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Half a Century of Development Economics

A Review Based on the *Handbook of Development Economics*

Jean Waelbroeck

How development economics has changed since Nehru and Gandhi debated what type of program would best serve an independent India.

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Summary findings

Development economics has made remarkable progress in 50 years, says Waelbroeck, summarizing changes in the field since Nehru's first proposals for an independent India. Synthesizing insights about changes in the field from the many contributors to the *Handbook of Development Economics,* Waelbroeck observes (among other things):

- Different schools of thought may dominate, but the range of research has broadened. Economics has "hardened" as its practitioners have learned to use data more carefully and to reason more rigorously.
- The policy message has been turned upside down. Gone is the idea that development is industrialization and that the main policy problem is to manage the interface between country and city. Today urbanization and industrialization are viewed as mere components of an integrated transformation, in which the expansion of foreign trade is central. Traditional institutions are viewed with far more understanding, because overhasty modernization has often proved counterproductive.
- More than ever, development is seen as a "whole replacement" process, the key to which is mastery of Northern technology — now understood to be both simpler and more complex than previously thought. Simpler, because much technology is uncomplicated, and complex because even simple technology requires ingenuity and a costly investment in adaptations.
- There has been a radical change in economists' view of market agents and policymakers. Gone are the days when economists thought their advice should be aimed mainly at planners. Policymakers are utility maximizers, too. Employees of state enterprises coalesce into powerful interest groups that block efforts to raise productivity. The new thinking is sometimes modified by evoking the vague concept of "governance," under which the economist's task is to help design a system of interacting state and private institutions that, led by the state, cooperate in achieving social goals. Whether something useful will come from this line of thinking remains to be seen.

Waelbroeck detects major gaps in economists' understanding of development, suggesting a particular need for further study of collective action (a far more pervasive component of human action than is realized) and the selection of roles by individuals and the costly investment this entails (a concept that may shed light on Schumpeter's well-known but little-studied entrepreneur).

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"The quarrel about export-oriented strategies is over among politicians — a worldwide consensus recognizes their superiority and the list is short of the countries whose leaders still believe in import substitution. It will last forever in the quarrelsome academic world ... And the academic debate should continue, because why outward orientedness appears to be so effective is a mystery."

Half a Century of Development Economics, a Review Based on the *Handbook of Development Economics*

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Based on the *Handbook of Development Economics*

by Jean Waelbroeck

Table of Contents

1) Introduction

India will celebrate the fiftieth anniversary of its independence this year, an event that marked the beginning of the process which dismantled colonial empires that included half of the world's population. The development of the newly independent countries has evoked a vast economic literature, which the three volumes of the *Handbook of Development Economics* present.

The contributions are thorough and the variety of views in this area of economics is fairly represented. A clear account is presented of the views of the Latin American structuralist school and of what Evans calls the "Marxians"[2], which involve concepts and approaches that are unfamiliar to mainstream economists. The three thousand pages are a hefty read, but provide an unmatched perspective on half a century of development research.

There is balance also with respect to the other great divide of the discipline, with authors who are involved in policy making producing papers of the sort that decision makers find worth reading, whereas those whose main outlets are scientific journals tend to write the prudent prose that gets papers past persnickety referees.

Development economics has undergone profound changes in a half century, but reading the *Handbook* reveals that many questions remain open. I have tried to be particularly sensitive to remarks that suggest that important problems are not being addressed, and present in the last section personal remarks on such issues.

The paper is organized as follows. Following a discussion of the diverse strands of the early development literature and of the policies implemented after independence, the paper discusses how historical experience and the evolution of the dominant paradigm of economic research have transformed our understanding of the development process. Along the way, issues that are not well understood are noted, setting the stage for a final section where, using a conceptualization of development proposed by Sen, tentative suggestions are made that may provide answers to the unsolved problems.

2) Structuring the Presentation: Policy Consensuses and Academic Paradigms

Development economics is a very applied science, which policy makers and academics have enriched. Politicians emphasize their differences but tend to think alike to a surprising extent. Why that is so could be the subject of an interesting article but some of the reason must be frequent contacts, the influence of the media, and each individual's keeping close watch on the success 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 set of interlocked hopes and principles that inspired them. Rebuilding a "new and better Europe" was fundamental to the officials who met in the OECD after the war to implement the Marshall Plan,

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2 2:24:1242, meaning chapter 24 in volume 2 of the *Handbook*, page 1242. This style of reference will be used throughout the paper. Volumes 1 and 2 were published in 1989, volume 3 six years later in 1995. The chapter number is omitted when what is cited is the comment of a *Handbook* editor.

The term "Marxian" has the merit of being less politically loaded than "Marxist".

for example, as the concept of a "Single Market" (including currency unification) has inspired European Union governments in recent years.

Academics disagree about everything and it sometimes seems that each significant article induces one that disproves it. 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.

3) The Indian Congress Consensus

In the *Handbook*, Srinivasan[3] calls attention to the marvelous pages that Nehru devoted to economic planning while in jail in Ahmadnagar in 1944 and 1945. They set out the conclusions of a large group of businessmen, trade unionists, and officials of provincial governments whom he had brought together, who worked for two years on a plan that could serve as a model for Indian planning after independence. What is striking is the consensus reached[4] about economic policies. What I shall call the "Indian Congress consensus" defined the program of government that Nehru later implemented; these policies seemed so obviously right at the time that the leaders of other newly independent developing countries, many of whom must have had no chance to study Nehru's book, made them into cornerstones of their policies.

These pages make amazing reading as 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 points out, those pages marked the beginning of development economics. In what follows, I rephrase Nehru's ideas in modern terms, replacing references to India by general references to developing countries.

Over a century and a half, standards of living in the developed world -- "the North" had shot far ahead of those in "the South" -- developing countries. Yet -- hadn't Asia represented for so long the advancing spirit of man -- men everywhere were of equal ability.

The European miracle had been the industrial revolution and industrialization would be the key to development. The South must acquire the technology which had made the miracle possible.

Southern countries needed to modernize their societies. Traditional modes of thought and institutions should be beaten back and the mass of the people given an education.

Industrialization could take place fast. It had taken a century and a half to create Northern technology but now the South could acquire a technology that was far superior to that which propelled the beginnings of the industrial revolution.

Agriculture would require attention because it is so large and what it produces is so necessary. It is in agriculture that the most abject poverty is to be found. Overcoming poverty, indeed,

3 3:2468; also see Srinivasan (1996).

4 Nehru (1989) Apart from representatives of big business, to Nehru's obvious irritation.

would be a fundamental task. This could not be achieved without rapid growth, but much could be accomplished by eliminating exploitative institutions.

A choice of society was unavoidable. To the leaders of independence movements, who had experienced the selflessness of the struggle against imperialism, it was clear that the society that they would build should rest on collective action rather than on the spirit of acquisitiveness of capitalist society. Big business was suspect. Production by individuals could not be efficient, but state enterprises and co-operatives could attain the scale required by modern industry.

And who but the state could lead the great transformation? Planning would organize a massive collective effort; through the planning process men from all walks of society would iron out their differences and coordinate the industrialization process. This was no dream as the success of the USSR demonstrated. An underdeveloped country, through a succession of five-year plans, it had made itself strong enough to resist the might of Nazi Germany. Unlike the Soviet Union, India would be a democracy.

Nehru was as negative with respect to international trade as to big business. He connected it with imperialism and the domination of countries by economically more powerful ones. We must not forget as we read him how the pursuit of trading interests drove the colonization of India, and how prominent when he wrote were Germany's demand for Lebensraum and Japan's initial efforts to create its Asian Co-Prosperity Scheme.

Autarky was the ideal solution. Trade was useful only as a "vent for surplus" to use the term coined by Adam Smith. New heavy industries would produce the equipment that industrialization required. Nehru was unaware, it is clear, of the success of the very different Japanese development models, led by the powerful Zaibatsus in close cooperation with a multitude of small enterprises, thanks to which Japan had inflicted serious defeats on the combined forces of the British Commonwealth, the Dutch Empire, and the United States while fighting a major war in China -- a model that helped to inspire what I shall call the Four Dragons consensus, which modified so profoundly our understanding of development.

Other notable points are

- -- Welfare is viewed in basic needs terms.
- -- Agricultural labor has a zero marginal product.
- -- The state must control the "commanding heights" of the economy. To prevent business from grasping its own commanding heights, strict controls were established after independence on the largest 20 financial groups in the country.

Nehru provides 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's intuition was right; clearly he started the debate about appropriate technologies, and it is an intriguing thought that had he lived, and given a stubbornness of purpose and flexibility of thinking that Nehru underlines, he could have inspired a far more effective economic policy than the one Nehru chose[5].

Finally, the history of India might have been quite different had Nehru realized how deep rooted were the difficulties which plagued his experiment. He should have understood that the procrastination and inconclusive debates which marred an exercise in paper planning would render unmanageable an elaborate planning process, played out at the scale of a sub-continent, involving real jobs and real money, and determining the careers of the civil servants involved. Here also Nehru's solution of insulating planners from the political process anticipates later thinking on development.

4) The Dual Economy Development Paradigm

It is time to turn to the academic debate on development which Nehru anticipated so brilliantly. The "whole economy replacement" concept was its hub, i.e., the idea that through a complex process which involved returns to scale, externalities, and many other mechanisms, development would replace by modern systems economies that had been based on traditional technologies. From a human point of view, the most visible transformation would be a shift from a situation where most of the population lived in rural areas to one where most lived in the cities, hence the interest in "dual economy" models that emphasized this aspect of the development process.

Gustav Ranis's presentation in chapter 4 of the Lewis-Fei-Ranis dual economy model of development deserves pride of place in this connection.[6] He does not present a true model but an accounting scheme, complemented by a verbal discussion of the mechanisms that move the system. This describes the labor, commodity and financial flows between industry and agriculture. Ranis insists that his "agriculture" stands for the subsistence sector which is not subject to market forces. In the subsistence economy, wages are not set according to the marginal principle but to sharing principles rooted in long established customs. They exceed the marginal product of labor (Ranis' article does not retain the assumption that agricultural labor has a zero marginal product). Such an economy is characterized by a large slack (a market failure he could have said); by eliminating this, industrialization has a powerful impact on economic growth.

Trade is discussed only in a brief section on policy in an open economy where part of the labor force has been "weaned away" from agriculture during the colonial period, earning foreign exchange that served in part to pay for consumer goods imports. This provides scope for an "easy import substitution" phase of development where capital goods imports take the place of formerly imported consumer goods, replaced by domestically produced ones. The few countries that lack natural resources may resort to "export substitution" by exporting the same consumer goods. Ranis lauds Adam Smith's concept of trade as a vent for surplus according to which, in the mode of garage sales, countries earn foreign exchange by disposing of goods

5 The contribution of small enterprises, many of which were created by farmers, to Japanese, Korean, and Taiwanese development is well known; even more relevant in Ghandi's perspective have been China's township and village enterprises, taking origin in Mao's communes, which have demonstrated how traditions of rural cooperation can beget modern activities which create much employment and wealth.

6 Also see Fei and Ranis (1974).

for which they have no use. That this concept which Smith put forward only because he had not thought his way to the principle of comparative advantage, is praised by many of the "not for trade" authors in the *Handbook* illustrates their lack of appreciation of trade's contribution to development.

The Lewis-Fei-Ranis model proposed overcoming a gigantic market failure by forced industrialization. In truth two failures are involved, the "slack" described by the author, and another very large one implied by the optimal tariff problem because export demand is so inelastic that import substitution is the only reliable way to secure foreign exchange for industrialization.

The Bruno-Chenery two gaps model made the situation explicit. Paying for the capital goods required by industrialization requires saving as well as foreign exchange. Their analysis of this limitation on growth is discussed in several chapters of the *Handbook*.

Chapters 29 an 32 by Stephen Lewis, and by Dwight Perkins and Moshe Syrquin, discuss issues that were important in the initial paradigm. The early writers thought of developing countries largely as exporters of commodities. Stephen Lewis presents case studies of such countries. Large countries attracted attention in the early literature in connection with the debate about balanced growth. Perkins and Syrquin discuss their problems, using the patterns of development analysis to which Syrquin has made notable contributions. They examine inter alia whether large countries grow differently from others; finding that they have a larger share of heavy industries (typically characterized by scale economies) and grow faster than smaller ones. It would be interesting to examine whether the second finding is a reflection of the fact that many small countries are in low-growth Sub-Saharan Africa. It would have been useful to show that the markets for manufactures in "large countries" like India and Brazil are actually quite small, contradicting the widespread belief of their citizens that those countries can pursue autarkic growth at little cost in efficiency.

Peter Timmer's chapter 8 complements the chapter by Ranis by presenting the contributions of other early writers. Johnston and Mellor's (1961) alternative dual economy model highlights the importance of nutrition because of its presumed impact on labor productivity; this also could cause "market failure." Timmer presents several important ideas, including Nurkse's argument (1953) that crop rotation, by boosting agricultural output, made the industrial revolution possible, prefiguring Irma Adelman's concept of Agricultural Development Led Industrialization (ADLI); Hoselitz's (1953) and Bairoch's (1975) pessimistic prediction that development would fail because population in the South grew too fast and not enough land was available to feed the large cities which characterize advanced economies; and finally the challenging data used by Hayami and Ruttan to show that technical progress in agriculture is land-saving in Europe and Japan and labor-saving in North America, and thus responds to factor scarcities.

Going much further back, W. Arthur Lewis's chapter 2 complements those chapters by discussing the contribution of five 18th century British authors to the theory of economic development, the last of whom is Adam Smith. Beside better known achievements, those authors provided lucid statements of the concepts of the agricultural surplus, human capital, entrepreneurship as a separate factor of development, and continual unemployment. Progress, Lewis notes briefly, continued in the first half of the 19th century after which "interest in development theory would almost die out until the theoretical explosion of the 1950s and after," an curiously Anglo-Saxon centric note that disregards the fundamental contributions of Marx, List, Heckscher, and Schumpeter, not to forget those of the economic historian Henri Pirenne and the sociologist Max Weber, that are part of the intellectual baggage of our profession.

5) Neo-Radical Ideas, an Aborted... or a Dormant Paradigm?

The chapters discussed in this section present the ideas of *Handbook* authors whom for shortness' sake it is convenient to lump together as "neo-radicals", who share a common distrust of neoclassical economics. The chapters' authors have sympathy for that school, but do not all belong to it.

5.1) Dependency Theory and Exploitation

Chapters 3 and 24 by Pranab Bardhan and David Evans discuss "dependency models" that describe how anonymous economic forces stifle the efforts of countries to escape from the trap of underdevelopment. The best known is the Prebisch Singer model, which claims that differences in income elasticities of demand for primary products and industrial goods, combined with the struggle for higher wages by organized workers in the North, have the effect that the benefits of Southern productivity growth accrue to the North. The weak empirical (and in the case of the Prebisch Singer model also logical) foundations of those models are noted. Lewis's elegant neoclassical model of trade[7] between England and tropical countries analyzes rigorously a situation where market forces bring about such a transfer, but its relevance is limited to the fairly rare situations where the South produces cocoa and similar commodities that have no equivalent in the North. This excludes peanuts for example, which compete with soybeans as sources of vegetable oils, or natural rubber which competes with synthetic rubber. A model by Taylor and Bacha (1976)[8] describes a situation where rich groups in the population have a high marginal propensity to consume luxuries which they produce, engendering feedbacks that widen inequalities; the authors note that the assumption about propensities is contradicted by the empirical findings of Clark (1975).

Exploitation often entails manipulation of the legal framework in favor of ruling groups. Here David Evans draws attention to the relevant use by Roemer[9] of the concept of the core of a game as an useful way of characterizing how the prohibition of specific contracts may induce exploitation. Nehru complains repeatedly in the work cited about incidents where the British forbade or discouraged Indian industrial projects to protect their industry -- from a theoretical standpoint, this amounts to narrowing the set of sub-coalitions that Indian agents may form and changing the "core of the game" in favor of British players.

In a similar spirit but using a quite different device, both Lester Taylor and Persio Arida's chapter 6 and Evans use the concept of closure to represent how the use of political power enables a social group to modify the working of mechanisms[10]. Closure is best known as a

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7 Lewis (1969), see Evans 2:24:1258 and ff.

8 See 1:6:167, Taylor and Bacha (1976).

9 Evans 2:24:1266 provides a variety of references to Roemer's work.

10 C.f. Taylor's discussion (1:6:189) of the different ways in which, because available policy instruments were not the same, Malthus (1798) and Preobrazhensky (1924) analyzed differently the problem of feeding the cities in 19th century capitalist England and in the Soviet socialist state.

technical device that keeps models manageable[11]. It can however also, the authors suggest, express the ability of a social group to disable an economic mechanism to achieve its goals. "Maintained hypotheses about the direction of causality", they 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."

5.2) Latin American Structuralism

Latin American structuralism does not fit neatly into the paper's system of paradigms and consensuses. Its inspiration is as universal as the expression of the hostility of non-economists to the realities of economic management, and in particular to the conditionality imposed by the International Monetary Fund (IMF) and World Bank to countries in difficulties. The arguments come up everywhere. "The problems are structural, investment cannot be cut back it is needed to break bottlenecks". "High real wages sustain demand". "Devaluation reduces purchasing power and is thus deflationary". "High interest rates raise costs they are inflationary".

Such arguments are incomplete rather than wrong, as they take account only of the parts of economic mechanisms which confirm what the common man wishes were true, and neglect or assume away the others. They have led to grave errors, and it is not so long ago that the Prime Minister of a large developing country, with an American Ph.D., reduced interest rates to combat inflation[12] and that the governor of the Russian Central Bank did not believe that printing money raises prices. Only in Latin America did something like a school develop in universities and in the Economic Commission for Latin America, which sought to legitimize this thinking.

That literature is splintered into a multitude of small macroeconomic models, each of which captures a few economic mechanisms. The reader is helped by Sherman Robinson's and Christopher Bliss's presentations of this system of thought in chapters 18 and 23, but reading the defense of this school of thought in Taylor and Arida's chapters is the best way to grasp the main ideas[13]. Some points are valid, especially with respect to the disastrous losses that economic stabilization inflicts on banking systems when inflation ends; it has proved only too true that opening up Latin American economies to the market would be slow and painful. These structuralist models have no solid empirical grounding, unfortunately, and are not based on a coherent view of the motivations of agents; they are quite mechanical and Taylor and Arida themselves acknowledge that "summarizing these contributions... is not possible because so many "effects" are involved[14]."

5.3) Streeten on the Embryo of a Possible World State

In a thoughtful piece, Streeten describes the current world economic order and provides a subtle albeit contorted defense of a defunct component of the world agenda, the New International Economic Order (NIEO). This refers to the hope that arose after the fairly short

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11 See the discussion below of applied general equilibrium modelling.

12 Taking seriously apparently the so-called "Cavallo - Wright Patnam effect", devised independently by a Latin American structuralist and an obscure Texas Congressman.

13 See also Chenery (1975).

14 2:27:863.

lived triumph of OPEC that developing countries would be able to enforce a reform of the world economic order similar to that which trade unions forced employers to accept in the 19th century, and takes on board the fact that the attempt failed. He legitimizes retrospectively the Southern demands for "special and differential treatment", as an expression of (possibly quite complicated) "universal principles".

The embryo of the world super state that he sketches seems unrealistic at first reading, but reflection suggests that his proposal makes sense as the long-term goal that he intends it to be. The presentation is marred by the error that, begotten from constant warfare, the European nation state achieved a definitive triumph at the Peace of Westphalia, which destroyed the Holy Roman Empire. That empire operated quite successfully until the first world war without becoming a nation state, as an Austrian Empire that was far more respectful of nationalities *and cultural differences* than nation states have been; it was obviously far more successful than the nation states that were created to replace it. And after a (historically) brief interregnum the European Union (EU) was born, which resurrected its decentralized model of political organization. It is an intriguing thought that the EU, probably one of the most successful political innovations of this century, will, after the Euro is created, embody every one of the functions which Streeten proposes to entrust to his world government; is it unimaginable that his world state might come into being some day through the cooperation and later the merger of a variety of EU-type regional organizations[15]?

5.4) An Aborted Paradigm?

A World EU could come into being. Dependency theory is dead because it was based on an erroneous view of the world. Developing countries are not sufficiently different from developed ones to justify its generalizations. Latin American structuralism tackled problems that were real and important. It was flawed in its insistence that the problems of Latin America could be solved by quick fixes, without the pain that, unfortunately, is necessary to eliminate the legacies of decades of poor economic management.

What the neo-radicals call for consistently in their *Handbook* chapters is an economics that is more concerned with social ideals than the work which today's dominant paradigm inspires. The *Handbook* is sensitive to those concerns. They are for example the chief focus of the chapters by Binswanger et al and Mäler and Dasgupta, while Sen's chapter stresses the value systems that underlie our views on economic justice. The neo-radicals are also critical of the adequacy of today's dominant theoretical paradigm, which they feel cannot deal with important issues. The "tying up loose ends" section of the paper will return to this.

6) Questioning the Dual Development Paradigm

6.1) Does a Large Labor Market Failure Exist?

In 1980, Ian Little and I were chatting and the conversation drifted to that favorite of academic small talk, the latest Nobel award. "An obvious one I should think," said Ian; "clearly, Lewis got

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15 In the developing world, India's constitution is as a remarkable illustration of the benefits of decentralization, as it enabled a variety of peoples to preserve their cultures while co-habiting in peace.

it for stating that the marginal product of agricultural labor is zero, and Schulz for showing that it is not."

That was a quip, but a deep one. The initial model of development was flawed, and so was Nehru's and other leaders' understanding of the functioning of their countries. Those errors had serious consequences. The welfare of the developing world would be much higher today had they been avoided.

Schulz initiated the questioning of one pillar of the early work, that the large subsistence sector of agriculture does not respond to market forces in the way prescribed by microeconomic theory, because of patterns of solidarity that have their roots in an age old experience of poverty and famines. A proper subsistence sector exists almost nowhere unfortunately, as confirmed by the estimate cited by Rosenzweig (1:15:758) that approximately 30 percent of income of farm families is of nonagricultural origin; there is a large nonagricultural labor market in rural areas. Published in 1964, Schulz's findings were accepted after some years by the academic community, but decades had to pass before policy makers in developing countries began to take seriously the idea that successions of poor crops are more often the result of inadequate prices than of persistent drought.

6.2) That World Markets Cannot Accommodate Southern Exports is Wrong; the "Four Dragons Consensus"

Little, as he made his quip, could have added that together with Scitovsky and Scott[16] -- and Balassa -- he had initiated the questioning of the second error that marred the early work, that the access of developing countries to world markets is limited. Again, with the benefit of hindsight, we can see what a strange idea it was. A basic principle of development economics is that men everywhere have similar abilities. No deep knowledge of industry is required to know that, as Pack remarks in the *Handbook*, the technology used in many industries is simple and easy to acquire[17]. What inferiority of developing peoples could prevent them from producing goods that satisfy consumers in the North? The same appetite for a profitable bargain, which induces a peasant woman in Senegal to walk kilometers to exchange fruit for a towel if the prices she has been told about are right, will convince a French housewife to buy a cheap electric iron, produced at low cost in Mauritius. Why did it take decades to convince development economists and policy makers in the South of such a reasonable truth?

In this instance the Nobel prize, if one is awarded, should go to the policy makers who took a chance on trade, instead of rewarding the academic economists who took note of their success. There is debate about why the governments of Korea and Taiwan, which invented outward-oriented growth, set out on a course that forty years later a large majority of developing countries are trying to emulate. On Taiwan and Korea I trust Vogel, who is mercifully uninterested in the controversy, masters several East Asian languages, and has devoted a life of study to that region. He has it that Japanese ideas had a strong effect on thinking in Korean and Taiwanese business circles, where many in the elites spoke Japanese

16 Little, Scitovsky, and Scott (1970), and Balassa (1971).

17 See Pak (1:9:340). Deng, born a peasant and who worked in a factory both as a young man in France and during the cultural revolution, must have understood both that agricultural prices matter, and that little magic is involved in many areas of industrial technology.

fluently and had been able to observe at first hand why Japan had developed so successfully[18]. The influence of US economists on government thinking was strong in Taiwan, a good deal less so in Korea. For Hong Kong, observers agree that the colony chose the one course open to it. No one has been privy to Lee Kwan-yu's inner thoughts but from hearsay[19] he decided, after listening patiently to the advice of Northern development economists, that the strategy of planning and import substitution which they proposed was wrong, and set his country on its very successful course. Whatever the motivations, the developing world can be grateful that four governments initiated a policy pattern that would over the years revolutionize policy making throughout the South.

7) Half a Century of Historical Experience and Data

It is data that has driven the progress of development economics, data and the imaginativeness of economists who realized that accepted theory was empirically wrong. Appropriately, the *Handbook* devotes significant space to the factual knowledge that has accumulated over a half century of development.

The space constraint makes it impossible to detail those chapters. Empirical facts have had such a great impact on development economics that they will sneak their way back over and over again into the argument.

7.1) Experiments by Nature

As the founders of modern econometrics at the Cowles Commission emphasized, true experiments are so hard to arrange that economists have to rely on "nature" to design the experiments that verify our theories. We have just seen an example of this truth in our discussion of the policy innovation of the Four Dragons' leaders. The results of those "natural experiments" are the only data that policy makers pay heed to.

Hence the importance of the excellent *Handbook* chapters 40 and 44 by Anne Krueger on policy lessons from post war experience, and by Corbo and Fischer on structural adjustment.

7.2) "Stylized Facts" of Development and the Fashion for Cross-Country Regressions

Development economics is indebted to the economists who, using patience and simple tools, built up and analyzed the quantitative record of development. An excellent chapter 7 by Moshe Syrquin reminds us of the insights that we owe to Kuznets and to Chenery in this area of research, and to the purchasing power data set up by Kravis, Summers, and Heston and later by Summers and Heston; as well as to Paul Bairoch's work on the historical role of agriculture and trade, Angus Madison's work on the historical record of growth, Goldsmith's work on financial data; and many other contributions. Development economics started out with the fact that development implies industrialization; much of the rest we owe to those men.

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18 For example Vogel (1991), pp 48-9.

19 The source is Helen Hughes, who has extensive and long standing contacts in that island.

The latter have no responsibility for the veritable industry that has sprung to life as diskettes spread through the world data that had been put together by patient marriages of snippets of data with uncertain guesses. Cross-country regression results must be viewed critically. As Syrquin notes (1:7:ZZ0), they are reduced-form estimates of far more complicated models and do not provide reliable evidence on causality. Two approaches have been used, which are both dubious. Quick and dirty single regressions have been widely used, but their results are subject to overwhelming "missing variables" biases; complex specifications would be more trustworthy but they are sensitive to the choice of proxies and dummies that take account of hard-to-measure effects. Such regressions may point to interesting mechanisms but to produce reliable conclusions, they should be complemented by deeper study at the country level and validated by a credible theory.

It is crucial to be aware of the extremely poor quality of much of this data. Angus Deaton's chapter 33, which draws on a survey edited by Srinivasan[20], discusses evidence on this score. Summers and Heston themselves assign a score of D+ to D to data for 66 out of 138 countries (Srinivasan 3:2493). Given the tendency of newspapermen to view development as a GNP race, it is good that the *Handbook* calls attention the large influence on growth rates on the quite arbitrary estimates of official statisticians on the size and growth rates of the informal sector, and about the lack of reliability of data for the African countries, which account for so many of the data points in cross-country regressions[21]. John Strauss and Duncan Thomas make a similar point in chapter 34.

7.3) Survey-Based Studies Data and the New Micro Econometrics

The doubts that are warranted with respect to the macroeconomic data lend importance to the information provided by sample surveys. Here development economists owe a debt to the initiatives of the great Indian statistical school, to which we also owe important theoretical insights. Both Deaton and Strauss and Thomas discuss the figures collected by such surveys as the very early Additional Rural Incomes Surveys, as well as the intensive ICRISAT surveys of the International Crops Institute for Semi Arid Tropics, carried out by investigators who live in the sample villages, and of the very useful data generated by the World Bank's Living Standards surveys, which cover for an increasing number of countries a broad array of variables in addition to the standard budget data. The *Handbook* authors stress that there is no reason to question the quality of the sample data, whose accuracy matches that for developed countries. Such surveys are still few in number unfortunately, and have all too often been stopped after a few years; expansion of this work is desirable.

This development has been complemented by significant progress in "micro econometric" methods which both Deaton's and Strauss and Thomas's chapters describe. New statistical techniques have evolved, and valuable experience has accumulated about how to control selection and other types of bias. Thanks to this work we are now much better informed about such important topics as the impacts of education on productivity, and of investment in hospital facilities on health.

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20 Srinivasan (1994); on the China/India growth race; see Timberg (1997), which comments on a volume comparing the two countries, edited by Srinivasan (1993).

21 The recent Boskin report (1996), co-authored by economists with a high reputation, which suggests that US national accounts data has underestimated by 1.3 percent the rate of growth of consumption, shows that GDP growth rates are subject to doubt even in countries whose statistical system is highly developed.

7.4) The Emergence of Today's Homo Economicus

Finally, in Paul Krugman's words[22], "The theory has become more exciting, more dynamic and much closer to the world view long held by insightful observers who were skeptical of the old conventional wisdom." A backward look at our discipline provides perspective on why development economics has changed so much over half a century.

A Homo Sapiens, the author of these lines is the product of four million years of natural selection. Homo Economicus has evolved at a far more dizzying speed. The Macroeconomicus and Microeconomicus varieties were so different after the war that many thought them to be distinct subspecies. Many differences remain in spite of limited inter-breeding. This rapid evolution will surely continue, as the paradigm that guides our work reflects economists' efforts to understand the real world.

Keynes' consumer was a simple beast, not so different from a worm inching its way on a sandy sea bottom, gulping sand into one end of which it spews out a lesser quantity at the other, the difference being the organic matter that it digests[23]. The discussion of investment in the General Theory reflects a subtle Cambridge understanding of capital theory but this leads to little and what readers retained was that investors are driven by animal spirits. John Bull could stand many things but not a 2 percent interest rate, thus the liquidity preference schedule did not intersect the X axis.

In standard microeconomic theory, consumers were alone in a world which transmitted price signals. So little was deduced from the assumption of utility maximization[24] that many professors "started from demand". The theory of monopolistic competition examined how businessmen matched marginal cost and marginal revenue, concepts that no one has found a way to quantify from accounting and market data.

Price theory was so far removed from the real world that many came to accept that prices did not matter, a conviction that was buffered by surveys by Oxford Keynesians that purported to show that interest rates does not influence the investment decisions of businessmen, and regressions which showed that the price elasticity of demand for exports is so low that the Marshall Lerner equilibrium condition does not hold. The skepticism about prices accounts for the popularity at that time of Harrod-Domar and input-output models, that dispensed with prices in their description of economic mechanisms.

Micro economists were so fascinated by the implications of market failures stemming from scale economies, externalities and the second best character of equilibria that their students could well think that Adam Smith's invisible hand works so poorly that their chief task, should they become policy makers, would be to correct its working.

22 Krugman (1995), p 360 in *Handbook of Economic Innovation and Technical Change*, ed., Stoneman, Oxford: Blackwell pp 342-36.

23 The Phillips machine that is on show in London's Albert and Victoria Museum, that was used in teaching at the time, illustrates the model's simple plumbing.

24 The Giffen paradox; and the Slutzky conditions.

What I am describing is of course the rock bottom knowledge that professors want students to walk away from university with; Coase's article on the nature of the firm was a decade and a half old already, but to understand Krugman's remark, think of today's rock bottom concepts; in macroeconomics, rational expectations and their implications for speculation and for the credibility of government policies; in microeconomics, moral hazard and adverse selection, the importance of transactions in designing institutions and a grasp of the Nash equilibrium concept, to cite important ideas.

And what the future civil servant is taught, finally, is not to play God to correct market imperfections, but be wary of the skill with which, via lobbies or by capturing regulators, market agents deflect to their advantage the most cunningly designed interventions. Stiglitz sums up the new point of view as he closes his *Handbook* chapter. "Information problems may give rise to public (governmental) failures and lead to market failures. The analysis of the appropriate role of government is far more complex than traditional analyzes lead us to believe. But if we have learned this simple lesson, we have learned a lot."

7.5) Modeling General Equilibrium

Contrary to a belief that was widespread among economists, solving applied general equilibrium (AGE) models has not proved particularly difficult, and a lively sub-discipline has sprung up to exploit this fact, which has made contributions to policy making and academic research. Both Robinson and Gunning and Keyzer evaluate this.

In an informative chapter, Gunning and Keyzer describe the current frontier of this type of research, outlining the wide range of theoretical and practical problems to which the approach has been applied. They pay special attention to computational issues, an area to which Keyzer has contributed. The emphasis is on theoretical issues, rather than on the policy implications of the varied models that have been built[25].

Like all quantitative approaches, Applied General Equilibrium modeling has limitations. The chief ones are the problem of "closure" first noted by Sen (1963), and the difficulties in modeling disequilibrium. These reflect the inability of today's theory to describe crucial aspects of the real world.

Standard general equilibrium theory describes an economy which is endowed with a complete set of markets. The price and demand of milk are observable and it is possible to study how they interact. In practice, however, futures and options markets are at best embryonic. Saving and investment decisions depend on agents' perception of future prices that cannot be observed, conditioned on the realization of future states of the world of which there does not even exist a list. Intertemporally consistent dynamic models have been solved, which assume that the future is certain and that expectations are rational, but such models are so hard to solve that they have to be kept very small[26], while the effort is of doubtful usefulness since the future is uncertain and agents are incapable of performing the sophisticated computations that the model's logic implies.

25 Their implications for trade policy are discussed below.

26 What must be small is the number of "state variables" (here capital assets), that are carried over from one period to the next.

Modelers are forced to resort to closure for this reason, a frequent assumption being that saving depends on current variables only, the balance of payments surplus or deficit is exogenous, and investment adapts to the supply of saving. This is wrong of course, but useful conclusions may be derived if the limitations due to closure are borne in mind. Robinson's chapter provides useful comments on the way in which closure influences model properties.

Barro and Grossman[27] proposed to use the theory of general equilibrium with rationing to deal with the phenomenon of disequilibrium, and a variety of models have been built along the lines which they suggested; Edwards and van Wijnbergen's chapter uses the approach in its theoretical study of adjustment to price and real shocks. The approach came into discredit when its first inventor renounced it with some publicity.

8) Development Economics and the Rational Agent Paradigm

Joseph Stiglitz's pivotal chapter 5 demonstrates the fundamental change in conclusions that the application of modern microeconomics to development problems implies. Stiglitz uses contract theory, which takes into account explicitly the asymmetric distribution of information between agents. This views market participants as "contract taking" rather than as "price taking" agents.

He assumes that agents (or families) are individually rational. He also uses the neoclassical rule of using the competition hypothesis as a convenient starting point, to be abandoned only when the conclusions are not consistent with stylized facts.

Building on two efficiency wage models, of which one is a generalized version of the familiar Harris-Todaro (1970) story according to which the risk of unemployment accounts for the difference between urban and rural wages, Stiglitz uses an efficiency model to show that nothing is gained by transferring workers from country to city. Note that this does not invalidate the Ranis model, where the crucial "slack" arises in the countryside, from a gap between rural earnings and the marginal product of rural labor. Stiglitz analyzes in a similar way a nutrition based efficiency model, based on the idea that improving nutrition increases productivity. The models have a methodological rather than a practical interest, since empirical research has overturned early beliefs on the working of urban labor markets and on the influence of wages on nutrition.

Stiglitz's analysis also questions the belief that the interlinking of rural transactions, of which sharecropping is the classic example, reflects the existence of exploitation. By providing a way to deal with moral hazard and adverse selection, routing transactions through a single intermediary enables both buyers and sellers to adapt optimally to the asymmetric distribution of information. Eliminating zamindars and talukdars from rural areas, as suggested by Nehru, could be counter productive. Since equilibrium of interlinked markets is not Pareto optimal, market failure exists that could justify intervention; planners do not however have the information required to eliminate it.

27 Barro and Grossman (1971); also see Malinvaud's (1977) succinct and persuasive summary of the approach.

An informal section discusses the incentives that stimulate the considerable saving that development requires. The main point is that the transaction cost of the "trading over time" that saving involves is huge if the state, having seized control of banks as "commanding heights" of the economy, resorts to inflation to collect an inflation tax.

Stiglitz then sets his sights on the belief of such authors as Rostow (1965) that achieving a "take-off" investment ratio is crucial for development. If capital scarcity was the main cause of low productivity in developing countries, back-of-the-envelope calculations, based on what we know of production functions, show that the return on capital in the South should be a large multiple of what is observed. Using Arrow's suggestion that education selects ability as well as it enhances the effectiveness of workers, he remarks that the standard estimates of the productivity of human capital are biased so that education cannot generate the large output increases that development requires. Stiglitz does pip the dice by assuming a low 0.2 capital exponent, and over-emphasizes somewhat the bias implied by Arrow's (1973) selection effect.

Krugman's reputation has given a high visibility to results by Young[28] that contradict Stiglitz's conclusion. According to that author, all the growth of the Dragons is accounted for by a colossal accumulation of production factors. The result is generated by simplistic cross-country regression estimates of the type that was criticized above, and not surprisingly, closer study suggests that they are dubious. The 0.45 elasticity of output with respect to capital that Young estimates is too high. The technical progress coefficient is negative. Egypt, Pakistan, and Botswana lead the total factor productivity league (tourists, dams, and diamonds?), Singapore ranks fourth from last. The absurd results are interesting only in showing that the calculations that produced them make little sense[29].

Stigliz's point is basically valid. To account for the mystery, he invokes the immense shadow of Schumpeter, where the entrepreneur is the deus ex machina of development. The Austrian economist views development in terms of the accumulation of "net gain" investments by entrepreneurs, which yield returns that may exceed costs by a wide margin.

9) Growth Accounting as a Cumulation of Entrepreneurial Gains

Businesses and countries grow by securing control over resources through capital and labor market transactions or by generating them, and using them effectively. There are enormous differences in country performance. The Dragons have caught up in four decades with levels of productivity that the North attained over a century and a half of progress, which itself had no precedent in human history. Average per capita income in the South has grown more slowly than in the North since independence; in much of Africa it is declining steadily.

Denison's work on growth accounting is well known[30]. It is based on a production function; the sources of growth are the components of the total derivative of a production function with respect to its arguments, the production factors. Assuming competition, market prices reveal the function's

28 Young (1994), cited in a paper by Krugman (1994) which has attracted much attention.

29 Young is aware that he has not estimated a causal equation and should know that the conclusions he draws are unwarranted, as he remaks that rising productivity both causes and is caused by investment.

30 See in particular Denison (1967).

derivatives; the unaccounted for output increase, the "Solow residual", is ascribed to technical progress.

That residual is apt to be large and varies a great deal between countries. Strangely, technical "progress" was negative in the USA over a period of several decades, Americans would seem to have been forgetting what they knew. It was very high in Japan during the country's very rapid growth. Thus, the gist of Stiglitz's criticism of Rostow is that like a firm, a country's growth involves more than piling up production factors.

As Nehru and the early development economists emphasized, growth is a "whole economy replacement" phenomenon, which transforms a backward economy into one that exploits the technological knowledge that has accumulated since the industrial revolution; observation suggests that the end of this technological transition brings to an end very rapid growth -- in Germany at the end of the "miracle", in the USSR in the 1960s (at the productivity levels achievable by socialist economies), in Japan roughly a decade ago and now deceleration has begun in the Dragons. Why the catch-up process proceeded swiftly in a few countries only is poorly understood -- and fiercely debated between *Handbook* authors in terms of their pro-market or pro-state convictions. For the moment, it is enough to note that the production function approach and the growth theory which is based on it -- including, as Bardhan notes, the new fangled "endogenous growth theory" -- do not clarify the mystery.

Schumpeter's theory (1954) is profoundly different. The Austrian economist was impressed by enormous differences in business performance, which he accounted for through his concept of innovations. Development results from an accumulation of net gain investments, each of which yields more than its cost, hence using resources well is as important as accumulating them. In that Schumpeterian spirit, we shall attribute as much importance in this section to the intermediation that steers factors to their final use as to the ability of economies to accumulate them.

9.1) Population and Labor Force Growth

What should the population be -- the number of consumers and indirectly, of workers -- is discussed in Birdsall's, and Dasgupta and Mäler's chapters. Birdsall recalls the initially widespread agreement that a high birthrate reduces the rate of growth of per capita income, and the revisionist literature that questioned this belief. The touchstone of her judgment is that the personal choices of individuals are the correct guide of policy decisions unless they are distorted by market failure; families are viewed as single decision units, there is no discussion of possible disagreements between man and wife (the "gender question") or between parents and descendants.

Under those assumptions there is no market failure if property rights are correctly defined; for example the division of a farmer's land between few or many children does not affect his neighbors. "Curse of the commons" problems arise when those rights are not well defined, e.g. grazing rights in the Sahel. Pecuniary externalities are a possible source of market failure, such as when rapid population growth reduces wage rates. Decision making may be complicated also by the fact that the population size may be smaller or larger than the optimum; historians such as Pirenne or North and Thomas for example considered that the increase in population during the Middle Ages, by reducing transaction costs, was a significant cause of Europe's economic development.

Government policy matters. The diffusion of information about birth control techniques -- and through schooling -- lowers the birthrate. The strong incentives used in China and Singapore influence more powerfully the birthrate especially in the cities, but violate the principle of free choice that welfare economists value.

Birdsall should have stated more explicitly the assumptions that support the revisionist view. Srinivasan[31] corrects this by stating explicitly that the revisionist view assumes that parents, when they decide how many children to have, should take into account the welfare of all members of the household and of their progeny in the indefinite future. Surely this assumption is dubious.

It is more reasonable to take into account the biological asymmetry that parents procreate children and not vice versa. Dasgupta and Mäler base on this observation an interesting explanation of the demographic transition. In economies where accumulable assets are rare in rural settings, having children is the most reliable way of providing for old age, thanks to strong traditions which impel them to honor and provide for their parents in old age. Children, the authors suggest, are actually a source of net profit[32].

Development loosens this bond by offering children an Hirschmanian "exit" by migrating to the cities. At the same time (the authors do not mention this), a broader set of low-risk saving assets becomes available, unless of course runaway inflation wipes out quasi-monetary assets. This lowers the attractiveness of child bearing. Taking into account inter-generation issues provides interesting insight into the factors that cause demographic transition.

9.2 Rural-Urban Migration and the Job Opportunities of Migrants

The dominant view in the early literature, which remains very influential at the policy level, is that rural-urban migration must be tightly controlled. Two questions arise.

- -- Does a market failure exist which justifies state intervention to promote industry and hence urban growth, because the marginal productivity of rural labor is zero or lower than the rural wage rate, as claimed by Ranis (1:4:1981)?
- -- Is the flow exogenously generated by the pressure of an excessive rural population and, in the absence of careful control, would coalesce into jobless masses that cause rampant crime and urban unrest[33]?

Mark Rosenzweig's and Jeffrey Williamson's chapters 11 and 15 take a benign view of this migration.

Williamson, who has studied British experience during the 19th century, finds that this has been much more similar to developing world urbanization than is generally realized. The rural-urban wage gap and the age and sex distribution of migrants have been broadly similar. It is not true that, as for example Bairoch has claimed, city populations have been sustained by too few industrial jobs. The role of remittances in boosting rural incomes is stressed. The well

31 1:470; this is only one of the required assumptions.

32 Boys at any rate; girls are a blessing or a curse according to whether they have to be bought, as in Africa, or married off with a dowry as in South Asia.

33 C.f. the oft-quoted statement, the origin of which I have not discovered, that 100.000.000 surplus Chinese farmers threaten the country's stability.

known Harris Todaro model, predicated on the belief that the decision to move involves a gamble where winners secure high paying jobs in the unionized formal sector and losers remain unemployed, is not supported by the data : migrants secure premium jobs rarely but do find work. Williamson finally, an author of the first general equilibrium model of a rural-urban economy, provides an application of this methodology.

Rosenzweig also finds that theories that assume rural labor market failure are not borne out by the facts; although identifying distortions remains important from a policy point of view, the early teachings of development economists were wrong or overemphasized.

Both confirm that even after allowing for the influence of such characteristics as age or education, urban wages exceed rural ones by 30 to 40 percent: migration is GNP increasing. In welfare terms, the gain is smaller or possibly zero, as leaving one's village entails significant psychological transaction costs in terms of sundered friendships and family life, while it costs more to live in a city than in the country.

Migration is an investment decision, accounting for the fact that most migrants are young adults, who have time to amortize the costs of migration. More longitudinal "personal history" data could provide useful information on the connection between migration and family decisions.

9.3) The Supply of Human Capital and Its Use

Research on education and health has also been progressing rapidly, and after devoting two chapters to those topics in volume 1, the *Handbook* editors judged that seven years later, there was room for a chapter on the same topics by Strauss and Thomas in volume 3. Along lines pioneered by Gary Becker, this integrates health and education into an unified examination of human behavior; the paper is also notable for its exemplary application of recent micro econometric methodology.

Both education and health (including the contribution of nutrition) enhance the productivity of workers; and just as migration entails immaterial costs that are not reflected in GNP, education and health are the source of benefits that are not expressible in money terms, as noted forcefully by Sen in the opening chapter of the *Handbook*, as he emphasizes that they are not even close correlates of material welfare.

This is an appropriate place to recall Nehru's emphasis on the immense reservoir of under-used abilities that is available. Some education systems may be more efficient than others in "intermediating" between school and work. China's system of national examination comes to mind in this connection[34], which sets a tradition of meritocracy which has influenced all of East Asia; in China, this tradition has for millennia moderated the influence of family and political patronage on official appointments, improved the assignment of able individuals to responsible jobs, and fostered a sense of personal worth among officials, which enhanced the effectiveness of the civil service.

34 The selection can be performed either nationally, as in China, or by elite universities such as the universities of Tokyo and Kyoto in Japan, Seoul in Korea, Djakarta in Indonesia (or by both mechanisms).

A role of education that is hardly discussed is the externality stemming from its contribution to nation building. That "La République" is rooted in its education system goes without saying for a Frenchman. Mao and Deng were born a few hundred miles apart in Southern China, but could communicate only in Mandarin, a foreign language for them; in India, public education must have contributed to weakening the caste system.

Finally, no one appears to have noted that the relative price of human capital is far lower in poor than in wealthy countries, because it is produced by nontraded services whose price depends on the local wage rate. It pays for poor countries and regions to invest in human capital rather than in machines, as Kerala's admired government seems to have understood.

The finding of chapters 13 and 14 survive Strauss and Thomas' more sophisticated econometric approach, including the confirmation that parental education facilitates that of children -- a snowball effect where one generation's education facilitates that of the next. An intriguing result is that the cost of providing education has been falling, perhaps because competent teachers are found more easily as populations becomes better educated -- another snowball effect. The progress achieved by post colonial governments in education and health has been extraordinary.

The widespread belief that higher incomes improve productivity via nutrition is confirmed weakly at best: even at quite low income levels, additional income buys more tasty food rather than more wholesome food. Finally, nutrition does not influence fertility.

9.4) Private Saving and Its Intermediation

Chapters 10 and 16 by Mark Gersovitz and Clive Bell discuss private saving and rural credit respectively. After setting out the microeconomic theory of saving, Gersovitz discusses in general terms features that are specific to developing countries, such as the possible role of remittances as a means of generating saving and of children in supporting their parents in old age. There is an useful discussion of the weakness of data.

Bell, like Gersovitz, judges that research has not advanced to the stage where firm recommendations can be made. He emphasizes the logic of interlinked credit contracts, of which the main components are operational loans extended by merchants and loans by landlords. Bell is skeptical about the effectiveness of government attempts to improve farmers' access to credit by creating rural banks.

Published seven years later, Timothy Besley provides a powerful analysis which, as the underlying microeconomic theory implies, integrates the analysis of saving, credit, and insurance of farmers and poor urban workers into a coherent whole. The approach is trade theoretic and the author emphasizes the benefits from trading over time and across states of nature.

A fascinating finding by Townsend (1994), also cited by Strauss and Thomas, highlights the informal system of insurance which operates within villages in parts of India, so effective that the consumption of individuals depends more strongly on village output than on their own. This points to the effectiveness of informal insurance arrangements. Though the remark is not made in the *Handbook*, this paper brings development economics back to square one, as the finding validates belatedly Ranis's (and Lewis's) much criticized assumption that the income of migrants in their village of origin may exceed by a significant margin their marginal productivity, so that industrialization eliminates a "large slack" between rural incomes and the marginal product of rural labor. The only difference is in words; the early writers accounted for the slack in terms of moral economy concerns, whereas in the modern phraseology, it is reinterpreted as an adverse selection bias of individuals who find it more attractive to draw benefits from the informal insurance scheme in their village than to look for work in a distant city. Of course, such is the subtlety of economic organization theory that alternative interpretations of given empirical facts may imply different policy recommendations.

An interesting discussion evaluates Basu's suggestion that the informal credit market is uncompetitive and offers monopolistic landlords opportunities to skim the cream from investment projects through discriminating pricing; we return to this in the paper's final "loose ends" section.

Formal saving institutions are weak in developing countries. The author provides a careful discussion, which complements Gersovitz's, of devices which involve risk spreading over crops or over locations, and traditions that obligate relatives and neighbors to support persons in difficulty. The chapter provides an useful survey of such institutions as Bangladesh's Grameen Bank, which extends small credits backed by group solidarity, and the Raiffeisenkassen that evolved in Germany during the last century, which succeeded in mediating credit across space as commercial banks do, while using information on creditors that is available only locally.

The discussion of domestic saving and of its intermediation does not cover urban credit in any detail, thus it is not possible to implement fully this paper's intention of assessing both the sources of factors and the intermediation that channels them to productive uses. It would be interesting to learn more about, for example the impact on investment and on the funding of firms of the hyper inflation and sweeping bank crashes that have plagued some developing countries.

It would have been worthwhile to bring at greater length the problem of pensions, which has come to the foreground as the apparent success of the Chilean pensions scheme has come to the attention of economists. Throughout the South, the effect of development in weakening family ties and in reducing the birthrate is undermining traditions that motivated humans to support their parents. Individuals will either have to save for old age, or rely on the state to provide pensions (most probably according to some redistribution scheme). The implications for domestic saving are huge. In Chile, domestic saving went up from 6 percent to 26 percent of GDP, in part thanks to the introduction of an individual pension scheme that is run on accumulation lines[35]. The history of pension schemes is ghastly in Latin America, as states have repeatedly grabbed assets and blocked indexation but the Chilean scheme's apparent success has led to imitations. In China, the "one child family" policy must be a reason for the country's huge saving rate, as individuals provide for their own old age. The Indian state of Kerala has decided to create a pension system for older agricultural workers, to be funded by a redistribution scheme apparently (so that it will not boost saving); this is likely to be imitated by other states, and a powerful lobby will fight to improve whatever initial benefits are granted and create over the years a large budget burden, while probably reducing the birthrate (already low).

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35 Morande (forthcoming in the World Bank Research Observer, cited in a NBER conference report (I suppose you have the proper reference).

Capital markets in the South remain fragmented and very imperfect. Besley discusses Gershenkron's conjecture (1962) about the relation between economic development and the development of financial intermediaries, which is supported by data assembled by Goldsmith (1969), who has discovered that the ratio of the value of financial instruments to wealth rises during economic development. This evolution, which had been held back as governments seized control of the "commanding heights of the economy", should unfold rapidly now that capital markets are being liberalized.

9.5) Foreign Capital and Its Intermediation

Chapters by Eaton, Cardoso, and Dornbusch and Helleiner discuss North-South capital flows and review their history. Jimenez's and Krueger's chapters examine how effectively planners allocate foreign capital and domestic saving to profitable investment opportunities.

Eaton provides a cogent overview of the relevant theory. Reading him, one cannot avoid pondering the fact that the North-South flow of private investment remains very low in view of factor scarcities in the two parts of the world. The stock of Northern funds in the South is not insignificant, it is true, and Cardoso and Dornbusch[36] note that it amounted to 30 percent of US GNP in 1987; only 15 percent was foreign investment however. Expanding this stock could accelerate development. Even today[37], world capital flows are much smaller in proportion to GNP than before the first World War. An upsurge followed the first oil shock, but this ended in disaster in Latin America and in countries such as Morocco, which borrowed to postpone adjustment, but countries that managed their affairs recovered rather fast from the 1982 debt shock.

The gradual vanishing of the foreign exchange constraint that the two gaps model highlighted has improved the South's ability to absorb foreign capital. In 1962, the year of publication of Chenery and Bruno's seminal article, Cairncross[38] already wondered whether it is appropriate to view a shortage of foreign exchange as a limiting factor in development, as distinct from a shortage of production factors. One of the important changes in the first half century of development has been -- with hiccups such as the current one -- the gradual softening of this constraint. Exports of manufactures have opened up markets that were more expandable than those for primary commodities. After the first oil shock, developing countries began to borrow from private sources; because of poor economic management, this ended in disaster for some, but Asian countries went through the debt shock with little damage. And now (thanks to generous balance of payments support that was quickly reimbursed), Latin America has gone through the second Mexican crisis with little lasting damage. Tropical African countries and some others are still of course in a foreign exchange straight jacket, but most of the South are gradually becoming able to deal with macroeconomic shocks as Northern countries do. This reduces the risk of investing in the developing world, and should expand the North-South flow of capital. The process must be gradual, because of complex problems of custody and investment protection against fraud and seizure that remain to be solved, not to mention corruption.

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36 1:26:1388.

37 Taylor (1997).

38 Chenery and Bruno (1962) and Cairncross (1962), cited by Srinivasan (2:1143).

Gerald Helleiner's chapter 27 discusses the role of multinationals, which have accounted for a large share of foreign private investment into developing countries. He highlights high transaction costs stemming from protracted and ultimately futile haggling over transfer prices, and efforts by developing countries to "unpackage" such choice tidbits as high technology know-how from the investment, countered by the efforts of multinationals to avoid commitment of their own money to the target country because this would weaken their bargaining position should their partner try to modify the original contract by threatening to make the investment unviable. This guerrilla war has been interspersed with truces as one or the other party made promises that it often did not keep; a climate of constant disputes has been more effective in generating bribes than in promoting development. Hopefully, the climate will improve.

The largely theoretical chapter by Squire discusses the project appraisal methodology which should guide public funds to the most fruitful uses; 24 out of 27 countries that were surveyed by the World Bank questionnaire had an office or offices charged with the evaluation of projects, but Little and Mirrlees[39], cited in Jimenez's chapter, are probably right in stating that the sophisticated project evaluation method which they, Squire, and others have developed is little used; Jimenez acknowledges this as he concludes that "agencies such as the World Bank should make every effort to encourage developing countries to discount future net benefits and to use border prices for tradables[40]."

Rodrik and Jimenez[41] cite Kaufmann's re-estimate of rates of returns from 1,200 World Bank projects in 58 countries, which show that those returns are correlated with indicators of the quality of macro management. Whether the relation is causal is discussed below.

Anne Krueger highlights in chapter 40 the extremely poor record of investment in public enterprises, which have accounted for a large fraction of capital investments in many countries. Citing Bardhan, she mentions that "In India, for example, 62.1 percent of total "productive" capital and 26.7 percent of total labor in industry was in the public sector by 1978-79. Yet those enterprises accounted for only 29.5 percent of value added in manufacturing.[42]" Such figures are a dime a dozen and similar statements could be made about many other developing countries, including such populous ones as India, Egypt, and China. A nonnegligible proportion of investment in public enterprises must be seen as a form of conspicuous consumption. The work force of these enterprises is a privileged and politically influential group, and it is proving very difficult to plug this drain on development funds that could be used far more effectively in such areas as education and infrastructure.

9.6) Technological Progress and Its Implementation

Pondering Evenson and Westphal's fundamental chapter is what led me to think of growth accounting from a source and mediation rather than from a use point of view.

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39 2:21:1126, and Little and Mirrlees (1990).

40 Such project evaluation units as do exist are more concerned with such special issues as credit terms and the transfer of pieces of technology than with applying the elaborate procedures that were devised by Northern economists.

41 3:45:2964, 3:43:2804-5; the paper cited is Kaufmann, D. (1991).

42 3:40:2529. The source is Bardhan (1984).

In their view, technology is "tacit", i.e., each implementation is specific; it is "circumstantial" so that each materialization reflects special conditions and differs from any other. In addition to the original invention or the cost of securing a right to use it, the firm must acquire the tacit knowledge necessary to make the invention work and to adapt it to its environment. Foreign trade contacts, the human capital embodied in staff qualifications, and other factors are also instrumental to successful implementation, Schumpeter would add that some credit arrangement will usually have to be worked out. In the terminology of this section, intermediation must be arranged to bridge the gap between the source and use of funds, an intermediation that is achieved far more easily in some environments than in others. Many are the film directors or computer scientists who went to Hollywood or Silicon Valley to avoid the tedious struggle involved elsewhere in collecting funds from a collection of public and private sources. The fascinating book by Doudintsev (1958), published during Khruschov's rule, describes with painful realism the problems of innovating in the Soviet economic system.

Bardhan evaluates in his chapter the contribution of endogenous growth theory to research on development. He points out that -- as is recognized today -- this literature has to a significant extent rediscovered intuitions which played a significant role in the early literature on growth. The emphasis on balanced growth makes the work a little irrelevant since no developing country is engaged in such a process. The literature has however helped to set early ideas on rigorous foundations; the work on innovations in particular sheds new light on the transmission of technology between developing and developed countries.

10) The Outward-Oriented Policies Controversy

The quarrel about export oriented strategies is over among politicians -- a world-wide consensus recognizes their superiority and the list is short of the countries whose leaders still believe in import substitution[43]. It will last forever in the quarrelsome academic world, and the *Handbook* editors had no difficulty in bringing together a wide palette of pro and con views on this topic. In addition to the three contributions which set out the Marxian and Latin American structuralist views, five chapters discuss trade policy, which is also a key focus of Anne Krueger's and Corbo and Fischer's discussions of the history of development policies and of structural adjustment.

And the academic debate should continue, because why outward orientedness appears to be so effective is a mystery. The controversy is important and merits close scrutiny.

Trade theory teaches that free trade is optimal for countries that are "small in international trade" (for which export and import prices are given). As part of the artillery of facts that he has deployed in so many battles against import substitution, Balassa points out that the spectacular increase in trade of the Dragons has not harmed their terms of trade, so that the "small country assumption" holds. Are the gains from trade large? According to the skeptics, welfare triangles are so small that their influence on development performance can be disregarded.

Elementary geometry shows that the areas of similar triangles are proportional to the square of any of their sides; hence the well known result that the cost of a small departure from free

43 Burma, Algeria, Afghanistan come into mind.

trade is small to the second order. Large distortions are for the same reason costly. For example, most of the gain from the Uruguay Round, as calculated by applied general equilibrium models, stemmed from the reduction in the initially very high agricultural protection; little was gained by reducing the low tariffs on manufactures[44].

Protection levels are high in many developing countries, and in India for example, what is discussed currently is a reduction in the top tariff rate to the high level of 40 percent, and the removal of prohibitions that forbid the import of most consumer goods; protection was far higher before the liberalization initiated by the Rao government in 1991.

The gains from cutting such tariffs are not negligible. AGE models may be made to produce larger gains by taking into account such departures from the standard trade model as imperfect competition, increasing returns, and rent seeking costs, and Bela Balassa points in chapter 31 to estimates that imply losses of more than 5 percent of GNP in highly protectionist countries (2:31:1671). A volume edited by Srinivasan and Whalley (1986) presents the most complete set of results produced under more standard assumptions; as Rodrik notes (3:45:2932), such models imply welfare losses of a couple of percents.

A relevant issue is whether the models (and the trade theory they embody) represent the real world properly. To illustrate the problem, Korea's exports to GNP ratio grew from 3.8 percent to 31.8 percent from 1960 to 1990 (Krueger, 3:40:2518). I remember the conference that produced the Srinivasan Whalley volume which Rodrik cites, and can say that none of the models presented could have generated such a result "cleanly", i.e., without resorting to exogenous coefficient changes. Models that vastly understate the trade increase which results from outward-oriented policies cannot but understate the resulting welfare gain.

A source of confusion is that the GNP figures at constant prices distort judgment because of an index number problem. Helleiner[45] cites two studies according to which one third and 25 to 45 percent, respectively, of investments by multinationals lowered income and welfare in the host country, though they earned profit for the foreign investor. Those investments obviously raised the GNP in constant market prices that economists take too uncritically to be a correct measure of development performance. This discrepancy between value added at domestic and world prices may account for the fact that trade liberalization in highly protected countries in Latin America and in the former Soviet block, which often brings about a protracted period of slow growth, tends to be so popular with domestic users that the policy change proves to be irreversible. Likewise, the spectacular bank and chaebol failures following moderate liberalization in Korea leads one to suspect that a not inconsiderable part of that country's spectacular GNP growth was accounted for by investments that were not truly profitable[46].

44 See for example Waelbroeck, Le Figaro December 17 1993, "Le coût mondial du protectionnisme agricole," written in a controversy with Maurice Allais who had lent his Nobel Prize prestige to the campaign against the Uruguay Round, and had castigated as grossly exaggerated the OECD and World Bank general equilibrium modelling estimate of those gains.

45 2:27:1457; the references are to Lall and Streeten (1976) and to Encarnacion and Wells (1986).

46 Chapter 12 of Ginsburgh and Waelbroeck (1981) is the only study I know of that systematically compares the impact of a shift to free trade on GNP at world and tariff ridden prices. The differences are substantial, even though the 40 percent tariff levels assumed in their model are well below the levels attained in many developing countries.

The welfare cost of protection is not negligible: even if the 2 percent figure is the correct one, the welfare gain is too large a chunk of output to be thrown away. What is absurd is the cost imposed on consumers in relation to the import saving and sales gains for domestic producers. The last unit of imports foregone because of a 100 percent tariff has a resource cost that is twice that of buying the good abroad. The cost of protection which AGE models calculate appears moderate only because high protection does not conserve much foreign exchange, and does not open up significant markets to domestic producers; it is because import substitution does not work that welfare gains from tariff reductions are not very large.

What is true is that the stakes of development are on a different scale. India's GNP, for example, grew by 5.4 percent on average from 1980 to 1995, Korea's by 4 percent more; a 2 percent nonrecurrent gain does pale in comparison with a 4 percent annual addition to output during 15 years. Remember Stiglitz's demonstration that production function theory cannot explain why the per capita output gap between developed and developing countries is so large; trade theory too cannot account for the gap. Regretfully development economics, to which such great minds have contributed over more than two centuries as W. Arthur Lewis's chapter reminds us, does not explain why some countries are much more successful than others in economic terms.

Following an introduction to the principles of trade policy in Bliss's chapter, Pack's chapter deals with industrialization and trade. He sets out an interesting "wide steps" hypothesis" according to which "outward-oriented" countries, which balance import protection by export incentives, are able to switch readily into net exports when they complete the import substitution phase for a good, smoothing the process of structural change that accompanies development of the path of investment[47].

Balassa's paper is the most exhaustive. He shoots down such dead ducks as dependency theory, the once popular "delinking" proposals according to which Southern countries should cut themselves off from Northern ones, and the concept of the New International Economic Order (NIEO) enforced through a global primary commodities cartel. He reviews the post-war history of development, trying to understand why outward orientation is so beneficial to growth. An outward-oriented strategy is defined as one where in the spirit of the Lerner's symmetry theorem, import protection is compensated by export subsidies.

Balassa is concerned that economic theory does not explain why outward orientation is so beneficial, and searches for "dynamic gains from trade" that might clarify the mystery. Entirely properly, he complements cross-country regressions by in-depth country studies based on a personal data base that he kept up to date for ten years after the first oil shock. The reported results show that outward-oriented countries have adjusted better to external shocks, and in particular have pursued better macro strategies than those resorted to by users of import substitution strategies. They have also achieved more growth per unit of investment and higher rates of saving than import substituting countries. Estimates of this sort have been replicated by too many excellent authors to be dismissed by a curt remark on the fragility of cross-country estimates. A broad spectrum of policies appears to be associated with the selection of trade strategies. Why this is so is unclear.

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47 Balassa makes a similar point in chapter 31.

The defense of import substitution in Bruton's chapter cites few facts. The hard meat is a comparison of an import-substituting India, with its keen desire to master advanced technology, an outward-oriented Korea, and an import-substituting Brazil that wishes to live as Americans do and has for this reason welcomed investment by foreign multinationals. The Korean total factor productivity growth outshines by a wide margin those of the other countries but Bruton awards the prize to India, on the basis of figures that show that domestic construction companies have accounted for a larger share of domestic construction projects and won more foreign construction contracts than Korean ones. He does not allow for the bias that because India's state sector is so large, and for political reasons, state companies everywhere give preference to domestic suppliers, the construction project share is a poor indicator of technological capabilities, nor for the fact that the world market for construction projects is so corrupted by subsidies that Korea's lower share may demonstrate good policies[48]. Evenson and Westphal cite figures on patents in their chapter that put Korea well ahead of India on an aggregate basis, and far ahead on a per capita one[49]. Bruton's demonstration that Brazil did poorly, finally, is hardly a comfort for believers in the idea that inward-oriented strategies help home grown technologies to bloom.

Rodrik's subtle and healthily skeptical chapter is the paper that truly balances Balassa's. Adopting a robustly rigorous approach, he too goes on a duck shoot and the sky is empty of birds by the time he sets his weapon aside. Welfare triangles are small. The regression results that suggest that outward-oriented strategies have a large impact on growth are fragile. Recent work using strategic trade theory and endogenous growth theory do not imply large impacts of trade policy on welfare, and apart from the papers of Cox and Harris on NAFTA's impact on the Canadian economy[50], models featuring a combination of scale economies with imperfect competition do not imply large welfare gains either.

Targeting evidence cited by Balassa and others that outward oriented countries have better macro policies, save more, and use resources better leads Rodrik, after noting that there is no theoretical reason why trade policy could influence so varied domains of economic policy, to close by the sweeping statement that good governance is the key to development success, the latter being defined in terms of the state's ability to discipline private groups. A surprisingly intuitive conclusion to a rigorous paper, since good governance is in the onlooker's eyes. That the Korean governance which, with that of Japan and Taiwan, Rodrik regards as a model of development policy making is in any event doubtful. Krueger notes serious errors of Korean planners in "picking winners"; that country has two presidents in jail for corruption at the time of writing as well as the son of the present one, and the number of chaebols and banks that are bankrupt as a result of imprudent borrowing and lending is growing by the day; as a success criterion, governance is as slippery as an eel.

Still Rodrik may be right, as well as the many others who have jumped on the governance bandwagon, and it is interesting to note that his conclusion can be reconciled with Balassa's careful demonstration that outward orientation is positively related with a variety of indicators of

48 Korea was extremely successful in winning for close to ten years after the oil shock a large share of Middle East construction projects, but witdrew later to a certain extent from that market; see Vogel (1991) pp 62-3.

49 Bruton could not foretell when he wrote the subsequent success of India's software industry around Bangalore... or Korea's success as an exporter of DRAM computer chips.

50 Which (Rodrik does not mention this) uses an unorthodox price function that no other modeler has used.

development success, if his finding is interpreted as a correlation and not as evidence that outward orientation has a causal effect on the other indicators of policy performance. Outward orientation is not "the cause" of rapid economic growth, but it is part of the winning combination.

Before considering this hypothesis, it is only fair to note that the *Handbook* points to three causal mechanisms that could account for the correlations that Balassa estimates. The Pack-Balassa "wide steps" hypothesis has been mentioned. Evenson and Westphal find that the contacts between exporters and foreign sellers produce a significant transfer of technology, through the negotiations about the technical specifications of goods. Evenson and Westphal find that outward orientation lowers investment costs.

Very high protection makes no sense. Thus, the correct way to interpret Balassa's results is that governments that are decisive enough to resist absurd demands by protectionist interests are also able to defeat the interest groups that block necessary macroeconomic adjustment policies, and press the country's authorities to carry out prestigious but ruinous investment projects[51]. Very high protection, in this perspective, is the small but visible tip of a much larger iceberg of weak governance. Cutting away iceberg tips is no more helpful in clearing the sea lanes than introducing at a stroke free trade without reforming other policies and not surprisingly, countries that have decreed large cuts in tariffs in recent years without complementing this by other reforms, have in most instances re-established high protection soon after.

11) Structural Adjustment and the One World Consensus

11.1) The Evolution of Policy Making in the South

The theoretical chapter by Edwards and van Wijnbergen presents the trade theoretic foundations of adjustment in terms of the Salter (1959) model of how countries adjust to resource gains and losses stemming from capital flows or terms of trade changes, which modify the aggregate supply of resources, and to changes in relative prices induced by home policies. General equilibrium theory with rationing is used to investigate the time path of adjustment.

The key chapters are those by Krueger and by Corbo and Fischer. Krueger provides a valuable perspective on the sweeping policy changes that have occurred in the South since the war, pieces of that information have been cited in this paper. Corbo and Fischer mostly focus on the recent past.

Both chapters recount the World Bank's 1979 decision to devote a substantial portion of its resources to "structural adjustment loans" in support of policy reform in the developing world, in close cooperation with the International Monetary Fund; after the 1982 debt crisis, these loans became a major component of what was left of North-South capital flows. Fischer and

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51 The same remark applies to Kaufmann's result, cited above, that the rate of return on projects is higher in countries where macroeconomic management is better than in others. Here also, all that the regression demonstrates may be that well governed countries both handle macroeconomic difficulties more effectively, and get a better return from investment projects.

Corbo focus at first on theoretical issues, discussing the sustainability of borrowing, the optimal speed and sequencing of reform programs, and the fact that adjustment policies must be credible to be effective. They survey econometric appraisals of this lending, which are beset by selection biases. Case studies describe the adjustment experience of Chile, Ghana, and New Zealand. The chapter is complemented by Rodrik's valuable remarks on the macroeconomics of adjustment.

By far the most important observation is that although structural, market oriented reforms do eventually bring about a deep and beneficial transformation of over-protected and over-controlled economies, the process is astonishingly slow. Chile suffered a bad relapse a decade after adjustment was initiated, as did Mexico (which Corbo and Fischer, writing before the 1994 crisis, view as a successful adjuster). Ghana remains highly dependent on foreign aid, and cannot as yet be said to be on a self sustaining development path, while in New Zealand too the fruits of adjustment were very late in ripening. Why this is so is a puzzle.

11.2) A "Washington Consensus" -- or a "One World" Consenus

However high the cost, there is no let up in the shift to market oriented policies, and several authors of the *Handbook's* volume 3 comment on the emergence of a new consensus during the decade and a half that followed the 1982 debt shock. Here is a list of the points of agreement that define this.

-- Macroeconomic balance is necessary to growth.

-- Financing industrialization by taxing agriculture worsens the distribution of incomes and reduces agricultural production significantly.

-- Reneging on foreign debts is not an option.

-- Trade policy should be disciplined by the World Trade Organization (WTO) rules (which imply stable and moderate, not necessarily low protection).

-- Public enterprises are with few exceptions very inefficient and should be either privatized, or if that is politically impossible, exposed to the discipline of the market.

-- Property rights should be secure.

-- Economic equality, which should be a major goal, should be achieved principally by "enabling" the poor through education and an improved access to health facilities.

-- Governments should relax their control of such commanding heights of the economy as banks and capital markets.

-- Convertibility is desirable, restrictions to foreign investment should be relaxed.

This set of beliefs is commonly referred to as the "Washington consensus", a term coined by Williamson (1990) who reportedly regrets it, as well he might. After setting out why the term is misleading, the set of beliefs will be renamed the "one world consensus".

The name is not groundless. The World Bank did decide three years before the debt shock to transform itself into a major provider of an assortment of credits among which the best known have been its Structural Adjustment Loans (SALs); these were granted in cooperation with the International Monetary Fund, which conditioned its lending more and more on market oriented reforms in addition to macroeconomic ones. For some years, many countries had access to no other significant source of funds, which strengthened the influence of the Pennsylvania Avenue twins.

This being said, the term is unfortunate in reinforcing the common man's delusion that our globe is run by a few thousand bureaucrats and politicians around Washington's Mall. The Bank and Fund are better described as intellectual sponges than as leaders. As the world's largest pool of Ph.D.s, they draw in the latest ideas of academics including those from the South[52], while their policy of recruiting mainly staff with some experience brings in the experience of practical men, some of whom had significant authority in countries to which they may return to resume a political role. And of course, in the acrimony of Bank and Fund missions, their staff rub ideas against the strong convictions of public servants and politicians in the South -- a fruitful exchange for both sides.

Finally as Corbo and Fischer note[53], compliance with conditionality has been low. Who can force borrowers, once standard measures such as devaluation and budget cuts have assuaged the crisis, to put commitments which they dislike into effect?

There is in every developing country, whether democratic or not, a vigorous policy debate that draws on the memory of past problems and the example of successful countries, and is everywhere distorted by interest groups. It is that debate that has moved policy thinking from the Indian Congress consensus to the current one.

It is not obedience to Washington bodies that has kept Mexican and Argentinean reforms on track in the recent past despite severe difficulties. India's 1991 balance of payments crisis is history but reform has continued through several changes of government, even though large foreign exchange reserves insulate the country from outside pressures. The new consensus's domestic roots are illustrated by the conversions of such leading radical politicians as Michael Manley of Jamaica, Jerry Rawlings of Ghana, and now Desiré Kabila of Congo, who after fighting with Guevara to uphold Lumumba's ideas and keeping alive for years a small guerrilla war against Mobutu, has announced that he will run Congo on market lines[54]. The most glaring illustration of the sponge theory is China, where no conditionality inspired Deng's reforms while a deep influence goes from China to Washington, as Bank and Fund economists try to understand what China has done right, to enrich their dialogue with other developing countries[55].

52 There is a direct flow too from Northern (principally US) universities to Southern policy circles, exemplified by Indonesia's Berkeley Boys in Indonesia and the Chicago Boys who influenced Chile's policies in the initial years of Pinochet's regime; the influence in Mexico of American university graduates has been significant in recent years.

53 1:44:2890, citing Edwards (1989).

54 A few radical leaders, such as Cheddi Jagan of Guyana, stuck to their beliefs to the end.

55 As another illustration of the sponge hypothesis the Fund, quite skeptical at first about Argentina's experiment with a currency board, has made such a reform a condition of assistance to Bulgaria (Financial Times March 26 1997 "An idea whose time has come").

Finally, conditionality is often welcomed by governments, which are grateful that the Bank and Fund are available to serve as scapegoats for necessary but unpopular measures.

A good name for the consensus is to dub it the "one world consensus"; here are some justifications.

-- Above all, developing countries have become confident in their ability to withstand pressures that could bring back forms of colonialism. As Morawetz noted[56], whatever policy errors were made in the initial years, their economies became much stronger in the first quarter century after independence; this progress continues.

-- The break-up of the Soviet Union made obsolete the concept of a "Third World", which had defined itself in terms of its refusal to be involved in the East-West conflict, and used the cold war to extract aid from both parties.

-- The developing countries' failure to join forces to create a New International Economic Order undermined the Third World concept.

-- Trade has become more and more important to the South. Policy makers there have become aware that their efforts to secure "special and differential treatment" from the North were not producing results, and was keeping them out of the bizarre but very profitable barter in trade concessions that thrives in the gardens by Lake Geneva.

-- And last but not least, an increasing number of countries are looking forward to the hopefully not too far off day when they will join the developed world; it's hard to form an union when many workers hope to become bosses

Which brings us back to Streeten's pivotal *Handbook* chapter, which he wrongly described as utopian. The world has been shifting to a consensual system where countries accept international obligations more willingly than in the past, and pay greater heed to international public opinion. The Uruguay Round, for example, which India and Brazil tried to oppose by forming a block of Southern countries, has stiffened the trade disciplines which WTO members must respect. Supported by public opinion, the Bank and Fund and other donors are becoming more forthright in pressing countries to fight corruption and promote democracy, while various non governmental organizations are fostering the birth of a true world public opinion, whose pressure has led the United Nations into peace-keeping operations, while Nato and the European Union are playing a stabilizing role in Eastern Europe.

Streeten's world government is not in sight but the shift away from the nation state ideal that was taken for granted after the war, and the rising willingness of countries to submit to quasi-legal obligations, are moving the world in its direction.

12) Income Distribution Policies in the One World Consensus

56 Morawetz (1978) documents the significant progress that developing countries achieved during the first quarter century after independance.

Lipton and Ravallion's pivotal chapter 41 surveys the history of thinking on poverty and the key research findings in this area. Apart from dissenting voice on some important issues in Adelman and Robinson's chapter, the *Handbook* suggests that economists have achieved a wide agreement about poverty policies; I shall cite other *Handbook* references to research results only where disagreement exists, or where the material goes significantly beyond that chapter.

Lipton and Ravallion are wrong to accept[57] the statement by Keynes (1923) that "there was no variation in the lot of the unskilled (European) laborers in the two thousand years... to the France of Louis XIV", and in implying that concern about poverty began in the Britain of the early industrial revolution; there had been periods of sustained progress of living standards in the Italian and Flemish cities and in the Netherlands, fostering legislation that spread to the poor the benefits of this progress (and already, as described by Garnsey (1988), in Rome at the time of the Gracchi, and in Athens at the time of that city's greatness), but making the point less Anglo-Centric only reinforces the view that development incites efforts to distribute its fruits more widely. Lipton and Ravallion are right to suggest that a century of thinking in the North on this topic fostered an interest in income distribution in the South even before development had borne its fruits.

As in other areas, a number of ideas that were widely accepted in the early days have not been supported by later research. Kuznets' inverted U, according to which development worsens income distribution at first and improves it later it is too simple, the causes of changes in income distribution are too complex to be reduced to so simple a pattern. As mentioned, the belief that improving the nutrition of the poor by raising their incomes or providing them with cheap food would trigger a virtuous circle by making them more productive has not been supported either. The views of a number of early development economists, who advocated financing development by "extracting a surplus from agriculture" were abandoned as economists took note of their negative impact on the poor, many of whom live in the countryside.

Another simplistic idea which research has not confirmed is that the poor are the chief sufferers from macroeconomic adjustment policies. Concern about such an effect has however been valuable in stimulating the search for ways to mitigate the impact of adjustment policies on the poor.

The dominant strand of thinking about poverty, a component of Nehru's thinking already, is that trickle down works, even though the example of Kerala demonstrates that much can be achieved even in slow growing states. That more can be done to achieve "pro-poor growth" has come to be axiomatic[58]. Linking growth with redistribution can be a key component of a social contract which can sustain the political stability of developing societies which, as Lipton and Ravallion note, are shifting toward a more consensual relation between the state and civil society; embedding such a linkage in development policy is necessary too because development undermines the systems of mutual support that provide security in traditional societies.

57 3:41:2554.

58 C.f. the influential volume by Chenery et al (1974).

The poverty gap is not large in absolute terms -- about 1 percent of consumption in the South for the poorest fifth of the developing world's population[59], but targeting problems make this figure meaningless. Combating poverty by direct transfers is impractical given the tight budget situation of developing country governments, which have to allocate large funds to development needs. Such transfers are "net loss" policies, because the dead-weight loss of taxes is not negligible.

In chapter 20, that discusses South Asia almost exclusively, Stern and Ahmad point out that the tightness of the budgetary situation is in part of the governments' own making. A much greater part of the tax burden should be shifted to land, possibly subject to taxing large and small land holdings differently, but the political power of land owners has prevented this. The study of tax laws reveals a host of absurd distortions that could be eliminated. The chapters by both Lipton and Ravallion and Jimenez emphasize that governments could do much more to offset by user charges the cost of roads and other utilities, which often benefit mainly well off individuals.

Binswanger, Deininger and Feder's chapter provides a valuable analysis of the history of property rights in agriculture. Today's rights are often the legacy of brutal conquest and/or the efforts of landowners to bias in their favor the laws that regulate property rights. The message is not that sweeping land reform should be instituted in the South -- efforts to redistribute land have led to disappointing results -- but that a better understanding of this history could prevent serious errors whenever property rights are redesigned.

Some points are the following. Except in clearly identified circumstances, the owner occupied farm is the most productive form of organization. In countries where "land to the tiller" legislation discouraged the rental of land, as in Latin America, large estates have sometimes developed as a device for establishing control over labor power. "Titling", the establishment of individual property rights over land that was owned communally, may be useful at advanced levels of development to enable farmers to secure mortgage loans, but has been a widespread source of abuse.

Dasgupta and Mäler's chapter expands on that remark as it discusses the connection between changes in rural property rights and poverty. The leading idea is that although a broad redistribution of land is rarely a practical policy option, a great deal can be done to help the poor by controlling the process through which local commons are transformed into private property. The pressure on resources which development and population growth bring about brings about this transformation, cutting off the poor's access to those resources. Much of the chapter is devoted to the management of local commons, which make a significant contribution to the livelihood of the poor. State intervention has often had nefarious consequences, by replacing by ill thought out rules, devised centrally, customs that reflected a consensual understanding of local scarcities; the chapter discusses how such situations should be managed.

13) Tying Up Loose Ends

59 3:41:2584.

Clearly by design, the *Handbook* opens on a resolutely agnostic note with respect to received economic theory. All three of the first chapters, by Sen, Lewis, and Bardhan, are openly or implicitly critical of it. Sen sets out an alternative vision of the development process, Lewis criticizes the long disregard of economists for development, while Bardhan -- a subtle theorist who has a deep understanding of what he criticizes, opens his contribution with warlike words bout the limited usefulness of orthodox economics. Arida and Taylor's chapter 6 also is unorthodox, and dispersed through the work, other chapters challenge orthodoxy.

In this paper, I have been at pains to check mark areas where orthodox economics does not clarify important issues. These are our discipline's "loose ends"; the time has come to attempt to tie them together. There is no pretense of defining a new paradigm, the only goal is to bring together in a new way existing ideas, in the hope of contributing to the ongoing debate on methodology in the economic profession.

13.1) "Releasing... the Latent Talent and Creativity of the Common Man,"[60] Capabilities and Functionings

Amartya Sen's chapter 1 provides an excellent organizing framework by proposing a way of formalizing the process of development in a way that is more flexible than the standard one. He suggests to judge development performance in terms of unusual criteria. The argument is not easy to follow because the concepts are new and the author likes to redefine his concepts in slightly different, carefully nuanced ways; the lack of space will make it impossible to convey all shades of his thinking[61].

He proposes to judge development performance in terms of three concepts, among which entitlements are a generalized version of the budget sets of mathematical economists, redefined as the set of allocations that individuals can realize subject to market conditions and legislation. A slave could have an entitlement.

The key innovation is the view that the primary concern of economics ought not to be commodities but actions, represented by the twin concepts of capabilities and functionings. Jumping back to Aristotle's writings, Sen argues that what men are interested in is "doings" and "beings". Freedom matters, a starving man and a fasting one have identical functionings but their capabilities are utterly different, thus both capabilities and functionings matter.

Sen's formulation has two merits from this paper's perspective. It is closer to what humans find important, for what they remember when examining their lives is what they have been and done, commodities matter only in relation to such functions as procuring nourishment, or acquiring a car to go to work and take the family to the country on weekends. Being the best paid actor in Hollywood may be more important than the commodities that the money buys.

The formulation's other merit is that it opens economics to concerns that do not fit easily into its usual domain. It is open to all that humans care about, and provides a richer picture of

60 Nehru (1989) p 400.

61 For an application of the approach, see Drèze and Sen (1989).

development than a perspective that views it primarily in terms of the supply of commodities to consumers[62].

Through its link with freedom, the concept of capabilities sets into a common perspective concerns expressed by the *Handbook's* Marxians, which standard theory cannot apprehend so readily. The emphasis on the value of freedom helps to grasp the concern of dependency theory, for example, as it examines how countries in the "periphery" see the fruits of their development effort slip willy nilly into the hands of countries in the "centre". The more interesting parts of structuralist economics describe countries that are trapped by the rigidities of their economic structure. Roemer[63] suggested using the concept of the core of an economy to describe situations where the capabilities of agents or countries are constrained by prohibitions which block certain economic opportunities, in the way described by Nehru as he assesses British rule.

The concept also sets in a novel perspective the discussion on interlinked contracts. Economic organization theory has pointed out that those contracts are an optimal adaptation to situations of asymmetric information. The concept of capabilities makes it obvious that their negotiation pits agents against each other, one of whom has many partners while the other's choice is much more restricted, as other possible partners do not know him as well as his habitual partner. The potential for exploitation is obvious, especially when the weak agent does not have the character and intellectual ability needed to bargain effectively. Development, which replaces interlinked by standard contracts, has thus a liberating effect that has value. There are many other ways in which development and development policies have a liberating impact, the migration to the city of a family member strengthens the bargaining situation of other members in situations where market failure might compel them to give up their land or to commit a family member to debt bondage. By loosening family and village ties, Hirschmanian "exit" through migration makes children freer but may put older individuals or widows in a difficult situation, as their children's migration to the cities makes them freer by insulating them from social pressures; i.e., one consequence of development is a need to provide public support of the old[64].

Sen's perspective also casts a different light on the costs of bureaucratic over-regulation, which economists have tended to view primarily as an obstacle to foreign trade and investment. The initial enthusiasm for planning and for a "hard state" has created a new exploitative class which paralyzes today the "latent creativity and freedom of the common man", as cruelly as the zamindars whom Nehru vowed to eradicate . Freeing the common man from bureaucracy is a way to expand his capabilities.

Sen's concept also casts in a novel setting the findings on health and education that are presented in the *Handbook.* Stating that education enhances the capabilities of women, while health makes humans more able to assume a respected social role, is an enlightening way of viewing their benefits.

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62 The focus of economics was not always so narrow and Schumpeter takes time to describe in much detail the motivations of the entrepreneur whom he describes.

63 C.f. Evans' 2:24:1266 many references to Roemer's work.

64 C.f. the discussion in the section on private savings.

Nothing is very new in this sub-section. What has been said could have been expressed within the traditional confines of modern economics. The added value is in casting problems that seemed unrelated into an unified framework.

13.2) "Being for Myself, Who Am I?" 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[65]. I discovered the citation while browsing Arrow's collected works in an American colleague's office, who had been delayed by traffic; the Nobel Laureate was obviously right in thinking that the saying points to a gap in the current paradigm of economics. Here the open endedness of Sen's vocabulary is valuable. The standard trick in microeconomics of dealing with man's concern for others by injecting altruistic terms into his utility function is totally artificial, while generosity and the respect earned through giving are very natural components of Sen's "beings and doings".

Man is a social animal, as Edward Wilson, the father of socio-biology points out as he tries to clarify our motivations by studying other social species. The colossal ant hill that mankind has erected is not sustained only by prices. Concern for our fellows and the desire to earn their respect are necessary to its functioning.

Closer to the economist's home ground is Mancur Olson's work on collective action[66] which Justin Yifu and Jeffrey Nugent discuss in their chapter, together with the relevant ideas of such economists as Hirschman (1970). Olson's key contribution is to point out the contradiction between the interests of a group and of its members, as a result of which collective action must be sustained by agreed punishments, which discourage free riding, and eliminate the contradiction between individual and group interest. In the standard definition of collective action, as formulated by Srinivasan[67] for example, participation in collective action is determined by the personal interests of individuals. Interpreting motivations in terms of Sen's beings and doings extends the range of motivations to altruistic "being for myself, who am I" concerns in addition to economic motivations of the traditional variety; the desire for honor and the fear of shame, so readily expressed in terms of Sen's functionings concept, are important motors of such economic action as strikes or mass protests about unemployment.

The popularity of Olson's work has unfortunately embedded in many economists' minds the idea that collective action is a rather special behavior of interest group members. The firm is an example too (for example the emphasis on firm culture in courses on management). So are families (the strength of family ties in the developing world). And recognizing this, business leaders send key personnel on grueling wilderness weekends to foster "bonding" among their staff; every institution is a locus of collective action.

The crucial observation is that, to borrow Evenson and Westphal's felicitous terminology, the effectiveness of collective action is "tacit and circumstantial". Tacit because even the members of a group cannot be sure of how their colleagues will react to a challenge; circumstantial because it

65 Cohen (1982) p 238; my translation.

66 Olson (1965). I do not discuss his second book, the conclusions of which are more questionable.

67 3:2117.

coalesces most strongly in the face of an exceptional challenge. It is both potentially powerful, and fragile.

Three rules guide collective action.

- -- The threat rule: humans close ranks when, rightly or wrongly, they perceive that their group is in danger.
- -- The fairness (or non free riding) rule: humans are willing to make sacrifices only if they are persuaded that others will not free ride on their sacrifice.
- -- The circumstantial rule: the historical context is important; the character and ability of the group's leader is important for the success of its action. Failure weakens, and success reinforces collective action.

The emphasis on fairness in discussions about trade policy has puzzled trade economists, who find it difficult to provide an economic explanation of such practices as the legalization of anti-dumping duties in the General Agreement on Tariffs and Trade (GATT)[68], or the exalted status of the Most Favored Nations Clause as article 1 of that Agreement. These can be explained readily in terms of the fairness rule, as a way of safeguarding collective action by systems of penalties enforced in a quasi judicial manner. The GATT is indeed a locus of collective action, and political opinion supported successive GATT rounds only because it could be convinced that what voters viewed as their country's sacrifices was compensated fairly by the opening up of other countries to exports.

The connection between the threat rule and Corden's (1974) conservative welfare function is worthy of note too. That author once proposed to represent by an asymmetric "conservative welfare function" the fact that interest groups fight much harder to oppose tariff cuts than to raise them. This tendency of humans to respond asymmetrically to gains and losses provides a ready explanation of the success of Chenery's "redistribution with growth" concept, and explains why Adelman and Robinson, Lipton and Ravallion, Binswanger et al, Dasgupta and Mäler, and other *Handbook* authors accept so readily that efforts to combat poverty should reserve for the poor a share of the fruits of growth rather than redistribute existing wealth.

As Vogel (1991) and many others have noted, it was under threat that the Four Dragons performed their economic miracle: collective action produced the "bonding" that made them submit to state guidance and discipline; copying in other developing countries the methods of the government of Park Chung Hee might lead to disaster. The Korean and Taiwanese miracles are, in fact, but the latest examples of countries that achieved remarkable success in a situation of great national danger, thus the prosperity of Athens was established at a time when a third Persian invasion seemed possible, that of Venice during a 16 years war against Turkey (the war of the wasp and the bear as Braudel (1983 p 136) describes it, which the wasp won); Holland's golden age coincided with an 80 years war against Spain, the most powerful nation in Europe at the time.

It is simply not true that Korea and Japan, the classic "hard states" have benefited from admirably sapient governance. Japan closed only in 1997 coal mines that produced fuel at thrice the world price. France, Belgium, and Britain acted far more decisively. It betted heavily on a "fifth generation

68 Now in the WTO.

computer" based on artificial intelligence and missed the desk top machine[69]. As Krueger reminds us in her chapter, Korea's heavy investment in steel, heavy chemicals, and automobile industries, were less successful than had been hoped, and their cost squeezed out the country's dynamic small and medium enterprises[70]; planning decisions were not prescient, but the hard work induced by a sense of national destiny made them work. Thanks to democratization, with two former Presidents of Korea and the son of a third in jail, we know that there was no perfect "fairness" in the way in which the fruits of the collective effort were shared[71].

Firms too are locuses of collective action, and it is the willingness of all members to set aside rivalries and personal interests to save their jobs which accounts for the often extraordinary improvements in performance of enterprises that are threatened by bankruptcy. Janos Kornai, a Hungarian economist, has called "hard budget constraint"[72], the market rule that loss making firms must close down under clearly defined bankruptcy rules. " "When a man knows he is to be hanged in a fortnight, it concentrates his mind wonderfully" Samuel Johnson has said, and many are the examples where firms achieved astonishing increases in productivity when their staff understood that they must adapt to survive. Kornai's idea has broad applicability. A Chilean company, in the import substituting days, faced no true hard budget constraint, since its few home market competitors were partners in a cozy cartel while it could rely on the government to hike protection to transfer to consumers the consequences of management errors. The Korean government, on the other hand, was very interventionist, but it granted subsidies reluctantly[73] and Korean firms, knowing that subsidies might trigger anti-dumping duties in key markets, knew that they could not obtain shelter from market forces.

Finally, the "tacit and circumstantial" power of collective action can harm as well as help development. The "hard state" of Korea is discovering this as strikes and student protest show how a tradition which fueled the Korean miracle can be captured and harnessed by interest groups that oppose the labor market reforms that economic circumstances have made necessary.

13.3) "A Million Mutinies" and Structural Adjustment

Corbo and Fischer drew attention to the excruciating slowness of structural adjustment; here also we are reminded of the thinking of the neo-radicals, here the Latin American structuralists who believed that the structural rigidities of their economies ruled out other policy alternatives. Such reform has eventually been successful but the cost has been very high. What accounts for this?

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69 Taiwan did not.

70 I do not discuss Taiwanese planning. According to Vogel (1991), Taiwan was less interventionist than Korea; still the economy was firmly guided.

71 The power of Korea's feared KCIA remains nevertheless considerable.

72 Kornai (1990); see pages 62 and ff. in particular.

73 Support was provided as a rule through loans from banks that were closely controlled by planners.

In his fascinating book "A Million Mutinies", Naipaul[74] describes after a long visit to India, the deeply individual but traumatic "mutinies" of a number of young Indians as they sought to adapt to a rapidly changing society, modifying their value systems in the process. What he describes are the difficulties and trauma which Nehru surely foresaw as he stated 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[75]."

The Indians whose life Naipaul describes are young, they have gone through the mutinous years of adolescence and early adulthood when individuals question their parents' values as they select and define their role in society. Emulation is crucial and like China, the country of a million millionaires which is full of Horatio Algier tales of young men and women who become rich swiftly, it is beginning to be said in India that[76] "we are all baniyas" as young Indians dream of launching businesses or creating software companies in Bangalore.

Again it is worth quoting Edward Wilson[77], as the father of socio-biology points to the unique variety and flexibility of roles in human societies, which distinguishes us from other social species. Wilson does not relate roles to age and emphasizes their plasticity of which examples come to mind, such as Tolstoi who was successively a rake, a soldier, a novelist and a saint, but as Naipaul's book implies, age does influence role selection. Common language refers to the "formative age" and of a "time for settling down"; it is said wryly that "you can't teach an old dog new tricks".

The "old dog" saying suggests that the connection of roles with age may have a biological basis, but it is readily accounted for in economic terms. Handbook authors who discuss rural urban migration note that the decision to migrate, which involves a large initial investment in terms of money and of the psychological cost of sundered friendships, should be made early so that the cost can be amortized over a long period[78]. Again Sen's perspective is valuable as roles are obviously examples of the "beings and doings" to which he wants to draw the attention of economists. Migration is but one "functioning" that is involved in role selection, education is another, as well as the decision about whether and when to found a family, but beside such economic acts are non economic ones such as fashioning one's personality for the chosen role and building up the work ethics and convictions that are compatible with it; given caste prejudices, the "we are all Baniyas now" quip does reveal how role selection may entail changes in deeply embedded personal values.

The market must be served by businessmen, labor union leaders, and public officials who understand and respect its mechanisms and ethics. It is a frequent remark by students of the transition from socialism that those who were over thirty when the Soviet Block broke up will

74 Naipaul (1990), a writer of Indian origin, was born in Trinidad and describes in many of his works how cultural differences complicate the choice of a place in society.

75 Nehru (1989) pp 408-9.

76 The business caste, traditionally held in low esteem.

77 Wilson (1975), in particular pp 554-5.

78 Modigliani's (1970) lifetime income hypothesis, which does not involve a large initial commitment, is different from this point of view.

never adapt fully to the new system. "Embourgeoisement is a lengthy historical process" Kornai observes[79], as he emphasizes the importance of the civic principles and values that are associated with a market system.

Starting from a blank page has advantages. Japan, with its large number of demobilized soldiers and repatriates just after the war, Korea, where a quarter of the population were refugees about 1953[80], Hong Kong's large inflow of immigrants including ruined Shanghai industrialists, the arrival of troops and other migrants into Taiwan; even Singapore has benefited from such a stimulus as a result of the island's unusually broad population mix, including a Chinese population that is far less homogeneous than that of Hong Kong. Last but not least, Mao created a gigantic blank page through the cultural revolution, which forced many tens of millions of people to migrate to the countryside and caused vast migration flows between provinces. It is interesting that the German post-war miracle also coincided with large movements of uprooted individuals who had no alternative apart from rethinking their role in society[81].

The Latin American structuralist school had foreseen that rigidities would make market oriented reforms costly. The rigidity of the capital stock would be a main cause of those problems; events suggest that the rigidity of the roles that humans assign themselves has been the more serious obstacle.

13.4) "Carrying Out a New Plan,"[82] the Entrepreneur

Schumpeter's entrepreneur fits admirably well into Sen's scheme of doings and beings, and illustrates also the importance of role selection. Being an entrepreneur requires abilities and character traits which Schumpeter finds important to describe in detail, convinced that readers might not appreciate what sort of a man is the engine of development if he did not describe him.

The theory is well known. The engine is the entrepreneur who conceives a "new combination of factors of production", which is possibly much more effective than the current one and may bring him a large profit[83]. 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 (if none are available, the innovation remains a bee in someone's bonnet). The profit eventually vanishes as imitation eliminates it, 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's article (1991), one of the papers which Bardhan's chapter discusses, describes

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79 Kornai (1990), pp 54 and 52.

80 Vogel (1991) p 43.

81 The Netherlands, cited above, received numerous migrants who fled the Spanish inquisition, and at a later date French Huguenots fleeing from murderous persecution. Partition has seemingly not had such an effect in the Indian subcontinent; in Pakistan some descendants of these exiles, a group that has suffered from discrimination, are said to have drifted into the "role" of gangsterism.

82 Schumpeter (1934) p 85.

83 Schumpeter emphasizes this repeatedly.

North-South competition in innovation, but the 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[84]. Evenson and Westphal, who do not let themselves be tied down to the Procustean bed of marginal analysis, come closer. Other Schumpeterian models exist, of which one is Cave's (1983) model of the product cycle. The work that won Douglas North the Nobel prize is close to Schumpeter's thinking, although the author does not spell out the connections.

Schumpeter's model needs refreshment. It is not clear whether the Austrian economist was conscious of the transactional character of innovations, which both North and Evenson and Westphal emphasize. Also, he assumes too readily that the entrepreneur earns the profit from his innovation; more on this crucial question below.

On the first point, it is fruitful to relate Schumpeter's model to North's vision of development, and in particular to the latter's description of how the large returns to scale that characterize what he calls the "transaction sector" of the economy account for the cumulative character of development. The award of the Nobel Prize has popularized his views thus I can be brief. In "The Rise of the Western World[85]", for example, North and the historian Thomas argue that the trigger of development in successful European countries was at some points population growth, at others government decisions motivated by the Ruler's need for tax income, which (often not by design) favored growth inducing activities[86]. These events created opportunities which businessmen took advantage of, triggering a virtuous circle of innovation and growth. A recent example of the this interaction of sovereign decisions and entrepreneurial activity is of course Hong Kong, which the accumulation of trade information made so valuable that at no point did China invade the undefended Colony[87]; another example is the ease of interchange of ideas that has fueled the remarkable growth of the Indian software industry, fostered by the planners' decision that the industry should be concentrated around Bangalore. In contrast with most historians and many economists, North and Thomas do not regard such basic discoveries as the invention of the compass as prime motors of development; these matter only if economic conditions such as secure property rights and large and growing markets make it profitable to use those innovations[88].

Schumpeter, who was thinking of developed countries in the 1920s, takes it for granted that the entrepreneur's profit is not stolen from him. This assumption is questionable in many countries of the South, that are so ridden by regulations that the public officials whom Vogel[89] designates as "gate keepers", who stand between willing buyers and sellers, can skim off at no

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84 Development, as a catch-up process that slows down radically when Northern technology has been adapted to local conditions, cannot be described in terms of balanced growth.

85 For the sake of convenience, I shall refer to "the Rise of the Western World" (1973), written with the historian Thomas, which provides a good overview of North's ideas.

86 For example the English state found it worthwhile to foster foreign trade because its income stemmed from duties on foreign trade; this gave merchants bargaining power, and fostered legislation that eased their activities and facilitated growth.

87 Today's "one country two systems" principle expresses the same concern.

88 An opinion that is borne out by China's failure to exploit the remarkable inventions of its people; see Needham (1954) for an impressive panorama of China's technological creativity.

89 This felicitous term is used by Vogel (1989), e.g. p 410.

risk a large slice of entrepreneurial profit[90]. The fight against corruption is more than a fight for equity, its success is crucial for development.

Private operators engage in extortion too. Returning to Basu's (1989) remark about the structure of rural credit markets, if the village lender is able to operate as a discriminating monopolist, he can as Besley notes (3:36:2199) appropriate all the entrepreneurial profit. This reduces the incentive to innovate.

The technology accumulated since the industrial revolution is not conveniently stored on a shelf, every implementation requires perseverance to overcome transactional obstacles, money to pay for start-up costs, inventivity to adapt the technology to local possibilities, and an ability to lead men. Planners may have provided the lubricant that eases the process, especially in the early years, but development's engine is the entrepreneur[91].

14) Conclusion

Development economics, like all of economics, has made remarkable progress in fifty years. There is greater dominance than formerly by one school of thought, but the range of research has become broader. Economics has "hardened" as its proponents learned to use data more carefully and to reason more rigorously -- much early post-war work seems sloppy in retrospect.

The policy message has been turned upside down. Gone is the idea that development is industrialization and that the main policy problem is to manage the interface between country and city. It is viewed today as an integrated 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 : over-hasty modernization has often proved counter-productive.

More than ever, development is seen as a "whole replacement" process, the key to which is mastery of Northern technology. The latter is now understood to be both simpler and more complex than had been thought. Simpler because much technology is uncomplicated, complex because even simple technology requires ingenuity and a costly investment in adaptations.

The most important change has however been a radical change in economists' view of market agents and policy makers. Gone are the days when they thought that their advice should be aimed primarily at planners. Policy makers 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 modified by evocation of the rather vague concept of "governance", according to which the economists' task is to help design a system of interacting state and private institutions which, led by the state, cooperate in achieving social goals. Whether something useful will come out of this line of thinking is to be seen.

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90 The recent Bre-X affair provided an unusually explicit illustration of the ability of "gate keepers" to appropriate a part of entrepreneurial profit. The country's President secured for himself a 40 percent share of what was advertized as the largest gold deposit ever discovered, paid nothing and thus lost nothing when it turned out that no gold had been found (*Financial Times*, "All in the Game for the Suharto Clan," May 8, 1997, which cites the head of the President's investment trust).

91 The development of Korea's shipbuilding industry is an example of an excellent decision of planners.

Study of the *Handbook* has convinced me that there are major gaps in our understanding of development. Building on Sen's formulation of how development should be assessed, I discussed two areas for study. One is collective action, a far more pervasive component of human action than is realized. The other is the selection of roles by individuals and the costly self-investment that this entails. This concept may shed light on Schumpeter's well known but little studied entrepreneur.

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