. The Japanese were the first non-Western country to carve out a significant position for themselves in that world. The East Asian NICs have recently followed them. Some of the Southeast Asian countries are next in the queue, trying very hard to get into the developed group. A big question in development today is, who's next?

What I have described in the case of Singapore is, in a broad sense, a process of learning, of how a society develops a capability to do different things from what it has done before. And that is how I would define education. You may think of education as schooling, but only part of what is important for economic development is learned in schools; an equally or more important part is what education specialists call informal learning. This takes place outside educational institutions, principally in the home, the community and -- very importantly for us -- the workplace. Skills critical for economic development are acquired both in school and in these other settings.

You might ask at this point whether these skills can be consciously developed in other parts of the world. Very bluntly, are East Asians somehow different from the rest of us, or did the countries of East Asia and now Southeast Asia follow some systematic process of human resource development that other countries can emulate?

It is certainly true, on the one hand, that each country possesses unique qualities and skills. Ghana cannot imitate Singapore literally, and might not achieve the same results if it did. But it is also true that there is a systematic process of human resource development that can be emulated and can contribute very productively to economic development, particularly when it is combined with appropriate policies for human resource utilization.

The Process of Human Capital Formation in Various Developing Countries

There has been much debate about the economic value of schooling. Do schools really teach useful skills, or do they only give out pieces of paper that accredit people to do certain kinds of work? In the last few years interesting and important research has been done in Kenya and Tanzania which demonstrates quite conclusively that the skill provision component of schooling is an important contributor to people's earnings, which is the usual measure of private benefit from schooling.[1]

Education, health and nutrition activities, fertility reduction and migration have been identified as the most important forms of human capital formation. They have all been shown to be processes in which both individuals and governments can invest to obtain benefits, some of which accrue to the individuals and some to society generally. These activities have costs, which are financed partly by society through the government and partly by individuals. Intercountry patterns of human capital formation and its financing are worth examining.

Tables 1 and 2 compare Ghana with some Asian countries. Table 1 gives some measures of human capital stocks for recent years. Educational attainment is one basic measure. At an early stage of economic development the most important question is whether the population has acquired general literacy and numeracy. In later stages, one is interested in such things as the amount of trained technical and scientific manpower. Participation in the world economic system requires that increasing numbers of workers move from farms to factories, entering new kinds of work environment. For the bulk of the labor force at this stage, not much more is required than basic literacy. Most

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[1] John B. Knight and Richard H. Sabot, Education, productivity, and Inequality. The East African Natural Experiment. New York: Oxford University Press for the World Bank, 1990

TABLE 1

Indicators of Human Capital Stock: Ghana vs. Selected Asian Countries

INDICATOR	GHANA	INDIA	INDONESIA	CHINA	THAILAND	MALAYSIA	SOUTH KOREA	JAPAN
Adult literacy age 25+, 1985								
Total	53	44	72	68	91	74	95	
Male	63	58	80	80	85	83	98	
Female	42	29	64	55	87	65	91	
Mean years of schooling, age 25+, 1980								
Total	3.3	2.2	3.1	4.8	3.5	4.0	6.6	10.4
Male	4.5	3.3	3.9	6.0	4.1	4.7	8.1	10.7
Female	2.1	1.1	2.3	3.6	2.9	3.3	5.1	10.1
Scientific and technical manpower/thousand, 1980-88	1.5	3.0	11.7	6.6	1.2	n.a.	46.5	317
Life expectancy, 1990								
Male	55	59	62	70	66	70	70	79
Female	59	59	65	73	70	74	77	
Calories/day (% of requirement), 1984-86	76	100	116	111	105	121	122	
Real GDP/head (purchasing power parity $), 1988	970	870	1,820	2,470	3,280	5,070	5,680	13,650

Source: UNDP, Human Development Report, 1991 (New York: Oxford University Press, 1991)

TABLE 2

Indicators of Current Investment in Human Capital: Ghana vs. Selected Asian Countries

INDICATOR	GHANA	INDIA	INDONESIA	CHINA	THAILAND	MALAYSIA	SOUTH KOREA	JAPAN
Enrollment ratio, 1966-68 (%)								
primary (net)	n.a.	n.a.	100	100	n.a.	96	100	
secondary	39	41	48	44	28	85	86	
higher	1.5	6.4	n.a.	1.7	n.a.	13.9	37.7	
Public expenditure on education								
% of GNP (1986)	3.6	3.4	2.3	2.7	3.2	7.9	3.0	6.5*
% of budget (1986-88)	24.3	8.5	4.3	6.1	16.6	16.9	26.6	
Public expenditure on primary education (% of total, 1987-88)	27.9	41.8	n.a.	30.8	58.2	37.9	43.6	
Public expenditure on health (% of GNP), 1986	1.2	0.9	0.7	1.4	1.0	1.8	n.a.	6.8*

* Total (public and private) experditure as a % of GNP.

of the workers in the early export industries of Asia had been ex-farmers or housewives. Occasionally they were ex-craftsmen, but they were not highly educated people.

The top rows in Table 1 give statistics on adult literacy. The figures range from relatively low numbers in India and Ghana to almost complete adult literacy in a developed country like Japan, where the statistic is not even collected any more because there is no longer any need to ask whether people are literate. Korea is approaching universal literacy. Among the Southeast Asian countries one finds relatively high and rising literacy rates, estimated around 90 percent for Thailand and 70-75 percent for Indonesia and Malaysia. The Asian countries that are lagging in economic development, such as India, have considerably lower literacy rates. The correlation between literacy and development is strong.

One should look, by the way, not just at average, or only at male, literacy rates, but also at female literacy. In the early stages of industrialization, when labor-intensive assembly is often involved, much of the industrial labor force is female. For this reason, the position of Thailand, with 87 percent female literacy, is a lot more favorable to early-stage industrialization than that of India, with only 29 percent female literacy.

Mean years of schooling in the adult population is an indicator of the amount of human capital accumulated through formal schooling. You may notice that Ghana does not look too bad on that statistic, compared with places like Indonesia and Thailand. But all those countries are far behind a country like South Korea, much less Japan.

To touch briefly on health as a contributor to human capital, the equivalent of basic literacy is sufficient physical vigor that people can work a full day. Average daily caloric intake is one measure of that. Dick Goldman has observed that Ghana comes out low on this measure, according to data published in the UNDP's Human Development Report[2] Skepticism was expressed yesterday about whether these statistics are accurate.

The best readily available measure of the overall health of a population is life expectancy. The two basic manifestations of health problems are premature death and sickness (morbidity). Sickness is difficult to measure, or even define consistently, so we are left with life expectancy as the comprehensive measure. Here again we see the same sort of cross-country relationship. Ghana does not look very different from India or Indonesia.

These are some indications of relative stocks of human resources. Stocks of human capital are built up over time, like stocks of physical capital, as the cumulative result of investment activity over a period of years. Table 2 gives some indicators of current flows of human capital investment activity.

The countries that we have been talking about in East and Southeast Asia have all reached the point at which virtually all primary age children are in school. Some of them got there quite some years ago. The UNDP does not give a primary-level enrollment ratio for Ghana, but I understand that the gross enrollment ratio (total primary enrollment as a percentage of the number of children in the normal age range for attending primary school) is about 70 percent and rising. It is important that this number be kept moving in the right direction.

All the East and Southeast Asian governments pressed for a 95-100 percent net enrollment ratio at the primary level just as soon as possible. That is, they tried to make sure that 95

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[2] United Nations Development Programmes, Human Development Report 1991. New York: Oxford University Press for UNDP, 1991

percent or more of school-age children were enrolled. Even before that goal was reached, however, they began to feel considerable pressure from the population to expand secondary education. There problems arose because secondary education costs more per pupil-year and yields a mix of benefits that, compared to primary education, tends to go more to individuals and less to society in the form of external benefits. As secondary enrollment expanded, spending on education became large enough to create significant pressure on the government budget. When the government declined to make any more increases in its education budget, further expansion at the secondary level became heavily dependent on the willingness of the private sector to finance more pupil places. In South Korea, the popular response to this challenge was quite remarkable. The secondary school enrollment ratio continued to rise toward its current level of 87 percent, higher than in several developed countries. To reach such a high secondary enrollment rate, South Korean parents have spent large shares of their income on school fees and related expenses.[3]

The financing problem is even more acute at the tertiary (higher) level of education, where cost per pupil-year goes up even more sharply, particularly when the universities themselves are small. Since there are economies of scale in higher education, the financial problem is most severe in a small, poor country that wants to have its own university.

The measures of public expenditure on education given in Table 2 (it is difficult to get information on private expenditure on education) suggest that Ghana's indicators (the percentage of GNP or government budget devoted to education) are

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[3] see Noel F. McGinn et. al., Education and Development in Korea. Cambridge, MA: Council on East Asian Studies, Harvard University, 1980

really not bad. Quite a bit is being spent on education, but it does look as though a larger share of the money should go to primary schooling.

Because education is costly, governments often try to save resources by trying to match the output of the school system to an estimate of needs based on manpower planning. The goal of producing neither more nor less human capital than will be needed by the economy is a worthy one, but it is nearly impossible to achieve in practice. Both predicting future needs and holding the outputs of the school system within the needs estimates are difficult. Taiwan and Korea, for example, after achieving universal primary education very early (building on a strong heritage from the Japanese colonial period), rapidly expanded secondary and higher education soon after achieving independence. This led initially in both cases to educated unemployment and a fair amount of emigration of educated people, "brain drain." When these countries started growing rapidly, however, their human resource surpluses proved to be valuable assets on which the country could draw. There may be a parallel here with Ghana, which has, I believe, a surplus of human capital in relation to the current level of demand, but a shortage relative to future demand if the economy grows.

Access to higher education in the East Asian countries has been sharply restricted and made strongly dependent on academic merit, as indicated by success in competitive examinations. Extraordinary efforts are made to succeed in these exams. We have all heard about the "Exam Hell" in Japan and other East Asian countries. Access to higher education is less class-biased in East Asia than in most developing countries. Efficiency and equity both suggest that as you go up to higher levels of education the share of private funding must increase. It is very difficult, as well as unfair, to tax the general public enough to pay for an expensive type of education enjoyed by a very small number of people, who benefit substantially from the added income that higher education brings. Those seeking higher education should be expected to pay much of the cost. Scholarship schemes can be used to improve equity by helping outstanding students from poor families.

At lower levels of development, to repeat, universal primary education should be the first priority. In Indonesia in the early 1970s, the net enrollment ratio was 60-65 percent, possibly lower than in Ghana at present. The Ministry of Education had no plans for a radical increase, but the Chairman of the Planning Commission decided that continuation of this existing enrollment ratio was unacceptable. An analysis showed that the solution was quite simple, although it did require changing the existing policy and making some expenditure. It was to bring primary schools to the many villages in the country that did not yet have them. The rule had been that a village first had to build a school, then the government would supply teachers and textbooks. The policy reform was a grant-in-aid program, under which the national government helped finance school construction, then supplied teachers and textbooks once the school was built. The net enrollment ratio rose to 95 percent in 10 years. Increased access to schooling in Indonesia has, among other things, induced married couples to have fewer children and increase the amount spent on raising each child.

Indonesia did something very similar in health when it established a system of district-level clinics that made rudimentary health services widely and cheaply available to the whole country for the first time. Once the government has provided basic levels of education and health services, private demand and willingness to pay for these things is likely to rise, particularly if there is economic growth. People will finance investment in human capital if they can put the resources created to productive use. Demand may fall off, however, if there is little economic growth. Continued strong demand for higher education in the less rapidly growing Asian economies (the Philippines, Sri Lanka and India) is attributable partly to high levels of subsidization and partly to the low cost of schooling due to large surpluses of educated people that keeps teachers' salaries very low.

Policies for Effective Human Resource Utilization

Throughout the developing world, hardly any young people who have completed primary school and perhaps had some post-primary education want to be farmers, even though most of their parents were. Rapid economic growth and structural change are needed to accommodate the job aspirations of these young people. To absorb a growing supply of educated labor, strong demand from manufacturing and other "modern" sectors of the economy is needed. Intersectoral transfer of labor is an important part of economic development. When enough labor has moved to high-productivity employment, the labor surplus in agriculture and other low-productivity occupations begins to dry up and real wages start to rise. It happened in Japan and later in South Korea and Taiwan; it is happening right now in Malaysia, and is coming soon in Thailand. Development in all these countries is drawing a large share of the labor force out of agriculture, usually by educating the young and assigning them to different occupations from those of their parents.

To reach the point at which all surplus labor has been absorbed in high-productivity jobs, a country must adopt and maintain appropriate wage and employment policies. Appropriate policies are those which encourage employers to hire more workers, to raise employment and eventually move the economy to the point of labor shortage. Demand for labor depends basically on the wage-productivity relationship. Employers are interested in labor cost per unit of output and will expand employment as long as that is favorable.

Employers in mass production industries usually hire literate workers, then teach them the rest of what they need to do a particular job through on-the-job training. This was the pattern followed in Japan, even for relatively high-level skills,[4] and it is being duplicated in the NICs and would-be second-generation NICs.

No very high level of formal education is required to start this process. In Malaysia and Thailand, for example, thousands of women have been hired straight out of the rice fields and quickly taught what they needed to know to assemble electronic components. Japanese plant managers say that within a few months labor productivity in these factories rose to between 1/2 and 2/3 the level of factories in Japan. Given the large wage differentials between these countries and Japan, this level of productivity is very attractive to a Japanese firm and makes it eager to expand its offshore employment. Later on, when a country moves beyond the basic assembly stage, as the NICs have done, more sophisticated skills are increasingly needed. These are often learned in formal education programs. But in the early stages some basic formal education is all it takes to get started; on-the-job learning does the rest.

What happens, however, if there are not enough factories and other modern employers, or if those institutions are not creating enough demand to soak up the school leavers? This can lead to educated unemployment and brain drain, but more commonly people find ways to employ themselves. They do so because, in contrast to industrial countries, their countries have no institutionalized programs to support the unemployed. Unless there are family resources to fall back on while the unemployed worker conducts a

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[4] see Solomon B. Levine and Hisashi Kawada, Human Resources in Japanese Industrial Development. Princeton, NJ: Princeton University Press, 1980

long search for a "suitable" job, people are more or less forced to employ themselves. This is what creates small-scale enterprises and the "informal sector," which operates outside the regulatory framework. It is common in early stages of development for small and informal enterprises to employ three-quarters of the labor force in manufacturing and perhaps an even larger share of service-sector workers.

What should the government do about this kind of economic activity? Most official efforts to help small scale enterprises and the informal sector are not very productive. Governments often undertake small business extension programs, drawing an analogy to agriculture. But these efforts face a more difficult task than their counterparts in agriculture because not only are there many producers, as also in agriculture, but their products are highly diverse. The people who run smallest and simplest of these enterprises are experts in survival. Civil servants and other members of the middle class often cannot even imagine how small-scale and informal producers get by. It is socially arrogant to think, as officials often do, that these people need to be taught. They are often highly skilled at making the best of their limited opportunities, at what economists call constrained maximization. What they need most is expansion of their opportunities.

The type of program most commonly launched to help small-scale or informal producers and traders is the specialized small-scale credit program. These programs are often based on the assumption that small business people are poor and cannot afford to pay high interest rates. Therefore, it is assumed, they must be provided with credit at a low interest rate, which means subsidized. This very first step is where these programs go wrong.

In the late 1970s, HIID was asked to study several rural development programs of the Government of Indonesia. The question at the time was how the Government could ensure that more of the money it was receiving from oil exports at high world prices reached and benefitted the 60,000 villages in the country.[5] One of the programs we looked at was rice intensification, a program to help farmers to raise their yields and incomes by planting new rice seed varieties and adopting new cultivation techniques. This program presented a strange paradox. While rice production was climbing, the credit component of rice intensification, which had been thought necessary for the success of the overall program, was collapsing. The government had vacillated between encouraging farmers to stay in the program, in part by forgiving their credit arrears, and pressing them to pay their debts, which tended to drive farmers out of the program. They were failing on both fronts. Arrears were rising and participation was falling. By the early 1980s the credit program was on the verge of collapse, even as Indonesia approached national self-sufficiency in rice, the overall goal of the rice intensification program.

It happened that the institutional network that had created to carry out this failing credit program was quite sound. It consisted of some 3,500 rural banking offices spread around the country. These units were part of a government-owned commercial bank called the Indonesian People's Bank, known by its Indonesian initials, BRI. They were generally well-staffed and located in the right places. HIID suggested that they be given a better credit program to implement, one that would serve all kinds of

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[5] This experience is related in Donald R. Snodgrass and Richard H. Patten, "Reform of Rural Credit in Indonesia: Inducing Bureaucracies to Behave Competitively." In Dwight H. Perkins and Michael Roemer, eds. Reforming Economic Systems in Developing Countries. Cambridge, MA: Harvard Institute for International Development, 1991

rural producers, including the numerous small trading, service and manufacturing enterprises in addition to farmers.

The starting point of the reform was the opposite of the usual premise. The government set an interest rate that would permit the bank to make money on the program. It squared this approach with concern about poor people -- what they could pay and so on -- by comparing the new loan terms with those offered in informal rural credit markets, where many rural producers were borrowing at 100 percent a year or more. This was the effective alternative to older government programs that charged 12 percent a year on the assumption that that was all people could pay.

The new program charged about 30 percent a year, which was high relative to the old government programs but a bargain from the customers' point of view, considering the interest rates that they were paying on loans from informal sources. It was also a rate which permitted BRI to profit from its rural operations. Calculations indicated that within 18 months the government bank could go from having to subsidize about half the cost of the program to a breakeven point. BRI achieved precisely that, and in time its small-scale lending program went on to become one of the largest and most successful in the world.[6] Rural banking became a principal profit center for BRI. Most significant of all, the success of the rural credit program opened the way for a rural savings program that also became very large and successful.

Earlier, the central bank had instituted a national savings scheme, in which savers were paid 15 percent interest. As long as the BRI was lending at 12 percent, it understandably had little interest in attracting savings accounts on which it would

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[6] see also Richard H. Patten and Jay K. Rosengard, Progress with Profits. The Development of Rural Banking in Indonesia. San Francisco: ICS Press, 1991

have to pay 15 percent. But when it started lending at 30 percent, savings accounts at 15 percent became very attractive to the Bank. To make them attractive to customers as well, BRI did a couple of things. They abolished a limit on withdrawals which the national scheme had imposed, quite unnecessarily and annoyingly. Customers did not like being told they could not withdraw their funds when they wanted to, even though in practice they seldom withdrew more than once a month. The Bank also added a lottery feature, but that was just icing on the cake. This savings program has now outgrown the credit program, so that rural savings now finance the entire rural credit program and some urban lending as well.

The rural credit program that I have described succeeded in reaching a broad cross-section of small-scale and informal producers and helping them expand their businesses and employment. Its success shows how helping banks learn to expand their services can bring about a significantly better fit of available capital and human resources. It also demonstrates that targeted and subsidized small-business credit programs and the technical assistance activities so often associated with them are not needed to bring about the result, and may even impede its realization.

To recap the main points about human capital formation, a developing country should try to gear the educational system, and its human capital formation efforts more broadly, to the needs of the expanding modern sector. It may well overshoot current needs, but if modern sector development is as successful as it has been in some of the East and Southeast Asian countries, demand will soon catch up and run ahead, pulling the educational system along with it. If a substantial share of the cost of secondary and higher education (as well as higher-level and more expensive services in other areas) is passed on to the beneficiaries, the risk of wasting public resources will be minimized.

If the modern sector does not expand fast enough to absorb all the educated job-seekers, likely results include a growing informal sector and more small-scale enterprise. In this case, it is important to have appropriate policies toward small enterprise. This is a complex matter, but two aspects of appropriateness bear emphasis. The first, discussed earlier, is the inefficiency or even futility of many of the programs -- especially credit programs -- conventionally proposed to help out these enterprises. Efforts to help the banks expand their activities to smaller customers and outlying areas appear more promising than special programs and institutions. The second is the importance of deregulation. In many developing countries, programs to assist small scale or informal enterprise coexist with policies and regulatory frameworks that harm these firms more than the programs help them. Government can achieve more, and do so more rapidly and easily, by eliminating harmful policies and regulations than by inaugurating well-meaning but cost-ineffective or even ineffectual small industry programs.

Policy Research Centers in Developing Countries

I will conclude with a brief discussion of policy research centers in developing countries. This is highly relevant, I think, to the whole discussion of this seminar. HIID has worked with a number of policy research centers in East and Southeast Asia, including the Korea Development Institute, the Thailand Development Research Institute and smaller and less well established centers in the Philippines, Malaysia and Taiwan. Much of my own work over the last decade has been with an Indonesian institute called the Center for Policy and Implementation Studies.

I will deal briefly with some of the major issues that emerge from the experience of the institutions that we know about. The first question that I want to raise is research vs. policy influence. Frequently when a group of PhDs is assembled from any field (usually it is economists), mostly people just out of graduate school, the inclination is to undertake research of the type and quality that could be published in academic journals. But this may be very different from doing research that will actually influence policy in the country. True, there is something to be said for doing publishable research. It can give the institution and individuals involved prestige and international recognition. But if the aim is to influence national policy, a deliberate push in that direction is likely to be needed because it probably will not happen naturally.

A second issue is how to go about trying to influence policy. To do that, one should begin by considering seriously how the policy-making process works in one's country. To simplify the issue, imagine two polar alternatives, an open model and a closed model. In the open model, there is a lot of public debate and widespread participation in policy making. In this case, an effective policy research center needs to be very active in that process. Publishing books and articles, holding and attending conferences, giving interviews -- these should all be important parts of its activities. The center that I know in Malaysia, for example, participates actively in this kind of public policy debate. In 1990 Malaysia ended an important 20-year period, in which it had tried to make major changes in employment, education, ownership and poverty patterns. This led to a big national debate about what to do next. The Malaysian Institute of Economic Research was able to influence that debate by beating the government to the punch and publishing its own blueprint for the country's future before the official one (which resembled, and was probably influenced by, MIER's) was released. MIER also published its own outline for tax reform and regularly releases economic forecasts that deviate from the official ones.

This approach will not work, however, where policy making emerges mainly from internal government discussions and public debate has little influence. In Indonesia policy making has generally been a closed process. The Center for Policy and Implementation Studies was created by the group of economists who have been very influential for over two decades in economic policy in that country. Its purpose was to provide them with information that can be used in internal government policy discussions. They want the Center to work exclusively for them. They pick the topics, provide all the financing and expect to see the output first so they can make use of it. They do not permit CPIS to do contract work for others, to accept outside funding or to participate too actively in public policy debate. This type of center has two great advantages: excellent access to information and strong assurance that its research will be used if it is usable. The problem that may arise is how to maintain the center's independence. CPIS has retained its freedom to reach independent conclusions because it is plugged into policy making at a very high level. This permits it to make judgments about government policies and programs in a particular sector without becoming a captive of the sector ministry.

Another key issue is the organizational form of the policy research center. Some centers are located within the government, but this may compromise their independence and make it hard to attract good professional staff. Commonly there are few good people available to do this kind of work. To attract them, it is usually necessary to pay more than civil service salaries. This becomes easier if the center is located outside the government. Several of the centers that I know were established as foundations, even if formed by policy makers and possibly funded with government money.

Attracting, retaining and developing appropriate professional staff are critical activities for the success of any policy research center. A national surplus of trained people, including citizens who have gone abroad, can be turned to the center's advantage. The Korea Development Institute initially drew most of its senior staff from Korean faculty members of American universities and most of its junior staff from students in American graduate schools. But formal training, however good, must be complemented with on-the-job experience. Good formal training provides an invaluable base, but substantial experience must usually be acquired before even a trained professional can successfully undertake major responsibility for policy research. The difficult skills of designing studies that will yield policy implications, carrying them out and communicating the results clearly and persuasively to policy makers are best learned on the job.

A final point on the issue of policy influence ties into the discussion earlier this morning about people who seldom leave their offices. In some developing country research institutes, staff members do indeed sit in their offices and analyze statistics, seldom venturing out into the real world. We have found, particularly in our Indonesian experience, that it is invaluable to have a field research component in the research design. CPIS typically starts a study by trying to understand national policy and program objectives. It then goes out to the field to see what is really happening, particularly why government programs are not working out in practice as they were supposed to in the original program design. The final step is to bring the lessons of experience back to the policy makers for use in a revised and improved program design. I believe that policy researchers should spend a significant fraction of their time talking with farmers, business people, local government officials and other front-line troops of development.

What Indonesian policy makers have valued most from CPIS is the "battlefield intelligence" that it has been able to feed back to them. When told apologetically that the advice he was about to receive was based on experience in only four villages, a high official responded, "That's a big improvement. I have been making policy for years based on information from no villages." Another policy maker, who had been a distinguished sociologist, told me sadly, "I can't go into a village anymore." He meant that he was now such a high-level person that if he went into a village, what he observed would probably be something especially cooked up for him. The capacity to observe the operational results of government programs and policies -- systematically, reliably and unobtrusively -- is valued highly by good policy makers.

Answers to Questions from the Floor

1. *On technical and vocational education (reply to a participant who argued that this is the solution to the skills problem, as indicated by European experience)*. If anyone here has done graduate study on education and development, he or she might have read a famous article by Philip Foster of the University of Chicago,[7] which was based on a study of the educational history of the Gold Coast (Ghana). Foster documents a long series of failures in which successive generations of British colonial administrators thought, "What this country needs is not impractical academic vocation but good, practical vocational training." The result was an unbroken string of failures, one every decade or so, of education projects based on this logic. Vocational schools failed repeatedly because they were not providing what people wanted. There were two big problems. First, the highest rewards in the labor market went to those who graduated from regular academic secondary schools and thus became qualified for civil service jobs. Second, the skills taught by the vocational schools were not necessarily those demanded by the job market.

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[7] "The Vocational School Fallacy in Development Planning" in C. A. Anderson and M. J. Bowman, eds. Education and Economic Development. Chicago: Aldine Publishing, 1966

These findings are widely applicable to developing countries. Vocational schools are relatively expensive to operate and are usually run by the Ministry of Education in comparative isolation from the producing sectors. They often do a poor job of preparing students for work because they cannot afford the latest equipment or best-qualified instructors and may not even know what is needed in the job market. Experience worldwide, particularly in East Asia, shows that the closer to the job such training is conducted, the more likely it is to be useful. That may mean training on the job or in the schools, but then the schools have to be closely related to the producing units. They may, for example, be run by a producers' association. An approach that some developing countries have used with success, which perhaps comes in logically at a later stage of development, is to have a public fund that is used to finance training programs run by employers' associations, or sometimes even to subsidize apprenticeship programs. This helps bring training closer to the job site. The money for such a fund is usually raised through a payroll tax, but this is tricky because it involves a tax on labor, which discourages employment.

2. *On foreign assistance to private sector training programs.* I am not aware of much experience in Southeast Asia regarding methods for channelling technical assistance in the form of personnel and training to the private sector. The aid relationship is initially with the host government and whether any assistance can be directed to private firms depends on what kinds of arrangements are set up by the host government. The kind of training fund that I just described would be one possibility.

3. *On the need for high-level skills.* In the early stages of development in Korea and other East and Southeast Asian countries, most of the skills needed were very basic. It all goes back to Adam Smith's idea of the division of labor. To make a complex product like a TV set, a lot of people have to carry out

a series of mostly rather simple operations. Of course, somebody had to design that TV set, but in the early stages of industrialization the design is brought in from outside. At a later stage, a country develops the capacity to design and build a better TV set.

4. *On whether labor unions impede export-led industrialization.* I am told that unions are strong in Ghana. Is that a problem? The kind of development we have been discussing depends on rapid absorption of labor into the modern sector. The rate of absorption depends on the relationship of productivity to labor costs or labor cost per unit of output. Policy makers in countries that are trying to carry out such a strategy have to worry about anything that makes this relationship less favorable, because that will impede employment growth. Labor unions might be one such influence. Another that economists are always talking about is minimum wage laws. Yet another is the labor code, labor regulations. To take a very simple example, anything that makes it hard to fire workers discourages the hiring of the workers.

Nevertheless, it is hard to be categorical about unions because it depends on what kind of union you have. Japan went through a period of extreme industrial strife after World War II and emerged into a situation of active union/management cooperation; unions have even helped to run the plants in Japan and ensure high productivity. Korea had a very compliant labor force for a long time but has recently entered a period of industrial strife. An HIID colleague has been working on a book that tries to explain why, after a period of perhaps the highest sustained wage increases in world history, Korean workers are now on the rampage.[8] So it is hard to be categorical about the effect of

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[8] David L. Lindauer et. al., Korea. The Strains of Economic Growth, forthcoming

unions, but certainly anything that raises labor costs is going to impede employment expansion.

5. *On why Southeast Asian countries seek advisory services from Harvard.* Harvard's relationship with these countries has changed a lot over the years. We began working with policy research centers in several cases as the next step after moving away from direct policy advisory work. In Indonesia we are still doing both, but our work with KDI was pure research, carried out long after we had any advisory role in Korea. I believe that all countries, no matter how developed, benefit from international intellectual exchange. No country ever outgrows the need for this kind of exchange, but the nature of the exchange changes quite a lot.

One thing countries can get from organizations like HIID is just the kind of comparative international perspective that we are providing in this workshop. If you are designing a tax reform, it is useful to know what happened in the last 15 countries that reformed their tax systems, and that is not particularly easy information to come by.

6. *On brain drain as an alternative response to a surplus of educated people.* If a country has a temporary surplus of educated people whom it may be able to utilize at some time in the future, is there anything it can do to encourage these people to stick around until they are needed, rather than emigrating? Does the experience of East and Southeast Asian countries offer any solutions, or do they not have problem of emigration? While it may be true that educated people who cannot find the kinds of jobs they are seeking may be able to make niches for themselves in the economy, that may not be enough to hold them. Should the government try to help the industries that they are involved in?

These are excellent questions, which are difficult to answer. Certainly emigration is an alternative to sticking around and making do at home. Educated people usually have more opportunity to emigrate than the uneducated and are less likely ever to return home once they are gone. Countries differ greatly in their propensity for brain drain. Taiwan is an example of a country which had a great deal of it. But when development really took off at home, a lot of these people came back and brought very useful skills, international contacts, and even investment capital with them. Indonesia, by contrast, is a country from which there has been very little emigration. I think, although it is not my field, that the difference is partly cultural and partly that Indonesia has never had such a large surplus of educated people. Maintaining appropriate policies toward small and informal enterprises probably will not do much to slow the outflow of university graduates because it is rare for people with this much education to be involved in backyard enterprises.

7. *On the size of the public sector. Is a large public sector a heritage of colonialism?* One of the interesting things about the East Asian countries (Japan, South Korea and Taiwan) is that they have comparatively small public sectors. A major reason for this is that these are ethnically homogeneous societies with small class differences and low inequality in their distributions of income and wealth. As the term "Japan, Incorporated" suggests, the interaction between the government and the private sector, particularly the large companies, in these countries is so close and subtle that it becomes hard to tell which is running which. However it works, there is little need for explicit government regulation. But the Southeast Asian countries are very different. Malaysia, largely because of the ethnic problem mentioned at the beginning of my talk, has built up a large public sector, which it is now trying to cut back. Indonesia is also in a retrenchment phase because of the shift from a highly directed

economy to a more deregulated one. This can be a very difficult transition because of the basic political question of what to do with the regulators when you no longer want to regulate.

Large public sectors emerged in Southeast Asia in the post-colonial period. The British had quite a limited government in Malaysia. They kept law and order and were of course interested in the success of British enterprises -- the estates, mines and so on. Yet they created a policy framework which attracted ethnic Chinese enterprise and permitted it to thrive, sometimes even in competition with British firms. The problem was that when independence came, the Malays, who were the largest group in the population and controlled the government, felt left out of the process of economic development. Their goal of taking a more active role in the economy could only be achieved by use of their control over the government. This was the main force causing the public sector to expand.

8. *On whether small-scale credit programs run by private voluntary organizations undermine the ability of local financial institutions to reach small-scale producers (said to be the situation in Ghana)*. I do not know the scene here, but there are hundreds if not thousands of schemes of this type around the world. They are mostly very small. The most famous one, which has benefitted from the public relations genius of its founder, Mohammed Yunus, is the Grameen Bank of Bangladesh, of which many of you may have heard. We compared Grameen Bank with KUPEDES in Indonesia.[9] The difference in scale is so enormous that you are talking about two different kinds of animal. Usually NGO schemes are too small pose a serious threat to financial institutions, the expansion of which offers the best opportunity to reallocate

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[9] see Tyler Biggs, Donald Snodgrass and Pradeep Srivastava, "On Minimalist Credit Programs," Savings and Development 15, no. 1, 1991

significant amounts of capital to small-scale producers, in my opinion.

9. *On low repayment rates in small-scale lending programs.* The BRI of Indonesia achieves its high repayment rate (about 97 percent) by offering a continuing source of credit. The big problem with subsidizing interest programs is the interaction between non-repayment and limited funding. If borrowers begin to suspect that the lending agency is about to run out of money, a run on the bank may develop and people get the idea that they may not be able to borrow again once they repay their existing loans. This kills the incentive to repay. But if borrowers are assured of a growing loanable fund and have reason to expect that they can obtain a larger loan next time if they repay their present one, the incentive to pay is strong.

10. *On the contribution of regional cooperation in East and Southeast Asia to the effective utilization of labor and capital resources.* The contribution has been negligible. Six of the Southeast Asian countries belong to an organization called ASEAN, the Association of Southeast Asian Nations. It was founded in 1967 for basically political reasons. Ever since it has struggled to identify an economic role for itself. ASEAN really has not had much economic effect. Yet informal links among countries in the region through Chinese family businesses have been very important. Family and ethnic ties create a network of trust for trading and investment relationships. A businessman can send money safely from one country to another country because his cousin will be managing the transaction. This permits capital and other resources to move around quite freely in search of the highest rate of return.

11. *On the role of multinational or overseas companies in the development of human resources and the transfer of skills.* Multinationals generally run small training programs to create

the skills they need. They send upward-bound middle management abroad for short courses. That is fairly common. In at least two if not three of the ASEAN countries, a number of the multinational corporations are providing some support for a local magnet school. There is a lot of informal transfer of skills, but it is mainly undocumented. Much of the transfer occurs through catalysts, that is, foreign firms or their subsidiaries. But in these countries you also find local firms hiring an engineer from abroad, not an American or European engineer but usually one from Taiwan or Hong Kong. The latter are much cheaper and also more readily available. They will spend six months to two years in a plant teaching practical skills, like how to run a machine or how to fix it. Most American engineers have forgotten how to fix machines. This has turned out to be a source of skill transfer and sometimes a source of technology transfer through the equipment supplier. But you have to be very careful: the equipment supplier may teach you how to run the machine itself, but if you rely on him to teach you how to run your business you are almost always making a mistake. The equipment supplier usually does not know how to run the business.

A strong hypothesis is that the amount of training any employer, multinational or not, is willing to provide to employees is be related to the employer's confidence of getting back the benefits of this training. It has been argued that large Japanese firms benefit more from on-the-job training because of their lifetime employment relationships. They are more willing to invest in employees because they more confidence that the skills imparted will not be lost to a competitor some day. By contrast, the Korean firms are all stealing key employees from each other and perhaps providing less in-house training, although I do not have data on that.

SESSION V
SUMMARY AND CONCLUSIONS
Michael Roemer

A comprehensive summary of this wide-ranging, intense discussion, which has taken place over two full days, is obviously not feasible in the short time remaining. But it I will try to pull together some of the larger threads of our discussion and draw a few conclusions. No doubt I will slight some important contributions from the speakers and from the floor, for which I apologize in advance.

There is really no mystery about what it takes to accelerate growth and development in Ghana. Here is an oversimplified but indicative equation that contains within it two keys to rapid economic growth:

$$g(Y) = v(I/Y).$$

This is the famous Harrod-Domar equation, which says that the growth rate of gross domestic product (or national income), $g(Y)$, is a function of two things:

- the share of investment in national income, I/Y, also equal to the rate of foreign and domestic saving in GDP, s; and
- the efficiency with which investment is used, v, which is the increase in gross output, δY, per unit of new investment, I; v is also the inverse of the gross capital-output ratio, k.

A more familiar version of the Harrod-Domar equation is

$$g(Y) = s/k.$$

In Ghana today the growth rate is 5 percent a year and the investment rate, I/Y $(= s)$, is about 16 percent. That implies that every additional unit of capital yields additional gross output of just over 30 percent ($v = 5/16 = .31$ or $k = 3.2$).

Ghana's saving and investment rate is rather low by international standards. If Ghana were to aspire to an investment rate similar to that achieved in East Asia, say 25 percent of GDP, then the Harrod-Domar model tells us that, without any change in the productivity of capital, the growth rate would accelerate from 5 percent to 7.5 percent. This would more than double the growth of per capita income from 2 to 4.5 percent a year, which would in permit a doubling of average income in 16 years instead of 35 years.

If, in addition, continued structural adjustment were to result in productivity gains, Ghana might be able to raise the efficiency of capital, *v*, from a gross increase of output per unit of investment, now about 30 percent, to say, 40 percent, comparable to what has been achieved in some (but not all) Asian countries. The growth rate could then be accelerated further to 10 percent a year, equal to Thailand's remarkable performance over the past few years. I am not suggesting that Ghana could easily achieve this growth rate. After all, in world history only two or three countries have ever expanded this rapidly for any sustained period. But the calculation does define the scope for improvement and indicates what needs to be done to accelerate growth.

Accordingly, a good way to summarize our discussions over the past two days is to focus on these two issues, the investment rate and the productivity of capital (and of other resources, which are left out of the simple Harrod-Domar model). There is no easy way to raise saving and investment rates. Saving habits are deeply embedded in personal and household behavior, tempered by the institutional environment, and influenced by deeply held perceptions of government policy. All these factors are very slow to change. One admittedly circular approach is to somehow get the economy growing rapidly, because then investment opportunities open up and people want to save more to earn the higher returns on investment engendered by growth. But that is no solution if higher saving is itself considered necessary to start the process of accelerated growth.

Some of the reforms that have been talked about in the last two days can have an impact on the investment rate. First is a tax reform that emphasizes taxes on consumption, perhaps through a value added tax. For this to raise national saving, government would have to invest a major share of the proceeds, either itself by spending on infrastructure or on education, let us say; or through the private sector, using its new revenues to provide loans channeled through the financial system. Taxing is not the safest way to raise saving, because governments are notoriously prone to consume instead of invest their revenues. But if there is a conviction on the part of government that accelerated growth is a prime national goal, and if there is a substantial national consensus on the need to achieve higher growth, then government may be more inclined to save the revenues that flow from tax reform.

The second major reform that can increase saving rates is development of the financial sector. There seems to be a strong consensus in this room that financial markets do not work very well in Ghana. The Asian experience shows that if financial markets work efficiently, it is much easier to mobilize capital. Equally important, well-functioning financial systems also channel saving to the most productive investments, raising the output per unit of investment. So development of the financial markets can accelerate growth both by raising the saving rate, s, and by raising the output-to-investment ratio, v, in the Harrod-Domar equation.

Tax and financial reform address the larger part of saving, that from nationals of Ghana. Foreign saving and investment can also play a role in accelerating growth. The reforms needed to attract foreign private investors have more to do with trade and foreign exchange management: measures to open up the economy, make exports more profitable, and ensure investors that their profits can be readily repatriated through a deregulated foreign exchange system. A less tangible but crucial factor in attracting foreign investors is government's own conviction that it wants and needs foreign investors and is willing to have them play a major role in the development of the country. This is not because investors are altruistic, but because they want to make profits and they need assurance that government policy will not stand in their way. Any hint that government is unenthusiastic about foreigners earning and repatriating profits will be seen as a bright orange "caution" light for investors.

So much for raising the investment rate. The other path to accelerated growth is greater productivity of capital, indeed of all factors used in production. This goes back to the point I made at the beginning of my talk yesterday: the difference between rates of growth in Asia and in the rest of the world has not been the rate of investment, but the rate of growth of productivity. The key to productivity gains is to open up the economy to competitive forces, both from within and, more promisingly, from the outside world. All the reforms that are part of the outward-looking strategy will help to accomplish this. The principal ones are (1) deregulation of the trade regime accompanied by a new tariff structure that makes rates lower and more uniform; (2) movement towards currency convertibility; (3) financial market deregulation and development; and (4) adjustment of any prices that remain under government control towards the levels prevailing in world markets, especially prices of petroleum and other energy products, cocoa and other major exportable commodities. All these have been discussed in detail at this seminar.

Although labor is not included explicitly in the Harrod-Domar framework, labor productivity growth is crucial in most models of development and, as we have argued, is the only way to achieve sustained increases in average incomes and human welfare. At low levels of development, the most important investments in human capital are in primary schooling and in basic health care. Japan, Korea, and Taiwan all achieved universal coverage of these basic human services very early and the Southeast Asian countries have followed their example. Higher forms of education and more sophisticated health care should not be subsidized at this stage of development; in East Asia, families were left to assume most of the burden for these human capital investments.

To realize the potential for increased productivity inherent in basic human capital investments, it is necessary to pursue policies that encourage employment creation through labor-intensive production and investment. We have argued that an outward-looking, market-based strategy should automatically encourage the creation of jobs for workers with primary schooling. Self-employment and microenterprises are important employers in the early stages of accelerated growth, so these activities should not be discouraged, as they are in many countries. Commercially-based small-scale lending, without subsidies, can be a helpful adjunct to a strategy of encouraging employment through small-scale enterprise.

The Harrod-Domar framework has highlighted the importance of raising the investment rate and increasing factor productivity. However, it omits any consideration of the sectors from which accelerated growth might arise. On this we have offered a strong message: strong growth in agriculture needs to be at the center of the strategy, or at least to play an equal role with industrial growth. With a rural sector that accounts for about half the gross domestic product and a rural labor force that includes 70 percent of the country's workers, there is no way the economy can accelerate growth unless agricultural output grows more rapidly as well. That leads to another issue on which there seems to be a strong consensus, the need for major improvements in rural infrastructure. Speakers often referred to problems with agriculture, especially the high costs of transport and marketing, that can only be addressed by investment in rural infrastructure. This would therefore be a priority use of any additional revenues collected through a tax reform.

A last set of concerns about accelerated development is a set of intangibles, which can be summarized by the term credibility. In any strategy of development that depends even partly upon the enthusiasm of private producers and investors, government's policies have to be credible to the public. Credibility is partly a matter of the effective implementation of reforms, a largely technical matter. But it depends much more on some intangibles that have been discussed, or at least alluded to, in the seminar.

I have already mentioned the importance of government's conviction in attracting foreign investors. This comes back to the centrality of the profit motive in a market-based development strategy, and the need for government, by word and deed, to make it clear that investors, producers, and traders are to be encouraged to earn profits, because in a market-based economy high profits are a sign of rising productivity.

Another intangible is concordance between government policymakers and leaders of the private sector on the economy's needs. The sometimes vigorous discussions at this seminar have revealed an expected but disturbing conflict between the public and private interests. When businessmen spoke in this group, they often called for government to do more for them in the way of subsidies, credit, and protection. On the one hand, government has embarked on a bold program of deregulation and reform, which for the most part has been accepted by the public as a painful but necessary approach to development. On the other hand, private investors seem to be asking for more government intervention on their behalf.

To be sure, we have argued that, even in a deregulated economy, government does need to intervene in important respects. But the market economy will not generate accelerated growth if government continues to provide subsidized resources and protection to the private sector. The job of raising capital and using it efficiently, and of employing labor productively, is a job for the private sector. That is the essence of market-guided development, as the Asian experience clearly demonstrates. (Even if tax reform is used as a way to raise saving in Ghana and some of the saving is channeled back to the private sector, the channel should be the private financial system operating within a competitive market, rather than subsidized development finance directly from government.) If this discordance between businessmen's wants and government's policies is as strong as it has seemed in this seminar, the conflict needs to be resolved, possibly through regular meetings of a joint government-business council.

Finally, it is necessary to raise a fundamental point about the interaction between politics and economic policy. The credibility of a development strategy depends on its wide acceptance by the public and by most of the major political factions. A question asked by all participants, especially by domestic and foreign investors, is whether a set of reforms is likely to be sustained over the long run, especially should there be a change of government. If there is a change of government looming, and if any of the likely successors to power are hostile to the reforms, or might change them in important ways, investors will hold back until the shape of the new policies becomes clearer. Such reluctance can be very costly, even jeopardizing the reform program.

Something like this could be happening in Ghana today, as the new constitution is hammered out and the promise of elections looms on the horizon. If the essence of Ghana's impressive reforms is accepted by the most important political factions, and if the reforms are carried over to the next regime, confidence should grow and investment accelerate. But if there is a reversal in the next regime, the country may lose, for another generation, its opportunity to accelerate growth.

The need for a sustained economic strategy is another lesson from Asia, especially from Korea and Thailand. In Korea there have been two major changes of political regime since the reforms took place. Although there were important changes in strategy, the underlying conviction of growth through exports never faltered, despite a drive towards large-scale, basic industry in the 1970s that compromised the strategy and made it more expensive. Korea's policies today are very consistent with the policies that started in 1963, in spite of the political changes during that period.

A very different example is given by Thailand, where there is a regime change almost every year, it seems, but where economist-technocrats basically run the economy and run it very consistently. Another feature of Thailand is that, despite a panoply of laws exerting control of investment, trade, and finances, for the most part these laws are not enforced and the technocrats let the market guide the economy. This messy but effective system has generated the fastest growth rate in the world over the past few years.

So there are two possible models to sustain growth despite political changes. One is a change of regime in which the new regime adopts the most critical policies of the old. The other is a change of regime that does not affect the civil service, which is allowed to continue its policies and styles of implementation. In Ghana, the best antidote for uncertainty in the face of elections would be for the major political contenders to declare their commitment to the essence of the reform program. Although it is probably not wise for foreigners to speak publicly about politics, it is hard to avoid the topic in a discussion of accelerating growth in Ghana today.

Before we end this seminar, I would, on behalf of the group from Harvard, like to thank all of you who participated. All of us were delighted to be here. We found this to be one of the liveliest sessions in which we have ever participated. I wish all our classes at Harvard were as lively as this seminar has been. We hope you have gotten as much out of it as we have enjoyed doing it.

Thanks, also, to the group from AID that organized this. Bob Wuertz has been a super organizer. Joe Goodwin has been terrific in chairing the entire session. All the support has been wonderful, especially considering that this was put together within the space of about six weeks. Despite some anxious moments on all sides, it all worked, everybody cooperated, and the seminar has, for us at least, been both educational and fun.