1

Analysis

Success Stories – the Lessons of East Asian Development and their Applicability Elsewhere

1.1 Introduction

The rapid industrialization of several East Asian countries has attracted enormous attention. The paper will refer mainly to the four of these East Asian industrializing economies (EAIEs) which first achieved industrial success in the post-1960 period: Hong Kong, Singapore, South Korea and Taiwan, sometimes known as the "Four Tigers". A longer list of the EAIEs would include Indonesia, Malaysia and Thailand, and today China as well: these are referred to at various points below; the background also includes Japan, whose experience has been important.[1]

The greatest potency of the (chronologically) first four EAIEs is perhaps less as a "model" than as an *example*. They are examples of what developing countries can do for themselves. In 1960 Korea's per capita income was some $325, about the level of a mid-range low-income country today. Now it stands in the region of $8000: it has averaged over 7% annual growth of per capita income over 35 years, and over 9% GDP growth. It received substantial and valuable foreign aid during the earlier part of the period; but the major part of its success is attributable to its own efforts. The growth records of Hong Kong, Singapore and Taiwan have been comparable; and they have far exceeded those of almost any other country.

There have been special features unique to the East Asian experience; but also several which other countries can, if not replicate, learn from and at least partially apply. Two parts of the "success stories" are relatively uncontroversial: reasonably stable macro-economic management, and high rates of accumulation of physical and human capital. The special features are historical and cultural. The more controversial elements lie in trade and industrial policy, and the role of government – though as research progresses, the extent of the controversy is narrowing.

1.2 Trade and Industrial Policy in the EAIEs

Of the four countries, **Hong Kong**'s policies were arguably the most "laissez faire" – but it had certain historical peculiarities: its long tradition as a trading port for the Far East, with a sophisticated financial infrastructure, the formation of large British companies (or "Hongs"), and very advantageous presences of entrepreneurs and skilled workers, both from the rest of the world and from mainland China. It has also specialised mainly in light manufacturing, without deepening its industrial base. In recent years it has been relocating manufacturing to other countries, especially China, and its own manufacturing employment and exports have fallen drastically. In five years from 1987, Hong Kong lost about one third of its employment in manufacturing, and its manufactures exports fell by 8.4% a year. During the same period, exports of manufactures from the other three EAIEs grew apace: Korea's by 10.4% a year, Taiwan's by 9.9%, and Singapore's by a remarkable 19.2% annually. While still prosperous, it is clear that Hong Kong does not have the same capacities as the other three to adapt its manufacturing to changing circumstances.

Singapore was much more interventionist, if in a market-friendly manner, relying in particular on multinational corporations (MNCs) and foreign direct investment (FDI), but being deliberately selective and aggressive in seeking foreign investors and guiding them into activities the

government wished to promote. It also set up public enterprises when it thought them necessary; but perhaps the most comprehensive of all government direction of investment was on the human side, pushing forward with education, training and skill development to ensure the existence of a highly skilled and technically well-endowed labour force. These efforts have permitted a continuing movement of production into higher value-added activities as domestic living standards rose.

While both Hong Kong and Singapore were relatively free in their trade regimes, **Korea** and **Taiwan** were not. Both engaged in significant import protection, but at the same time gave domestic firms strong incentives to export. They made comparatively little use of FDI, except where local firms lacked and could not develop technological capacity. A key difference between the two was, however, in emphasis on size of enterprises. As is well known, official Korean policy encouraged and made extensive use of large private conglomerates or *chaebols*. Taiwan, on the other hand, has based its development far more on small and medium-scale enterprises (SMEs). Both were also land-based economies, and had major land-reform programmes which contributed to degrees of income equality unusual in developing countries. (Research today suggests a strong link between income equality and growth of national output and productivity.[2])

1.3 Growth and macro-economic management

When economists examine growth, they look at the changes in the basic factors of production – land, labour and capital. Growth can be accounted for by increases in these factors, or by improvements in their productivity; the latter is usually known as Total Factor Productivity, or TFP. There is no doubt that rates of accumulation of human and physical capital have been exceptionally high, higher than in other developing countries at comparable levels of income. Some authors suggest that most of the four economies' growth is due to this accumulation.[3] (Estimates of TFP growth vary from study to study; these authors find TFP growth to be unexceptional.)

It is possible to question the findings, on the ground that they emerge from a model whose assumptions are untested; other models indeed yield different results. But even if the high accumulation story is true, it does not really answer any questions: it *accounts* for growth, but does not *explain* it – the question becomes why these rates of accumulation persisted so long: since they were mainly private (though with a large public element), they had either to have been subsidised, or to have had high rates of return, in order to be attractive, and to continue over such extended periods without growth falling off. Some of the former socialist economies also had high rates of accumulation, without the same results.

One study accepts the accumulation view, but goes on to explain the high productivity of investment in Korea and Taiwan by industrial policy, which permitted the capturing of complementarities between investments and economies of scale which would not have been possible in the absence of intervention.[4] Though the study probably goes too far when it argues that exporting was less important than some sources claim. While it is right in observing that in the first spurt of Korean growth, exports were still only 10% of GNP, during the later rapid-growth period they varied between over 20% and 30% of GNP; in several products – shipbuilding, chemicals, electronic appliances – export markets were also essential to capturing economies of scale; the investments would not have been justified on the basis of the domestic market alone.

Some other commentators have claimed that *small government* was important to East Asian growth. This is not relevant to the question of whether intervention was effective or not (it may have been highly effective even if it did not take a large volume of government resources). But there is a question as to whether these accounts have measured government consistently. The

proportion of government revenues or public expenditure to GDP may appear relatively small by comparison with other economies. But such an appearance is misleading, when in fact there were high levels of compulsory saving that were available to governments to control, and large compulsory contributions out of wages to private funds, such as the state-run Central Provident Fund in Singapore, to which employees and employers are each required to contribute 20% of wages. In other economies these transactions would have been in the public sphere: more taxation and/or more government expenditure.

Another strand in the debate has been dismissal of the value of interventions by attempted demonstrations that the sectors or industries "promoted" by intervention have not done better as a result, or have even done worse. Various estimates purporting to show this have been claimed;[5] but again, the findings are subject to the growing awareness that while data fitted to one model can appear to support one conclusion, fitted to another they may show something different. The important question is whether the assumptions are true. A more realistic model, allowing for economies of scale and other effects, suggests that productivity growth in the promoted sectors was actually higher than in others.[6]

Exports of manufactures were in the view of the present paper highly important to growth. They provided the continuing demand for output, and the high rates of return to investment in physical capital and human skills. They yielded economies of scale for producers not obtainable from domestic markets, and also provided the competitive discipline from which domestic markets were often shielded. They assisted with the transfer of technology.[7] They provided foreign exchange to finance the foreign borrowing which upto the 1980s contributed a large share of investment.[8] They imparted the basic dynamism to these economies which made sense of everything else.

Macro-economic management was of major importance. Deficits, domestic and foreign, were mostly kept at low levels; exchange rate regimes were adjusted from time to time to take account of circumstances, usually in sequence from fixed, to fixed but adjustable, and then to floating (and in Hong Kong in one volatile period, back to fixed); exchange rates were realistic and competitive. Inflation was moderate or low, averaging 3.6% annually in Singapore over 1961-91, 6.2% in Taiwan, and 8.8% in Hong Kong. Only Korea had higher figures (12.2% for the whole period, but 17.4% in the 1960s and 19.8% in the 1970s – still below the 20% regarded by some as an upper limit to manageable inflation in developing countries; the 1980s figure was 5.1%).[9]

While these policies provided relatively stable economic conditions, none of the economies escaped periods of difficulty, in particular those arising from external shocks, especially after the oil-price increase of 1979. But all four displayed good capacity to cope with shocks. This capacity is nowadays regarded as among the most important factors in growth.[10] Stability is important to investors, domestic and foreign; to savers and to the avoidance of capital flight. Exchange rate stability is also helpful to exporters. Debt crises were largely avoided – indeed only Korea relied at all heavily on foreign borrowing to maintain investment levels. High levels of savings and exports meant that capacities to service debt were satisfactory; Korea's foreign debt exceeded half its GNP in 1985, but it never lost creditworthiness, and reduced the debt/GNP ratio to 14% by 1990.

Savings were high in part because incomes were high and growing; interest rates were kept mostly, though not always strongly, positive, and at least were not allowed to become significantly negative, as has proved damaging in several developing countries. Demographic factors played a part, as fertility declines reduced the burden of dependency. Governments also encouraged private savings, both institutionally by promoting banking, post office and other savings facilities, and also by bank regulation to increase the security of deposits; and even by targeted savings schemes and restrictions on consumer credit.[11] They also used tax and expen-

diture policies to produce rates of *public* savings considerably higher than the norm for other countries. (These would not have been beneficial had they not been channelled effectively into productive uses – which they were, particularly in infrastructure.)

Financial sector policies in three of the four countries did not, at least until quite recently, follow prevailing orthodoxies. Public ownership of banks, public direction of credit with interest-rate subsidies, public control over uses of private savings, were practised to varying degrees by Korea, Singapore and Taiwan (though strict commercial principles were almost invariably followed). On the whole orthodoxy seems right, in that the majority of countries following such methods have often failed with them – even some of the other successful East Asian economies such as Indonesia and Malaysia have had difficulties with them. (This does not mean that financial liberalisation on orthodox lines will always improve matters, as experience in a range of countries has also shown.[12]) As in other fields, the distinctiveness of these economies has often lain in their unusual ability to do hard things exceptionally well. The conditions for this performance in the financial sector included the fact that interest rate subsidies were modest; that officials and banks were highly qualified to assess credit risks and investment profitability; and that much of the credit was directed to export sectors.

It has also been observed that macro-economic policies were by no means straightforwardly "orthodox". An advantage enjoyed by the East Asian economies has been that their external capital flows have been less volatile than in Latin America and elsewhere; a higher proportion of capital inflows has also gone into industrial investment rather than portfolio flows. This has been part of deliberate policy by East Asian governments. These governments have also pursued real exchange rate stability at the cost of some inflation, rather than permit capital inflows and outflows to make the exchange rate appreciate or depreciate; they have also run fiscal surpluses or deficits when macro stability required them to offset private sector behaviour, rather than observing the purity of maintaining fiscal balance. It is therefore not at all evident what pursuing the macro-economic fundamentals necessarily requires, or, to put it otherwise, it seems clear that giving some fundamentals priority may mean relaxing others.[13]

Exports were pursued not only by these means, but a host of others: tax rebates, subsidized utilities, a variety of incentives including such things as awards at public ceremonies for successful export performance, and support instruments such as government-funded industrial parks. High tariffs on selected imports enabled companies to establish a base in the domestic economy, and often to make super-normal profits at home which subsidised initial losses in export markets. Advantages provided to firms were however **strictly limited in time and subject to the requirement that they succeed in export markets,** eventually under fully competitive conditions. "Infant industries" were not just allowed but forced to grow up – if they failed to, their advantages were withdrawn.

A major part of trade and industrial policy was public assistance to the acquisition of technological capability. In Singapore, as noted, the main thrust was to draw in MNCs which had the necessary expertise; indigenous development of technological capacity was relatively limited. Korea and Taiwan, by contrast, made major efforts to enhance not only the ability of domestic firms to master essential technology, but of the economy as a whole to develop its own technological advances. Korea's R&D expenditures (estimated at 2.1% of GDP) are now higher than those of any other developing country, and even than all but a few OECD countries. (Comparable figures for the other three countries are: Hong Kong 0.5%, Singapore 1%, and Taiwan 1.7%.) As noted, Korea's efforts were concentrated particularly on the *chaebols*, but other means were used to diffuse technology, such as by enacting a law promoting subcontracting for products that the *chaebols* were obliged to procure from SMEs; the subcontractors were also given financial

support initially. It may well be, however, that other developing countries have more to learn from Taiwan, which established one of the most comprehensive and successful systems of technological support to SMEs to be found anywhere.

It can hardly be sufficiently emphasised what this account is *not* saying. It is not an argument for the old, failed policies followed in many countries. The evidence against broad import-substitution strategies and highly restrictive trade controls is fairly overwhelming; such policies have been detrimental to development in a range of countries. The evidence for liberal trade policies in developed countries is also impressive. The costs of protection to the industrial countries are usually high, and the advantages of liberal trade well-known. It does not follow from these facts, however, that open, neutral trade regimes are appropriate for every country at every stage of development. The East Asian experience does show that selective interventions can work – but only if all the capacities needed to make them work are present, and if they are well-targeted, limited in duration, and combined with sound price, exchange-rate and macro policies.

There is also an important point to be made about "picking winners". It has often been argued in industrial countries that selecting products for national technological effort is something governments should steer away from; their experience in such efforts on the whole justifies such a view, though there are exceptions. But it is somewhat beside the point being made here. In industrial countries what has nearly always been at issue has been massive investments *at the technological frontier*, where risks are high and mistakes extremely expensive. It is an entirely different matter for a country catching up with known technologies, trying to penetrate existing markets, to learn and adapt techniques and ultimately to be able to do their own product and technology development. Of course for these purposes too, governments can fail as well as succeed, and even the four EAIEs have had their disappointments: but at least there are tried and feasible possibilities. Perhaps the principal skill needed by developing country governments in this field is to make good judgments about what they can and cannot do – a subject that is taken up below.[14]

1.4 Human development in the East Asian experience

Economics has not always held clearly in focus the obvious fact that what countries can do depends to a large extent on the abilities of its people and institutions. That focus is clearer today, in part because of "new growth theories" and other research pointing to the contributions made by the human factor in growth and development;[15] and in part because of the East Asian countries themselves, poorly endowed with natural or any other resources save their working people and their heritage. In these countries the statistically measured contribution of primary schooling to economic growth has been estimated as higher than that of physical investment. "Education is the main theme of the story of the differences in growth between Sub-Saharan Africa and the East Asian high performers." At the same time, the East Asian countries have performed better per unit of human and physical capital formation than other countries. "They have been apparently more successful in allocating the resources that they have accumulated to high-productivity activities and mastering catch-up technologies."[16]

Evidently making a success of the human factor in development is not just a matter of sending people to school. Some important features of East Asian public policy, as far as concerns manufacturing productivity, have been:

i a concentration of public expenditure on primary and secondary schooling; and within higher education, on science, engineering and other subjects useful to industry;

ii strong attention to the *quality* of education (in a recent internationally comparable test covering industrial and developing

countries, Korean school pupils outperformed all others in mathematics and science);

iii major efforts to stimulate skill development through training by firms and public and private training institutions, including targeting the national development of specific skills considered to be of high priority (here Singapore has had perhaps the most impressive record of all, both generally and in the promotion of, for example, widespread capability in information technology. Perhaps winners *can* be picked in skill development.)

The story of human resource development in the East Asian countries is not simply one of well-focused public policy. A number of factors coincided to make policy succeed. Many of the decisions needed to make for positive progress are taken by individuals and firms. Here information and incentives are important, and governments can supplement these when markets do not provide all the appropriate signals. (It is well known that there are important potential market failures in education and training: for example in capital markets, because people can rarely borrow against future earnings; and in firm-level training where workers can easily transfer to other firms.) Above all, the rapid growth of employment and demand for skills, deriving from the rapid growth of exports, meant that there were high perceived returns to individuals investing in their own human capital.

At the same time, as far as public schooling was concerned, the decline in fertility and population growth associated with rising incomes and the spread of education made it easier for governments both to ensure universal education and to raise its quality. (It is calculated that if Korea in 1980 had still had its fertility level of 1960, the 1960 level of primary education, at 1960 expenditure per pupil, would have cost an extra 1% of GDP in 1980. As it was, Korea was able to raise expenditure per pupil several-fold.)

A further feature of the East Asian experience has been high levels of *female* education. This of course is significant for fertility decline, especially when combined, as was the case, with effective health and family planning programmes. But growth estimates also support the view that female education is valuable for national productivity growth. Even where female labour-force participation is low on average, it is often high in export industries. And the non-market returns to female education (not least for improving the health of populations) are very considerable. The inter-relatedness of these aspects of the human development story in East Asia has acquired the epithet of a "virtuous circle".[17]

1.5 Poverty in the East Asian Economies

The East Asian economies were characterised not only by rapid growth during the last three decades, but also in most cases by improvements in the distribution of income, and reductions in the extent of poverty. Looking at the world's economies as a whole, there were only seven economies which combined high growth and low relative inequality measured over the period 1965-89: they were the four EAIEs, and Indonesia, Japan and Thailand – though the last mentioned had the least improvement. In the decade 1972-82 alone, Indonesia saw the proportion of the population below the poverty line decline from 58% to 17%; for Singapore over the same period, the decline was from 31% to 10%; and in Malaysia (1973-87), from 37% to 14%. As in so many other respects, this performance was exceptional by comparison with other countries.[18]

As has also been apparent in the analysis of these countries, the causes of this performance are not simple, but complex and mutually reinforcing. Significant background factors in Japan, Korea and Taiwan were the land reforms carried out after the Second World War. But importance must also be attached to rapid growth and high levels of employment, including the gradual drawing of women into the labour force, all of

which contributed to reductions in wage-inequality. Concentration on small- and medium-scale enterprises (especially in Hong Kong, Japan and Taiwan) helped to make growth employment-intensive. The contribution of human resource investments was also notable – without them, the land reforms would not have led to such great increases in rural productivity and incomes, nor would manufacturing development have proceeded at the pace it did. And several of these factors in turn contributed to falling family-size and slower population growth, making it easier for these economies to continue enjoying high levels of well-paid employment and extension of the coverage and quality of education and health services.[19]

It is also not obvious what is cause and what is effect. As already noted, the connection between growth and equality can work both ways. Growth provides the resources which permit improvements in equality. But equality was also helpful to growth, both by enhancing human development and productivity, and by helping to create satisfactory political conditions. Labour peace, the diminution of ethnic rivalry, the furthering of genuine democracy and social integration were to varying degrees the explicit objectives of economic policy in different countries.

1.6 Japan: a note

While the "East Asian experience" has been discussed here in terms of the first four EAIEs, the discussion would be incomplete without reference to Japan. Japan has of course been in many ways the precursor and role-model for other Asian economies, as well as a major investor in the region, often transferring its organisation and production methods to companies, subsidiaries and suppliers elsewhere. (The Japanese economy has also been important as a driving force in East Asian development: *see* the Comment by Prof John Toye in the present volume.) Japan's economic development has been a product of intensive collaboration between government, academic institutions and the private sector; it has also been a pioneer of production techniques, not only in robotics and other hardware, but in what is sometimes known as "org-ware": lean production, flexible production, just-in-time inventory and so forth.

As Japan has begun to assert financial leadership in international co-operation, it has also made efforts to achieve wider appreciation for what it sees as the Asian experience of growth and development, which Japanese officials and scholars see as much more "market plus government" than purely market driven. It was the Japanese government which induced the World Bank to prepare its *East Asian Miracle* study; it is no secret that the government was disappointed with the study, which it did not feel reflected the Asian experience correctly. The prominence of Japan in the world economy and in co-operation activities implies that more will be heard of their contrasting philosophy of development in future.[20]

1.7 Replicability

If "replicability" means the capacity of less advanced countries to repeat the remarkable success of the "Miracle" countries, one has probably to conclude that success on such a scale is out of reach for many, perhaps most countries, at least in the near or medium term. As has been observed above, that success depended on getting a very large number of things "right" simultaneously, as well as on the capacity to generate large and fast-growing exports of manufactures, which clearly other countries cannot all do simultaneously. Increasingly today, countries, especially the poorer ones, will have to try to increase exports of agricultural products and services. A historically minded study would also place more emphasis on the slow build-up of the capabilities of the East Asian countries; many of the important foundations of their success were built in earlier decades, when educational systems, governmental structures and the main lines of economic policy began to be put in place. There

are also the unfathomable questions of culture and society, to which many would attribute considerable importance.

None of this is to deny, however, that there are elements of East Asian experience which others *can* copy. They will not have the same dramatic effect in the absence of the other supporting factors. But they could be helpful. Countries can use some of the same instruments of export promotion and industrial policy. Some policy instruments used by the four EAIEs, however – some measures of export promotion and selective protection – are now not permitted under the new rules of the World Trade Organisation (WTO).[21] There is a question of institutional and even political capacity: whether governments have the abilities necessary to select the right goals and policy instruments – and equally importantly, whether they can *withdraw* incentives and advantages when firms are not succeeding, or after they have fully established themselves.

In human resource development, there is much that other countries can do: the East Asian countries did not just invest heavily in education; they made the right kinds of investment, stressing basic education and the development of abilities and skills useful to industry. In many of the less advanced countries, educational expenditures are heavily skewed towards higher education, and within the tertiary sector, the wrong kinds of education, with overemphasis on traditional subjects emphasised by former colonial administrations, and insufficient attention to science, engineering and management training. Production-skill training institutions are often quite out of date, and policies are not in place to encourage appropriate school curricula and firm-level training.

The Asian experience includes a range of methods of co-operation between government and industry: in Japan the MITI 5-year "master plans", with trade associations, labour organisations, representatives of public and private sectors, consumers and academics coming together in committees to work out consensual approaches for macro-economic and technological policy; R&D consortia, where government and business co-operated to develop specific technologies; and deliberative councils for the sharing of information between economic agents in public and private sectors. Variants of these methods were practised in several of the East Asian countries. Policy was not just about fiscal and financial breaks or incentives; it was also about sharing information, giving technological assistance, overcoming obstacles to exporting, and so forth.

Of course all these things too require a degree of institutional capacity, and some are as yet out of reach for the less advanced countries. But institutions can be developed, and many of these important means of fostering manufacturing and other export success can be learned; they can be initiated in modest ways and built up over time. The important thing is what countries should be *trying* to achieve. The East Asian countries can be seen as examples to be emulated, rather than replicated, by countries further back on the development path, whose experience will inevitably be different. They have shown what can be achieved in a period of two to three decades.

There are new problems today, particularly those arising from globalisation: as noted, the Uruguay Round, for example, makes it harder for countries to practise selective import protection, even though there is evidence that over-fast import liberalisation has undermined potentially viable manufacturing capacity in, for example, some African countries. Once again, one might remember the East Asian countries as examples: while other countries were gripped with export pessimism and "dependency" pessimism, and pursued inward-looking policies, the EAIEs just went ahead and made their break-through on the manufactures exporting front. "Globalisation pessimism" may now be starting as a new inhibition, replacing the old. It is based on real concerns – but not necessarily insuperable ones. There are new opportunities as well as new problems, given the likely expansion of world trade

which will benefit a wide range of countriès. It is the poorest countries, for whom the Uruguay Round promises relatively little, that face the most arduous struggle.