A REVIEW ESSAY
Half a Century of Development Economics: 
A Review Based on the 
Handbook of Development Economics

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The Handbook of Development Economics provides an unmatched perspective on the past half century of research in the field. This article reviews some of the significant findings of the Handbook and identifies areas of development economics not covered there. It describes the evolution of the field, beginning with the postwar Indian Congress consensus, which emphasized state planning. That paradigm was complemented in the 1970s by the dual economy paradigm and the work of the Latin American structuralists. As the costs of protectionism came to be recognized, many economies adopted an outward orientation with respect to both trade and foreign investment. This outward orientation later formed part of a new consensus on macroeconomic management, sometimes referred to as the Washington consensus. This consensus—more accurately dubbed the One World consensus—is now widely accepted throughout the world, as developing and industrial countries alike have embraced its emphasis on fiscal discipline, tax reform, outward orientation, privatization of state enterprises, deregulation, and the safeguarding of property rights. Despite 50 years of research, large gaps in the understanding of development remain. Adopting Sen's framework of beings and doings and focusing on collective action and the roles played by individuals may help to fill some of these gaps.

The three volumes of the Handbook of Development Economics summarize a vast economic literature and provide an unmatched perspective on half a century of development research (Chenery and Srinivasan 1988, 1989, and Behrman and Srinivasan 1995). The contributions are thorough, and the spectrum of views is fairly presented, with contributions from both policymakers and academic economists.

Development economics is a very applied science, which policymakers and academics have enriched. Politicians emphasize their differences but tend to think alike to a surprising extent. Some of the reason must be frequent contacts, the influence of the media, and each individual's keeping close watch of policy innovations elsewhere. These "consensuses," as I shall refer to them, do not exist at all times, but when they do, it is usually possible to characterize by one name the concept that inspired them. For example, the creation of a unified European

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market has been the focus of much that European Union governments have done in recent years. Williamson (1997) has drawn attention to the importance of consensuses.

Academics disagree about everything, but there is an anchor in this swirling, and it is the agreement, so strong that it borders on intolerance, of an overwhelming majority of academics about what Kuhn (1962) has called a "paradigm," a shared view about assumptions, the discipline's frontiers, and the topics that merit attention.

This article reviews some of the significant findings of the *Handbook* and identifies areas of development economics not covered there. The appendix provides a list of the authors and chapter titles for the three volumes of the *Handbook*. For a longer version of this article, see Waelbroeck (1998).

Section I summarizes the ideas of Jawaharlal Nehru on economic planning and development. Section II provides an overview of the first quarter century of development economics. It describes the main ideas in the field during that period, including the dual economy development paradigm, the views on population, and other views. Section III looks at some of the questions raised about the early literature. Section IV discusses neoradical ideas, including dependency theory and Latin American structuralism. Section V describes the progress that has been made in economic theory, data, and empirical methods. Section VI examines the move toward outward orientation and its effect on North-South capital flows. Section VII describes structural adjustment and the One World consensus. Section VIII addresses some issues not addressed in the *Handbook*, including Sen's concept of beings and doings, the theory of collective action, and the role of the entrepreneur. The last section presents some final thoughts on development economics.

### I. The Indian Congress Consensus

In their introduction to volume 3B of the *Handbook*, Behrman and Srinivasan call attention to the marvelous pages on economic planning that Nehru wrote while in jail in Ahmadnagar in 1944 and 1945 (see Nehru 1989). They set out the conclusions of a large group of businessmen, trade unionists, and officials of provincial governments who worked on a plan that could serve as a model for Indian planning after independence. What is striking is that, except for big business, all of the groups involved reached a consensus on economic policies. This Indian Congress consensus defined the program that Nehru implemented. The ideas it embraced seemed so obviously right that the leaders of other newly independent developing countries, many of whom had not read Nehru's book, adopted them as cornerstones of their policies.

Most of the ideas of early development economics are there, laid out in 14 pages with the clarity and brevity of an extraordinary mind. Truly, as Srinivasan observes, those pages marked the beginning of development economics.

Nehru's ideas can be summarized as follows:
Although Asia long represented the advancing spirit of man, standards of living in the industrial world (the North) shot ahead of those in the developing world (the South) over the past 150 years.

The industrial revolution transformed Europe. To experience a similar transformation the South must acquire the technology that made the European miracle possible.

Southern countries need to modernize their societies. Traditional modes of thought and institutions should be replaced, and the masses should be educated.

Industrialization could take place rapidly in the South, and the South could now acquire far better technology than that which propelled the industrial revolution.

Agriculture requires attention because it is so large and important and because the most abject poverty is found in that sector.

Because the marginal product of agricultural labor is zero, moving workers to the cities would produce a large boost in output.

Overcoming poverty is a fundamental task that cannot be achieved without rapid growth. But much can be accomplished by eliminating exploitive institutions.

Developing societies should be based on collective action rather than on the acquisitiveness of capitalist society. The influence of big business should be curbed. State enterprises and cooperatives could realize important scale economies.

The state should seize control of the economy and induce all citizens to participate in the effort.

Clearly, Nehru was unaware of the success of the very different Japanese development model, which inspired the Four Dragons (Hong Kong, the Republic of Korea, Singapore, and Taiwan [China]) consensus, which modified so profoundly our understanding of development.

Nehru provided a fascinating account of his debate with Gandhi, who feared that the emphasis on high technology and heavy industries would lead to widespread unemployment. Gandhi started the debate on appropriate technologies; had he lived, his thinking might have provided a useful counterweight to Nehru’s.

II. THE FIRST QUARTER CENTURY OF DEVELOPMENT ECONOMICS

The discipline of economics has changed radically since the end of World War II. Just after the war, doubts about the effectiveness of market incentives were widespread, and the new welfare economics emphasized the costs of market failures. Keynes himself announced that business people are driven by animal spirits (a conclusion that Oxford Keynesians claimed was borne out by surveys suggesting that interest rates had no effect on the investment decisions of businesses). Wages were believed to be rigid downward; prices were believed to
be set by adding standard markups to costs. Econometric research had demonstrated, many economists believed, that foreign trade elasticities were very low so that exchange rates had little effect on the quantities exchanged, and price elasticities for many commodities were so low that prices had little effect on the quantities exchanged. This skepticism over market incentives accounted for the popularity of analytical approaches that took no account of prices. Economists felt comfortable basing policy analysis on such devices as input-output tables, Harrod-Domar models, and incremental capital-output ratios.

Meanwhile, claims of extraordinary growth in the Soviet Union were taken more or less at face value. Only later did Gershenkron (1951) and researchers directed by Bergson identify how the data had been manipulated to distort actual rates of growth. Most economists saw no reason why large state firms should be less efficient than private ones, since both were run by bureaucracies. That politicians govern in the general interest was taken for granted.

**The Dual Economy Development Paradigm**

The whole economy replacement concept—which suggests that successful development replaces traditional economies with economies based on northern technology—is the cornerstone of development economics. Its most visible manifestation is the massive population shift from rural areas to cities. Ranis's (1:4) reformulation of the Fei and Ranis (1961) dual economy model analyzes the economic flows between industry and agriculture (where agriculture stands for the subsistence sector, in which wages are set according to sharing principles rooted in custom rather than market principles). Agrarian wages exceed the marginal product of labor (which is greater than zero in this version of the model). Such an economy has considerable slack, whose elimination yields a large gain. Trade is discussed only in a brief section in Ranis (1:4) on the logic of import substitution policies, which notes that the few countries lacking natural resources may resort to export substitution by selling simple consumer goods abroad.

Other chapters cite the suggestion of Soviet economist Preobrazhensky (1924) that because food output does not respond to prices, taxing agriculture provides a ready way of generating primitive socialist accumulation. Another view (still widespread among policymakers in the developing world) is that rural-urban migration is supply driven and that, in the absence of control, masses of people move to the cities, where they are driven to crime and political unrest by the lack of employment opportunities. Hoselitz (1953) and later Bairoch (1975) contribute to this thinking by comparing the experience of developing countries with that of industrial countries in the nineteenth century, suggesting that urban populations in the developing world were outrunning industrial jobs. Williamson (1:11) shows that the idea is incorrect.

Nurkse (1953) and Johnston and Mellor (1961) claim that the rural sector should be able to feed the cities and to absorb the cities' manufactured goods in

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1. Citations from the *Handbook* are identified by their volume and chapter numbers. For example, Ranis (1:4) refers to volume 1, chapter 4.
return. In their view, improved nutrition raises the productivity of workers, triggering a virtuous circle of growth. Empirical support for such a belief, it was later found, is quite weak.

Population Growth as Market Failure

Rapid population growth, driven by medical advances, was recognized early on as a policy problem. It would prove difficult to accumulate enough capital to catch up with the industrial countries even if population were stable. With rising populations, the task might prove impossible.

Analysis showed the problem to be more subtle than had been thought. Boserup (1981) suggested that population growth expanded the food supply by causing endogenous technical change. Economists subjected the problem to the logic of welfare economics and showed that market failure is involved: population growth, determined by the actions of parents, is optimal only if parents take account of the interests of their progeny as well as their own, if information about contraception is available, and if property rights are well defined (see Sen 1:1, Birdsa1 1:12, and Dasgupta and Mäler 3A:39). Tragedy of the commons problems arise when property rights are poorly defined. Pecuniary externalities are a possible source of market failure (as, for example, when population growth reduces wages).

The decision to have children is often based on self-interest, as Dasgupta and Mäler (3A:39) note in their discussion of the demographic transition in rural settings, where having children (at least male children) may be the only way to provide for old age. Development loosens the bond between parents and children by offering children an Hirschmanian exit to the cities. In addition, unless runaway inflation destroys quasi-monetary assets, a wider range of low-risk savings assets becomes available, which also makes child-bearing less attractive from this point of view.

Many births reflect ignorance about birth control, as shown by the impact that the provision of information on birth control has on the birth rate. Evidence of market failure is strong. The measures taken to discourage births in China, Singapore, and India under Indira Gandhi may nevertheless be repugnant to economists.

Other Early Views

The two-gap model of Chenery and Bruno (1962) also implies market failure, in the sense that market prices may differ from the scarcity prices that matter to society. A linear programming formulation reveals that the gap may be large. Foreign aid is apt to be extremely valuable; policies that seem costly may be socially very profitable.

Lack of scale economies was believed to be a possible source of market failure. (The licensing policy introduced in India after independence reflected this belief.) Countries with large domestic markets were assumed to enjoy an advantage over countries with smaller domestic markets. Perkins and Syrquin (2:32) find that large countries do indeed have a larger share of heavy industries (typi-
cally characterized by scale economies) and grow faster than smaller ones. The latter finding could reflect the fact that many small countries are located in Sub-Saharan Africa, where growth rates are low.

III. QUESTIONING THE EARLY LITERATURE

It was 1979, and Ian Little and I were chatting. The conversation drifted to that favorite topic of academics, the award of the Nobel Prize, granted that year to Theodore Schulz and Arthur Lewis. “An obvious one I should think,” said Ian. “Clearly, Lewis got it for stating that the marginal product of agricultural labor is zero, and Schulz for showing that it is not.” A quip but a deep one. The initial model of development was flawed, as was Nehru’s and other leaders’ understanding of their countries. The developing world would have grown much faster had early errors been avoided.

Schulz (1964) first questioned the belief that subsistence agriculture does not respond to market forces. In fact, a true subsistence sector exists almost nowhere. As Rosenzweig (1:15) has shown, about 30 percent of the income of farm families is of nonagricultural origin. Schulz’s findings were accepted with some hesitation by the academic community when he published them in 1964. Even today many policymakers in developing countries do not believe that successions of bad harvests may be the result of inadequate prices rather than of persistent drought.

Little, Scitovsky, and Scott (1970) and Balassa (1971) identify a second error in the early work, the belief that developing countries have limited access to world markets. With the benefit of hindsight, we see what a strange idea it was. A fundamental assumption of development economics is that people everywhere have similar abilities. If the technology used in many industries is easy to acquire, why are developing countries unable to produce goods that satisfy consumers in the industrial world?

It seems that a Nobel prize should be awarded to the policymakers who took a chance on trade. Why did the governments of the Dragons set out on a course that, 40 years later, so many countries are trying to emulate? Japanese ideas had a decisive impact on Korean decisionmakers and on Taiwanese business leaders who spoke Japanese and understood why Japan had been so successful. A number of Taiwanese policymakers were influenced by American ideas; the ideas of C. S. Tsiang were also influential. The Republic of Korea was subjected at an early stage to U.S. pressure to liberalize. After listening to the advice of northern development economists, Lee Kwan-yu of Singapore decided that their advice was wrong and set his country on its successful course.

IV. NEORADICAL IDEAS

I call the economists whose work is discussed in this section neoradicals because they share a conviction that the aims of mainstream economics are mis-
guided. The authors of the *Handbook* chapters that present this work have sympathy for that school but do not all belong to it.

**Dependency Theory and Exploitation**

Bardhan (1:3) and Evans (2:24) examine dependency models that describe how anonymous economic forces stifle national efforts to escape from the trap of underdevelopment. The best-known model is the Prebisch-Singer one, according to which differences in income elasticities of demand for primary products and industrial goods, combined with the struggle for higher wages by organized workers in the industrial countries, allow the industrial world to capture the benefits of productivity growth in the developing world. Both chapters note the weak empirical foundations of those models (and the logical inadequacies of the Prebisch-Singer model). Lewis’s (1969) elegant neoclassical model of trade between England and tropical countries rigorously analyzes a situation in which such a transfer may occur, but its relevance is limited to the rare situations in which the South produces commodities (such as cocoa) that are not produced in the North. Taylor and Bacha’s (1976) model describes a situation in which rich groups have a high marginal propensity to consume luxuries they produce, engendering feedbacks that widen inequalities (Taylor and Arida 1:6). The authors note, however, that the assumption about propensities to consume is contradicted by the empirical findings of Clark (1975).

Exploitation often entails manipulation of the legal framework by ruling groups. Evans (2:24) discusses Roemer’s use of the concept of the core of a game to characterize how the prohibition of specific contracts may induce exploitation. Nehru complained repeatedly about the British practice of preventing Indian industrial projects from going ahead, a practice that narrowed the set of subcoalitions that Indians could form and changed the core of the game in favor of British businessmen.

Using a different device, both Taylor and Arida (1:6) and Evans (2:24) use the concept of closure to show how political power enables a group to modify mechanisms in its favor. Closure is best known as a technical device that keeps general equilibrium models manageable (see section V). It can, however, also express the ability of a group to disable a mechanism to achieve its goals. “Maintained hypotheses about the direction of causality,” Taylor and Arida conclude, “are the key to the results of most models described herein. . . . One causal structure may be more appropriate than another. However, the decision is almost always external to the models” (p. 189).

**Latin American Structuralism**

Latin American structuralism has drawn some of its strength from the hostility of noneconomists to the realities of economic management, in particular to the conditionalities imposed by the International Monetary Fund (IMF) and the World Bank. Developing countries tend to balk at implementing structural adjustment programs, arguing that investment cannot be cut back because it is
needed to eliminate bottlenecks, that high real wages sustain demand, that devaluation reduces purchasing power and is deflationary, and that high interest rates raise costs and cause inflation. Such arguments are incomplete rather than incorrect, because they take account of only the first-round effects of policy decisions that confirm what the common man wishes to believe. Such reasoning has led to shocking policy errors: it was not so long ago that the U.S.-educated prime minister of a large developing country reduced interest rates to combat inflation.

In Latin America a school developed—at the universities and in the Economic Commission for Latin America—that sought to transform this thinking into a coherent theory. That literature is discussed in several chapters of the Handbook. Arida and Taylor (2:17, p. 863) provide the best exposition. The authors acknowledge that “summarizing these contributions . . . is not possible because so many ‘effects’ are involved.” Together with a number of bizarre ideas, the structuralists identified important issues that remain unresolved even today. Before mainstream economists recognized the problem, for example, the structuralists noted that stopping inflation would inflict enormous losses on banking systems; the term structuralists is meant to highlight the very painful adjustment that solving Latin America’s problems by orthodox policies would impose. What accounts for structural rigidities was never spelled out carefully, but it has indeed turned out that freeing economies from government interference has proved slow and much more painful in economic and even more in political terms than many had expected. I return to this topic in the last section of the article. Taylor’s explanation of inflation inertia in terms of contracts seems a bit elementary today, but this phenomenon, too, is poorly understood.

Seeking to avoid the pain of adjustment, Latin America experimented with a variety of quick-fix schemes, involving the manipulation of exchange rates, indexation schemes, or freezing of key prices, wage rates, or interest rates, meant to solve problems without requiring macroeconomic cutbacks and structural reform. All failed, almost all ending in catastrophe. Ignoring the structuralists’ advice, Latin American governments have adopted the simple policies advocated by the IMF. These have produced results, albeit slowly. Krueger (3B:40) and Corbo and Fischer (3B:44) discuss the impact of those policies, finding that selection biases make it difficult to measure their costs or benefits but that there is no evidence that those policies have either been very costly or led invariably to a swift resumption of growth.

Latin American structuralism is widely considered to have been a failure. It is possible, however, that economists of the next generation will look more kindly on the contribution of that school of thought. What the structuralists focused on, the economics of disequilibrium, is the weakest area of modern economics. It seems possible that by setting up a sound theory of disequilibrium, Latin American economists, using better analytical tools than their elders, could make a fundamental contribution to our discipline.
V. PROGRESS IN ECONOMIC THEORY, DATA, AND EMPIRICAL METHODS

Data have driven the progress of development economics—data and the imaginativeness of economists who realized that the theory was inconsistent with the empirical results. Development economics is indebted to the economists who built up the macroeconomic record of development. Syrquin’s chapter (1:7) reminds us of the insights owed to these pioneers. Deaton’s chapter (3A:33) provides a thorough presentation of the theoretical progress in the econometrics of microeconomic data and reviews what has been learned through experience about the control of selection and other biases.

Deaton (3A:33) and Strauss and Thomas (3A:34) show that the quality of much of the macroeconomic data is very poor. In their introduction to volume 3B of the Handbook, Behrman and Srinivasan note that Summers and Heston assign a score of D+ to D to the quality of the data in 66 of 138 countries. Gross national product (GNP) growth rates are dangerously dependent on guesses about informal sector output, and it is difficult to overstate the weakness of data for Sub-Saharan Africa, which accounts for so many data points in regressions.

Even apart from data problems, cross-country regressions must be viewed critically. As Syrquin (1:7) notes, cross-country regressions are reduced-form estimates of more complicated models and do not provide reliable evidence of causality. Unless complemented by deeper study at the country level, such regressions reveal little about development.

Sample surveys are making an increasingly important contribution to development research, thanks partly to the initiatives of the Indian statistical school, which has also made major contributions to statistical theory. The World Bank’s living standards surveys, which cover social as well as budget variables, have also become a major source of information on the development process. Surveys in developing countries appear to be as accurate as in industrial countries; with a few exceptions, this is hardly true of national accounts data. The number of such surveys has been rising, but too many have been terminated after a few years.

The most influential data by far have come from what econometricians in the Cowles Commission have called experiments by nature. Principally in response to these natural experiments, a revolution has taken place in the paradigm that guides economic research. The excellent chapters by Krueger (3B:40) on post-war experience and by Corbo and Fischer (3B:44) on structural adjustment are particularly valuable.

Gone is the confidence instilled by Keynes that macroeconomic equilibrium can be restored by simple devices; economists now understand that rational expectations make economies difficult to control and that such phenomena as lack of credibility rob policies of their effectiveness. Policymakers are coming to understand that although many price elasticities are low in the short run, relative

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2. These chapters draw on Srinivasan (1994) and other sources. On the much discussed China/India growth race, see Timberg (1997), which comments on Srinivasan (1993).
prices cannot be manipulated harmlessly. Long-term elasticities are often far higher than short-term ones. Agents have ways of eroding and eventually destroying controls through black markets, unexpected technical change, retaliatory measures by foreigners, and massive speculative swings, so that policies that seemed safe become the source of escalating complications. The Dragons' natural experiment has shown that long-run trade elasticities are virtually infinite for dynamic countries that diversify exports as they expand them.

*Quantifying Theoretical Results by General Equilibrium Modeling*

Samuelson (1947) assigns theoreticians the goal of developing meaningful theorems that predict the sign of impacts and can be disproved by observations. Applied general equilibrium modeling allows the magnitude of impacts to be predicted as well. Informative chapters by Robinson (2:18) and by Gunning and Keyzer (3A:35) present the methodology. Gunning and Keyzer pay special attention to computational issues. Their chapter reveals that quantitative analysis can be applied to a wide range of theoretical problems.

It is well to keep the limitations of the approach in mind. In addition to data problems, theoretical problems remain, chief among them the problem of closure, first noted by Sen (1963), and the difficulties in modeling disequilibrium. Both problems reflect weaknesses of economic theory. Closure reflects the difficulty of conceptualizing situations in which markets are incomplete. The device bypasses the difficulty by replacing whole market segments with a few equations. The widely used classical closure equation, for example, assumes that investment absorbs the savings available at full employment, replacing all capital and the money market system. As for modeling disequilibrium, no theory of the business cycle exists that has both rigorous theoretical roots and is compatible with observed behavior.

In a pivotal chapter, Stiglitz (1:5) illustrates how today's economic organization theory has the potential to deepen our understanding of markets. Economists have long been puzzled over the so-called facts that improved nutrition increases productivity and that workers accept jobs in the informal sector when higher-paying jobs are available in the formal sector. Stiglitz uses efficiency wage theory in a general equilibrium context to examine whether these phenomena reflect market failure. In both cases, he finds, market failure is not at work. Since Stiglitz's study, empirical work has shown that neither phenomenon exists: improved nutrition has only a small effect on the productivity of labor, while the Harris and Todaro (1970) assumption that urban migrants can secure formal sector jobs is belied by evidence that they are able to secure jobs only in the informal sector. The value of the chapter thus now lies in its methodology, which can be used to analyze other questions.

Stiglitz also elucidates the puzzle of why sharecropping arrangements are so prevalent in poor countries, even though the incentives they offer do not motivate farmers to extract maximum output from their land. Does the practice reflect exploitation or the lack of rationality of rural agents? Economists today
believe that sharecropping is prized because it provides insurance in incomplete markets in which rents cannot be conditioned on realized harvest and selling prices. Stiglitz also accounts for the interlinking of contracts—the fact that farmers carry out a variety of transactions with the same individual. Because of information asymmetries, both parties prefer to know with whom they are dealing. Such knowledge requires frequent interaction. Both devices reflect optimal adaptation to market imperfections.

**Econometric Results**

The emphasis on individual rationality in the modern paradigm heightens the importance of the very careful ongoing work of analyzing microeconomic data. Progress in methods has been swift. Lack of space makes it impossible to do more here than convey the flavor of some of the results, whose scope is broadening rapidly. Observations that stem from aggregate data are presented first.

**EDUCATION AND HEALTH.** The finding that the rate of return to investment in education is high (Schultz 1961) is confirmed by sophisticated econometric methods. Strauss and Thomas (3A:34) stress the important point made by Schultz (1975) that the main contribution of education is to teach individuals how to process information in a rapidly changing world. Econometric results strongly confirm the multifaceted benefits that flow from the education of women, including improving the health and nutrition of families and the academic success of their children, as well as moderating population growth. Indicators of school quality turn out to be less significant than expected.

With respect to health, the results are so far more limited. The impact of nutrition on productivity is far smaller than once thought; the elegant work on nutrition efficiency models would seem to be empirically irrelevant. Selection biases make it impossible to secure robust results with respect to benefits from investment in health facilities.

**PRIVATE SAVINGS AND ITS INTERMEDIATION.** Early planners created market failures by nationalizing or limiting the freedom of banks and insurance companies and allowing runaway inflation to destroy savings. As Besley (3A:36) notes, what economists designate as trading over time and over states of nature is crucial to welfare. Who will take care of me in old age, who will pay my hospital bill, and how can I finance a tubewell are enormously important questions for individuals. Politicians who view banks and insurance companies only as sources of funds have caused great harm. Besley presents a theoretical overview, a discussion of the (scant) available empirical literature, and a study of how institutions such as the Raiffeisenkassen banks created in Germany in the nineteenth century and the Grameen Bank in Bangladesh have met specific needs. Besley cites Townsend’s (1994) fascinating study of the informal system of insurance that sharing traditions have established in parts of India. He also discusses the countervailing role of the Susu men in parts of Africa, who enable
market women to shelter their capital from the greed of relatives who, invoking sharing traditions, might ruin them.

Why do savings rates differ so widely across countries? Evaluation of the Chilean pensions scheme, which is run by private institutions along accumulation lines and is being copied in several Latin American countries, could shed light on the issue. Most economists agree that the scheme has helped to increase the savings rate in Chile from 6 to 26 percent of gross domestic product. The success of the system is a striking demonstration of the importance of good policies for the trading over time that Besley emphasizes.

Financial repression has diverted the natural course of development. Besley discusses Gershenkron’s (1962) conjecture about the relationship between economic development and the growth of financial intermediaries—a relationship borne out by the data collected by Goldsmith (1969), which show that the ratio of the value of financial instruments to wealth rises as development proceeds. Now that financial repression has been reduced almost everywhere, a rapid catching up process is under way, revolutionizing the financial sectors in the developing world.

TECHNOLOGICAL PROGRESS. Ranis (1:4, p. 89) describes the developing economy as “picking and choosing from the formidable shelf of technology.” Rostow’s stages of economic growth assume implicitly that technology is somehow embedded in capital goods, so that achieving an adequate investment rate is the key to development; the postwar fashion for buying turnkey plants reflected the belief that they would prove as productive as plants in the North.

The view that development can be reduced to a capital accumulation process is questioned in Stiglitz’s chapter (1:5), in which he examines the belief of such authors as Rostow (1965) that achieving a takeoff investment ratio brings about self-sustained growth. If lack of capital were the main cause of low productivity, the return on capital in the South should be much higher than empirical studies indicate. Using Arrow’s suggestion that education both selects ability and communicates knowledge, Stiglitz notes that estimates of the productivity of human capital are biased upward, so that education cannot generate the higher output required for the South to catch up with the North.3 Underdevelopment itself could be seen as a gigantic market failure in which agents in the South fail to use technology that is routinely used in the North; Stiglitz suggests that Schumpeter’s entrepreneur is needed to correct the situation.

3. Stiglitz assumes a low (0.2) capital exponent and may overemphasize the bias implied by Arrow’s (1973) selection effect. An article by Krugman (1994) has given visibility to results by Young (1994) that suggest that all of the Dragons’ growth is accounted for by a colossal capital accumulation. The result is generated by a simple regression based on cross-country regressions of the type criticized above. The 0.45 elasticity of output with respect to capital is too high; technical progress is negative. Egypt, Pakistan, and Botswana rank at the top of the league, while Singapore ranks fourth from last—anomalous results that cast doubt on the calculations used to produce them. The implicit production function estimated by Young implies vastly higher returns to capital in the South than in the North, which are not borne out by the data.
In a key chapter, Evenson and Westphal (3A:37) try to clarify the mystery of why some countries adopt technology and others do not. They describe technology as circumstantial and tacit. Firms must spend money to acquire the tacit knowledge necessary to make the invention work in its new environment. Pack (1:9) observes that foreign trade contacts are important. Strauss and Thomas (3A:34) note that education provides individuals with the ability to solve the many practical problems that arise when a new technology is introduced. The authors say little about the entrepreneur, a topic addressed here in section VIII.

**Poverty and Equity**

The problem of poverty was little addressed by early development economists, although its importance was recognized. Nehru believed that rapid growth would pull up the poor with the rest of society but feared that this process would not be swift enough. Accordingly, the first Indian development plan placed a higher priority on poverty than on growth. The stand taken by McNamara in his 1973 Nairobi speech reflected the evolution that came to be.

Lipton and Ravallion’s pivotal chapter (3B:41) surveys the history of thinking on poverty and policy. The trickle-down idea is confirmed, although there is much interest in the case of the Indian state of Kerala, which has demonstrated that much can be achieved in slow-growing states. Some early ideas have turned out to be incorrect or not useful. One is Kuznets’s (1955) celebrated inverted U, according to which development first increases differences in income distribution and later reduces them. The disastrous effect on the rural poor of financing development through primitive capital accumulation extracted from agriculture is now understood. The current belief that the poor suffer disproportionately from macroeconomic adjustment policies is not confirmed (but is useful in stimulating efforts to reduce the effect that these policies do have on the poor).

Because of difficulties in targeting, poverty is difficult to combat, even though the poverty gap is not large in absolute terms: according to Lipton and Ravallion (3B:41), it amounts to about 1 percent of total consumption for the poorest fifth of the developing world’s population. Excellent governance might help, if it could be achieved by the wave of a magic wand. Combating poverty by spending state funds is impractical, given the need to pay for development. Ahmad and Stern’s chapter (2:20) points out, however, that budget tightness is in part governments’ own making. Shifting part of the tax burden to land would redistribute income and minimize the distortionary effect of taxation. The power of landowners prevents this change from occurring, however. Lipton and Ravallion (3B:41) and Jimenez (3B:43) emphasize that much more could be done to impose user charges to offset the cost of roads and other utilities, which benefit mainly well-off individuals.

Binswanger, Deininger, and Feder (3B:42) analyze the historical evolution of property rights in agriculture, which are often the legacy of brutal conquest and the manipulation of property rights legislation by landowners. Sweeping land reforms have often led to disappointing results. Work like theirs on the history
of land relationships could prevent policy errors from being made when such rights are redesigned.

Dasgupta and Måler (3A:39) examine rural property rights and poverty. They show that much can be done by controlling the gradual privatization of local commons, which contribute significantly to the livelihood of the poor.

VI. OPENING THE ECONOMY TO FOREIGN TRADE AND INVESTMENT

Several chapters in the Handbook examine the role of outward-oriented policies, including liberal trade policy and openness to foreign investment.

Outward Orientation

According to trade theory, free trade is optimal for countries that are small in international trade so that their import and export prices are given. Balassa (2:31) points out that the spectacular increase in trade of the Dragons has not harmed their terms of trade; hence the assumption holds. The export pessimism of the early days is discredited and not questioned anymore. Yet the debate goes on, the dispute now being about the impact of outward-oriented trade policies on growth.

What trade theory teaches us can be set out in terms of a so-called welfare triangle; the triangle’s height equals the distortion induced by the tariff, while its base equals the impact on the quantities traded. As a convenient approximation, demand and supply curves are assumed to be linear so that, to use the language of geometry, the triangles corresponding to different protection levels are similar. (Experiments of mine have taught me that back-of-the-envelope calculations using welfare triangles provide a surprisingly good approximation of those produced by large nonlinear general equilibrium models.)

A first conclusion is that the welfare cost of protection is proportional to the square of the tariff-induced distortion (hereafter, the distortion). The cost of a small departure from free trade is second-order small; for example, almost all of the welfare gains secured by industrial countries as a result of the Uruguay Round stemmed from cuts in the high protection of agriculture and a few service sectors. Proponents of protection often say that in the nineteenth century, France and Germany did not suffer visibly from their high tariffs. In the 1970s, protection levels in many developing countries reached levels that amounted to quadruple those of nineteenth-century France and Germany; these would imply a welfare cost that was 16 times larger. Closer examination shows that this exorbitant protection was riddled with holes as particular importers were granted exemptions. This generated, however, a climate of corruption that worsened income distribution and a climate of cronyism that harmed governance.

General equilibrium models have been used to assess the welfare cost of protection. They suggest that the welfare cost of protection is significant but not exorbitant. A volume edited by Srinivasan and Whalley (1986) presents results under standard assumptions. As Rodrik notes (3B:45), the estimated welfare
losses do not exceed a couple of percentage points. This is far from negligible but the stakes of development are on a different scale. India’s GNP, for example, grew on average by 4 percent less than Korea’s from 1980 to 1995. Accepting the 2 percent estimate, India’s protectionism would account for a bare thirtieth of the growth gap between the two countries.

The problem for the models—and for orthodox trade theory—is that the facts that they describe seem to be belied by the facts. As mentioned by Krueger (2:31), Korea’s exports to GNP ratio, for example, grew from 3.8 to 31.8 percent from 1960 to 1990. None of the models in the Srinivasan-Whalley volume is capable of generating such a result without resorting to arbitrary changes in coefficients or other tricks. The small welfare gains may reflect these models’ lack of realism. This has encouraged model builders to embed in general equilibrium models components that take into account “dynamic” gains stemming from the stimulus of keener competition, increasing returns, and reductions in rent-seeking costs. Rodrick (3B:45) discusses surveys of such work by Balassa that imply welfare losses of more than 5 percent of GNP in highly protectionist countries. Yet even on this basis, differences in trade policy would account for less than a tenth of the growth gap between India and Korea.

The conclusions change radically when, setting aside theory and the models that embody its logic, the analyst uses econometrics to study growth rates. There exists by now a very large number of studies of this type, which both Balassa (2:31) and Rodrik (3B:45) discuss. The first concludes that the impact of protection on growth rates is quite large; the second finds this work “fragile.” Having looked at many such studies, I find him too skeptical.

Forget econometrics and international trade theory, some might say, look at the numbers. Even those are hard to interpret, however. No one calculates welfare; the only data are GNP figures at constant, tariff-distorted domestic prices. Helleiner (2:27) cites studies by Lall and Streeten and by Encarnación and Wells showing that between 25 and 45 percent of investments by multinationals lowered welfare in the host country. That investment that increases GNP at constant domestic market prices may be welfare-reducing is no theoretical curiosity. The contradiction may account for the fact that trade liberalization in highly protected countries in Latin America and in the former Soviet bloc, which often resulted in a protracted period of slow GNP growth, was so popular that the policy change was irreversible.

North-South Capital Flows

Since volume 3 of the Handbook was published, a remarkable shift in thinking has taken place in the South regarding foreign control of enterprises. In a number of developing countries, foreign banks account for a sizable share of loans and deposits. Governments have learned to value the economic role of small stockholders, and they have fostered the growth of stock exchanges, opening them up to foreign investors. Privatization has provided these exchanges with a large supply of sound and well-known stocks,
helping them to attain critical mass. Foreigners have more easily obtained permission to develop natural resources. Multinationals are viewed with less suspicion than in the past. These changes may accelerate development. It is surely desirable that more of the pool of northern savings in industrial countries should flow to the South, as it did in the nineteenth century, when Western European capital contributed to growth in the Americas, Eastern Europe, and Oceania.

Cardoso and Dornbusch (2:26) present valuable data on the history of capital flows. The accumulated stock of postwar flows from North to South amounted to 30 percent of U.S. GNP in 1987. Of this, only 15 percent took the form of direct investment; 85 percent was loans, of which official credits accounted for 39.4 percent. There is room for some growth in foreign investment, but a large increase is unlikely. Investing abroad has always been risky, and Cardoso and Dornbusch remind us that even in the pre–World War I era, debt crises were not unusual.

There is reason, however, to believe that much of the postwar North-South capital flow was used ineffectively. The overwhelming share that went to public borrowers was largely wasted. Large amounts funded budget deficits, directly or indirectly, by financing investments that governments meant to carry out anyway, thus freeing up funds that could be offered to politically influential individuals or groups. Even money that was invested in projects that would not otherwise have been financed was often squandered, because it was directed to state enterprises, which, as Krueger (3B:40) notes, have with few exceptions been extraordinarily inefficient.

The use of capital flows has probably improved since 1987. Recent years have witnessed the birth of a significant but unstable flow of capital into emergent stock exchanges, which has facilitated the privatization of public enterprises. Investment by multinationals has increased, particularly in mining, bringing in advanced technology and organizational know-how. Governments have used the borrowed funds better, cutting their deficits and improving budgetary control.

Still, the high risk associated with investment in the South remains. The 1994 Mexican crisis, which struck a country that Corbo and Fischer (3B:44) viewed as a successful adjuster, was a spectacular setback. In 1997 four of the East Asian miracle countries—Indonesia, the Republic of Korea, Malaysia, and Thailand—were hit by a financial crisis that few had foreseen.

North-South capital flows are problematic, and domestic savings will remain the prime motor of southern growth. Nevertheless, North-South capital flows should rise and be used more wisely. Good national and international governance is the key.

Does the Handbook, written before the Mexican and East Asian crises, present the analytical tools required to analyze those crashes? Are those crises a signal that outward-oriented policies cause instability, as their opponents have always claimed?
The first tool, examined in the chapters by Eaton (2:25) and Corbo and Fischer (3B:44), is the rule that borrowing is sustainable if the country's rate of growth exceeds the real interest rate (see Domar 1950). As Eaton notes, the reasoning assumes that today's rate of growth and interest rate will last forever. This analysis could have provided a warning to the IMF when, before the 1982 debt crisis, real interest rates rose steeply while growth in parts of the developing world flagged.

The second tool is Krugman's (1979) theory of foreign exchange crises, discussed by Corbo and Fischer, which asserts that these crises begin as soon as it becomes clear that the continuation of current policies will exhaust foreign exchange reserves at some point in the future. The message is that governments must take into account that market forces anticipate the future and promptly modify policies that are unsustainable (an adjective that must be interpreted more broadly than in the Domar theory).

Corbo and Fischer use the third tool, the Salter (1959) model, to study the policies that make it possible to deal with crises caused by external shocks or policy errors. Edwards and van Wijnbergen (2:28) also use the model, embedding it in an elegant framework that uses disequilibrium theory. The model implies that foreign borrowing, often undertaken in response to a nascent disequilibrium, causes a temporary improvement in the terms of trade and so engenders complacency. This delays the government's response and makes the crisis more painful than if action had been taken in time. The model also identifies the mechanisms through which expenditure cuts and expenditure and production switching through relative price changes achieve adjustment.

The Handbook does not set out what contract theory teaches us about the causes of bank crises of the type that heightened the 1982 crisis in Chile, continue to hold back Mexico's recovery, and are a major cause of today's difficulties in Indonesia, the Republic of Korea, and Thailand. Such crises have occurred in industrial countries, where they have entailed large budget costs but not caused macroeconomic imbalances; they seem to be caused by the changing economic role of banks.

Were outward-oriented policies the cause of those mishaps? Certainly outward orientation does not insulate countries from such blows. In 1982 both inward- and outward-oriented countries were badly hit. The difference came later, as the outward-oriented East Asian countries, which had good macroeconomic management, were able to rebound much faster than the inward-oriented countries (mostly in Latin America), which did not reform their macroeconomic policies and shift to a more open trade stance. Behind it all is presumably able governance, which produced both the good macroeconomic management and the outward-oriented policies that made the trade balance responsive to currency devaluation.

The cause of these financial crises is the rising power of international capital markets in today's global economy. Serious policy errors were made by the governments hit by the current East Asian crisis and by the government of Mexico in 1994, but it is doubtful that these errors justified the "visceral, engulfing
fear” that, in Alan Greenspan’s characterization, spread among speculators. Faith in the rationality of agents is a component of the paradigm to which most economists adhere today, but a list of episodes is beginning to accumulate in which markets lose contact with reality, as operators let themselves become mesmerized by fashionable ideas (examples include the Japanese assets bubble, the dollar boom in the early days of the Reagan administration, and the speculation against the pound and the French franc in 1992). Such episodes will recur. The fears they will engender will reduce the flow of capital from North to South and limit the extent of financial liberalization that developing countries would be wise to adopt.

VII. STRUCTURAL ADJUSTMENT AND THE ONE WORLD CONSENSUS

The Indian Congress consensus had serious flaws, although it made sense for historical reasons. It is now obsolete. A new consensus has been formed that reflects a worldwide change in views. In every developing country, a vigorous policy debate is carried on that draws on the memory of past problems and the example of successful countries. That debate has shifted thinking in the South from the Indian Congress consensus to the contemporary one. In volume 3, several authors comment on this convergence of policies, which crystallized after the 1982 debt shock.

In a well-known paper, Williamson (1990, updated in 1997) labels this set of beliefs the Washington consensus. The tenets of the Washington consensus can be summarized as follows:

- Governments should exercise fiscal discipline, obviating the need for an inflation tax.
- Public expenditure priorities should be shifted from politically sensitive areas to neglected fields with high economic returns and the potential to improve income distribution.
- Tax reform should broaden the tax base and reduce marginal rates. Ways should be found to tax flight capital.
- Financial markets should be partially liberalized.
- Exchange rates should be kept competitive.
- Import quotas should be replaced by tariffs.
- Barriers impeding the entry of foreign firms should be removed; foreign and domestic firms should compete on equal terms.
- State enterprises should be privatized.
- Governments should remove regulations that are not justified by such criteria as safety, environmental protection, or prudential supervision of financial institutions.
- Property rights should be safeguarded.

Williamson's list of policy reforms was presented at a conference in Latin America. The reaction by Latin American economists revealed that there had
indeed been a sea change in Latin American attitudes; Williamson's list of policies “that Washington could agree with” in effect described common ground between Washington and Latin American economists.

Williamson is said to have some regret over having called this set of beliefs the Washington consensus—and well he might, as will be shown. The Washington designation is not groundless. Three years before the debt shock, the World Bank transformed itself into a major provider of adjustment credits, while the IMF began to condition its lending to a greater extent than before on market-oriented reforms. In 1979 the World Bank, in close cooperation with the IMF, decided to devote a substantial portion of its resources to structural adjustment loans in support of policy reform in the developing world. Pressure from the World Bank and IMF must have been effective, because the Bank and the IMF were the only sizable providers of funds to victims of the debt crisis. Corbo and Fischer (3B:44) survey empirical appraisals of adjustment lending, all of which, as they note, suffer from econometric selection biases. They also report case studies describing the adjustment experience of Chile, Ghana, and New Zealand. Krueger (3B:40) and Rodrik (3B:45) also evaluate the Bank's adjustment lending.

The term Washington consensus is nevertheless regrettable, because it reinforces the common man's delusion that the world is run by a few thousand bureaucrats and politicians around Washington's Mall. Words matter in politics. Moreover, the term is incorrect. The Bank and IMF are intellectual sponges rather than leaders. Economists from both institutions absorb the latest academic ideas, including those from the South. Both institutions' policy of recruiting mainly staff with experience brings in practical men and women, some of whom have held important posts abroad. During Bank and IMF missions, staff exchange ideas with civil servants and politicians in the South—a fruitful exchange for both sides. The best illustration of the sponge theory is China. No conditionality inspired Deng's reforms, and it is the World Bank and IMF economists who are trying to learn from China's experience to enrich their dialogue with other countries.

It is not obedience to Washington institutions that kept Mexican and Argentine reforms on track in the face of severe difficulties in the recent past. India's 1991 balance of payments crisis is history, but reform has continued through several changes of government, although by now large foreign exchange reserves insulate the country from outside pressures. The domestic roots of the new consensus—referred to here as the One World consensus—are illustrated by the conversions of such radical politicians as the late Michael Manley of Jamaica, Jerry Rawlings of Ghana, Yoweri Museveni of Uganda, and Laurent Kabila of the Democratic Republic of the Congo, who fought with Che Guevara to uphold Patrice Lumumba's ideas.

4. The power of conditionality should not be exaggerated. As Edwards (1989) and Corbo and Fischer (3B:44) note, compliance has been low; once devaluation and budget cuts have fended off a crisis, who can force borrowers to put into effect commitments they dislike?
The world has been shifting to a consensual system in which countries accept international obligations more willingly and pay greater heed to international public opinion. The Uruguay Round, whose scope India and Brazil initially wished to limit, has stiffened the trade discipline that members of the World Trade Organization must respect. Supported by public opinion, the Bank, the IMF, and other donors are becoming more forthright in pressing countries to fight corruption and promote democracy, while a variety of nongovernmental organizations are fostering an awareness that government and private decisions have worldwide implications. The world government described by Streeten (2:22) is not in sight, but the world is moving toward it. It is certainly remarkable that when the euro is in place, the European Union will perform all of the functions that Streeten thought would be deemed "unrealistic and utopian." In the long run the European Union could expand as far as Vladivostok, NAFTA could include Central and South American countries, and the Association of South East Asian Nations (ASEAN) could at last acquire a meaningful economic dimension. Mercosur (a regional trade arrangement among Argentina, Brazil, Paraguay, and Uruguay) appears to be establishing solid roots and is open to new members. Streeten identified very natural lines along which trade integration tends to induce a transfer of functions to a common body. His world state might come into being through the cooperation and later the merger of a variety of regional organizations.

VIII. Broadening the Framework of Development Economics

Clearly by design, the Handbook opens on an agnostic note with respect to conventional wisdom. The first three chapters—by Sen, Lewis, and Bardhan—openly or implicitly criticize traditional thinking. Sen sets out an alternative vision of the development process, Lewis criticizes economists' long disregard of development, while Bardhan warns of the limited usefulness of traditional economics. Taylor and Arida's two chapters (1:6 and 2:17) are no more orthodox. Other chapters also challenge standard approaches. This section examines a few of the important challenges to conventional thinking in development economics.

Sen's Concept of Beings and Doings

Sen (1:1) proposes a new way of evaluating development (see also Drèze and Sen 1989). The key innovation is that economics should be concerned not with commodities but with actions, represented by the twin concepts of capabilities and functionings. Sen argues that individuals are interested in beings and doings. Neither a starving man nor a fasting one eats; both function in the same way. But the two men have completely different capabilities: one has the freedom to eat, while the other does not.

5. A central bank; redistribution of incomes among members; control of investment in long-lasting plant and equipment (the coal and steel treaty and the control of subsidies); foreign aid; and control of primary commodity prices (agricultural products, coal, and steel).
Sen’s formulation captures the essence of human experience better than traditional economics: what one has been and done is more important than the commodities one has consumed. The formulation also opens our discipline to concerns that it does not normally recognize, providing a richer picture of development than the orthodox view.

Through its link with freedom, the concept of capabilities encompasses the concerns of the Handbook’s neoradicals. Attributing value to freedom recognizes the concern of dependency theory as it examines how countries in the periphery may feel helpless as the fruits of their efforts accrue to countries in the center. Other examples of the usefulness of Sen’s concept include Roemer’s (1982) use of the concept of the core to describe economies in which prohibitions limit the capabilities of some agents and Taylor and Arida’s (1:6) use of the concept of closure to express restrictions on economic freedom. Structuralists examine countries that are trapped by rigidities of their structure.

The concept of capabilities also sets the discussion of interlinked contracts in a novel perspective. Such contracts are an optimal adaptation to asymmetric information. The capabilities concept highlights the fact that agents with many partners negotiate with agents whose choices are far more restricted. Replacing interlinked contracts with standard contracts has a liberating effect. Remittances from migrants strengthen the bargaining situation of their families and eliminate the fear that crop failure might make them dependent on powerful neighbors. The perspective is also useful for analyzing the costs of bureaucratic overregulation, which exposes villagers to possibly corrupt local bureaucrats, who can exploit them like the zamindars who served the Mogul Empire.

Sen’s concept also casts the Handbook’s findings on health and education in a new light. Stating, for example, that education enhances the capabilities of women and that health services protect individuals from infirmities that would prevent them from playing respected social roles is an enlightening way of viewing their benefits. Those notions could have been expressed within the traditional confines of economics. The added value of Sen’s contribution is that it allows problems to be viewed from a new and interesting perspective.

**The Theory of Collective Action**

“I am for myself, for if not, who is for me? And being for myself, who am I?” wrote Rabbi Hillel in the Talmud. Hillel’s question underscores a gap in the current paradigm of economics and reveals the usefulness of Sen’s terminology. The standard approach in microeconomic theory that takes account of individuals’ concern for others by injecting altruistic terms into utility functions is artificial. In contrast, generosity and the respect earned through giving are natural components of Sen’s beings and doings.

Man is a social animal, as Edward Wilson (1975), the father of sociobiology, points out. The colossal ant hill that mankind has erected is not sustained by prices alone; concern for our fellows is necessary to its functioning.
Both Olson’s (1965) work on collective action, which Yifu and Nugent (3A:38) discuss, and the ideas of Hirschman (1970) deal with social behavior. Olson examines how the temptation of group members to free ride can be eliminated by punishing free riders according to agreed rules. Invoking Sen’s beings and doings extends the range of punishments and rewards that can induce group cohesion; the desire for honor and the fear of shame, so readily expressed in terms of Sen’s functionings, fosters the cohesion that, for example, wins strikes.

Olson’s concept has come to be associated too closely with his work on interest groups. Collective action is an element of all political and market institutions, of which the state is as much an example as trade unions. It plays a role in firms (witness the emphasis on firm culture). The Catholic Church, a powerful economic institution, represents collective action as does the Grameen Bank’s weekly meetings, which feature rituals intended to enhance cohesiveness among borrowers. Extended families, which play such a crucial role in the developing world, also represent collective action.

The effectiveness of collective action is tacit and circumstantial, to borrow Evenson and Westphal’s term—tacit because even the members of a group cannot predict how colleagues will react to a challenge; circumstantial because it coalesces most strongly in the face of an exceptional challenge. It is both potentially powerful and fragile.

Collective action has three characteristics. The perception of a threat to the group or to its honor is important (the threat rule); cornered groups are hard to defeat. A sense of fairness is essential; participants in collective action want clearly defined rules that detect free riders and ensure that their own actions are judged fairly (the fairness rule). Finally, circumstances are important. Trust in a leader matters, as does the memory of past success or failure (the circumstantial rule).

The emphasis on fairness in the public debate on trade policy has puzzled trade economists, who note that theory does not account for the strength of public support for the most-favored-nations clause. Public support for that clause and for antidumping duties is accounted for by a preference for transparent rules and assurance that they are respected. The World Trade Organization needs and has a judicial system, which is becoming more elaborate.

Also worthy of note is the connection between the threat rule and Corden’s (1974) conservative welfare function, a concept that reflects his observation that, to be successful, trade reform must be designed so that no group suffers severe losses. The same concern accounts for the success of Chenery’s (1974) concept of redistribution with growth, praised by many Handbook contributors who accept instinctively that poverty policies should reserve for the poor a share in the fruits of growth rather than a share in wealth itself.

As Vogel (1991) and others have noted, the Four Dragons performed their economic miracle under foreign threat; now that the foreign threat has disappeared, some of these economies are suffering. Collective action produced the cooperative spirit that made their populations submit to state guidance; implementing the methods of the Republic of Korea’s Park Chung Hee would almost
surely have failed elsewhere. Examples abound of countries that have achieved remarkable success when faced with great national danger. The prosperity of Athens was established when a third Persian invasion seemed possible; Venice prospered as it won a 16-year war against Turkey; and the golden age of the Netherlands coincided with an 80-year war against Spain, the most powerful nation in Europe.

Governance in the Republic of Korea and Japan has not been as prescient as is often said: only in 1997, for example, did Japan close coal mines that produced fuel at three times the world price. Krueger (3B:40) reminds us that the success of Korea's heavy investment in steel, heavy chemicals, and automobiles was not remarkable (the current spate of bankruptcies there makes her judgment prophetic). Hard work, induced by a sense of national danger or destiny, not governance, produced remarkable results.

Collective action accounts for the effectiveness of Kornai's (1990) hard budget constraint. "When a man knows he is to be hanged in a fortnight, it concentrates his mind wonderfully," Samuel Johnson said. It is the willingness of all to set aside personal concerns that accounts for the often spectacular recovery of enterprises on the verge of bankruptcy. This mechanism also accounts for the virtues of outward orientation. In the import-substituting days, Chilean companies faced no true hard budget constraints, because their few domestic competitors were partners in a cartel, while the government could be relied on to hike protection to keep out foreign competition. The Republic of Korea's government was very interventionist, but it granted subsidies reluctantly; support was provided mainly through loans from banks that were closely controlled by planners. Exports were large, and, knowing that subsidies might trigger antidumping duties in key markets, firms knew they must be competitive.

Corbo and Fischer draw attention to the excruciating slowness of structural adjustment. It was deep insight that led the Latin American structuralists to predict that running the economies of their countries on market lines would be quite difficult, inducing them to devise other ways of solving problems. Their recommendations did not work, and now everywhere in Latin America governments are reducing their interference in markets. This is producing results only slowly, and progress has been marred by unexpected setbacks. Adjustment to the market has proved even more difficult in the former Soviet bloc, especially in the core countries of the former Soviet Union.

Nehru too knew that modernizing society would involve profound adjustments in behavior, as he predicted that "In India especially, where we have been wedded far too long to past forms and modes of thought and action, new experiences, new processes, leading to new ideas and new horizons, are necessary. Thus we will change the static character of our living and make it more dynamic and vital, and our minds will become active and adventurous" (Nehru 1989: 408-09).

Here also, Sen's perspective is useful in providing a framework for considering how roles, a key component of the beings and doings that he emphasizes,
make the social structure more rigid and hamper transition to a new organization of the economy. Human capital theory is also important. In adolescence, all individuals compare different roles that they will play as an adult, which they prepare for mentally and by investing in training. That role can be changed later, but only at a cost. There is the sunk cost of the training required. Success also involves fashioning appropriate attitudes and building up the credibility that makes this personal discipline effective; here Sen's doings and beings framework is relevant.

An efficient market economy can function only if served by businessmen, labor union leaders, civil servants including judges, the police system, and tax officials, who understand its mechanisms and respect its ethics. Rodrik's "governance" will not work otherwise. Students of the transition from socialism are wont to remark that those who were more than 30 when the Soviet bloc broke up cannot adapt fully to the new system. Kornai (1990: 52, 54) expresses this by stating that "embourgeoisement is a lengthy historical process."

As implied by the citation of Nehru, flexibility in roles is very beneficial. It is good to start from a situation where individuals are torn from their roots: Japan, with its large number of demobilized soldiers and repatriates just after the war; Korea, where a quarter of the population were refugees in 1953 (Vogel 1991: 43); Hong Kong, with its large inflow of immigrants including ruined Shanghai industrialists; the arrival of troops and other migrants into Taiwan (China). Last but not least, Mao created a gigantic blank page through the cultural revolution, which forced tens of millions of people to migrate to the countryside and caused vast internal migration flows. It is interesting that the German postwar miracle also coincided with large movements of uprooted individuals. And of course many examples abound in history of the dynamism of immigrant societies, from Carthage and the Greek colonies to the United States.

The Role of the Entrepreneur

Schumpeter's (1934) entrepreneur fits neatly into Sen's scheme of beings and doings and illustrates the importance of role selection. Being an entrepreneur requires abilities and character traits, which Schumpeter describes in detail, concerned that readers might not appreciate what sort of person drives development.

The market for entrepreneurs should receive much more attention from development economists and policymakers. In China the key element of Deng's reform program was the creation of an environment in which individuals could become rich by competing in the market and earn esteem to boot. In India the post-1991 reforms reduced the bureaucratic obstacles that made it difficult to set up new ventures. In both countries, supply responded strongly to improved incentives.

Schumpeter's theory is well known. The engine of development is the entrepreneur, who conceives a new combination of factors of production that is more
effective than current ones and may bring in large profits. Innovations may be small; the farmer who discovers that growing tomatoes is profitable in his village is an entrepreneur. The funds required are usually borrowed. The profit is eventually eliminated by imitation, returning the system to its state as a static circular flow.

Neoclassical theory has struggled to model Schumpeter’s vision of development. Grossman and Helpman (1991) describe North-South competition in innovation, but their model is so hamstrung by marginal conditions and by the constraint of balanced growth that it does not capture the richness of Schumpeter’s concept. Evenson and Westphal (3A:37), who do not let themselves be tied down to the procrustean bed of formal theory, come much closer. Other Schumpeterian models include Caves’s (1983) model of the product cycle. The work that won Douglas North the Nobel prize is close to Schumpeter’s thinking, although North does not spell out the connections (North and Thomas 1973).

Schumpeter’s model needs updating. It is not clear whether he was conscious of the transactional character of innovations, which both North and Evenson and Westphal emphasize. Schumpeter’s model relates to North’s emphasis on the large returns to scale that characterize the transaction sector of the economy. According to North, these returns account for the cumulative character of development as an initial reduction in transaction costs induces a cascade of innovations.

Schumpeter, who was thinking of industrial countries in the 1920s, did not consider the possibility that the entrepreneur’s profit could be plucked from his hands. This happens routinely in the South, where gatekeepers (the officials who stand between willing buyers and sellers) abuse their authority to appropriate a slice of entrepreneurial profits. If it is successful, the fight against corruption, which the World Bank and IMF have taken up, will boost growth as well as promote justice.

Competition also matters. As Basu (1989) notes, the village lender, if able to operate as a discriminating monopolist, can also skim off entrepreneurial profit (see Besley 3A:36). So can agents who control such resources as water or a right-of-way.

IX. Final Thoughts

Development economics has made remarkable progress in the past 50 years. There is greater dominance than formerly by one school of thought, but the range of that school’s research has become much broader. Mainstream economics has hardened, as its proponents have learned to use data more carefully and to reason more rigorously. Much early postwar work seems sloppy in retrospect.

The policy message has been turned upside down. Gone is the idea that development means industrialization and that the main policy problem is to manage the interface between country and city. Today development is viewed as an inte-
grated transformation, of which urbanization and industrialization are but two components. The expansion of foreign trade has become a central issue. Economic organization theory has taught us to view traditional institutions with far more understanding than in the past; blind imitation of northern institutions may be counterproductive.

More than ever, development is seen as a whole replacement process, whose key is to master northern technology. Such technology is now understood to be both simpler and more complex than once thought—simpler because much technology is uncomplicated, more complex because even simple technology requires ingenuity and a costly investment in adaptations.

The most important change has been the radical shift in economists' view of market agents and policymakers. Gone are the days when policy advice was directed primarily at planners. Policymakers are utility maximizers, too; the employees of state enterprises coalesce into powerful interest groups that block efforts to raise productivity. The new thinking is sometimes challenged by criticisms that highlight the somewhat vague concept of governance, according to which the task of economists is to help design a system of interacting state and private institutions that, led by the state, cooperate in achieving social goals. Whether solid theory will come out of this line of thinking remains to be seen.

APPENDIX. LIST OF AUTHORS AND CHAPTER TITLES FOR THE THREE VOLUMES OF THE HANDBOOK

**Volume 1.**
Chapter 1. Amartya Sen, “The Concept of Development”
Chapter 3. Pranab Bardhan, “Alternative Approaches to Development Economics”
Chapter 4. Gustav Ranis, “Analytics of Development: Dualism”
Chapter 7. Moshe Syrquin, “Patterns of Structural Change”
Chapter 8. C. Peter Timmer, “The Agricultural Transformation”
Chapter 9. Howard Pack, “Industrialization and Trade”
Chapter 10. Mark Gersovitz, “Saving and Development”
Chapter 13. T. Paul Schultz, “Education Investments and Returns”
Chapter 16. Clive Bell, “Credit Markets and Interlinked Transactions”
Volume 2.
Chapter 17. Persio Arida and Lance Taylor, “Short-Run Macroeconomics”
Chapter 20. Ehtisham Ahmad and Nicholas Stern, “Taxation for Developing Countries”
Chapter 22. Paul P. Streeten, “International Cooperation”
Chapter 23. Christopher Bliss, “Trade and Development”
Chapter 24. David Evans, “Alternative Perspectives on Trade and Development”
Chapter 27. G. K. Helleiner, “Transnational Corporations and Direct Foreign Investment”
Chapter 29. Stephen R. Lewis, Jr., “Primary Exporting Countries”
Chapter 30. Henry Bruton, “Import Substitution”
Chapter 32. Dwight H. Perkins and Moshe Syrquin, “Large Countries: The Influence of Size”

Volume 3A.
Chapter 33. Angus Deaton, “Data and Econometric Tools for Development Analysis”
Chapter 36. Timothy Besley, “Savings, Credit, and Insurance”
Chapter 37. Robert E. Evenson and Larry E. Westphal, “Technological Change and Technology Strategy”
Chapter 39. Partha Dasgupta and Karl-Göran Mäler, “Poverty, Institutions, and Environmental Resource Base”

Volume 3B.
Chapter 40. Anne O. Krueger, “Policy Lessons from Development Experience since the Second World War”
Chapter 41. Michael Lipton and Martin Ravallion, “Poverty and Policy”
Chapter 42. Hans P. Binswanger, Klaus Deininger, and Gershon Feder, “Power, Distortions, Revolt, and Reform in Agricultural Land Relations”
Chapter 43. Emmanuel Jimenez, “Human and Physical Infrastructure: Public Investment and Pricing Policies in Developing Countries”
Chapter 45. Dani Rodrik, “Trade and Industrial Policy Reform”

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