Trade Liberalization Sequence for Sustained Economic Growth

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Abstract

This paper delivers a simple model to generalize the successful trade liberalization experiences in East Asian countries as a strategy for attaining inclusive and sustained economic growth. The sequential approach, based on preserving existing production units while liberalizing export-oriented sectors, can be understood as a way to promote international interactions and learning by practice, to extend the limit of market and to introduce market incentive and pressure on all related agents for attaining dynamic efficiency. It provides a regular liberalization sequence to ignite and sustain economic growth for most lagged economies.

Key Words: Trade liberalization, Sustained economic growth

JEL classification: F3, O1, F4, O4.

1. Introduction

'Theories should be able to explain and predict phenomena. If not, the theories must have some fundamental flaws.' <Milton Friedman (1953), *Essays in Positive Economics*, Chicago: University of Chicago Press.>

Since early 1980s, the diverse economic performance among developing countries that have undertaken trade liberalization and structural reforms has raised numerous discussions and investigations on related issues. For instance, Rodrik (2005) observed: 'Countries such as Mexico, Argentina, Brazil, Colombia, Bolivia, and Peru did more liberalization, deregulation and privatization in the course of a few years than East Asian countries have done in four decades. Latin America's growth rate has remained significantly below its pre-1980 level. A similar puzzle, perhaps of a smaller magnitude, arises with respect to Africa, where economic decline persists despite an overall (if less marked) "improvement" in the policy environment.' Moreover, the experience with development during the last half century reveals another striking fact: the best performing countries are those that liberalized partially and gradually. Similarly, in analyzing a sample of developing countries, Shafaeddin (2005b) concludes that only a minority of these countries, mostly East Asian, experience in rapid export growth accompanied with fast expansion of industrial supply capacity and upgrading. By contrast, the majority of the sample countries, mostly in Africa and Latin America, has not been satisfactory. *About half of the sample, most of them low income countries, have faced de-industrialization.* Even in some cases where manufactured exports grew extremely fast like Mexico, the upgrading of the industrial base did not take place. Shafaeddin (2005b) further observed that a major difference between the 'minority' and the 'majority' groups is that in the case of the former, i.e. the East Asian NIEs, trade liberalization has taken place gradually and selectively as part of a long-term industrial policy. By contrast, the 'majority group' embarked a process of rapid structural reform including uniform and across-the-board liberalization. Shafaeddin (2005b) argues that no doubt trade liberalization is essential for development. Nevertheless, the way recommended under the Washington Consensus is more likely to lead to the destruction of the existing industries without leading to the emergence of new ones, particularly of those sectors that are at their early stages of infancy. Further, any new industry that emerges would be in line with static, rather than dynamic, comparative advantage. The low income countries, in particular, will be locked in production and exports of primary commodities, simple processing and at best assembly operation or other labor intensive ones with little prospect for upgrading.

In recent decades, substantial efforts have been made to derive general strategic lessons about the key to successful liberalization from those diverse experiences among the lagged economies. We deliver a simple model to generalize the successful trade liberalization experiences in some East Asian countries for attaining inclusive and sustained economic growth and, inversely, to provide reasons for the failures of their peers in the Latin American economies. The sequential approach, based on preserving existing production units while liberalizing export-oriented FDI and production sectors, can be understood as a way to promote international interactions and learning by practice, to extend the limit of market and sources of capital, to create additional demand for domestic resources and to introduce price mechanism, market incentive and pressure on all related agents for attaining dynamic efficiency. The model concludes that the 'first-order' economic principles proposed in neoclassical economic analysis — private property rights, free trade and competition etc. — are the effects of successful liberalization policy, rather than the cause of economic growth among lagged economies. We find a regular sequence to ignite and sustain economic growth. Following the sequence, the miraculous transformation of the East Asian economies can be reproduced in most lagged economies.

The rest of the paper is organized as follow. Section 2 formulates a Schumpeterian Cobb-Douglas production function in the firm level to understand the source of sustained economic growth. It is followed by a model to contrast the effects of free trade liberalization in comparing to sequential liberalization adopted in most East Asian economies. The last section is the summary conclusion.

2. Entrepreneurs, Innovations, Tools Variety and Average Cost

'the carrying out new combinations can no more be a vocation than the making and execution of strategical decisions…the entrepreneur's essential function must always appear mixed up with other kinds of activity…everyone is an entrepreneur only when he actually "carries out new combinations," …' < Schumpeter, 1934 >

In this section, we extend the Cobb-Douglas Production Function (CDOPF) by incorporating the insights of Schumpeter (1934) relating to the nature of innovations and the role of entrepreneurs in production process in order to understand the necessary and sufficient condition for technical progress. Innovations are defined as the activities that can carry any improvement into effects. The most common type of innovations is the introduction of new tools variety that can raise the productivity of firm. Real-world examples include steam engine,

train, and the computer that generate new mix of tools for mining, transportation, education, industries and finance. They substantially lower the costs for satisfying certain needs and wants. Of course, most innovations are just marginal improvements based on the old production methods rather than as revolutionary as the examples. In the production process, entrepreneurs select an optimal combination of tools to minimize/maximize cost/profit. This innovative activity is a routine job of entrepreneurs. With the same cost, curious, persevering and/or talented entrepreneurs can find better combination of the existing tools or invent new tools to generate higher level of capital service than their competitors. In a competitive environment with imitation lag, entrepreneurs are induced and supported to innovate by the quasi-rent and/or are pressed to innovate for survival as suggested in Shell (1973).

There are two inputs, labor and a set of tools that generate capital service.[2] Behind the production scene is entrepreneur who is responsible for decision-making, risk-taking and most importantly, conducting innovative activities. A representative firm's output level (Y_j) depends on the amount of capital service (K_j) and labor (L_j) employed by the firm j, such that:

$$Y_j = K_j^{\alpha} L_j^{\beta} ; \quad \text{with} \quad \alpha + \beta = 1 \text{, and } 0 < \alpha < 1 . \tag{E1}$$

In order to introduce the contribution of innovations in the production process, we follow the product/input variety literature attributed to Dixit and Stiglitz (1977). A set of tools variety is aggregated by the CES function to provide the capital service which gives a positive value to an increase in tools variety in generating capital service, such that:

$$K_j = (\sum_i X_{ij}^{\theta})^{1/\theta} ; \quad \text{with } 0 < \theta < 1 \text{ and, i = 1 to } v_j .^{3} \tag{E2}$$

The parameter θ governing the elasticity of substitution between tools (X_{ij}) is greater than zero and less than one. A higher value of θ indicates that the tools can be more easily substituted for each other in the production of capital services while lower values of θ correspond to greater differentiation among the tools. The set up is analogous to the ways in which Dixit-Stiglitz (1977), Krugman (1979), among others, in their measure of utility obtained from a bundle of

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[2] Man-made tools for enhancing production include simple tools, machines and new materials. Each variety provides differentiated services that are combined to generate specific 'capital service' in the production process.
[3] We adopt an identical structure as in Dixit and Stiglitz (1977) for introducing the gain from an increase in input variety. Obviously, the labor service (L) can be treated in an identical manner such that labor service depends on a combination of workers with different skills and human capital. However, the sacrificed technical detail allows us to simply and compactly formalize important ideas about the role of tools variety in the production function.

differentiated consumer goods.[4]

The measurement unit of each tool is normalized so that the unit price of each tool equals to r. For all output level, profit-maximizing entrepreneur in firm j chooses an optimal level of each tool, X_{ij}^*, $i = 1...h...v_j$, to maximize the value of capital service $K_j = (\sum_i X_{ij}^{\theta})^{1/\theta}$ subject to a given C_j^k allocated for capital service with $C_j^k = \sum_i rX_{ij}$. The symmetry implies that each tool is employed with equal quantity, such that for all i, $X_{ij}^* = X_{hj}^* = X_j^*(r, C_j^k, V_j)$, with $\dfrac{\partial X_j^*}{\partial r} < 0$; $\dfrac{\partial X_j^*}{\partial C_j^k} > 0$; $\dfrac{\partial X_j^*}{\partial V_j} < 0$; where V_j is the number of tools variety exogenously given to firm j. Therefore, for all output level,

$$K_j^* = [\sum_i X_{ij}^{*\theta}]^{1/\theta} = V_j^{1/\theta} X_j^*, \qquad (E3)$$

(E3) indicates that the Dixit-Stiglitz capital service function can be decomposed into the technology component, V_j and the tools component X_j. Capital service now has an exact definition. It is an aggregation of a basket of tools. Moreover, the higher the V_j, the lower the average cost of production due to the lower average cost of capital service (C_j^k/K_j^*) for all output level. Substituting K_j^* into the production function, we have:[5]

$$Y_j = V_j^{\frac{\alpha}{\theta}} X_j^{\alpha} L_j^{\beta} = A_j X_j^{\alpha} L_j^{\beta}; \text{ where } A_j \text{ equals } V_j^{\frac{\alpha}{\theta}}. \qquad (E4)$$

After incorporating the insights of Schumpeter (1934), the 'A_j' in the CDOPF has observable and transparent definition. The technology/productivity level of a firm is directly proportional to the V_j employed and technical progress is therefore driven by the growth rate of tools variety adopted in the production process. Liberalization for sustained economic growth should therefore target at raising the growth rate of tools and its variety adopted by entrepreneurs through international exchanges and interactions.

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[4] The conventional Cobb-Douglas production function treats all man-made tools for enhancing production are perfect substitutes that is equivalent to considering θ equals one. In Romer (1990), the model considers capital service is the outcome of the additively separable aggregation of tools. The tools variety is driven by R&D sector.
[5] For simplicity, we drop the star in denoting X_j^* in the production function although entrepreneur in each firm keeps adjusting the firm's tools variety to maximize the value of capital service/minimize the cost of production according to market conditions. This has no effect on our analysis.

3.   Liberalization Policy in the Price-taking Sticky Competitive Market

'Development in our sense is then defined by the carrying out of new combinations….new good…new quality of a good…new method of production…new way of handling a commodity…new market…new sources of supply of raw materials…new organization of any industry…new combinations should be carried out by the same people who control the productive or commercial process which is to be displaced by the new…*new combinations are, as a rule, embodied, as it were, in new firms which generally do not arise out of the old ones but start producing beside them.*' <Schumpeter, 1934, p. 66. Italics mine>
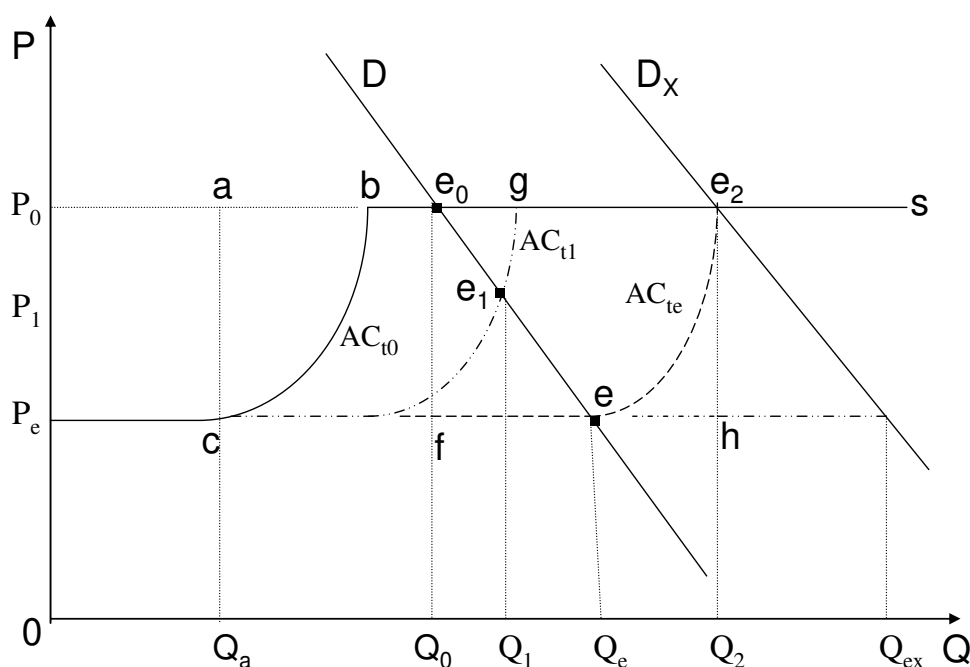
In this section, we sketch the mechanism of catch-up process, the change in profitability among firms and the industry supply curve under the price-taking sticky competitive market structure. The framework is then used to understand the successful liberalization experiences of the East Asian economies.

In a perfect competitive market, entrepreneur-innovators have no incentive to innovate since innovation requires extra effort and the innovative firms can capture no benefits under the frictionless conditions. In order to make our model having the least divergence from the benchmark model of perfect competitive market that have generated numerous insightful and useful conclusions, we only release the frictionless assumption to allow positive adjustment costs in production that is commonly observed in the real world. The positive adjustment costs suggest that small leading firms with the highest V and therefore have the lowest average cost of production in the market cannot expand their production immediately to capture the whole market demand. At the same time, the lagged firms take time to imitate and adopt the production method of the leading firms.[6] Under this sticky competitive market structure, small leading firms gradually expand their production by setting up small new production units, continues to be a price-taker while enjoying the quasi-rent from their innovations before their competitors finally catch up. Innovative activities are therefore motivated and supported by the expected innovative quasi-rent generated from successful innovative ventures of the entrepreneurs. Schumpeter (1934) attributes the unmatched production and growth performances of free enterprise economies are mainly due to the competition for the innovative quasi-rent that constantly reduces the cost of production for

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[6] Among many other possibilities, Alexander Gerschenkron (1968) describes the possible sources of stickiness: 'But, as everyone who has ever worked inside a modern enterprise knows, the distinction between the innovator and imitator is a very uncertain one. Every imitation requires a great deal of energy to overcome inertia, to abandon the accustomed way of doing things. It raised a million technical and economic problems that must be solved. And they will not be solved unless there are alert minds to welcome the new and to see the solutions and strong wills to carry the tasks to successful termination.' (p. 131)

satisfying the needs and wants of the societies. Shell (1973) formulates a model that describes the process of competition through innovations. Under the sticky competition framework, the level of technology may differ over firms. The reasons can be due to the high transmission costs of technology among firms. Firms with advanced technologies have incentives for not revealing their technologies, and employ secrecy to achieve this end. Patents can also give some limited legal protection to the advanced firm and therefore an increase in the stickiness of competition. The key ideas in Shell (1973) are captured in Figure 1 that will be used to contrast the effects between sequential and 'big bang' trade liberalization strategies.

Figure 1:
Price-taking Sticky Competitive Market and Competition through Innovation

Note: AC_{t0} has three sections: $P_e c$ is the AC of the advanced firms, cb belongs to the catching-up firms and bs is the AC of the lagged firms. AC_{t1} of $P_e e_1 gs$ shows the effects on the AC curves when more firms caught-up while AC_{te} of $P_e es$ corresponds to the long-run equilibrium where all firms produce with the same technique in the market when the market demand is D.

Assume a single product economy, a developing/lagged economy has three types of firm with different V and therefore average cost of production (AC) in producing product Q: the leading firms have the highest V with the AC in par with the international level that equals P_e; the

intermediate firms have less V with AC ranging from c to b while the lagged firms have the lowest V with AC of P_0. Since firms can always use the well-known traditional production method, there is unlimited supply at P_0. The AC_{t0} is the supply curve of the product at t_0. Given the market demand curve D, in a closed economy or with the import tariff equals to or higher than $(P_0 - P_e)$, the equilibrium market price equals P_0 and the output produced equals Q_0. The leading and intermediate firms are earning the total innovative quasi-rent (IR) amounting to P_0abcP_e. At t_0, the real income earned by local resources equals to total output Q_0. The existence of IR implies that e_0 will not be in equilibrium. Besides the leading firms will expand their production units, all other firms will try to capture the IR by imitating the production method of the leading firms such that the supply curve moves to AC_{t1} with equilibrium e_1 and finally to AC_{te} with the long-run equilibrium e given the demand curve D. In all equilibriums, real income earned by domestic resources always equals to the value of total output and the problem of aggregate demand deficiency does not exist. In the transition towards the long-run equilibrium, technical and production capacity, real income, output, employment level and consumer surplus expand while the IR diminishes. These phenomena are commonly observed in the liberalization process among the East Asian economies.

Now, suppose that the economy adopts a 'big bang' free trade policy at t_0 with the domestic product price equals to the international price P_e. The mechanism of the 'de-industrialization' documented in Shafaeddin (2005b) can be observed in Figure 1. Theoretically, the total purchase will be equal to Q_e at the international price P_e. However, with the market price, only Q_a will be produced by the domestic firms in the long-run. The local economy experiences 'de-industrialization' when the intermediate and lagged firms become bankrupt and exit the market as their AC is higher than the international price. The rents from their sunken inputs and/or their IR along with the employment opportunities of the local resources are destroyed. In the long-run equilibrium, the real income and output in the economy shrinks to Q_a and the domestic purchasing power and fiscal bases shrink accordingly. Another terrible thing is that the catch-up process under the scenario of closed economy or tariff protection stops as the IR to the leading and catching-up firms disappears after the liberalization. As a result, rapid and indiscriminate opening up the domestic market to foreign economies results in drastic destructions of domestic firms and employment opportunities as well as eliminates the catch-up capability of domestic entrepreneurs to international level.

An important characteristic of the East Asian economies liberalization process is their sequential export-oriented strategy under which they set up Export Processing Zone, promote assembly industries and invite FDI targeted for exports. At the same time, the domestic market is under strict protection in their initial stage of liberalization. The liberalization of export-oriented sectors raises the technical capability of domestic entrepreneurs through learning by watching, imitation and international interactions.[7] Moreover, the existence of IR and the international competitive pressure generate strong motivations to upgrade their technical level among all entrepreneurs. In addition, the export-oriented sectors raise the demand of domestic non-tradable resources and create more job opportunities for surplus labor in the lagged economies.[8] The resulting higher employment level and income raise aggregate demand that generate additional incentive to domestic entrepreneurs to expand through creative destruction. As illustrated in Figure 1, without export-oriented policy, the demand curve for Q is D. Given P_0, the potential IR to be captured is $bcfe_0$ when the supply curve is AC_{t0}. Under the export-oriented policy, the demand for Q expands substantially, for instance, to D_X. As a result, the potential IR to each firm becomes cbe_2h that is much larger than that of the closed economy under the same initial condition. This induces more active investment and entrepreneurial activities that speed up the overall growth rate of tools and its variety. Developing economies with surplus resources therefore gain in the short-run from the higher utilization rate of domestic resources, and in the long-run, through speeding up the improvements in production and technical capability if they adopt the export-oriented strategy. The time required to approach the long-run equilibrium will therefore be shortened relative to the closed economy scenario. This explains the successful experiences in most economies adopting the sequential liberalization strategy. The policies not only avoid the destructions to the domestic lagged firms and catch-up motivation, they also raise the utilization rate of domestic resources, the income level and therefore aggregate demand in the economies. More importantly, they make advance tools, organization method

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[7] Suppose a successful FDI brings in a new variety of tool with the market value of r so that the average quantity of each tools variety remains unchanged. The marginal effect of the FDI equals: $\frac{\partial Y_j}{\partial V_j} = \frac{\alpha}{\theta} \frac{1}{V_j} Y_j$. The marginal benefit of a new tool to a domestic firm is greater than zero, inversely related to the stock of tools variety and proportional to the output level. If the economy has n firms, the benefit of the additional tools variety will spillover to n firms in the long-run equilibrium through imitation.

[8] The findings in Mo (2007, 2010), among others, suggest that aggregate demand deficiency is common among countries and the deficiency has negative effect on long-run growth.

and international networks available to domestic entrepreneurs. Under the process, the economies will experience rapid economic growth as the aggregate demand and supply expand rapidly over time.

Neoclassical economics assumes that all firms existing in the market are the same. Under the framework, the reform advice like eliminating the distortions, regulations and interventions as proposed in the Washington Consensus can attain static and dynamic efficiency through trade and competition. However, without appropriately addressing the problems of lagged firms, unemployment, fiscal bases and therefore the social and macro-stability problems in the developing countries under transition, eliminating those necessary 'distortions' or regulations may result in deteriorating economic performance after liberalization. The unconstrained liberalization will cause the lagged firms and the associated sunken rents to be eliminated and therefore results in widespread unemployment and poverty. Even those intermediate and leading firms under substantial financial burden may bankrupt immediately. The resulting unemployment, poverty, reduction in tax bases and socio-political instability destroy any hopes for sustained economic growth. The economy will be trapped in the static comparative advantage in international competition as noted and documented in Rodrik (2005) and Shafaeddin (2005b), among many others.

Most developing countries inherit a large number of lagged firms and sectors in a protected environment before they start economic reforms. The direct implementation of many policy reforms based on the existing neoclassical economics is therefore not appropriate. Our framework provides a systemic explanation for the divergent economic performance among the lagged economies in their liberalization process as observed and documented in Rodrik (2005) and Shafaeddin (2005b), among many others. More recently, it helps us to understand the success of the incremental reforms in China in contrast to the failure of the 'big-bang' reforms in Russia. The incremental reform preserves the operation of existing production units, tools combinations and the established division of labor in the old system while allowing rapid proliferation of existing and modern tools variety by encouraging export-oriented sectors like FDI, assembly industry and export processing zones. The liberation is Pareto-improving to all parties that include the advanced multinational corporations and international communities. Under the liberalization sequence, East Asian economies have been able to develop their own industrial and technical capacities while at the same time, to allow the lagged sectors evolve under the direction of international and domestic

market forces. Another nice thing is that under this export-oriented liberalization sequence (EXOLS), the potential IR induces and supports new investors and lagged firms to make necessary investments for modernization with minimal requirement of government financial supports while the fiscal strength of the governments becomes stronger as the tax-base expands. With the real-world experiments and the theoretical model, the commonly observed trade policies adopted in developing countries which include providing favorable terms to export-oriented FDI of multinational corporations, infant industry protection, setting up special economic zones and assembly sector while import tariffs only gradually adjust downward over time are therefore desirable to most lagged economies in their initial stage of liberalization.

4.   The EXOLS Strategy: Discussion and Conclusion

There is increasing consensus that some kind of government interventions is necessary for the lagged economies to catch up. The question is what kind of interventions. Our model suggests that in the trade liberalization process, all interventions should target at reducing the initial drastic displacement effects on domestic lagged firms while maximizing the growth rate of tools and its variety available to and adopted by domestic entrepreneurs in order to build up the industrial and technical capacity for sustained growth. Most lagged economies have substantial lagged industrial and service sectors. Based on the successful liberalization experiences of the East Asian economies and the theoretical understandings in this model, we conclude that the lagged economies should adopt the EXOLS strategy as follows:

1. in the initial stage, liberalize the export-oriented sectors that include FDI, export-processing zones and assembly industry targeted at international markets only. At the same time, the lagged sectors developed under protected environment remains closed to international competition in order to reduce the drastic displacement effects on employment opportunities and existing tools variety caused by unconstrained international competitions.
2. support and enrich the adoption of tools and its varieties by entrepreneurs in order to raise the industrial capacity and technical level up to the international level.
3. liberalize other protected sectors over time and eliminate all protective policies when the

economy has attained the technical level and industrial capacity comparable to international level.

The EXOLS is beneficial to the lagged economies as well as to the advanced multinational corporations and economies. It generates many desirable effects to the global economy and to most lagged economies. Moreover, the liberalization process is self-sustaining due to its 'incentive compatible' and Pareto-improving characteristics:

1. A good distribution of political and economic powers in the sense that the interests of the powers are coincided with liberalization policies and economic growth is essential for sustainable liberalization. The EXOLS strategy allows Adam Smith's 'invisible hand' to be directed by international market forces in a nation-wide scale. At each stage of development, all parties that include multinational and domestic investors, governments, workers and consumers, in pursuing their own self-interest, are also maximizing common well-being. The policies in the initial stage allows international market in picking winners, creating job opportunities, raising aggregate demand, generating new sources of fiscal revenue and trade surplus while the lagged production units and labors are temporary sheltered by protective policies. As a result, it is a reform without loser as in the case suggested in Lau, Qian and Roland (2000) when all parties involved gain under the strategy. Moreover, in the growth process, it creates winners who are contributive under the export-oriented policy and losers who fail to adjust according to international market forces. The economic and political powers of the export-oriented groups therefore become relative stronger while the opposite groups become weaker over time even though everyone is improving in comparing to the initial situation. The public sector is also forced by the international competitive pressure to adopt efficient measures, to cope with international rules and to provide quality infrastructures that include human capital. The dynamics of the favorable power distribution and supports for liberalization under the EXOLS is just opposite to the import substitution strategy that generates a power structure unfavorable to liberalization and growth. (for instance, Lin, 2003 & 2005) The gradual and inclusive reform under EXOLS therefore does not require strong pre-conditions for the reform to take place. It can be applied to most lagged economies without any requirement of political and social reforms.

2. Under the EXOLS strategy, the involvements of multinational corporations and keen

competition in the international market constraint the rent seeking behavior of regulators as well as directing the export-oriented sectors toward efficiency.

3. The EXOLS closes the international productivity gap between the advanced and lagged economies along two dimensions. The first is raising the employment rate of domestic resources, particularly the surplus labor resides in rural area and the other is closing the international technical gap in the industrial and other sectors over time. The process generates rapid inclusive and sustained economic growth in the lagged economies while providing additional profitable investment opportunities to multinational investors.

4. The EXOLS will upgrade the structure of exports and accelerate the exports of country-specific innovative manufactures with increasing value-added through syntheses and learning by practice in the process of international division of labor. The process contributes to the advances of the global economy by enriching the global stock of tools, its variety, human capital as well as product variety.

5. Initially, most lagged economies face many constraints including foreign exchange, fiscal revenue and human capital. The EXOLS can relieve these constraints for modernization process and therefore strengthen macroeconomic fundamentals for development such as low inflation, fiscal and exchange rate stability.

To summarize, the model provides concrete policy prescriptions and sequence of trade liberalization for sustained economic growth which is Pareto-improving to the lagged economies and the advanced economies at each stage of liberalization. There are no good policies that apply to all countries with different initial conditions and stages of development; there are only 'appropriate policies' that can promote and support entrepreneurial activities for enhancing the growth of tools and its variety given various country-specific constraints. Our model suggests that there is no exact relationship between policy-induced trade barriers and economic growth across countries. The key is whether the trade barriers have positive or negative effects on entrepreneurial activities and technical progress in the country. Moreover, to the economies with substantial traditional and lagged sectors, free trade will result in de-industrialization and stagnation in the long-run due to the destruction of the dynamics in building up industrial capacity as documented in Rodrik (2005) and Shafaeddin (2005b), among many others. Our model also suggests that there is no substantial difference between early or late economic liberalization. Most lagged economies can initiate the EXOLS

mechanism at any time. Moreover, the larger the technical gap between the lagged economy and the leading economies, the larger the potential IR and therefore the higher the potential growth rate under the EXOLS strategy will be. The sequence aligns the short-term interests of the economic and political powers with sustained economic growth at each stage such that governments and market agents work cooperatively for mutual gains and prosperity instead of acting as predators and rent-seekers for production surplus as assumed in public choice theory. Our paper opens the possibility that efficiency, poverty reduction, technical progress and favorable powers distribution can develop at the same time in the trade liberalization process.

The advanced economies can also gain in the short-run by capturing the technology difference between the economies through FDI and investments in assembly sectors during the liberalization process of the export-oriented sectors in lagged countries; while in the longer-run, can enjoy the increase in the demand for their advanced products when the purchasing power of the developing countries increase. The additional entrepreneurial activities in the lagged economies raise the global standard of living by enriching the global stock of tools and product varieties that are non-rival in nature. The EXOLS is therefore Pareto-improving to international communities. As Wade (2003) observes, the East Asian experience shows that trade policy restrictions on some imports need not stop the fast growth of other imports when appropriate trade policy results in raising the total demand for imports when their GDP, standard of living and technical level improve. The general adoption of EXOLS policies in the lagged economies will initiate a widespread emergence of global-wide newly industrialized nations following the steps of the East Asian economies that will contribute to a surge in global economic performance by speeding up innovations, enhancing rivalry and creating competition. The Economist, September 16, 2006 also suggests that: 'Emerging economies are driving global growth and having a big impact on developed countries...As these newcomers become more integrated into the global economy and their incomes catch up with the rich countries, they will provide the biggest boost to the world economy since the industrial revolution.' Our model provides some theoretical supports to these insightful expectations.

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