Asian Industrial Development and Economic Reform in Africa

By

Howard Stein
Visiting Professor
Center for Afroamerican and African Studies
and
Dept. of Epidemiology
University of Michigan, Ann Arbor
4700 Haven Hall
505 S. State St.
Ann Arbor, MI 48109
USA
howstein@umich.edu
734 763-5519

This paper was presented at the International Studies Association Annual Meeting, Chicago, IL, February, 1995. An earlier version was given at the Sixth Annual Conference on Socio-Economics, Paris, France, July 15-17, 1994. The paper is derived from chapter one of H. Stein ed. Asian Industrialization and Africa: Studies in Policy Alternatives to Structural Adjustment, Basingstoke: Macmillan 1995.

Asian Industrial Development and Economic Reform in Africa

By
Howard Stein

The period of the 1980s represented the ascendancy of the neo-classical economic model within the realm of international policy circles. Bilateral and multilateral aid agencies organized a cartel where the allocation of assistance was predicated on the acceptance of a structural adjustment program, a fairly uniform policy package. The aim of the package was to remove the impediments to growth and efficiency caused by state interference in the operation of markets. By 1987, the programs were ubiquitous in sub-Saharan Africa with twenty seven countries initiating policy changes in exchange for the World Bank's structural adjustment loans.[1] By the early 1990s more than thirty countries in the region had adopted the Bank's program.

While much of Africa has been mired in an economic malaise, East and Southeast Asian countries have shown extraordinary growth and prosperity. During the 1970s and 1980s the policy circles were heavily influenced by neo-classical interpretations of the Asian miracle led by prominent writers like Bela Balassa (1971,1981), Anne Krueger (1978) and Ian Little (1981). More recently the Bank, at the urging (and with the financing) of the Japanese government, undertook a study to evaluate the East Asian "miracle" (World Bank, 1993). The study, in many ways, is a restatement of the neo-classical interpretation of the policies underneath East Asia's success.[2] As argued elsewhere (Stein, 1994a, forthcoming) the World Bank's view of the policies behind the success of industrialization in Asia mirrors the neo-classical economic view and the model of structural adjustment closely parallels their interpretation of what was behind Asian growth and prosperity.

Led by the seminal work of Alice Amsden (1989) and Robert Wade (1990) there is a growing literature that has begun to challenge the neo-classical view of Asian development. An additional empirical question can be raised in response to the problematic experience with the adjustment model in places like sub-Saharan Africa.[3] Both of these challenges point to the need to reexamine

[1].The initial dates of the programs were divided fairly evenly between early adjusters 1980-84 and later adjusters (1985-87). Early countries in chronological order were Kenya, Sudan, Cote d'Ivoire, Malawi, Senegal, Mauritius, Nigeria, Togo, Ghana, Zimbabwe, Guinea-Bissau, Zambia and Sierra Leone. The later adjusters included Burkina Faso, Madagascar, Burundi, Central African Republic, Gambia, Guinea, Somalia, Zaire, Congo, Niger, Sao Tome, Tanzania and Uganda. The content and duration of the programs varied. For a good summary of the details See Mosley and Weeks (1993: Appendix A and footnote 15).

[2].To quote the Bank study "...getting the fundamentals right was essential. Without high levels of domestic savings, broadly based human capital, good macroeconomic management and limited price distortion, there would have been no basis for growth and no means by which the gains of rapid productivity change could have been realized." (World Bank, 1993: 23)

[3].There is now an extensive literature (I list just a few examples) critical of structural adjustment in Africa covering a

the policies responsible for Asian growth and prosperity as a basis for developing an alternative model of economic reform. Drawing on case studies from East and Southeast Asia (Stein, 1995), this paper will begin to construct a new approach.[4] The focus of the studies is on the most successful countries in the region and on the policies responsible for rapid industrialization

What are the policy lessons for Africa from industrialization in Asia? How do they compare to the neo-classical/structural adjustment view? What are the constraints on applying them to an African context?

POLICY LESSONS FROM ASIAN INDUSTRIALIZATION: A SYNTHESIS

Theoretical Issues

---

variety of topics including agriculture (Commander, 1989; Lele, 1990), industry (Stein, 1992;Lall, 1992, Riddell, 1993), debt(Parfitt and Riley, 1989;Nafziger, 1993), basic needs (Cornia et al., 1987;Stein and Nafziger, 1991;Stewart, 1991), trade (Godfrey, 1985;Helleiner, 1990) and investment levels (Mosley et al., 1991). In contrast, the latest World Bank (1994) study, released just as the manuscript of this book was about to be forwarded to the publisher, is a strong statement aimed at reaffirming the positive effect of adjustment on Africa. The position is somewhat surprising given some of the evidence in tables in the study (Appendix B.3). Twenty-six sub-Saharan countries are divided into three categories based on the degree of change in macroeconomic policies. A quick glance at the data shows that countries with a "large improvement" in policies actually did worse in median change in agricultural growth than the "small improvement" and "deterioration" categories and lower growth of gross domestic investment than the "small improvement" category. The "large improvement" group also did more poorly after netting out the oil exporters in the area of public investment compared to the other two categories(Appendix A, Table 23). GDP per capita in the large versus the small improvement category is very similar (1.8 vs. 1.5%) and probably not statistically significantly different. In the text, the Bank very conveniently redefines the categories when the data are negative (eg. in agriculture the new category is countries that have increased the real prices to exporters) and maintains the categories when they are positive. As with earlier studies its not entirely certain what is being compared here. First there is no explanation of the reason for the choice of the dates of 1981-1986 vs. 1987-1991. Choosing other dates could lead to different results (The Bank tries a few others which hardly captures the range of permutations). Second, some countries in the categories began programs well before 1986 while others were after (See footnote one). If early adjusters abandoned adjustments due to negative economic consequences and if one assumes any lag time between policies and their effects then some of the poor results in the latter time period may be due to adjustment not due to a lack of adjustment. A similar line of argument could be used on the "large improvement" category. Third, to determine the classification of countries, the Bank assigned the number minus three through plus three to ranges of changes in six sub-categories of macropolicies (like fiscal balances) equally weighted. The numbers used to determine the extent of change in macroeconomic policies are arbitrary to say the least as is the choice of equal weighting. Why should a decrease of inflation of 2.5% only receive a plus one and an increase of 5% a minus one (a variation of 7.5 percent) when an increase of 31% leads to the assignment of a minus three (a variation of 26% for the same point reduction). A few changes in the definition of the ranges can easily push five of the six countries from the "large improvement" into the "small improvement" category or the majority of the "deterioration" group into the "small improvement" category. Similar shifts would also occur using different weighting schemes. In essence, the results of the whole exercise could have been dramatically different by simply redefining the ranges or the weighting.

[4].The cases this paper draws on does not provide detailed studies of South Asia, Thailand, the Philippines or Indonesia. The focus is on the most successful examples (Meiji Japan, Korea, Taiwan, Singapore, Hong Kong and Malaysia) which we believe also set the pattern that other Asian countries are attempting to emulate. Even the Malaysia study is written in the context of "looking East".

Identification and Reproducibility

There are two general theoretical difficulties concerning the application of policy lessons from Asia, the problems of identification and reproducibility. Identification refers to the method of pinpointing the factors responsible for industrial development in Asia. Reproduciblility refers to the feasibility of replicating the model or aspects of the model once the identification problem has been resolved. Four issues concerning reproducibility seem critical the uniqueness of international temporal junctures, the specificity of historical economic preconditions, the irreducibility of social attributes and the peculiarity of political alignments. The case studies which I draw on in this paper try to deal with these problems. Identification is handled by causally linking shifts in policy positions to changes in the pattern of industrialization over various stages in each country's development. Reproducibility is discussed by laying out historical, structural and political dimensions of each case with some comparisons to the conditions elsewhere.

In contrast, the neo-classicals deal with the identification problem by imposing a rationally deductive framework which presupposes the importance, dependency and outcome of the interaction between variables. The neo-classical reasoning is syllogistic. In simple terms, undistorted markets are what underlies successful industrialization. Industrialization in Asia has been successful then it must be because they have not distorted markets or at least at some point have reversed historical distortions. Therefore the state must have been neutral allowing their countries to specialize in accordance with their comparative advantage. More recently, in response to the overwhelming evidence of wide scale intervention by states in markets in Asia, a "revisionist" neo-classical position has arisen on the question of identification. The argument in simple terms is that state's policy intervention did not alter what would have been predicted by a Hecksher-Ohlin-Samuelson model of static comparative advantage.[5]

---

[5].The two best examples of this are World Bank (1993) and Lindauer and Roemer (1993). The Bank's "Asian Miracle" sums up this position very effectively:

> These findings do not imply that governments were not attempting to influence industrial structure. They undoubtedly were. But they suggest that, despite government intentions the manufacturing sector seems to have evolved roughly in accord with neo-classical expectations; industrial growth was largely market conforming.(World Bank, 1993: 315).

Similarly as Lindauer and Roemer put it:

> Industrialization in Asia followed the contours of comparative advantage determined substantially by factor endowments...Despite the neo-classical path the policy measures supporting industrialization were far from neo-classical in all but Hong Kong and Singapore. (1993: 12)

The Bank in their study provide a variety of crude tests to try to buttress their position. What is particularly interesting is that some of the results quite clearly support the opposite conclusion. For example, using Syrquin and Chenery's (1989) predicted sectoral shares of value added/GDP (based on average per capita GDP and population) for Hong Kong, Korea, Thailand and Singapore (no data for Taiwan) had significantly higher manufacturing sectors relative to the norm in the 1980s. In the Malaysian case, there was a significant rise in the actual to predicted share between 1969 and 1981. This would seem to illustrate the effectiveness of the state's support for industry. Similarly some of the data reflects the

The reproducibility problem for a long time was largely ignored by the neo-classicals. In a world in which there was only one successful route to achieving development, rational leaders would eventually recognize the superiority of market led growth. The NICs (Newly Industrialized Countries) would have a positive demonstration effect. This view has shifted somewhat due to the slow pace of economic reform and the resistance to structural adjustment. Neo-classicals began incorporating rational/public choice political economy arguments to explain why governments impose price distorting policies (to capture economic rents and political benefits) and in turn why there were entrenched interests impeding economic reform (Stein, 1994a, forthcoming). As indicated below there may be perfectly sound economic reasons for resisting elements of structural adjustment packages given the contrast between the policies contained in adjustment programs and those used so effectively in Asia.

Industrial Policy

It is important to emphasize the relationship between the state, industrial organizations and markets in the development of Asia. Firms in Asia and elsewhere are institutions which provide a refuge from the vicissitudes of the market. Markets in Asia and elsewhere are social institutions which structure organize and legitimate contractual agreements and the exchange of property rights. Their operation requires broadly defined forms of state intervention. The environment in which firms undertake investment and production can be one which is conducive to the rapid development of industry or one which is hostile. The focus of the industrial policy that has evolved in Asia has

---

state's heavy support. In Korea, for instance, as indicated in Kim (1995), metal products and machinery were promoted by the government. In 1988 their percentage of value added was almost three times the norm. Of course taking global averages as a hypothetical reflection of what would have happened in a country without the government intervention hardly reflects the pattern of what would have occurred given the particular endowments of each country. In a second test, they find that total factor productivity was on general higher for Japan, Korea and Taiwan than international comparisons which would give credence to the positive contribution argument. However, there was little evidence that sectors more heavily supported by the government had higher total factor productivity. Once again this is a flawed test, since it says nothing about total factor productivity in the sector in the absence of government intervention (eg. it might have acted as a catalyst). A third test looks at the growth of the share of value added relative to the wage levels and value added per worker at the beginning and end of various periods. Hecksher-Ohlin-Samuelson (H-O-S) would predict that for low-income economies sectors that exhibit low physical and human capital to labor ratios (as measured by the low wages and low value added) would be the candidates for the most rapid expansion (negative coefficients). However, an industrial policy would target the expansion of knowledge and capital-intensive sectors as represented by higher wages and value added (positive coefficients). The results of the exercise are mixed with only statistically significant signs for Korea (negative) and Singapore (positive). First, even accepting this problematic exercise at face value, it appears that contrary to the neo-classical assertion industrial intervention did alter the course dictated by comparative advantage in half the statistically significant cases (in Singapore). Second, the results needs to be tempered by a number of considerations. First, the two digit level is rather aggregated and can hide more than it reveals. Second, there is a built in neo-classical assumption that wage levels and value added per worker are good reflections of the relative scarcity of factors of production (for instance it assumes away the kind of state intervention in labor markets-sometimes within industries-which was prevalent in Korea and Singapore). Third, if we accept all the assumptions and say that labor intensive industries grew more rapidly, it says nothing about the sectors selected within the broad grouping relative to what have occurred in a H-O-S world. Overall, the above quote reaffirming the neo-classical interpretation of the nature of the industrialization in Asia seems rather hollow in light of the evidence provided.

been to provide a fostering environment that has permitted industries to mature and prosper.

In contrast, the neo-classical view of markets (which underpins structural adjustment) arises from general equilibrium theory where markets arise spontaneously from the atomistic interaction of self-seeking individuals. Strictly speaking the state is completely unnecessary since markets are simply driven by utility considerations. In the more relaxed versions of neo-classical economics, there is some recognition that property rights are transferred and require some external guarantor like the state. Similarly money is needed as a means of payment. This then provides a need for a state monetary institution like a central bank which like the guarantor of property rights would play only a neutral role (or in monetarist terms would ensure that money expansion does not cause inflation or deflation by setting its growth at the annual rate of the GDP). Beyond this role, state intervention will disrupt the ability of prices to equalize supply and demand.

The aim of structural adjustment in Africa and elsewhere is to reduce the distortions caused by states interference in the operation of markets (See Quarco, 1990 for a more detailed discussion). Tax and tariff concessions need to be removed or at least lowered and equalized so that firms can choose inputs based on prices that reflect the relative scarcity of the factors of production of the country. The government needs to scale back by reducing social spending and subsidies(introducing user fees in education and health care, raising food prices etc.), deregulating markets and privatizing or closing state enterprises. Private property rights need to be carefully defined, impartially applied and guaranteed so that there is no risk of nationalization at a later date.

Exchange rate controls need to be dismantled and currencies should be permitted to float so that the exchange rates reflect supply and demand conditions and permit the unimpeded flow of investment in and out of the country. Financial reforms should focus on raising interest rates to real positive levels to attract savings and to ensure that only projects with a high rate of return will be undertaken. Credit constraints are necessary to reduce price levels and to lower balance of payments deficits (Khan et al., 1990). Reducing government expenditures helps to lower credit expansion and ensures that private sector investment needs will not be crowded out. Once private and other state impediments are removed the private sector driven economy will naturally occur and prosper.

An industrial policy is therefore an anathema to structural adjustment and neo-classical economic theory.[6] This is also reflected in the adjustment/neo-classical view of the firm. Coase and other proponents of new institutional economics describe the firm in neo-classical economics as a "black box" (Coase, 1992). Since prices are the only information necessary to make efficient production and consumption decisions, there is no apparent reason for the existence of business organizations in mainstream theory. As we discussed, the key in adjustment is to ensure that production decisions are put into the private hands, or in other words that the public "black box" becomes a private

[6].This is unequivocally stated in the Bank's Asian miracle study. "Our assessment...is that promotion of specific industries generally did not work and therefore holds little promise for other developing economies"(World Bank, 1993: 24). This position also places the study squarely in the neo-classical paradigm and is contrary to the case studies in this book.

"black box". To the adjustment/neo-classical model there is no need for the state to influence the evolution and nature of the structure of industrial organization. As pointed out below and elsewhere (Stein, 1994b, forthcoming), business organizations not individuals play the central role in the production and distribution side of the market. Understanding how the state can promote different industrial structures to encourage more rapid growth and innovation would seem to be an important part of the strategy for Africa's future development.

Industrial Strategies in Asia

It is important to emphasize that there were both constants and significant variations on the policy mechanisms used to promote industrialization in Asia. However even in the relatively open market economy of Hong Kong state policies were central to creating an environment which fostered rapid industrialization. Drawing on the case studies in Stein, (1995), the remainder of this paper will focus on a number of policies in areas including social overhead capital (education, health care and housing), infrastructure, agriculture, labor, trade, foreign investment, credit and finance and the organization of industry. Where possible policy in Asia will be contrasted with the experience of Africa. By way of conclusion we will focus on some of the questions related to the reproducibility of the Asian experience also using the example of Africa.

Social Overhead Capital

Education

One constant that runs through all of the case studies is the prerequisite for any form of industrialization is a well educated work force. In Meiji Japan primary enrollment rates were increased from a mere 28.1 per cent in 1873 to 100 percent by 1911. All of the countries in the case studies followed a similar pattern of early and rapid increases in enrollment rates. In addition not only did all countries rapidly raise literacy rates but the emphasis was on vocational, scientific and engineering training. Wayne Nafziger (1995) contrasts this pattern to the educational system in Africa, where from colonial times there was an emphasis on skills that would be more useful to civil servants rather than an industrial work force. He also points out that the 48 percent literacy rate in sub-Saharan Africa in 1985 was very low and already reached in Japan in the first decade of the 20th century.

In all cases, including Hong Kong, the state steadily increased their heavy support of education. In Taiwan, during the crucial phase of early industrialization, government spending increased in 1952 from 7.8 per cent of the total budget to 17.6 percent in 1972. In contrast the austerity brought on by structural adjustment has led to a steady erosion of educational support in Africa.[7] Between 1980 and 1987 spending per student in Africa had fallen from $32 to a mere $15.

[7].The Bank in the Asian miracle study recognizes how important public funding was to the expansion of primary enrolment and vocational training and in turn how central these were to the development of a suitable labor force for industry (World Bank, 1993: 192-203). The recognition of this point is not new to the Bank and was emphasized in their 1989 report on sub-Saharan Africa (World Bank, 1989: 77-84). However, the Bank seems to ignore the conflict

This, combined with the introduction of user fees, has led to a steady erosion in primary enrollment rates which fell from 79 percent 1980 to 67 percent in 1990 (Brautigam, 1995).

Housing and Health Care

Closely related to education are housing and health care which are not only ends in themselves but important to maintaining a productive labor force. The state in most of the countries examined has played an important role in subsidizing and expanding access to basic health care and housing. Singapore provided the most widespread public investment in housing and medical care. By the early 1980s they housed 80% of the population in subsidized owner occupied units built by the state's Housing Development Board. Health care access was universal and also heavily subsidized. Expenditures in these areas were also important to the legitimacy of the regime, labor peace and widespread support for the state's industrial policy and steadily rose in the early period of development. For example between 1972 and 1980 real per capital state spending on health care rose by 90% in Singapore(World Bank, 1983: 199) In contrast, the austerity of structural adjustment programs in sub-Saharan Africa was taking its toll on social spending. Real per capita government spending on health care in the region fell by 42% between 1980 and 1987. Not surprisingly, given the rising debt load in the 80s, the only rising component of government per capita spending was interest payments. (Stewart, 1991: 428).

Infrastructure

A second constant that runs through all the case studies is the central role of infrastructure in the development of industry and the heavy direct and early involvement by the state in this area. The Meiji government in Japan invested heavily in telegraphs, postal service, water supply, coastal shipping, ports, harbors, bridges, lighthouses, railways, electricity, gas and technical research. In Korea, the government also invested in these areas with nearly 25% of domestic investment between 1963 and 1979 arising from public sector allocation to infrastructural and social overhead capital. In Singapore the state not only vastly expanded traditional infrastructure but through its Jurong Town Corporation provided low cost fully serviced factories available for the rapid establishment of new industrial ventures. In Hong Kong, the government through leasing arrangements (the Crown owns all the land) made land available for industrial estates at a fraction of their market value. The government has also been active in other areas of infrastructure with a mix of ownership, subsidization and close regulation when infrastructure has been privately

---

between demand managed stabilization aimed at meeting fiscal and monetary targets in Africa and the need for supply inducing government expenditures such as increasing investment in education. So far, the emphasis has been on austerity and stabilization with consequences discussed below. Despite the Bank's comment that "public spending on health and education did not decline in the adjustment period" (World Bank, 1994: 9) the data provided in tables in their new study seems to indicate otherwise. The median expenditures of education as a percentage of GDP fell in all categories between 1981-86 and 1987-90. Overall in fourteen countries in which data was provided the median decline in the change in real educational expenditures was 4.6% from 1980-83 and 1987-89 with decreases of 70.3% in Nigeria and 64% in the Gambia (two countries in the Bank's "large improvement" category) (World Bank, 1994: 171,172).

controlled. In Taiwan the KMT inherited an intricate network of roads, electrical plants and harbors but rapidly expanded them to increase the capacity in all areas of infrastructure. By 1952 the density of transport infrastructure was already many times greater in Taiwan than even middle income sub-Saharan Africa countries like Cote d'Ivoire.

While the World Bank, in theory, has recognized the importance of infrastructure to reducing business expenses (World Bank, 1989: 115), in practice the emphasis on austerity and meeting the government credit targets of adjustment programs has led to significant declines in state investment in a number of sub-Saharan countries in the 1980s.[8] Mosley and Weeks (1993) provide strong empirical support to the importance of expanding infrastructure. As a proxy for infrastructure expansion they examine the impact of the direction of public investment in twenty-eight sub-Saharan Africa countries between 1980 and 1990. The ten countries with increasing public investment did significantly better in the growth rate of real GDP, overall investment and exports compared to the eighteen countries with a declining rate.[9]

Agriculture

Many of the agricultural policies embedded in structural adjustment programs seem at variance to the experience documented in the case studies. From the perspective of industry, the focus of adjustment is to encourage the export of cash crops with mechanisms like devaluation, increasing the terms of trade in favor of agriculture, raising incomes which will assist industry by providing demand linkages and savings through voluntary rural credit institutions and encouraging agro-processing as the basis of industrialization. Liberalizing input and output markets will assist this process (eg. gains from privatizing procurement markets, more effective allocation of fertilizer and insecticides, etc. will encourage higher producer prices and more efficient production). Overall the emphasis seems to be a market-centered strategy with the pace and direction of industrialization captured by the internal dynamics of agriculture.

This approach has more to do with the theoretical realm of neo-classical axioms than the agricultural-industrial interactions of the countries of East Asia. In general policies related to agriculture involved heavy state intervention in the provision of inputs, procurement and pricing, land reform, significant levels of public investment and a general subservience of agriculture to industry in the early stages of industrialization. In Meiji Japan, a land tax accounted for more than 80% of central government revenue up to 1882 with net resource outflows through 1922. Despite this productivity rose significantly, due largely to public investment in research, extension by veteran farmers and agricultural school graduates who diffused the latest techniques and seed

---

8.In a rather extreme example capital spending by the Malawi government (an early adjuster) plunged by 58% between 1980 and 1989 in real terms. Malawi was one country that very heavily emphasized government austerity.(Mosley and Weeks, 1993: Appendices A & B). From a broader perspective, 17 out of 26 countries in the percentage of GDP allocated to public investment between 1981-86 and 1987-91 (World Bank, 1994: 251).

9.The figures were respectively 4.0% vs. 1.8%; 3.2% vs -.6%; and 4.6% vs. -.2%. The differences between the sample means of investment and export growth were significant at a 1% level and in the case of GDP growth at the 5% level (Mosley and Weeks, 1993: Table 6).

varieties to the literate farm population. Food prices were kept low (keeping industrial wages down) through large scale imports from Japan's colonies.

In Korea, the policy of "industry first" gradually evolved into a more balanced relationship between industry and agriculture. In the 1960s the state through forced procurement deliberately kept grain prices low to encourage the migration of labor to support labor-intensive manufacturing and to keep real wages down. At the same time, there was heavy public investment in infrastructure, research and extension services. Toward the end of the decade, the demand for rice was exceeding the supply leading to a rise in rice imports. The government implemented a more balanced approach by using price supports to prop up the income of farmers without passing on the cost to urban workers, allowing them to contain wage increases and keep labor intensive industries competitive. At the same time they augmented their investment levels in agriculture, subsidized fertilizer and pesticide inputs and assisted the organization of cooperatives.

In Taiwan, land reform played a pivotal role in promoting rural equality. Through the removal of the landlord class, the state was in a good position to squeeze agriculture. Once again the government encouraged policies significantly different than those typically found in adjustment packages. Rice prices were kept artificially low to sustain low urban wages. Fertilizer was exchanged on a barter basis. Farmers were also required to pay a land tax in kind and to meet a state imposed rice quota which paid prices which were 25 to 30% below wholesale levels. Unlike Africa with its emphasis on extension services, Taiwan stressed state supported agricultural research. As in Korea, the industry first approach gradually evolved toward a more balanced system using price supports to raise the income of farmers.

Despite the low prices to farmers, productivity steadily increased through the mid-60s. Deborah Brautigam (1995) explains this as a product of policies that reduced the uncertainty of farmers while continually investing in agriculture. In contrast, adjustment emphasizes the liberalization of inputs and outputs which greatly augment uncertainty. Similarly, the emphasis on austerity and meeting government spending targets has frequently led to a decline in public investment in agriculture.

Tanzania provides a case in point.[10] In the mid-80s, Tanzania began dismantling its state monopoly on the procurement of grain and edible oils by opening it up to private traders. While production of maize grew modestly up to 1989, by 1992 the level had fallen back to the numbers of the 1985/86 growing season (Putterman, 1993: 15,19). In many ways, the example of grain production reveals the weaknesses of the strategy of adjustment, where production becomes subject to the vicissitudes of the market. First maize prices paid to farmers showed considerable fluctuations over the period, falling by nearly 50% in real terms between 1983/84 and 1988/89 and then subsequently rising by more than one-half by 1991/92. Second the removal of subsidies and massive devaluations

[10].Tanzania, which was one of the staunchest critics of adjustment, signed a standby agreement with the International Monetary Fund in 1986. In the same year they initiated the first structural adjustment program. In actuality, a number of liberalizing measures were undertaken prior to 1986, partly in preparation for the accord. For a detailed discussion of the period see Campbell and Stein, 1992.

undertaken to meet Fund targets, led to a tripling of fertilizer prices between 1990 and 1992. The impact of the price increases, combined with severe cutbacks in credit availability, caused reductions in already low input usage with implications to yields.

Third, due to a paucity of private traders and the vagaries of the rural road system, many farmers were being subjected to monopsony pricing. Only the wealthiest farmers had access to transportation to take grains to more competitive distant markets. Prices were often 50% higher in more central locations. Some areas that were large surplus regions were in danger of becoming net importers of food (Putterman, 1993: 16-18,24,25,38). The low density of rural roads, lack of application of fertilizer and pesticides, absence of technologically advanced seeds, poor transportation options, paucity of irrigation infrastructure, absence of agricultural research facilities are just a few of the obstacles that are not addressed by adjustment and have in many ways become more difficult to implement in the current climate of Fund and Bank imposed austerity.[11]

Labor Policies and Wages

As opposed to the neo-classical/adjustment emphasis on the "undistorted" operation of markets, where prices reflect their scarcity values, we find that the state constantly intervened in markets often to the advantage of industry. Labor markets are no exception. Real wages, in almost every case, were kept low and generally below productivity increases. The mechanisms used included the careful squeezing of agriculture to maintain a steady flow of new entries into the labor force, restricting union activity, setting up councils to review wage disputes, carefully regulating the price of wage goods like rice (as discussed above) and the provision of social goods (Singapore providing the most extensive example) which encouraged the acquiescence of labor. The wage policy was also part of a strategy of dynamic comparative advantage where wages were deliberately kept low until the government could induce the organization of a sufficiently large capital intensive/higher value added mass of industries.

In Africa, real wages plummeted due to a combination of devaluations, inflation and austerity. In Tanzania, for example, the minimum hourly wage had fallen to a mere $.054 by the end of 1989 (Stein and Nafziger, 1991: 183). In Nigeria, in the same year, textile workers were earning only $.16 per hour compared to $.58 in India for comparable labor. While theoretically this should make industry more competitive, the decline has occurred without regard to living standards and the impact on productivity as formal sector salaries become insufficient to support even a subsistence level.[12]

---

[11].The importance of these variables are supported by empirical studies. For example, Chhibber (1989), examining data from India from 1954/55 to 1977/78, finds that the long run elasticity of supply with respect to non-price variables is three times as high as the price elasticity.

[12].In Tanzania the real minimum wage fell by 33% from mid-1986 to the end of 1988. In May 1988, the minimum wage would only purchase 1.3 kilograms of maize meal per day or around 40% of the calories necessary for a family (using this highly unbalance diet as a nutritional source). In household surveys the amount spend on food on average for a family of four was six to eight times the minimum wage. As a result formal sector employment was primarily being used as a conduit for informal activities (miradi) rather than as an end in itself with negative implications to productivity. For

Trade Policy and Exchange Rates

The thrust of the Bank's view of trade has been that import-substitution is largely a liability. Countries that shifted more rapidly to export-orientation avoided the burdens associated with import-substitution (inefficiencies, lack of competitiveness of these industries, resistance from domestic interests to lowering trade barriers etc). In their view, the move to export oriented industrialization was less of a policy shift and more a scrapping of disincentives to export.[13] In practice structural adjustment has followed the Bank's view of policies in Asia, by emphasizing the removal of import quotas, the lowering and equalizing of tariffs and removing export taxes.[14]

In contrast, the case studies indicate that import-substitution often had positive consequences and did not disappear with the emphasis on exports. In places like Korea, import-substituting industries receiving protection were threatened with the removal of protection if they did not begin exporting after a period time. Successful industries were able to maintain a two-tiered system where profits were supported by the higher prices on the domestic markets while maintaining competitive prices on international markets.

Export orientation was not the product of neutrality but of heavy promotion which often exceeded continuing levels of import protection. In Korea, export industries not only obtained tariff exemptions, they were also the recipients of income tax reductions, state financing of imports, favorable depreciation allowances, tax rebates on imports, subsidized interest rate loans, foreign currency loans and export insurance. The government set annual targets and used a combination of moral incentives and augmented subsidization when actual levels fell below their targets. Agencies were organized to set up trade fairs, dispatch trade missions and to host foreign business visitors. Private trade conglomerates were promoted to strengthen international marketing. As opposed to

---

a more detailed discussion of this see Stein and Nafziger, 1991: 182-185.

13.In the new "Asian Miracle" study, the Bank moves slightly away from its earlier view that there was a neutrality of incentives to the recognition that Asian states actively promoted exports. However, the effect was the same since they counterbalanced the protection of imports. To quote the study:

> Thus while incentives were largely equal between exports and imports this was the result of countervailing subsidies rather than trade neutrality; the promotion of exports coexisted with the protection of the domestic market. (World Bank, 1993: 22)

The Bank does not provide any evidence to support this assertion by systematically evaluating the level of subsidies vs protection. The only information directly on this question is provided in Table 3.6., from a 1977 study of Korea by Larry Westphal. The table provides the ratio of the effective export exchange rate relative to the effective import exchange rate taking protectionism and subsidies into account. In every year from 1958 to 1975, the ratio exceeded one sometimes by very significant percentages. It would seem that this would indicate a bias in favor of exports which would contradict their assertion. One can only venture the hypothesis that in view of the vast evidence that indicates that the state intervened on the import and export side, the Bank wants to argue that somehow the "distortions" were offsetting so it was as if they did not intervene at all. In effect they can still promote the standard neo-classical based reform package of encouraging neutrality in the trade regime.

14.According to Mosley and Weeks (1993), 17 of 23 African countries surveyed undertook adjustments of this nature.

the adjustment induced rapid destabilizing devaluations of African currencies in recent years, Korea maintained a more stable nominal rate of exchange using a combination of moderate devaluations and subsidies to ensure a steady return per dollar of exports.

In the mid-60s, Taiwan and Korea faced a similar situation to the one currently confronting Africa. After significant devaluations (partially due to pressure from U.S. aid agencies) and the liberalization of inputs, needed to support export production, exports were still not internationally competitive. Even in labor-intensive sectors like cotton textiles, they could not compete with Japan which had higher wages but even higher productivity providing them with lower unit labor costs. The countries faced a choice, they could lower real wages and unit labor costs through further devaluations or they could subsidize exports providing time to raise productivity to lower unit labor costs (Amsden, 1994: 20). They chose the second option with astounding results. In Korea, for instance, exports surged from $55M in 1962 to $27B two decades later.

On the import side, Linda Lim (1995) notes that the import-substitution phase was important in Singapore in the training of government officials on the usage of incentive schemes; schemes which proved important in the promotion of export oriented industry. In Taiwan and Korea it is quite clear that import substitution did not disappear with the shift toward export intensive industries. In Korea imports were restricted up to 1967 on a positive list basis. After adopting a unified exchange rate system in 1964, the government shifted to a policy of encouraging intermediate and capital goods imports by the export sector while continuing to restrict consumer goods. After 1967 Korea moved toward a negative list system. As the government supported the development of intermediate and capital goods production in order to deepen industrialization, targeted industries were given infant industry protection. Beginning in the late 60s, Korea began to restrict imports and were rapidly moving toward self-sufficiency in this area by the end of the 1980s. In nominal terms Korea did lower tariff levels between 1968 and 1978, but the effective rate of protection actually rose over the period showing enormous variation from industry to industry and didn't look anything like the uniformity promoted in adjustment packages (contrary to the myths of neo-classical economics). Taiwan followed a similar pattern of successful export orientation with import-substituting protectionism.[15]

Foreign Investment

Japan, Taiwan and Korea emphasized local capital accumulation and resisted large scale direct foreign investment. In the most extreme case, Meiji Japan virtually banned foreign investment between 1868 and 1891. Adjustment, in contrast, encourages an open door policy and the

[15].The "Asian Miracle" study argues that despite the obvious level of protectionism in countries other than Hong Kong and Singapore, there is little evidence of distortion compared to other regions. In 1985, overall tariffs plus para-tariffs in three countries (Korea, Malaysia and Taiwan) are less than almost any other developing country region. There are obvious problems here. As we argued above there has been considerable reductions in nominal levels in recent years in places like Korea. A more interesting comparison would be to examine protectionist levels used during the earlier period of industrialization particularly in Korea and Taiwan. Obviously what is important from an African perspective is how they got where they are not what the tariffs are after they have already arrived.(World Bank, 1993: 298-301)

institution of new legal guarantees that protect against nationalization and ensure the repatriation of profits (even with the new legislation there have been few takers).

One country seems to fit the pattern of foreign capital induced industrialization. Foreign investment dominated industry in Singapore. In 1960 less than 30% of total equity in manufacturing was foreign owned. By 1980 international capital controlled 76% of all output and 86% of all exports in the manufacturing sector. At the start of industrialization, unlike Africa, capital was not in short supply. However, like Africa, industrial entrepreneurs, technological expertise and international marketing assets and distribution channels were in short supply. Multinationals were tapped for these components. While maintaining an open economy, the state hardly took a laissez faire approach and constantly intervened with inducements to encourage international capital to move up the industrial ladder. For this purpose they used a series of incentives including joint ventures to lower risk, tax concessions, the provision of inexpensive infrastructure, heavily subsidized training and education and by providing a stable and friendly business climate. Wages were kept low and excess demand for labor encouraged so that as capital for higher technological industries became available the country could curtail investment in labor intensive industries.

Attempts to emulate Singapore's approach have proved difficult. In Malaysia foreign capital was induced to locate into exporting zones. However, some studies have indicated that the zones have remained enclaves with few if any linkages to the rest of the economy. As a result, Malaysia is now looking at the strategy employed in Korea and Taiwan (Edwards, 1995).

Credit and Finance

The case studies indicate that while interest rates were positive or moderately negative in real terms[16] in many of the countries over many of the years examined, the financial systems did not operate in any way like the neo-classical/adjustment view. First, interest rates on the investment side were heavily subsidized to priority sectors. In Korea, for example, interest rates were subsidized by as much as 75% on loans to exporters. Second, the determination of the recipient of loans was not by market forces but through the direct allocation of credit to priority sectors. In Korea "policy loans" with exceptionally low interest rates and lenient repayment terms were allocated by government operated development banks. In the early days of industrialization, they accounted for half of total bank lending. In Taiwan, during the 1970s, banks extended 75% of all loans to industries targeted by government planners.

Third, following its monetarist roots, the focus of adjustment is on meeting financial targets in the area of monetary growth rates and government deficits in order to maintain price stability and to ensure that private sector investment is not crowded out. In this view, countries that have low or no

[16].The World Bank (1993) provides data on the real interest rates over various periods mostly between 1970 and 1991 except for Japan which is dated from 1953. Only Japan at -1.12 for 1953 to 1991 and Hong Kong for 1973 to 1991 show negative average rates. Of course focusing on other periods such as the pre-1965 years in Korea would also reveal negative rates. (p.206)

government deficits and expand money supplies at the rate of growth of GDP, will have higher growth rates and stable prices. What is quite apparent from even a cursory look at the data that there was no fixed relationship between deficits, money supply growth, price levels and growth rates. While all of East and Southeast Asia on average performed better than other developing countries over the past few decades, inflation rates, government deficits and money supply growth showed considerable variation. For example, between 1970/72 and 1986/88 Malaysia's M2[17]/GDP ratio tripled while its per capita GDP grew by half. Thailand had per capita GDP growth of two-thirds while its M2/GDP ratio doubled. However, Korea's M2/GDP ratio grew by only quarter while its per capita GDP tripled. Yet Taiwan had similar GDP per capita growth as Korea but its M2/GDP ratio increased by two and one-half times over the period(Lindauer and Roemer, 1993, p.121,136,137)! Inflation also seemed to have little correspondence to performance and money supply growth. Malaysia with its high money supply expansion had the lowest inflation with its average CPI increasing at only 3.4% per annum between 1961 and 1991. In contrast, Korea with a much lower money supply growth and a higher GDP expansion had an inflation rate of 12.2% per annum over the same period. Sub-Saharan Africa's inflation rate, by comparison, was 20% per annum between 1961 and 1991 (World Bank, 1993: 110). One must ask, if Africa had managed to lower the average inflation rate to the Korean level would it have made a difference in the pattern of growth and investment? It is highly doubtful. Short of the destabilizing impact of hyperinflation, (which can be brought on by IMF induced devaluations) it would appear that growth is compatible with a wide variety of inflation rates.[18]

Fourth despite positive real interest rates, savings levels showed considerable variation with Korea generally on the lower side and Singapore on the higher side.[19] What is perhaps more important in explaining savings rates is the institutional context (broadly defined). On the savings side, one can point to a variety of factors. East and Southeast Asian countries were able to put in place secure (government backed) financial intermediaries with low transaction costs for small savers (eg. postal savings system). In some cases, governments were able to mobilize large pools of savings at the work place (Singapore's provident fund). In other places, such as in Japan, savings habits were part of a pattern of maintaining wealth intact for several generations. Spreads were carefully maintained by government regulation to ensure that savers received a significant part of the prevailing interest rates (World Bank, 1993: 217). In contrast, adjustment in Africa has often pushed deregulation with severe consequences. In Ghana, for instance, deregulation of the banking system in 1987 led to a significant rise in bank margins with a resulting drop in interest payments to depositors (Abbey, 1991: 524).

---

[17].M2 is a broader definition of money supply and usually includes narrow money such as currency in circulation and demand deposits as well as quasi-money which is generally comprised of savings and time deposits.

[18].There was also wide variation on the level of deficits with countries like Malaysia running significant deficits into the 1980s although countries like Singapore and Taiwan after the early 1970s were very conservative. The question that needs to be answered is not what is the level of the deficit but what is being supported by the deficits and could there be a better use for the credit.

[19].In 1982, for example, Singapore had a gross savings rate of 41% while Korea's was only 24% (World Bank, 1984: 227). Dornbusch and Reynoso (1993), drawing on the literature, find no evidence that positive real interest rates raise the level of savings.

In Nigeria, the deregulation of the financial system, which was part of the SAP package in 1986, led to a proliferation of new banks which tripled in number by 1991 (to around 120). Most new banks undertook little or no lending to the real sector with most loans financing interest rate and foreign exchange speculation and arbitrage. There was little or no relationship between savings and lending rates. In response, the central bank in 1990 reintroduced a spread between savings and lending rates. Subsequently in 1991, maximum lending rates and minimum deposit rates were imposed. With the deregulation of the rates in 1992, interest rates on the interbank market soared to more than 100% leading to a reimposing of interest rate levels in January 1994. Deregulation in a poor supervisory climate, weak licensing procedures and undeveloped institutional arrangements (such as open market operations), has pushed the Nigerian financial system to the brink of disaster with more than 50% of the banks either technically insolvent or in distress by June 1994.[20]

Despite the very successful mobilization of savings in Asia, there is growing evidence that it was not savings that led to the phenomenal investment and growth rates of the last few decades but the rise in income that led to the very high level of savings.[21] In one of the first systematic tests of savings-growth causality the World Bank(1993) found that in five countries the causation was clearly from growth to savings (Indonesia, Japan, Korea, Thailand, Taiwan), in two it was ambiguous (Hong Kong and Malaysia) and in one it was due to other factors (Singapore where the provident fund comes into play). What is most interesting is there was no evidence to support the typical neo-classical savings to growth causality.[22]

So if high savings did not lead to growth and accumulation, then what permitted the growth and accumulation to take-off? The key is the development of accommodating financial institutions that were able to initiate and maintain a flow of credit to finance spending on investment goods. Wayne Nafziger (1995) provides an excellent discussion contrasting the evolution of money and finance in Meiji Japan to sub-Saharan Africa. European colonial powers constructed the financial system in sub-Saharan Africa. In Japan, the state selectively adopted features of the American, French, British and German systems. While Japan's financial network contained virtually no foreign ownership, private banks were operated by the Europeans in Africa.

African colonial governments intervened little in the regulation of the banking system, had little or no contact with small indigenous bankers and created few if any new financial institutions. The

[20].The Central Bank of Nigeria has estimated that it will cost 86 billion Naira to reorganize the financial system. If the experience of the U.S. is any guide (the savings and loan crisis of the 1980s), the final figure is likely to be many times the initial estimate. The information on the Nigerian financial system is based on interviews in Lagos and Abuja during June 1994 with officials in the Central Bank of Nigeria, the Nigerian Deposit Insurance Corporation, private banks, state banks and accounting firms.

[21].In 1965, just prior to the big surge in industry, Singapore's and Korea's gross domestic savings rates were significantly below those in sub-Saharan Africa. The numbers were 10%, 8% and 13%, respectively. By 1990 the figures were 45%, 37% and 16% (World Bank, 1992: 235).

[22].The Bank in the study uses a Granger causality test for the growth rate of real GDP per capita and the gross savings rate. For details of the results and the method used see appendix 5.1 of the "Asian Miracle" study (World Bank, 1993: 242-245).

Meiji government organized most of the banking system in the last three decades of the 19th century using a combination of direct ownership or indirect support of local private initiatives. Unlike the neo-classical belief that financial institutions are a product of the spontaneous evolution of the private sector, the banking institutions were "supply leading" often created in advance of the financial requirement. With respect to state financial enterprises and industry, the Industrial Promotion Fund was set up in 1878, the Yokohama Specie Bank was organized in 1880 to provide foreign exchange to importers, the Hypothec Banks in 1896 were set up at the prefectural levels to make long-term loans to industry and in 1990 the state organized the Industrial Bank to provide medium and long-term loans to industry. The central bank of Japan was organized in 1882 only a few years after they permitted private commercial banks. The standardization of the currency, the integration of national markets and the careful financing of early industrialization all contributed to early industrialization.

Money supply expansion was rapid from 1880 to 1940 aimed at accommodating rapid growth rates while avoiding credit constraints which might lead to recessions. In contrast, adjustment and stabilization packages have imposed tight monetary targets without regard to the implications to the credit needs of sectors like manufacturing.[23]

Entrepreneurship, the State and the Structure of Industry

As noted above, a focus of structural adjustment is to encourage the movement of production decisions from public into private hands. Following neo-classical economics, there is no need to be concerned about the nature of business organizations. In contrast, the case studies indicate the important relationship between state policy and industrial organization and economic growth and innovation.

In general, business organizations are social institutions which provide a refuge from the vicissitudes of the market. In addition to reducing transaction costs, they embody habits and routines which allow companies to handle the complexity of production and exchange and develop expectations in a world of uncertainty. Different organizational forms will breed greater operational success. While authors like Oliver Williamson (1985) have stressed the role of governance structures within firms as a means of limiting opportunism and therefore transaction costs, what has been more important to success in Asian countries has been organizations that are able to encourage loyalty and trust. Mechanisms such as benefits that increase with time and

[23].In Tanzania, credit constraints imposed after the 1986 agreement with the IMF were even affecting manufacturing exports. In 1987 Texco (National Textile Company) could only meet Shs 280.7 million of a total export order of Shs 380 million due to overdraft constraints caused by the IMF credit ceilings (Campbell and Stein, 1992: 77). There are many examples of the impact of credit constraints on manufacturing in Africa, including attempts by small industry to finance production for exports. In a very interesting case in Ghana, reported by the Wall Street Journal, small and medium sized Ghanian textile producers were having difficulty meeting the orders of import companies like Pier One due to the tightness of credit and the lack of financial institutions to accommodate their needs. Even the normal pro-Bank Journal was lamenting how little progress had been made in Ghana, the Bank's showcase country, after a decade of adjustment (Wall Street Journal, January 26, 1994: A5).

lifetime employment were important in encouraging worker loyalty in Japan after World War I.

These attributes have not only been important in intra-firm relations but in inter-firm interactions. In Japan and Korea, the state encouraged the development of large conglomerates of interlocking companies which also encouraged loyalty and trust leading to transaction cost reductions.

As in Africa today there were few entrepreneurs with the experience to build large scale industrial firms. Faced with this absence, governments in Asia set out to foster entrepreneurship. As noted above, Singapore primarily relied on foreign capital to build up entrepreneurship. In Korea once the state identified a successful entrepreneur, cheap credit was made readily available. This would have a snow-balling effect with success breeding success since the government credit was largely based on previous achievements. Given the availability of credit entrepreneurs could launch a number of simultaneous ventures. This led to a race for empire-building and the development of the Korean Chaebols.

To the Korean government, large scale production was necessary given the minimum plant size to capture economies of scale in areas like automobiles, steel and shipbuilding. The government also viewed the Chaebols as the most effective means to compete in international markets against large foreign multinationals as well as a means of strengthening the Korean side of joint ventures with foreign partners. Finally large firms which provide refuge from the market have been important in setting up and sustaining research and development leading to innovative investment. One initial problem with the emphasis on large firms was the creation of industrial dualism with small and medium firms relegated to an inferior status. Following Japan's lead the problem has been addressed since the mid-70s as smaller firms have been integrated into production by increasingly supplying components and semi-finished goods to the larger units.

As Gordon Redding and Simon Tam (1995)indicate, the case of Hong Kong is considerably different. While the historical structure of Chinese society limited the development of entrepreneurship, there were strong elements within the society that would encourage entrepreneurship once they were decoupled by British colonialism. The crucial legacy which played a central role in reducing transaction costs was the paternalistic power structure with a resulting dependence of subordinates and strong loyalty ties; the central role of family in determining allegiances, network structures and organizational boundaries; and the use of personalism in facilitating transactions.

Both the colonial state in Africa and the Confuscianist state in China discouraged and looked down on indigenous commercial activity. The main route to upward mobility was via the public sector. In contrast, under the Hong Kong colonial government, British officials monopolized the civil service making the pursuit of bureaucratic office unavailable to the Chinese population. The pursuit of wealth became respectable and promoted by a set of policies which encouraged industrial and commercial activities.

Without even comparing the social structures of Africa relative to Hong Kong, the applicability of the Hong Kong approach seems somewhat limited. First, many of the basic components of state support for industry in Hong Kong (discussed above) in areas like infrastructure and education are still absent in Africa.[24] Second, the legacy of the colonial state in Africa, with its suppression of entrepreneurship has continued in Africa. During the colonial period, legal barriers impeded the ability of Africans to engage in commerce. After independence, the choice was often between recognizing and guaranteeing the ownership rights of visible minorities like Asians or utilizing newly formed bureaucracies to usurp those rights on behalf of the general African population. Private property and accumulation were seen as evidence of exploitation which often entailed the enrichment of visible minorities at the expense of Africans. This suggests removing state barriers to entrepreneurship is insufficient. Entrepreneurship will need to be carefully fostered to build up its legitimacy. The case of Japan and Korea, where the states carefully fostered industrial entrepreneurship, would therefore seem to be more applicable.[25]

The Reproducibility of the Asian Experience: The Case of Africa

The paper has so far identified the policies used by Asian states to intervene in support of industrialization. The next question is how readily can they be reproduced in Africa given the different preconditions and histories, the current international economic environment and the political economy of African states. From th case studies of Hong Kong, Taiwan and Korea, it is apparent that in terms of infrastructure, the initial industrial base and the attitude and policies of officials, the colonial period was much more conducive to industrialization in Asia relative to Africa. In areas of Africa, after thirty years of independence, some countries have not yet overcome these inherited deficits. In addition, competition in the export of manufactures has grown steadily as ldc's in other parts of the world have aggressively expanded into new markets. Between 1965 and 1980, manufactured exports from ldc's to developed countries grew at an annual rate of 25% (Sarkar and Singer, 1991: 334). During the 1980s as some Southeast and East Asian countries

[24].There are some interesting cases of the private sector prospering in industry without the state's support of even basic public goods. Deborah Brautigam (1993) provides a fascinating case study of the development of mostly auto part manufacturing in the Nnewi Township in Eastern Nigeria during the 1980s. The industrial entrepreneurs substituted their own private goods such as water and power for the public goods the Nigerian state failed to provide. In the absence of financial intermediaries, they financed their operations from well-developed trading operations. Along Hong Kong Chinese lines, they reduced agency problems by incorporating family members into the management of the companies. International connections developed over a long period in trading with mostly Taiwanese companies, reduced the effects of "adverse selection"in the import of equipment. Clustering reduced information costs and provided a demonstration effect which encouraged further investment in manufacturing. Long term business relations increased the trust and cooperation between different groups in the cluster. The result was manufacturing which was not just competitive domestically, but regionally which allowed some exporting. However, given the macroeconomic instability after 1988 brought on partially by structural adjustment (eg. devaluing naira made it difficult to plan a large investment based on imported capital goods, inflation was eroding savings, credit constraints made it difficult to obtain working capital from other sources etc.) the surge of new industries was leveling off. Overall, given the peculiarities of the case and the threat to its sustainability, this is unlikely to be the route to industrialization. There is no substitute for the state capacity to reduce transaction costs and foster entrepreneurship.

[25].Even in Taiwan where there was a greater reliance on small scale industrial production, the state played a number of key supporting roles like requiring multinational capital to use local sources as inputs into production. For a good discussion of this see Brautigam (1994: 148).

moved up the industrial ladder, their low-wage export position was being replaced by new labor-intensive exporters like China. This further intensifies the competition that is likely at the entry level into manufacturing. These two questions provide a formidable but not insurmountable challenge. In the first case, it will require even greater levels of public spending or longer time horizons to overcome the inherited deficits. The second barrier to reproducing the Asian experience is based on too static a view; one which often permeates the dependency literature. The rapidly changing structure of manufacturing exports of ldc's illustrates how quickly the world division of labor can change.

Finally, most of the case studies have contrasted the nature of the state in Asia relative to Africa. States in Africa have generally been weaker, less professional and much more subject to patronage and clientage. This greatly delimits their capacity to implement and sustain an industrial strategy.

This area also represents a formidable challenge to following the Asian route to industrialization. One reaction, as illustrated by the Lindauer and Roemer (1993) study, is that given the character of African states they should not attempt to emulate the interventionism of East Asia. Instead they should pursue the Southeast Asian approach which more closely matches their physical and social attributes and which relied on market incentives not government direction. As they more explicitly put it "export growth came from smaller firms and from agriculture, guided by market incentives, not by government" (p.7).[26] There are some obvious problems with this approach.
First, it is not clear what the difference is between their perceived model of Southeast Asia and the structural adjustment policies used in Africa since the early 1980s with such problematic results. Second there is some question about their representation of the Southeast Asian experience. As Chris Edwards indicates at least in Malaysia, governments did intervene heavily to promote the industrial sector (1995). However, the reason why manufacturing has had much fewer linkages to the rest of the economy relative to East Asia is not due to a lack of support but to a lack of discipline. One approach to improving the results of support has been the usage of what the World Bank (1993) refers to as contests in East Asia. In particular they have explicitly set out the rewards, rules and referees of the contests enhancing the competition and overall results of the support offered by the state.[27] Even the Bank admits that under some limited circumstances (particularly in

[26].Lindauer and Roemer (1993) in a study on Asia and Africa sponsored by the U.S. Agency for International Development point to the Southeast Asian countries of Thailand, Malaysia and Indonesia, not East Asian nations, as examples to be emulated. Their reasoning is fairly neo-classical relying on a combination of standard static comparative advantages and public choice arguments. First, they share similar factor endowments including unskilled labor, land and natural resources. In contrast, East Asia has poorer endowments particularly in land and natural resources. Second the states of Southeast Asia, (unlike East Asia) have been subject to clientalism and rent-seeking which is very similar to Africa. They have not attempted interventionist strategies which would be thwarted by these features.
[27].The World Bank (1993) defines the rewards, rules and referees:

> Preferential access to credit and foreign exchange have been extremely attractive rewards. Rules have centered on economic performance, primarily a well-understood imperative to export. Referees, the government officials who have designed and supervised the contests, have been generally competent and fair. (p.94)

the early stages of industrial development) the results of well-run contests might be superior to a market approach.

Finally, as Alice Amsden (1989) has pointed out the enforcement of a distortion free (and rent-free) set of markets itself requires a "strong" state.[28] Liberalization does not ipso facto remove rent-seeking in Africa. Cathy Boone (1994) in a fascinating study of trade liberalization in Senegal and Cote D'Ivoire challenges the neo-classical view. Orthodoxy argues that replacing non-tariff barriers (like licenses) with tariffs depoliticizes trade, reduces commercial rent-seeking activities and creates a level playing field which will encourage underground activities to surface in turn allowing the state to capture more revenue. The author illustrates that liberalization failed to alter commercial rent-seeking, helped to encourage the ascendancy of new politically connected capital (the Mourides in Senegal and the Lebanese in Cote D'Ivoire) and to some degree increased the tax evading underground activities leading to a further erosion of state revenue flows. The removal of rent-seeking and the creation of a level playing field leading to an effective set of markets may be more not less difficult than effective state intervention.

Many Bank officials, particularly outside the more dogmatic circle of the senior staff, recognize the central role of the state in Asia but argue that the state-led approach was tried in Africa in the 1960s and 1970s without success and therefore should not be attempted again.[29] How does one respond to this position? First, as I have argued elsewhere (Stein, 1992), you cannot explain the weakness of the industrial policy in the earlier period without discussing structural and institutional features including the international mechanisms (like Bank cost-benefit studies) that influenced the choice of industry and technology types. As Sanjaya Lall has aptly put it "the problem with past intervention has been **non-selectivity and lack of strategy** rather than selection and strategy based on experience, analysis and economic evaluation" (1992: 125).
These structural and institutional weaknesses will need to be addressed.

Second, as some studies of industry in Africa have illustrated there have been industrial successes in Africa and these successes in places like Zimbabwe have often been a product of interventionist policies (Riddell, 1990;1993). Third, and perhaps most important, if Asia is any guide, without state intervention and the development of supporting institutions, industrialization will not occur in Africa.[30]

---

[28].I thank Chris Edwards for pointing this out in his comments on an earlier draft.

[29].Lindauer and Roemer emphatically concur:

For sub-Saharan Africa as a whole, intervention has been tried and failed. (1993: 13)

[30].To once again quote Sanjaya Lall:

There cannot be any 'quick fixes' for the problems of African industrialization. Some of the incentive-based approaches have given the impression that just getting prices right will launch Africa on the path to NIC-dom...it is the right combination of incentives capabilities and institutions... that will call forth a proper response...A great deal of responsibility...rests on the aid donors as well as African governments. Donors have to ensure that funds aimed at industry are used in a policy framework which provides the right incentives (which may not, it should be reiterated, necessarily mean laissez faire or low, uniform rates of protection) and stimulates the right

In contrast to Lindauer and Roemer(1993) and the World Bank(1993), the central lesson of the Asia's industrialization, emphasized in this paper is that there is no alternative to the state.[31] International agencies need to move away from the policy lending based on flawed economic theories toward financing the public goods and state capacities which are prerequisites for private initiatives in industry.[32] Performance criteria need to focus not on meeting financial targets based on some hypothetical neo-classical balances but on the professionalism and autonomy of state institutions. As economic performance improves, the legitimacy of the autonomous state will grow, creating resistance to clientalism and patronage. In the rapidly changing world division of labor, opportunities will be created for Africa's industrial exports. With the appropriate institutional setting it will be possible to respond to those opportunities.

> capabilities. The pace of industrialization should not exceed, in a general sense, the pace of capability development...It would also mean that action is needed on the capability front in **policy formulation** and **implementation** as well as in industry.(1992: 131)

[31].Roger Riddell lists four areas of intervention needed to support the development of industry in Africa. They include measures aimed at improving the viability of currently operating industry; assistance in setting up new competitive enterprises which would be aimed at current domestic (to save foreign exchange, raise value added levels etc.) and external markets (particularly sub-regional); support for new enterprises which will not be competitive in the short or medium term but are useful for long-term development; and establishing a facility to monitor and assess the current viability and potential competitiveness of various industries as well as evaluating the benefit vs. cost of the other types of intervention (1993: 240-241). In addition one should also add the broad forms of intervention in support of industry discussed in this paper including upgrading technical education, expanding and upgrading infrastructure, aggressive international and regional promotion of domestic manufactures etc.

[32].The new Bank study of Africa argues that adjustment policies have had a positive effect on industry. Except for some rather anecdotal evidence, the main support for this position is the higher median increase in the average annual growth rate of the "large improvement" group from 1981 to 1986 to 1987 to 1991. The argument, however, is not very cogent. First, if we ignore the classification problems discussed above and accept the categories as given, the Bank's data actually indicates that the "small improvement" category's average annual performance in industry and manufacturing was appreciably better than the "large improvement" group between 1987 and 1991 (mean of 5.5 % vs. 4.3% and 8% vs. 4.6% in industry and manufacturing, respectively). Second, the Bank argues that the critics of adjustment policy's impact on industry must tie any declines in industrial output to Bank policies. The argument can be inverted. The Bank needs to show that if there is any improvement in industry it is due to adjustment policies. This is not done. In fact evidence from Riddell (1993: 232) indicates that some of the countries in the "large improvement" category (like Zimbabwe) improved their manufacturing by increasing the incentives to export non-traditional categories of manufactures. In contrast, Cote D'Ivoire with its reduction in tariffs undertaken in response to international agency pressure partially explains the decline in the growth of industry in the country (-2.2% between 1987 and 1991) (World Bank, 1994: 149-152;247-248). In any case both the Bank and its critics would probably agree that there is little or no evidence of robust growth in industry in the last decade. The focus of the argument is on how that can be changed.

Bibliography

Abbey, Joe. 1991. "Lessons of Experience and the Future of Adjustment Lending." in Thomas, Vinod et al. Restructuring Economies in Distress, Policy Reform and the World Bank. Oxford: Oxford University Press for the World Bank: 523-526.

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

Amsden, Alice. 1994. "Why isn't the Whole World Experimenting With the East Asian Model to Develop?: Review of the World Bank's The East Asian Miracle: Economic Growth and Public Policy." The Graduate Faculty, Political Economy, New School for Social Reseach, Working Paper No. 47, presented at the Allied Social Science Meeting, January.

Balassa, B. 1971. "Industrial Policies in Taiwan and Korea." Welwirtschaftliches Archiv. 106(1): 55-77.

Balassa, B. 1981. The Newly Industrialized Countries in the World Economy. New York: Pergamon Press.

Boone, Catherine. 1994. ""Trade, Taxes and Tribute: Market Liberalization and the New Imprters in West Africa." World Development. Volume 22, No.4

Brautigam, Deborah. 1993. "Substituting for the State: Explaining Industrial Development in Eastern Nigeria". paper presented at the African Studies Association Annual Meeting, Boston, MA, December.

Brautigam, Deborah. 1994. "African Industrialization in Comparative Perspective: The Question of Scale." in Bruce J. Berman and Colin Leys (eds.). African Capitalists in African Development. Boulder: Lynne Reinner Publishers: 139-162.

Brautigam, Deborah. 1995. "The State as Agent: Industrial Development in Taiwan, 1852-1972." in Stein, Howard. ed. Asian Industrialization and Africa: Studies in Policy Alternatives to Structural Adjustment. Basingstoke: Macmillan

Campbell, Horace, and Howard Stein. (eds). 1992. Tanzania and the IMF: The Dynamics of Liberalization. Boulder, Colo.: Westview.

Chhibber, Ajay. 1989. "The Aggregate Supply Response: A Survey." in Commander, S. ed. Structural Adjustment and Agriculture: Theory and Practice in Africa and Latin America. London: Overseas Development Institute: 56-68.

Coase, Ronald. 1992. "The Institutional Structure of Production", American Economic Review.

(82)4.

Commander, Simon. 1989. Structural Adjustment and Agriculture: Theory and Practice in Africa and Latin America. London: Overseas Development Institute.

Cornia et al.,Adjustment With a Human Face, I, Protecting the Vulnerable and Promoting Growth, Oxford: Clarendon Press, 1987.

Dorbusch, R. and Reynoso, A. 1993. "Financial Factors in Economic Development." in Dornbusch, R. ed. Policy Making in the Open Economy: Concepts, and Case Studies in Economic Performance. Oxford: Oxford University Press.

Edwards, Chris. 1995. "East Asia and Industrial Policy in Malaysia-Lessons for Africa?" in Stein, Howard. ed. Asian Industrialization and Africa: Studies in Policy Alternatives to Structural Adjustment. Basingstoke: Macmillan

Godfrey, Martin. 1985. "Trade and Exchange Rate Policy in Sub-Saharan Africa. " IDS Bulletin 16, no. 3: 31-38.

Helleiner, Gerald. 1990. "Structural Adjustment and Long Term Development in Sub-Saharan Africa." Centro Studi Luca D'Agliano-Queen Elizabeth House. No. 18 (March).

Kim, Kwan S. 1995."The Korean Miracle (1962-80) Revisited: Myths and Realities in Strategy and Development" in Stein, Howard. ed. Asian Industrialization and Africa: Studies in Policy Alternatives to Structural Adjustment. Basingstoke: Macmillan

Khan, Mohsin S. et al. 1990. "Adjustment with Growth: Relating the Analytical Approaches of the IMF and the World Bank." Journal of Development Economics. 32.

Krueger, Ann. 1978. Liberalization Attempts and Consequences. New York: National Bureau of Economic Research.

Lall, Sanjaya. 1992. "Structural Problems of African Industry in Frances Stewart, Sanjaya Lall and Samuel Wangwe (eds.): 103-143.

Lele, Uma. 1990. "Structural Adjustment, Agricultural Development and the Poor: Some Lessons from the Malawian Experience." World Development 18 (September): 1207-19.

Lim, Linda Y. C. 1995. "Foreign Investment, the State and Industrial Policy in Singapore." in Stein, Howard. ed. Asian Industrialization and Africa: Studies in Policy Alternatives to Structural Adjustment. Basingstoke: Macmillan

Lindauer, David and M. Roemer. (eds). 1993. "Development in Asia and Africa: Legacies and

Opportunities". Harvard Institute for Economic Development. (September).

Little, Ian 1981. "The Experience and Causes of Rapid Labor Intensive Development in Korea, Taiwan Province, Hong Kong, and Singapore and the Possibilities of Emulation." in E. Lee (ed.). Export-Led Industrialization and Development. Geneva: International Labor Organization: 23-45.

Mosley, Paul and John Weeks. 1993. "Has Recovery Begun? Africa's Adustment in the 1980s Revisited". World Development 21(10) (Oct.): 1583-1606

Mosley, Paul et al. 1991. Aid and Power: The World Bank and Policy Based Lending (two volumes). London: Routledge.

Nafziger, E. Wayne. 1993. The Debt Crisis in Africa. Baltimore: Johns Hopkins University Press.

Nafziger. E. Wayne. 1995. "Japan's Industrial Development, 1868-1939: Lessons for Sub-Saharan Africa." in Stein, Howard. ed. Asian Industrialization and Africa: Studies in Policy Alternatives to Structural Adjustment. Basingstoke: Macmillan

Parfitt, Trevos W. and Stephen P. Riley. 1989. The African Debt Crisis. London: Routledge.

Putterman, Louis. 1993. "Economic Reform and the Tanzanian Smallholder." paper presented at the African Studies Association Annual Meeting, December.

Quarco, Philip. 1990. "Structural Adjustment Programmes in Sub-Saharan Africa: Evolution of Approaches." African Development Review. 2(2) (December): 1-26.

Redding, S. Gordon and Tam, Simon. 1995. "Colonialism and Entrepreneurship in Africa and Hong Kong: A Comparative Perspective." in Stein, Howard. ed. Asian Industrialization and Africa: Studies in Policy Alternatives to Structural Adjustment. Basingstoke: Macmillan

Riddell R. 1990. Manufacturing Africa. London: James Currey.

Riddell R. 1993. "The Future of the Manufacturing Sector in Sub-Saharan Africa." in Thomas Callaghy and John Ravenhill (eds.). Hemmed in: Responses to Africa's Economic Decline. New York: Columbia University Press: 215-247.

Sarkar, Prabirjit and H. W. Singer. 1991. "Manufactured Exports of Developing Countries and their Terms of Trade since 1965." World Development. 19(4) (April): 333-340.

Stein, Howard. 1992. "Deindustrialization, Adjustment, the World Bank and the IMF in Africa." World Development. 20(1): 83-95.

Stein, Howard. 1994a. "The World Bank and the Application of Asian Industrial Policies to Africa: Theoretical Considerations." Journal of International Development. (Sept/October)

Stein, Howard. 1994b. "Theories of Institutions and Economic Reform in Africa". World Development, 22(12)

Stein, Howard. ed. 1995. Asian Industrialization and Africa: Studies in Policy Alternatives to Structural Adjustment. Basingstoke: Macmillan

Stein Howard and E. W. Nafziger. 1991. "Structural Adjustment, Human Needs and the World Bank Agenda." Journal of Modern African Studies. XXIV(1) (March): 173-189.

Stewart, Frances. 1991. "Are Adjustment Policies in Africa Consistent with Long-Term Development Needs." Development Policy Review. 9(4) (December): 413-436.

Stewart, Frances, Sanjaya Lall, and Samuel Wangwe (eds.). 1992. Alternative Development Strategies in Africa. London: St. Martin's Press.

Syrquin, Moshe and Hollis B. Chenery. 1989. Patterns of Development, 1950 to 1983. World Bank Discussion Paper 41. Washington D.C.: World Bank.

Wade, Robert. 1990. Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization Princeton: Princeton University Press.

Wall Street Journal. January 26, 1994

Williamson O. 1985. The Economic Institutions of Capitalism. New York: The Free Press.

World Bank. 1983. World Development Report, 1983. New York: Oxford University Press.

World Bank. 1984. World Development Report, 1984. New York: Oxford University Press.

World Bank. 1989. SubSaharan Africa: From Crisis to Sustainable Growth, A Long-Term Perspective Study Washington, DC: The World Bank.

World Bank. 1992. World Development Report, 1992. New York: Oxford University Press.

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

World Bank. 1994. Adjustment in Africa, Reforms, Results and the Road Ahead. New York: Oxford University Press.