East Asian Economic Models

Joseph Y Lim

This essay examines two major approaches ('market-friendly' approaches versus 'strategic-intervention' policies) that try to explain the success of the East Asian 'miracle' economies. Neither school of thought was able to predict or is able to explain the current economic turmoil gripping the region. Antimarket and market-criticial arguments are explored in order to understand the present economic crisis and to draw valuable lessons from the East Asian 'economic miracle'.

IT STARTED WITH JAPAN IN THE 1950S, FOLLOWED BY SOUTH KOREA, Taiwan, Hongkong and Singapore in the 1960s and the 1970s. And then, Thailand, Malaysia and Indonesia in the 1970s and 1980s. Finally came China in the 1980s and 1990s. They are called East Asian miracles or newly industrialized countries (NICs). The manifestation of this 'miracle' is sustained phenomenal high growth (at least 7 percent annual Gross National Product [GNP] growth) with little or no pressure toward high rates of inflation and huge budget deficits. Another manifestation is unprecedented growth in exports as these countries penetrate international markets with their goods which, through time, become increasingly more sophisticated, employing increasingly higher technology inputs.

In varying degrees, these countries exhibit similar traits that have, in the view of many experts, set them apart, rightly or wrongly, as one model of economic development. Some of these important traits are: (a) high investment in science and technology, and research development; (b) high investment in quality education and human resource development; (c) high savings and investment rates; (d) a conscious policy of export promotion (undervaluation of the local currency in the early stages of growth, industrial policy favoring manufactured export industries in the take-off stage);

(e) equitable growth which called into question the Kuznet-predicted inequality that is supposed to accompany the early stages of economic growth as experienced by the Western countries; (f) stable and strong macroeconomic environment supported by prudent fiscal, monetary and external policies which would lead to low inflation, fiscal balance (or surplus) and, until the latter half of the 1990s, low current account deficits.

MAINSTREAM EXPLANATIONS

THERE are, of course, heated arguments concerning the main policies that led to the economic success of these countries. The earliest mainstream economists (Kreuger 1974; Balassa 1981) gave credit for the success of the first five countries to the liberalization of financial and trade markets, a realistic exchange rate and an opening up of the economy to foreign goods (import liberalization and tariff reduction) simultaneous with the rise of their exports. But the picture became more complicated as Japan, South Korea and Taiwan protected some sectors from foreign investments and carried out industrial policies that protected and gave special investment, credit and tax incentives to key sectors (many of which were export sectors and some of which were state-owned). This very un-market type of industrial policy seemed to justify selective government interventions in a system of 'picking winners'.

Endogenous Growth. Two sets of literature sprang from the supposed success of selective intervention. First is the whole literature on 'endogenous growth models', which resuscitated the dying field of growth theory in economics. The endogenous growth model tried to correct the old neoclassical (Solow-Swan) growth model. This early growth model postulated that capitalist growth consists of capital accumulation which is determined partly by the savings rate of the economy and partly by the technological condition[1] of the economy. It assumes a fixed population growth and diminishing marginal productivity of capital (i.e. with labor and other factors constant, more and more incremental increases in capital added will increase output, but at a lesser and lesser amount[2]). With these assumptions, growth in per capita output and income occurs in the capital accumulation stage as capital-labor ratio increases. But this eventually ends (mainly because of the diminishing marginal productivity of capital) and we reach a

steady state where the capital-labor ratio and per capita income stabilize at a certain level.

This highly mathematical model is elegant and helps explain the low growth rates of the more developed countries vis-à-vis the growing developing countries. But the East Asian model puts the entire model in question as it seems that some countries can grow indefinitely at a high rate. To explain sustained high growth in per capita income and per capita output using the old neoclassical model, one will have to resort to continuous exogenous technological improvements. This eventually becomes quite unsatisfactory for the neoclassical economist who tries to explain things with 'endogenous' variables already defined in the economic system.

Thus the endogenous growth model (Romer 1986; Lucas 1988; Barro 1997) arose, citing 'market failures' and 'externalities'[3] as the reasons for the continuous growth in East Asian countries. Some of the reasons put forward are: (a) the use of education and human capital formation as factor inputs offsets the effects of the diminishing marginal productivity of capital and allows continuing growth in per capita output and income without having to resort to exogenous factors; and (b) the concept of increasing returns to scale and 'learning by doing' and economies of scale allow some government intervention in order to direct investments toward sectors which have beneficial spillover effects to the economy. This breaks the diminishing marginal productivity assumption and allows again for continuous growth in per capita output and income without having to resort to exogenous factors.

The first explanation above, in simplistic terms, merely says that investments in education and science and technology increase labor productivity beyond the old neoclassical model and allow the rising growth in per capita output and income to be realized. Investments in education and science and technology would be insufficient because market prices do not 'internalize' the positive effects of these on other firms and agents. Thus government help and intervention will improve the situation.

The second explanation, merely says that by 'locking in' (perhaps through selective intervention) in sectors (presumably export-winning sectors) that have inherent dynamics to become more innovative and productivity-enhancing over time, certain economies can achieve sustained growth in output and income per capita over time. Investments in these sectors,

without government intervention, would have been insufficient because of the need for very lumpy investments and /or the fact that private self-interest would not have incorporated the beneficial effects to other sectors in the investment decision.

Market Reforms. Using less elaborate models, equally famous neoclassical economists (Stiglitz 1996; Rodrik 1996; Lall 1994) joined in the debate and postulated that East Asian governments used both market and non-market mechanisms to succeed. The market-oriented policies consist of the same policies touted by the earlier economists (and mostly in tune with present International Monetary Fund [IMF] structural adjustment and liberalization policies). These include: (a) strong macroeconomic stability provided by fiscal balance, conservative monetary policy which generates low inflation, high savings rates, and political stability; (b) programs and policies that favor the private sector and the growth of markets, which usually include some trade and financial liberalization; (c) promoting exports (with realistic exchange rates or some undervaluation of the currency in the take-off stage) and allowing the private sector and market-based and performance-based factors (i.e. international competition) to be the main drive for growth and development in the export sector.

Together with these, correct policies were made in addressing externalities and market failures. Some of these policies may be similar to those concerning human capital development, investment in science and technology, and picking the right 'productivity-promoting or enhancing' sectors mentioned above. Other non-market activities include providing 'coordination' to the economic players of otherwise private and market activities (especially where conflicts and divergence of interests occur) and providing credibility, stability and consistency of policies in both economic and political spheres) as the right environment for growth and development. These latter economists know fully well the dangers of 'government failures', which refer to government intervention that leads to a deterioration of economic growth and development. These 'government failures' may be due to policies based on wrong premises and logic or their improper implementation (inefficient bureaucracy) or due to outright corruption and policies based on vested interests (corrupt state). In fact, Rodrik (1996) and Stiglitz (1996) emphasize the quality and efficiency of the bureaucratic in-

stitutions of East Asian countries, which promoted the right administrative, infrastructure, growth-facilitating environment for development. Vested interests were secondary to state-determined economic policies, which were wisely, competently and fairly drawn—to the advancement of the economy.

The mainstream literature, therefore, points to some beneficial effects of government intervention in the areas of education, human capital formation and science and technology (an uncontroversial point) and in strategic interventions aimed at developing targeted sectors and industries (a more controversial point). It also points out the need of an efficient, relatively autonomous and committed state (not a controversial point—what is controversial is whether this state would have an authoritarian bent).

The Market-Friendly Approach. The result of this outlook has led to the very influential World Bank 'market-friendly' explanation of the East Asian miracle (World Bank 1993). This approach points to the need to open the economy to market processes, particularly trade liberalization, financial liberalization and export promotion. It points to the benefits of promoting education, human capital formation and science and technology. It also gives credit to competent, autonomous and committed bureaucrats that facilitate development and policymaking. It however discourages policies which promote 'picking winners'; it claims that it is difficult to replicate the experiences of Japan, South Korea and Taiwan. The World Bank, in turn, points to the experiences of Thailand, Malaysia and Indonesia as possible models wherein less strategic industrial policy (as in the case of Thailand) can actually succeed. The failure of some heavy industry promotion in Malaysia and Indonesia and their backtracking to more market reforms seem to confirm the fact that less government may also work in an East Asian context. Even when special incentives were given to targeted sectors they were performance-based and market-based (e.g. competitive bidding).

. The World Bank model has provoked strong opposition from some sectors (Jomo 1997; Bello 1995; Amsden 1994) which insist that government intervention, strategic industrial policy and external conditions were the main reasons for the East Asian success. The external conditions for Japan,

South Korea and Taiwan were their strategic military positions during critical periods in the 1940s and the 1950s that allowed massive American and multilateral aid to pour in, and forced these East Asian governments to undertake structural reforms such as agrarian reform, bureaucratic reforms and infrastructure building. For the more recent successes in the Association of Southeast Asian Nations (Asean), the external condition was the aftermath of the Plaza Accord and the yen appreciation which allowed Japanese firms to pour massive foreign direct investments into the three Asean countries.

The external conditions were necessary but not sufficient conditions for the East Asian successes. For this latest set of academics, it is not the market-oriented policy but the 'developmental state'-like characteristics of these countries that forced these countries to go into strategic industries (though some of them may reluctantly admit that many of these industries are export-oriented) and become 'tigers'. Amsden (1994) makes the point very clear that it is not a matter of getting the prices right—as the neoclassical and World Bank view would explain reduction and elimination of price distortions by freeing the markets—but getting the wrong prices right. This means, intervening with the market price to give the right incentives to the corrrect economic sector.

WHY NONE OF THEM PREDICTED THE TURMOIL

THESE schools of thought all provide some insights into the success of the East Asian countries (with the exception possibly of China, which probably requires a whole school of thought to itself). But they all fail miserably in predicting or even hinting at the present economic turmoil that raises the question of whether an 'East Asian' success model ever existed at all. Business magazines fared better when they predicted that either Thailand or the Philippines might be the next to go the Mexican way back in 1995. The World Bank and other multilateral agencies started to worry only in late 1996 when current account deficits, bank borrowings and real estate prices were growing beyond normal bounds in Thailand and other nearby countries.

Various reasons may explain the failure to predict the present crisis and a bigger failure to predict the depth of the crisis when it finally did explode in mid-1997, not the least of which is the fact that events in historical time

are seldom predictable. But perhaps one reason that clouded the eyes of many was the enigma and awe that accompanied any discussion of the East Asian 'miracle'. The long periods of growth and the strength of the growth (particularly in Japan[4] and South Korea) seem to be imprinted in many people's minds so that their descendants in East Asia are bound to follow suit in an invincible fashion. Even as it ran high current account deficits, nobody expected in the beginning that Thailand could go into a crisis as big as that of Mexico—a Latin American country, specially when the Thai growth rate was eight percent and above, and capital inflows were still pouring into the country on the eve of the crisis.

Secondly, all the previous discussions focused on the real sector and forgot the monetary and financial sector. This is of course an old illness among neoclassical economists—in striking contrast to their Marxian and Keynesian counterparts—who somehow still feel that the real sector on the one hand and the financial and monetary sector on the other are dichotomized, with the latter just a medium of transactions that can be forgotten in important discussions. Well, the crisis hit the financial sector immediately when the currencies began to tumble. The vulnerability and bad practices of the financial sector began to reveal themselves considering the high exposures to risky real estate transactions, unhedged foreign borrowings by firms and banks, and rising share of past due loans and default rates. It is the weakness of the financial sector that continues to drag East Asia down.

The literature had enough analysis (Stiglitz 1992; McKinnon & Pill 1996) that showed the financial sector to be perhaps the most obvious sector where market failure occurs. Here asymmetric information abounds. Debtors know more than creditors about their capacity and willingness to pay the loan; banks know more than the central bank about how risky their loans are. Moral hazards and adverse incentives occur easily. There exists a possibility that debtors will not pay back the loan, or that debtors will declare bankruptcy and not have to pay the entire principal and interest of the loan; there exists a high probability that banks will be bailed out by the central bank and therefore they overlend to risky ventures.

This is an area therefore where strong prudential regulation by the central bank is crucial and imperative—these include rulings on ceilings on real estate exposures and foreign borrowings, rules on capital adequacy and risk asset ratios. It is an area where the quality and integrity of the bu-

reaucratic institution—the central bank—play a critical role. Unfortunately this is exactly the area where East Asian countries have faltered.

A third reason—and this one for not anticipating the depth of the crisis—is the underestimation of the strength of the globalization processes in the aftermath of capital and trade liberalization. We should have had a strong sense of what was to happen with the Mexican crisis in 1995, when the Southeast Asian stock market plunged, portfolio investments flowed out temporarily and devaluation pressures occurred. This resulted from a crisis that occurred halfway around the world. Surely the fact that short-term portfolio investments began to dominate capital inflows and capital outflows in Southeast Asian countries in the 1990s should have signaled that the economies would be exposed to very volatile forces as capital flows move in and out in a matter of minutes (ergo, the term 'hot money').[5]

Foreign exchange and capital liberalization and the integration of capital markets have made it such that the region on one level and emerging markets all together are seen by foreign portfolio investors as rather homogeneous. One external shock (such as the Thai crisis) may trigger a massive outflow of foreign capital, leading to dislocations. Financial liberalization and the easing of bank entry to both domestic and foreign banks have facilitated huge private foreign borrowings by both firms and banks alike. This of course has contributed to the freefall of currencies. In this light, it is to the multilateral agencies' discredit that they encouraged the opening up of capital markets during the good times and then turned around and said that East Asian countries made policy errors and should pay for them during the hard times. The increasing trade liberalization, on the other hand, has increased the competitiveness of like countries within the region (notwithstanding AFTA) so that when one country finds its currency depreciating, competitor countries will have strong pressures (mainly through speculative activities) to devalue its currency as well. These factors all converged in the East Asian currency turmoil and contributed to the depth and length of the crisis.

No doubt those trying to explain the East Asian currency turmoil will have different accents: for the more market-oriented, reasons relating to market and price distortions (including 'government failures') will be emphasized; for those averse to freeing the markets, failure to regulate the financial sector and institutional and bureaucratic weaknesses of the state

(such as 'crony capitalism') will be emphasized. Both will have legitimate points. But a lot of caveats will have to be made on the arguments of either side.

Using the more market-oriented arguments, certain price distortions actually did create major problems in the economies of many of the affected countries. First of all, massive capital inflows and foreign borrowings allowed the local currency to remain stable (with possible real or even nominal appreciation) at a time when high growth and growing current account deficit was happening. However, maintaining the stability of the currency in this way (i.e. through massive capital inflows and foreign borrowings) ultimately became unsustainable. Furthermore, the real appreciation of the currency, coupled with tariff reduction (as trade liberalization accelerated), made tradeables cheap, increasing the import-intensity of the economy and ultimately hurting the export growth of many of these countries. This of course aggravated and increased the current account deficit. Meanwhile, as the above policies and conditions made tradeables very cheap compared to nontradeables, the high growth in the first half of the 1990s created a bubble that sent real estate prices soaring, and caused a relative shift in investments from manufacturing (tradeables) to construction, services and the trade sector such as megamalls (nontradeables).

Another market and price distortion consisted of high local interest rates—a result of financial liberalization and policies to maintain a stable exchange rate (or sterilization of monetary inflows)—relative to dollar interest rates. Together with a very stable currency, this encouraged unhedged dollar-dominated borrowings that were to contribute immensely to the currency crisis. When the Thai crisis hit, the outflow of portfolio investments and resulting currency depreciation put immense risks on the unhedged foreign borrowings. This resulted in the intensification of speculation on the local currencies as each country's currency woes were easily transmitted into nearby countries via these speculations.

Although the market-oriented explanation captures a lot of the causes of the crisis, it must be pointed out that one major cause was capital liberalization—the lifting of foreign exchange restrictions which allowed and encouraged portfolio money and foreign credit to come in and go out of the country with virtually no impediment. This policy was made precisely in the name of freeing and opening up of capital markets. The fact that the

combined effects of capital liberalization (which led to the overvaluation of the currency) and trade liberalization (tariff reduction) led to a 'distortion' of cheapening tradeables vis-à-vis nontradeables throws into focus the issue of correct sequencing of economic reforms and the need to interconnect the combined impact of different policy components. It would have been a natural result—even of market-oriented analysis—that foreign capital entry and exit should not be unbridled, specially when relative prices are still not 'right'—and policies should be able to differentiate between productive long-term foreign direct investments and medium and long-term loans needed for infrastructure and development on the one hand, and short-run fly-by-night portfolio investments and short-run foreign credit, on the other.

Another thing that complicates market reforms involves the financial sector, and has been discussed above. Experiences of debt-ridden countries in the 1980s and Mexico in the mid-1990s have already pointed to the fact that financial liberalization and easing of bank entry require strong prudential regulation from the central banks. The fact that high exposures of the banking sector to eventually risky undertakings such as real estate lending and dollar-denominated borrowings were not immediately detected and corrected point to an inadequate system of prudential regulation and an underestimation by market reformers of its importance.

From the point of view of the antimarket or pro-industrial policy school, it would be natural to expect that their disciples would claim that globalization and the freeing of markets—particularly capital and trade liberalization and the easing of foreign bank entry—are the main culprits of the present crisis. In this respect, their analysis would be less rigorous for they would not be able to explain why the real estate and stock market bubbles had burst, why dollar-denominated borrowings were made unhedged, and whether the currency was overvalued or not in the pre-crisis period. Foreign borrowings will be blamed on financial liberalization, and large current account deficits on trade liberalization. The interconnectedness of some of the policies may be overlooked and some positive effects of deregulation and trade liberalization in generating competition and raising productivity may be rejected outright.

Furthermore, the fact that many of the pro-industrial school may point to 'crony capitalism' and institutional incapacities and bureaucratic

weaknesses as contributing to the crisis will of course be correct in many respects. But again it must be pointed out that this may be quite inconsistent with their pre-crisis analysis that industrial policy and state intervention were mainly the engine driving the East Asian success. Of course, those using market failure arguments (Stiglitz 1996; Rodrik 1996) will also have some explaining to do after crediting a relatively autonomous state, efficient bureaucracy and stable institutions for the East Asian success. Indeed the present crisis points to a dearth of potential research on the political economy and the role of the state in economic development and in economic crises.

Finally, it must be asked: Is the East Asian model dead? As it stands now this is really asking: Are we ready to throw away two, three decades of phenomenal growth after (so far) one year of crisis and meltdown? If the present currency turmoil in East Asia offers any lesson to us, it is precisely that we should try to analyze things in a historical and analytic fashion. Just as it teaches us not to be carried away with 'miracles' and invincible development models, so should we learn not to go to the opposite extreme and call what used to be 'miracle' a dud or a failure.

There is much that we can learn from the East Asian experience of 'tigerhood' in the past few decades, as well as the currency and economic crisis gripping East Asia today. In the long run, the answer to our question, ultimately depends on how well we learn the lessons from years of monitoring, evaluating and analyzing the East Asian experiences as they unfold before us.

NOTES

1. A production function that stipulates how inputs (labor and capital) are transformed into output is postulated.
2. Another way of saying this is that the additional contribution to output of additional capital is positive but the contribution of the additional capital is diminishing as capital becomes more and more abundant.
3. Externalities occur when an economic agent's behavior affects other agents positively or negatively but is not taken into account in the pricing and market mechanism. Classic examples are pollution by a firm that affects other people negatively and scientific discoveries by a firm which filter through the economic system and raise the productivity of other firms. In the first example there is an oversupply of the firm's product compared to what is socially acceptable and in the second example there is an undersupply of 'scientific dis-

coveries' compared to what would benefit the economy. In both cases, some intervention (tax, subsidy, regulation) may help improve the situation. 'Market failures' occur when there are transactions costs or asymmetric information in market transactions so that it is possible to improve on the market outcome through some intervention. A classic example here is the creditor-lender problem which is discussed in this essay.

4. Japan, of course, has been in an extended recession for many years, but for many analysts, this is natural for developed countries and quite different from the economic, financial and currency turmoil that engulfs many East Asian countries today.

5. See Montes & Lim (1996) and Lim (1996) for pre-crisis warnings on the potential destablizing effect of the volatility of portfolio flows.

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