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# Teaching and Learning Development Economics: Retrospect and Prospect

Edward K. Y. Chen

*Abstract:* The author has chosen three major topics in development economics for a discussion on how to teach the subject: the concepts and measurement of development, models of growth and development, and the international aspects of economic development. For the concepts of development, it is important to emphasize the coherence of the topics to be studied. In teaching models of growth and development, he suggests that the classical models, the Marxian model, the Harrod-Domar models, and the Neoclassical model be discussed in the context of technology versus capital as a major determinant of growth and development. The role of labor, employment, and human capital would be discussed in the context of the Lewis-Ranis-Fei model, the Harris-Todaro model, and the New Growth theory. The international aspects should be given due emphasis in the economic development syllabus with a thorough discussion on trade, investment, and finance in this connection.

Key words: economic development, growth models

JEL codes: A20, 010, 040

Development economics is built on rigorous economic subdisciplines, such as mathematical economics, econometrics, micro and macroeconomic theory, and so forth. The study of development economics can be difficult because it is interdisciplinary and yet sufficiently rigorous to follow a scientific approach to analyzing issues and formulating theories.<sup>1</sup> As such, theories in development economics are usually departures from conventional, in particular, neoclassical thinking. The subject is challenging intellectually and useful practically. The drawback is that generalization is sometimes confined to particular times and spaces because development problems vary so widely across developing countries.

In this article, I discuss development economics in relation to the key questions—what we teach and how we teach it. I have taught development economics to students in Hong Kong and American universities for the past 25 years, primarily at the undergraduate level.

The foremost pleasure in teaching development economics is the flexibility in designing the syllabus. There is no well-defined approach to teaching the subject. A survey of development economics textbooks will lend support to this.<sup>2</sup> Topics covered vary significantly from textbook to textbook, and instructors have the freedom

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to create their syllabus in accordance with the purpose of the course, the profile of the students, and the country and region in which the teaching takes place.

It is obviously not possible to cover the teaching of all development economics issues. I have chosen three major topics for discussion: (a) the concepts and measurement of development, (b) models of growth and development, and (c) the international aspects of economic development.

## THE CONCEPTS AND MEASUREMENT OF DEVELOPMENT

To arouse the interest of students, I emphasize the objectives and usefulness of development economics at the beginning of the course. The students should be reminded of the interdisciplinary nature of the subject and the difficulties in deriving general theories. As a result, students are expected to read widely not only books but also national and international official documents, reports, and current affairs in newspapers and magazines. These reminders should, of course, be balanced by explaining to students the interesting and relevant study questions (such as how development begins in their own or other countries; how development proceeds and becomes self-sustainable; why development failed in some countries and succeeded in others; why development may not be able to eradicate poverty, etc.) and topical issues (such as the Asian financial crisis, World Trade Organization [WTO] and the world trading system, the international flows of foreign investment, the rise of China as an international manufacturing base, etc.). Students might get excited when you tell them the usefulness of studying development economics—the usefulness of the knowledge acquired and the usefulness in getting jobs in multilateral agencies, such as the Asian Development Bank, International Monetary Fund, and the World Bank. Citing some Nobel Laureates who are development economists (Myrdal, Kuznets, Lewis, Schultz, Stiglitz) would also send an encouraging message to students.

It is important to make a distinction between growth and development at the beginning. Development economics emerged as a branch of economics because conventional theories are largely applicable only to developed countries that have gone through development already and are embarking on steady-state growth. A conventional macroeconomic theory syllabus would cover economic growth in most cases. The most important objective of development economics is to apply and modify conventional economic theories to deal with the case of developing countries. In this light, a logical next step is to explain to students the differences between developed and developing countries. I teach students (a) why conventional theories are often inapplicable to the study of developing countries (imperfect markets, underemployment, dualism in developing countries) and (b) the characteristics of developing countries. At various times, I arouse the interest of students by specifying seven characteristics of developing countries, reminding them of the seven characteristics of living things that they were taught in the first lesson of high school biology.

It is usually not difficult to motivate students to get interested in the subject very quickly. The primary characteristic of developing countries is their low per capita income. It is useful to present the World Bank table of per capita income in both nominal and purchasing power parities (PPP) terms to students. They might be very interested in knowing the per capita income level of the countries with which they

are familiar but puzzled by the differences in per capita income between measurement by official exchange rates and PPP. Some examples of goods and services providing similar levels of satisfaction and yet commanding vastly different prices (e.g., in the United States and China) would give students some understanding. It becomes even more interesting if the students are told of the “famous” McDonald’s hamburger cross-country price list used by the *Economist* to illustrate undervaluation and overvaluation of currencies, although care must be taken to warn students of the strong assumptions underlying its methods. One by-product of this discussion is to motivate students to read periodicals in economics and finance.

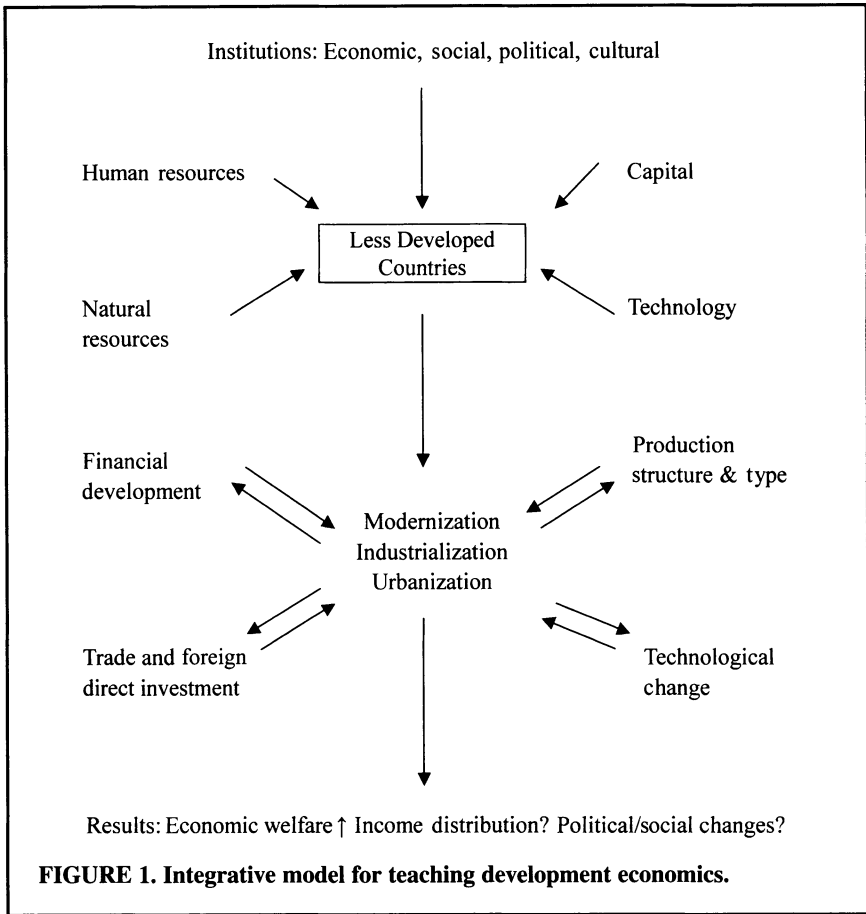
To start learning a subject in economics, or perhaps in all subjects, it is important, in my experience, to give students an integrated picture of what they are going to learn, specifically the interrelationship among the topics in the syllabus. They should be told that each chapter in a textbook is not independent but rather interrelated to other chapters. They should see development economics as a whole picture fulfilling a single objective but consisting of different parts. This coherence of topics can usually be best done by showing students a flow chart (Figure 1).

## MODELS OF GROWTH AND DEVELOPMENT

Undergraduate textbook authors put different emphasis on models of growth and development, ranging from little mention to a substantial coverage. My view is that some emphasis on models is warranted for two reasons. First, students can be impressed with a rigorous rather than descriptive approach to development economics. Second, students would be able to understand better the major determinants of economic growth and development, the relative importance of the determinants, and how issues of growth and those of development are different.

Development economics is usually taught in the senior year of an undergraduate program. Most students would have learned some growth models in their macroeconomics courses. The emphasis of teaching such models in development economics should be different. They should be taught from the developing country perspective, emphasizing the limitations of applying growth models to developing countries. It is good to sum up the different economic conditions existing in developed and developing countries. Students are usually surprised to know that almost all of the economics they have learned so far is based on neoclassical theories with reference to developed countries.

It might be difficult for an instructor to decide what models to teach and how much to teach. Time for teaching models is usually limited to two or three classroom sessions because there are so many topics to teach in a development economics course. The teaching should not be mathematical as far as possible; there are usually noneconomics major students in the class. The logic of the models must be given, although it should be precise and concise and easy for students with little background in economics and mathematics to understand. A model should be explained within the standard framework of assumptions, deductions, predictions, policy implications, and criticisms and limitations. The models must be taught in an interesting way with reference to developing countries despite the fact that such models are for explaining growth processes in the developed world.



In the course I teach, I introduce the following growth models to students: the general Classical model, the Marxian model, the Harrod-Domar model, the Neoclassical sources-of-growth model, and the New Growth theory. Teaching this list can easily constitute a semester course.

### The Classical Model

The general Classical model I teach, encompassing the ideas of Adam Smith, Ricardo, Malthus, J. S. Mill, and so forth, is seldom found in textbooks published recently.<sup>3</sup> I have taught this model from memory of a model in a reference book by William Baumol that I used in my undergraduate days in the 1960s. It is a very good starting point for teaching growth and development and telling students why economics is sometimes called a dismal science. Students are told that every model starts with some assumptions (sometimes weak and sometimes strong), and in the case of the Classical model, the two assumptions are (1) the law of

diminishing returns and (2) the iron law of wages (at the subsistence level), both of which are premises firmly held by the Classical economists.

Students are told that total product is made up of subsistence wage and surplus. When surplus exists, population and therefore labor will increase. The increase in production will be less than proportionate because of the law of diminishing returns. The surplus will therefore be falling over time. When there is no more surplus, growth will stop and the economy will be in a stationary state and the future is dismal. Students should, of course, be guided to understand the significance of this model in which surplus giving rise to investment is the determinant of growth, and surplus exists because workers continue to be paid subsistence wages despite economic growth. The instructor must not leave this subject without asking students why this model is largely counter to our experience. We certainly have been experiencing rapid and continuous economic growth instead of stagnation. When I pose this question to students in my class, invariably some students give the right answer without prompting or any preknowledge.<sup>4</sup> The Classical model has obviously overlooked the factor of technological change. A more difficult follow-up question would generate a lot of thinking and brainstorming. The question I usually ask is why the Classical economists overlooked technological change when they all lived in the age of technological change during which the Industrial Revolution took place. There is obviously no standard answer to this question, and this can be a research question for Ph.D. students. This question, however, motivates students to think and to take an interest in the subject.

### **The Marxian Model**

Explaining the Marxian model of materialism to undergraduate students in an hour's time is a challenge. I choose the Marxian model to represent a historical, stage approach to economic growth.<sup>5</sup> The Marxian model explains how the collapse of capitalism gives rise to socialism. Students usually have the wrong perception of the Marxian model, thinking that it was about socialism. They have to be reminded at the outset that the model analyzed capitalism but did not say very much about how socialism will operate and how it will eventually give rise to communism, the utopia. Marx did not give any clue to managing a socialist economy for those who overthrew capitalism. I start teaching the Marxian model by explaining briefly the formula  $Y = C + V + S$  ( $Y$  is total product;  $C$ , organic capital;  $V$ , variable capital; and  $S$ , surplus value of labor) for students to understand sufficiently Marx's arguments about the collapse of capitalism. I then focus on why capitalism was predicted to collapse on the basis of (a) increasing misery of the workers, (b) eventual falling rate of profits, and (c) increasing concentration of capital and, therefore, inefficiencies. Students usually find the explanation and analysis intellectually stimulating, but many question the relevance of this model to the developing world. The objective of teaching the Marxian model is to tell students why there was actually no collapse of capitalism in the countries Marx had in mind. The question is why Marx was wrong despite the fact that the Marxian model seemed very logical. Students are then told that some least-developed countries (Russia, China, Vietnam, North Korea, Cuba, and Nicaragua)

migrated from a bureaucratic, corrupt, immature capitalism to socialism, and in almost all cases, pure socialism did not work well to help the countries grow and develop. Why? Very interesting discussions are usually generated by this question. Some of my students write excellent essays on this topic.

### **The Harrod-Domar Growth Model**

To introduce the modern growth model of Harrod-Domar,<sup>6</sup> I point out that a silence on growth in the economic literature existed for almost a century before Harrod-Domar. One explanation is that economists did not go very far on the basis of Classical assumptions in predicting the economic future and therefore turned their attention to shorter term problems in microeconomics and hence the emergence of neoclassical microeconomic theory. I use the survey article of Hahn and Mathews (1964) on growth theories to explain the three building blocks of a typical growth model: (1) the production function, (2) the saving function, and (3) the labor supply function (related to population growth). Together with a saving function, students are shown the derivation of the growth equation, growth rate equals  $s/\beta$  ( $s$  is the saving rate, and  $\beta$  is the capital-output ratio). Assuming that the capital-output ratio is fixed by technology and does not change in the short run, growth rate is solely determined by the saving rate on the basis of whatever is saved will be invested. The Harrod-Domar model in the early postwar times was commonly and conveniently used by developing countries in economic planning. With a target growth rate, the required saving rate is known. If the country is not capable of generating that level of saving, a justification or an excuse for borrowing from international agencies can be established. Students can be asked to find out the relationship between growth and savings from some time-series statistics across countries. Students should be reminded of the difference between correlation and causation. A pertinent exercise in the Asian context is to ascertain the relationship between high growth rates and high saving rates in the cases of Japan and China. It is more difficult to introduce the third building block of a growth model, the labor and population element. What can be said is that in the long run, growth rate is constrained by population growth and also by the rate of technological change. If it is difficult for the students to understand why population growth can be a positive factor when they are familiar with overpopulation problems in developing countries, references to Japan and Western European countries could help.

### **The Neoclassical Growth Model of Solow**

The Neoclassical growth model of Solow (1956) and others is not easy for students to understand, although some students have studied it in macro courses. The gist of the Neoclassical growth model is its emphasis on the role of technological change. Unlike the Harrod-Domar model, the saving rate will only determine the level of income but not the rate of growth. How I convey this message to students depends on the student profile of the class. I prefer to focus on the empirical aspect of the Neoclassical growth model. The sources-of-growth method is not too difficult for students to understand if the instructor tries to explain the

symbols in the equations in terms of familiar economic concepts. In particular, the concept of income shares and their expression in mathematical symbols (marginal product multiplied by the amount of resources used divided by total product) need to be carefully explained. The limitation of this residual measurement of technological change should be emphasized. Students' attention is captured when I say technological change measured in this way is nothing but an index of our ignorance. A simple numerical example is of tremendous help. The major objective of presenting this sources-of-growth measurement is to highlight the relative importance of capital accumulation (as in the Harrod-Domar model) and technological change (as in the Neoclassical model) in economic growth. The original Solow (1957) study showed that technological change accounted for almost 90 percent of U.S. economic growth in the late 19th and early 20th centuries. Empirical studies on developing countries have shown different results.<sup>7</sup> Students become more aware of the limitation of applying growth models to developing countries and begin to look forward to models designed specifically for explaining development. Students can be asked to discuss why empirical results for developing countries are usually different from those of developed countries. Is it because of actual economic differences or the method and data? An interesting reading in this regard is Krugman (1994), who maintained that economic growth in East Asia was based on perspiration (use of more inputs) and not on inspiration (innovations).<sup>8</sup>

### **Lewis-Ranis-Fei (LRF) Model of Surplus Labor**

By this time, students are anxious for a rigorous and generalized model of development. It is easy to pick a model in this regard because the only generally accepted model is still the Lewis-Ranis-Fei (LRF) Model of Surplus Labor. Such models as Big Push, Unbalanced Growth, Take-off, and so forth, are only partial theories that address specific issues. The Lewis (1954) article is too wordy and the Ranis-Fei (1961) article is too technical in many places. My approach to teaching the LRF model is to explain why this is a development and not a growth model. It is a model taking the peculiar economic situation in developing countries into account: unemployment and underemployment of resources (especially labor) and the dualistic economic structure (modern vs. traditional sectors). I explain that this model is a classical model because it uses the classical assumption of subsistence wage. Before using diagrams, it is useful to explain in words the development process as postulated in the LRF model. In essence, it is simply a development process triggered by the transfer of surplus labor in the traditional sector to the modern sector in which some significant economic activities have begun. The modern sector entrepreneurs can continue to pay the transferred workers a subsistence wage because of the unlimited supply of labor from the traditional sector. The profits and hence investment in the modern sector will continue to rise and fuel further economic growth in the modern sector. This process will continue until the surplus labor in the traditional sector is used up, a situation in which the workers in the traditional sector would also be paid in accordance with their marginal product rather than subsistence wage. I then present a diagram consisting of three interconnected parts: an



upper panel on the modern sector and two lower panels on the traditional sector, a simplified version of the diagrams in Ranis and Fei (1961).

The most difficult concept to explain to students in my experience is average agricultural surplus (AAS), which is the surplus derived from the departure of each worker from the traditional sector. When the marginal product of a worker is zero, the surplus would be equal to the subsistence wage. A vivid example would be a worker in a factory paid \$10 a day who makes no contribution to production. When the worker leaves, the factory will save \$10 a day, which can be shared among the remaining workers or captured by the owner of the factory. AAS is still generated even when marginal product is positive but less than subsistence wage. It is, however, difficult to make students understand why AAS is still generated even when workers are paid according to their marginal product. The concept of producer surplus has to be used, and most students will then understand.

I then sum up the driving forces of economic development in a surplus labor situation. The existence of surplus labor gives rise to continuous capital accumulation in the modern sector because (a) investment would not be eroded by rising wages as workers are continued to be paid subsistence wage, and (b) the AAS in the traditional sector will be channeled to the modern sector for even more supply of capital (e.g., new taxes imposed by the government or savings placed in banks by people in the traditional sector). In the LRF model, saving and investment are driving forces of economic development. This is in line with the Harrod-Domar model but in the context of less-developed countries. The importance of technological change would be reduced to enhancing productivity in the modern sector for even greater profitability and to promote productivity in the traditional sector so that more labor would be available for transfer. Students should be reminded to be critical; they should be asked to look for possible shortcomings in the LRF model. The discussion of the realistic qualities of zero marginal product promotes debates and further reading. Would wages really stay at the subsistence level until all the surplus labor is exhausted? Some students might raise the issue of labor unionization. However, a few intelligent students might even point out the likely terms-of-trade impact on food prices and therefore wages when supplies from the traditional sector are reduced at the end of the zero marginal product stage of development. Last, the students should be reminded that the ultimate purpose of learning a theory in development economics is to draw policy implications for development. We could ask the questions: what policy implications can be drawn from the LRF model? Are such policy implications superior to those drawn from growth theories?

### **The Harris-Todaro (H-T) Model**

The Harris-Todaro (H-T) model of rural-urban migration is usually studied in the context of employment and unemployment in developing countries. I teach it in the context of growth and development models right after the LRF model of surplus labor. It makes sense to do this because it is meaningful to examine whether there are contradictions between the LRF and H-T models. In the H-T model, the purpose is to explain the serious urban unemployment problem in developing countries. In reality, is rural-urban migration a blessing or a headache for

developing countries? There are, of course, no real contradictions. The applicability of the models depends on the development stage and economic success in the developing country. This is an illustration of the difficulties of generalization in development studies. The best way to present the H-T model is not to follow the original H-T article but to use the ingenious diagram of Corden and Findlay (1975), which shows how the urban employment, the urban unemployment, and the rural employment are determined in equilibrium. The distinctive concept in the H-T model is that the rate of migration flow is determined by the difference between expected urban wages (not actual) and rural wages. In equilibrium,

$$N \times W_u = W_r \times S,$$

where:  $N$  is actual urban employment;  $W_u$ , urban wages (actual);  $W_r$ , rural wages (actual);  $S$ , total urban labor supply.

The H-T model is applicable to less successful developing countries or to countries at the earlier stages of development. The policy implications are different from those of the LRF model. Students find most interesting the implication in the H-T model that job creation in the urban sector worsens the situation because more rural migration would thus be induced. In this context, China's policy of rural development and rural industrialization to deal with urban unemployment provides an excellent case study for students.

Last, it is debatable whether the New Growth theory of Romer (1986) should be included in the course at the undergraduate level.<sup>9</sup> My preference is to just mention it and highlight its significance—increasing returns to capital and the importance of human capital and endogenous technological change. The implications for development policy should be discussed, but the description of the model should be in as simple terms as possible.

## THE INTERNATIONAL ASPECTS OF ECONOMIC DEVELOPMENT

Definitive evidence now shows that outward looking policy in investment and trade is instrumental for successful economic development. The experience of East Asia in general and China in particular has been intensively studied. This experience is also applicable to Latin America and South Asia. The international aspect is therefore a most important part of the development economics syllabus. The areas of focus are trade, investment, and financial development.

### Trade

The way to motivate students' interest is to point out the inapplicability of the traditional trade model to developing countries. The comparative-advantage model is based on the assumptions of full employment of resources and free mobility of resources. The gain from trade in the conventional model is static, a one-off event. Developing countries need a continuous process of development resulting from external trade. Also on a static basis, the comparative advantage of most developing countries lies in primary production. This implies that such countries should never embark on industrialization.

Development economics needs theories that postulate that international trade will give rise to a continuous improvement in the use of resources and therefore a continuous process of growth and development. The transmission mechanism must be provided and explained. The question of correlation versus causation should also be addressed. A good approach is to divide such trade theories in development into two broad categories: First, demand theories focusing on trade as a vehicle for achieving fuller use of underutilized resources. The Staple theory falls into the demand category. Exporting staple crops resulting from the availability of new markets creates a leading sector for development. The transmission mechanism from trade to economic growth is through linkage effects (Hirschman 1958). The experience of the United States in the first half of the 19th century provides a background for discussion of the Staple theory. Cotton was the staple crop and the Industrial Revolution in Europe created new markets. In the case of Canada in the early part of the 20th century, wheat was the staple crop. In Asia, the relatively high growth rates in Burma, Vietnam, and the Philippines in the early 20th century were also based on the export of staple crops.

The second group of trade theories is based on productivity enhancement as the transmission mechanism. These are a large number of theories from which an instructor may choose. Sophisticated, mathematical models are, of course, not suitable for undergraduates. Models using economic relationships and concepts with which students are already familiar are more appropriate. For example, students usually have been taught the two-gap theory or at least the importance of foreign exchange for developing countries because their currencies are not internationally convertible. Foreign exchange is earned through exporting. In the two-gap theory, foreign currencies must be used to import and pay for some capital goods. The foreign resource gap can only be financed by capital inflows or export earnings. The import of necessary capital goods will enhance productivity and give rise to economic growth. Many complex models are based on this assumption and arrive at similar conclusions.

The next and even more important question is what to export and how to sustain that export growth. It is necessary to explain to students why exporting primary commodities cannot maintain a high growth rate in the long run. Australia and New Zealand are cases in point because they are gradually losing their high positions in the world's per capita league table. The terms-of-trade effect using the immiseration growth model of Bhagwati (1958) is usually of interest to students. The next topic should be relating trade to industrialization, explaining the contrasting strategies of import substitution and export-oriented industrialization. There is a vast literature on this subject. The messages that should be conveyed to students are that import substitution is probably a necessary condition for export orientation (Hong Kong and Singapore are exceptions for some obvious reasons) and that import substitution per se is not necessarily a bad policy, but the measures (such as high protection walls and overvalued exchange rates) that accompany import substitution are undesirable and tend to distort the allocation of resources.<sup>10</sup> Plenty of examples exist in Asia and Latin America for the instructors to cite and on which students can do homework. It is now commonsense that export orientation is a better strategy. Students should be reminded that this is

only hindsight. In the years before export orientation proved to be a superior strategy, policymakers never dreamt that a country could be competitive in the world market before a long period of infant industry protection. What went wrong was that policymakers were too cautious and hesitant in switching from import substitution to export orientation. A case study comparing Taiwan with India would be interesting for students. The timely switch of strategy accounts for the success of Taiwan's industrialization.

## Investment

The role of foreign direct investment (FDI) in economic development is not without controversy. The dependency school arguments could be presented to students for their criticisms. However, it is easier to convince people that FDI is an agent of exploitation rather than a driving force of development. Students could be asked to attempt to explain the generally successful story in East Asia and the not-so-successful story in Latin America. Compare-and-contrast questions can usually focus students' attention. It is interesting that even among East Asian economies, the role of FDI differs during the country's rapid development. For example, in the early industrialization periods of the following countries, FDI was (a) important in Hong Kong and Singapore, (b) less important in Taiwan, and (c) almost unimportant in South Korea. The importance of FDI, like trade, can be discussed in the context of the two-gap theory. It is important to point out to students that FDI is not just foreign exchange but a package of resources (technology, capital, management skills, market connections, etc.) that is lacking in most developing countries.

In teaching development economics, students can usually be better motivated if they are first given a conventional theory that is not quite applicable to developing countries and then a more appropriate theory for development. In doing this, students will appreciate the justification for studying development economics as a specialized economics course. In teaching a theory to explain FDI flows, I start with the Neoclassical McDougall-Kemp diagram of using differential rates of return to capital to explain the direction of capital flows. This approach is conceptually inappropriate because FDI is more than financial capital and empirically unacceptable because it cannot explain the commonly observed phenomenon of two-way FDI flows in even similar industries between countries. Students are therefore eager to know a better theory. I introduce the Neotechnology theory (Hymer-Kindleberger) at this point. Finally, the best way to explain FDI flows is to use Dunning's (1981) eclectic framework in terms of ownership advantages, internalization benefits, and locational advantages.

The key argument of the eclectic theory is that a firm possessing distinctive ownership-specific advantages would actually undertake FDI only if the internalization benefits were also significant and a desirable location was found. Otherwise, the firm could consider such alternatives as exporting and licensing to exploit its ownership-specific advantages. Students could be asked, "Why do wine producers usually export and seldom establish subsidiaries overseas?" and "Why do hamburger companies usually exploit their ownership advantages through licensing?" It is likely that students have learned about internalization theory in

their micro course. Otherwise, the seminal article of Coase (1937) on theory of the firm could be used as an introduction. The proposition of Coase that the first and most important decision a firm must make is what to do and what not to do (out-source) in the production and distribution processes.

## **Finance**

Financial development and economic development along the line of the McKinnon-Shaw hypothesis is an important topic in development economics. This subject is also controversial. Financial liberalization has to proceed with caution in developing countries. The free-market arguments are subject to qualifications in the case of developing countries. Many instructors who firmly believe in neoclassical economics very often go overboard in defending the free market arguments in teaching development economics. The instructor should emphasize the issue of sequencing of reforms (notably liberalizing current account before capital account) and should provide the Latin American experience in the early 1980s. The recent Asian financial crisis used as a case study would be of great interest to students in Asia. China's narrow escape from the crisis is a good illustration of a prudent approach to financial liberalization and internationalization.

Exchange rate regime is a favorite topic. Again, one should not agree overwhelmingly with the free market arguments in favor of a flexible exchange rate regime. As a matter of fact, many countries, including developed ones, are working well on a fixed or semifixed exchange rate system. Some European countries were on a fixed exchange rate system until very recently. Students should be given facts and statistics and balanced views on this subject.

## **PROSPECT**

In this age of the New Economy in which information and communications technology (ICT) prevails, a broad-based education has become increasingly important. Technology and knowledge change continuously, and their applications are pervasive. Whatever one learns will become outdated in no time. A liberal arts education<sup>11</sup> with the aim of producing graduates with adaptability, brainpower, and creativity (the ABCs of liberal arts education) provides the best preparation for young people to face the challenges of the new economy. Another feature of the New economy is the predominance of globalized production. International exposure is therefore important. ICT permits economies of scope in addition to economies of scale.

As an interdisciplinary and multidisciplinary subject, development economics fits well into a liberal arts curriculum and serves well the New Economy. Development economics concerns the entire world, requiring students to explain the diverse outcomes of development in different countries. After studying development economics, they can understand and analyze many topical and real-life issues. Development economics is not just a descriptive subject. It is supported by many theories that are well construed and have strong predictive powers. I suggest that development economics should be a course in the core curriculum.

## NOTES

1. Some economic development textbook authors at the undergraduate and graduate levels adopt a very quantitative and rigorous approach; see Agenor and Montiel (1995), Basu (1997), and Bardhan and Udry (1999).
2. The textbook I have used in recent years is Perkins et al. (2001).
3. In older economic growth and development textbooks, the Classical Growth model received more attention; see Meier and Baldwin (1957) and Higgins (1959).
4. If no student can give the right answer, it is probably not the fault of the students but of the instructor, who has not taught the topic effectively.
5. I do not teach the Rostow–stage model because the Rostow model (a model?) does not explain the interaction between two successive stages and therefore the transmission mechanism from one stage to another.
6. The Harrod-Domar model is a growth and not a development model. Although in the earlier days the Harrod-Domar model was commonly used to make reference to economic development because of the lack of well-accepted economic development models, its assumptions are based on conditions in developed countries. The Harrod-Domar model is also not neoclassical because it assumes a fixed-proportions rather than a neoclassical production function.
7. See Chen (1979) for a review of the earlier literature and studies on Asian economies.
8. Chen (1997) gave an up-dated literature review on the total factor productivity debate and the shortcomings of Krugman's views.
9. In Ray (1998), a textbook for advanced undergraduates and graduates, a 30-page chapter was devoted to the New Growth theory.
10. Perkins et al. (2001, ch. 18) gave an excellent explanation, with diagrams, on the means by which import substitution can be a success or a failure.
11. Liberal arts education should be defined by its distinctive teaching and learning processes rather than by content and disciplines.

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