

THE OLD GENERATION OF DEVELOPMENT ECONOMISTS AND THE NEW

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Toward the end of the 19th century, in an article entitled "The Old Generation of Economists and the New" (*Quarterly Journal of Economics*, January 1897), Alfred Marshall wrote a retrospective review of economic theory in terms of "the relation to which the older generation of economists, which is coming near the close of its activity, stands to the work which appears to lie before the coming generation." [Marshall, 1897:115]. Now, as the 20th century nears its end, we may attempt a similar – but narrower – exercise for development economics. This paper does so by appraising the progress in the evolution of ideas made by the first two generations of development economists (roughly, 1950-75 and 1975-present), and by focusing on the unsettled questions and unfinished tasks for the new generation. The intention is not to present yet another survey of the literature,¹ but rather to offer a subjective summary appraisal of the past and future of the subject from the viewpoint of the "older generation."

1. The First Generation

After World War II, the subject was thrust upon economists as newly independent governments in emerging countries sought advice for the acceleration

¹For comprehensive surveys of the literature, see the Handbook of Development Economics, vol. I (Amsterdam: North Holland, 1988), edited by Hollis Chenery and T.N. Srinivasan; Vol. II (1989); vols. IIIA and IIIB (Amsterdam: Elsevier, 1995), edited by Jere Behrman and T.N. Srinivasan.

of their development. Political independence could be obtained from Whitehall, but for economic independence the new governments turned to economists in Britain and America. As a discipline, however, the subject of development economics had to be newly founded, or rediscovered.²

At its outset in the 1950s, development economics was more confident than now. It started with grand models of development strategy and with a correlative role for extensive government involvement in development programming or planning. The models were visionary – looking to the requirements for accelerated development. The objective was an increase in per capita real income. Because population – the denominator – was increasing, the emphasis had to be on a rapid rate of growth in GDP – the numerator. As the necessary requirement, capital accumulation was the central focus of the models. Although originally formulated for conditions of full growth in an advanced economy, the Harrod-Domar approach was applied to estimate the capital requirements of less developed countries (LDCs). (The Harrod-Domar condition for the necessary growth rate of the capital stock was $\dot{k}/k = s/v$, where \dot{k} is growth in capital, k is capital, s is the saving rate, and v the capital-output ratio. Or s/v for the growth rate of output where v is the incremental capital-output ratio).

²Although classical economists were concerned with economic growth and the "progressive state", interest ended with the marginalist revolution of the 1870s. At the start of modern development economics, Arthur Lewis could introduce his *Theory of Economic Growth* (1955) by saying "A book of this kind seemed to be necessary because the theory of economic growth once more engages world-wide interests and because no comprehensive treatise on the subject has been published for about a century. The last great book covering this wide range was John Stuart Mill's *Principles of Political Economy* published in 1848."

Lewis began lecturing on development economics at the University of Manchester in 1950; the first seminar on development at the University of Oxford was offered by Hla Myint in 1950; at Harvard and Yale, the subject was introduced in 1952-53. Through the 1950s, there was also a growing list of journals devoted to economic development: as reported in the Index of Economic Articles, the number of development articles tripled in the decade 1950-54 to 1960-64.

Growth accounting also emphasized the contribution of capital. The simple Solow (1957) decomposition of growth into factor contributions and a residual was based on a differentiation of a production function, $Y=F(K,L,t)$, where Y is output, K capital, L labor, and t time, to form

$$\frac{\dot{Y}}{Y} = \left(\frac{F_K K}{Y} \right) \frac{\dot{K}}{K} + \left(\frac{F_L L}{Y} \right) \frac{\dot{L}}{L} + \frac{F_t}{Y}$$

The contribution of capital accumulation to growth is measured by (\dot{K}/K) multiplied by the share of capital in national income. (Stern 1991: 257-58.) The residual – or total factor productivity (TFP) – was left to be explained exogenously by technical progress.

Capital accumulation was also featured in other early models of development strategy: Rostow's "stages of growth", Nurkse's "balanced growth", Rosenstein-Rodan's external economies and "big push", Lewis' unlimited supply of labor and dual sector model, the Prebisch-Myrdal-Singer hypotheses about the terms of trade and import substitution, Leibenstein's "critical minimum effort" thesis, and Chenery's "two gap model".³

The models and hypotheses had policy implications that called for strong state action. To many of the early development economists, a less developed economy was characterized by pervasive market failure. To correct or avoid market failure, they advocated central coordination of the allocation of resources. The newly expanding subject of welfare economics also provided considerable rationale for government to correct market failures. Further, the structuralist school criticized

³See Gerald M. Meier and Dudley Seers, eds., *Pioneers in Development* (New York: Oxford University Press, 1984).

the market price system by emphasizing rigidities, lags, shortages and surpluses, low elasticities of supply and demand, structural inflation, and export pessimism.⁴

Believing that a less developed country did not have a reliable market price system, that the supply of entrepreneurship was limited, and that large structural changes – not merely marginal adjustments – were needed, the first generation of development advisers turned to the state as the major agent of change. Government was to promote capital accumulation, utilize reserves of surplus labor, undertake policies of deliberate industrialization, relax the foreign exchange constraint through import substitution, and coordinate the allocation of resources through programming and planning.

A growing number of visiting missions and foreign advisers cooperated with local planning agencies and industrial development corporations in producing analyses and policy recommendations underlying national development plans. To provide tests for the consistency, balance, and feasibility of plans, they utilized modern techniques of economic analysis – especially input-output analysis, dynamic programming, and simulation of growth models.

The advocacy of inward-looking policies derived from a belief that export earnings were inelastic. This gave support to the two-gap model in which extra savings cannot be converted into imports of capital goods and is therefore frustrated, structural inflation in which the marginal propensity to import exceeds the marginal propensity to export, and balanced growth.⁵

⁴The first generation had also been influenced by their experience with the Soviet way of industrialization, the practice of national economic management during the Great Depression, wartime mobilization of resources, and the government-to-government assistance under the postwar Marshall Plan for the recovery of Western Europe.

⁵ W. Arthur Lewis, "Development Economics in the 1950s," in Meier and Seers, op. cit., p. 127.

At the same time as pessimistic conclusions were reached about the LDC's capacity to export primary products and to pursue export-led development, optimistic conclusions were expressed on the capacity to accelerate development through the extension of the public sector and wide-ranging governmental policies. This combination of external pessimism and internal optimism dominated the thinking of the first generation.

With these macro-strategies it was believed that government could accomplish a structural transformation in the developing economy. Government would give reality to the slogans of the first generation by breaking the "vicious circle of poverty" via a "big push" and "balanced growth" that would establish complementarity in demand, achieve a "critical minimum effort," break out of the "low level equilibrium trap," and fulfill the conditions of the "take-off".

Both the models and the policy advocacy of the first generation were subsequently criticized. The models lacked sufficient empirical content. Moreover, as Krugman observes, the development theorists in the 1950s were "at first unable, and later unwilling, to codify [their insights] in clear, internally consistent models. At the same time the expected standard of rigor in economic thinking was steadily rising. The result was that development economics as a distinctive field was crowded out of the mainstream of economics. Indeed, the ideas of 'high development theory' (of the 1950s) came to seem not so much wrong as incomprehensible."⁶

For the offering of policy advice, "grand theories" came to be viewed as less useful than highly specific applications. Micro studies – rather than the broader

⁶Paul Krugman, "Towards a Counter-Counterrevolution in Development Theory" Proceedings of the World Bank Annual Conference on Development Economics, supplement to World Bank Review (1992), p.29.

visionary models of the earlier period – could provide more direct policy implications for specific policies such as a change in tariffs or agricultural subsidies.⁷

Further, in the 1960s, the initial concentration on physical capital accumulation was giving way to the concept of investment in human capital and its implications for development. It was increasingly recognized that development depended on productive human agents who through their acquisition of knowledge, better health and nutrition, and increase in skills could raise total factor productivity.

Above all, criticisms of the early models were reinforced by experiencing the adverse effects of government interventions. Economists became increasingly disenchanted with development programming or planning. Despite the optimism of the earlier generation and the deliberate efforts of governments to accelerate development, it became only too painfully evident in many countries that mass poverty persisted, more people were unemployed or underemployed, the numbers in “absolute poverty” increased, and the distribution of income and assets became more unequal.

To explain these disappointments, many blamed the policy-induced distortions and the non-market failures resulting from public policies. Particular criticisms were levied at the neglect of agriculture, the inefficiency of state owned enterprises, the adverse effects of import substitution industrialization, and balance of payments deficits.

In 1952, Arthur Lewis could say: “Planning in backward countries imposes much bigger tasks on governments than does planning in advanced countries. The government has too many things which can in advanced countries be left to

⁷Kenneth Arrow, “General Economic Theory and the Emergence of Theories of Economic Development,” in The Balance between Industry and Agriculture in Economic Development, vol. 1, (London, Macmillan, 1988).

entrepreneurs. It has to create industrial centers, to put through an agricultural revolution, to control the foreign exchanges more strictly, and in addition to make up a great leeway of public services and/or ordinary economic legislation. And all this has to be done through a civil service that is usually much inferior to that of an advanced country. Why then do backward countries take more readily to planning? Because their need is also so obviously much greater. And it is also this that enables them to carry it through in spite of error and incompetence. For, if the people are on their side, nationalistic, conscious of their backwardness, and anxious to progress, they willingly bear great hardships and tolerate many mistakes, and they throw themselves with enthusiasm into the job of regenerating their country. Popular enthusiasm is both the lubricating oil of planning, and the petrol of economic development – a dynamic force that almost makes all things possible.⁸

By the late 1960s and early 1970s, however, deficiencies in industrial programming and comprehensive planning became acute. Former supporters of development planning began to lament the Crisis in Planning.⁹ Critics now pointed to the causes of government failure: deficiencies in the plans, inadequate information and resources, unanticipated dislocations to domestic economic activity, institutional weaknesses, and failings on the part of the administrative civil service.¹⁰

If the rationale of government interventions had been to remedy market failure, the perverse result was only too often government failure. This was

⁸W. Arthur Lewis, The Principles of Economic Planning, rev. ed. (1952), p.128.

⁹P. Streeten and M. Lipton, The Crisis of Indian Planning (London: Oxford University Press, 1969); M. Faber and D. Seers (eds.), The Crisis in Planning (London: Chatto & Windus, 1972).

¹⁰Tony Killick, "The Possibilities of Development Planning," Oxford Economic Papers (July 1976), p. 164. See also S. Chakravarty, "Development Planning: A Reappraisal," Cambridge Journal of Economics (March 1991).

increasingly evident in the adverse effects of price distortions – distortions that were especially prevalent in wage rates, interest rates, and the foreign exchange rate. The policy challenge now became: “get prices right.” As Timmer expressed it, “getting prices right” is not the end of economic development, but “getting prices wrong” frequently is.¹¹ The logic of choice was again reasserting itself in economic analysis. And the second generation of development economists were now to support a “resurgence of neoclassical economics.”¹²

2. The Second Generation

If the first generation of development economists were visionary and dedicated to grand theories and general strategies, the second generation was almost moralistic and dedicated to a somber realism grounded on fundamental principles of neoclassical economics. As Harberger said to governments of developing countries, “Economics is good for you” – and by Economics, he meant neoclassical analysis as the basis for policymaking. [Harberger, 1993]

Governments were admonished not only to remove price distortions but also to “get all policies right.” Markets, prices and incentives were to be of central concern in policymaking. It had become evident that economic rationality characterizes agents in the LDCs as well as in the more developed countries. Claiming that the usual postulates of rationality and the principles of maximization or minimization have general applicability, some emphasized the universality of neoclassical economics and dismissed the claim of the first generation that

¹¹C. Peter Timmer, “Choice of Techniques in Rice Milling in Java,” Bulletin of Indonesian Economic Studies (July 1973).

¹²Ian M.D. Little, *Economic Development*, (New York; Basic Books, 1982), chs. 9-10.

development economics is a special sub-discipline in its own right. Krueger, for example, maintained that:

"Once it is recognized that individuals respond to incentives, and that 'market failure' is the result of inappropriate incentives rather than of non responsiveness, the separateness of development economics as a field largely disappears. Instead, it becomes an applied field, in which the tools and insights of labor economics, agricultural economics, international economics, public finance and other fields are addressed to the special questions and policy issues that arise in the context of development.¹³

In accord with neoclassical economic theory, the second generation moved from highly aggregative models to disaggregated micro studies where the units of analysis were production units and households. More emphasis was placed on the use of quantitative analytical tools, especially for empirical analysis of micro-phenomena that was country-specific, or sectoral-specific, or project specific. The greater availability of micro data sets allowed the modeling of household behavior and human capital investments in education and health.

Studies concluded that how capital is allocated is more important than the level of capital accumulation. Despite high rates of saving, as in India, growth could be slow: high rates of saving were seen to be neither necessary nor sufficient for success. Recognizing the importance of the allocation of capital, analysts began to give attention to banks and other credit institutions that screen among loan applications and monitor how the loanable funds are allocated.¹⁴ Techniques of shadow pricing that lay behind project appraisal were also refined.

¹³Anne O. Krueger, "Aid in the Development Process," World Bank Research Observer (January 1986): 62-63.

¹⁴Joseph E. Stiglitz, "Alternative Tactics and Strategies for Economic Development," in Amitava Krishna Dutt and Kenneth P. Jameson (eds.), New Directions in Development Economics (Aldershot: Edward Elgar, 1992), pp. 67-68.

In earlier concepts of the aggregate production function, the "residual" was thought of as a coefficient of technical advance. The second generation, however, looked at the growth process in a more microeconomic fashion. The residual was recognized to be a composite of the effects of many different forces: (i) improvements in the quality of labor through education, experience and on-the-job training; (ii) reallocation of resources from low-productivity to higher-productivity uses, either through normal market forces, or through the reduction of barriers or distortions; (iii) exploitation of economies of scale; (iv) improved ways of combining resources to produce goods and services, not just at the level of new machines or processes, but also by relatively mundane adjustments at the level of the factory or the farm."¹⁵

Numerous studies criticized price distortions, high effective rates of protection, and rent seeking. Not differences in initial conditions but differences in policies were now to explain the disparate performances of developing countries. A country was not poor because of the vicious circle of poverty, but because of poor policies. Not adverse external conditions, but inappropriate domestic policies explained why some countries were not taking advantage of their external economic opportunities. In these terms, the east Asian newly industrializing economies were viewed as the success stories of development.

The correct policies were to move from inward-looking strategies to the liberalization of the foreign trade regime and export promotion, to submit to stabilization programs, to privatize state-owned enterprises, and to follow the dictates of the market-price system. Through its guidance to the correct policies,

¹⁵Arnold C. Harberger, "The Cost-Benefit Approach to Development Economics," World Development, vol. ii, no. 10 (1983), pp864-66.

neoclassical economics was believed to be the safeguard against policy-induced distortions and nonmarket failures.

With the questioning of how strategic is the role of physical capital, more emphasis has been placed on human capital – to creating agents who can become more productive through their acquisition of knowledge, better health and nutrition, and increase in skills. The focus is on knowledge as a source of increasing returns. Long ago at the beginning of the 20th century, Marshall had stated that “although nature is subject to diminishing returns, man is subject to increasing returns...Knowledge is the most powerful engine of production; it enables us to subdue nature and satisfy our wants.” Now, at the end of the 20th century, this view is reiterated in the new growth theory that treats knowledge as a non rival good and emphasizes aggregate non convexities associated with investment in “knowledge” capital.¹⁶ The “new growth theory” is not literally new, but it does emphasize “newness” in production functions and in the goods produced. The introduction of new goods is important to development and represents total conditions (the introduction of an industry) rather than neoclassical marginal conditions (the production of additional units).

With its emphasis on knowledge and ideas, the new endogenous growth theory of the 1980s and 1990s constituted a marked change in the analysis of aggregate production functions. [Romer, 1986, 1989, 1990; Lucas, 1988]. Instead of the early Solow version of diminishing marginal returns to physical capital and labor separately and constant returns to both inputs jointly, and technological progress as a residual, the new growth theory examines production functions that show increasing returns because of an expanding stock of human capital and

¹⁶Again, in an earlier period, J. M. Clark observed that “knowledge is the only instrument of production that is not subject to diminishing returns.” Studies in the Economics of Overhead Costs, (Chicago: University of Chicago Press, 1923), p. 120.

specialization and investment in "knowledge" capital. Technological progress and human capital formation are endogenized within general equilibrium models of growth. New knowledge is generated by investment in the research sector, and the technological progress residual is accounted for by endogenous human capital formation. With knowledge being treated as a non-rival good, spillover benefits to other firms may then allow aggregate investment in knowledge to exhibit increasing returns to scale. This in turn allows investment in knowledge capital that generates the positive externalities to persist indefinitely and to sustain long-run growth in per capita income.

"Learning by doing" [Arrow, 1962] and "learning by watching" [King and Robson, 1989] are also knowledge-producing activities. For developing countries, the implication of the new growth theory is to place more emphasis on human capital (including learning), even more than on physical capital, and to emphasize the benefit from the exchange of ideas that comes with an open economy integrated into the world economy. The new growth theory also has relevance for the question of convergence – that is, whether poor countries grow faster than rich countries.¹⁷

Being able to consider two or three decades of development experiences, the second generation recognized the increasing heterogeneity of the LDCs and gave more attention to an explanation of differential rates of country performance. Cross country econometric studies of the determinants of economic growth multiplied. A comparative approach was also adopted in an attempt to understand why certain policies were effective in a country, while others were not, and why the same type of policy was effective in one country, but not in another.

¹⁷For an instructive empirical study, see Robert J. Barro, "Economic Growth in a Cross-Section of Countries," Quarterly Journal of Economics, May 1991, 407-43.

Moreover, the inquiry into the causes of differential development performance led to more attention to the politics of policy making. Elements of a "new political economy" (NPE) – a positive theory of politics – were formulated. The analytical concepts and principles for interpreting why governments do what they do are analogous to those of neoclassical economic analysis. Postulates of rationality, the concept of self-interest or self-goal choice, and the techniques of marginal analysis and equilibrium outcomes have been applied to political markets and political objective functions. Whereas the first generation followed the usual approach of normative economic analysis that assumed that the government is composed of Platonic guardians and that the state acts benevolently in seeking the public interest, proponents of the "new political economy" now focus on other types of states – the Leviathan state, bureaucratic state, or factional state. Whereas government to the first generation was an exogenous force, the new political economy now attempts to endogenize the decisions of politicians, bureaucrats, and administrators. It attempts to open windows in the black box of the "state" by using various strands of thought: public choice, collective choice, transaction costs, property rights, rent seeking, and directly unproductive profit-seeking activities.

Whether a Leviathan, bureaucratic, or factional model of the state is used, the thrust of the new political economy is that an underdeveloped economy has commonly given rise to an overextended state and to a negative or exploitative state. This implication appears in writings on price distortions (rent-seeking and directly unproductive profit-seeking activities), state-owned enterprises (patronage and bureaucracy), financial repression (politicized credit allocation and cheap credit to supporter), agricultural markets (pro-urban bias), inflation (populism), tariffs, and quotas (lobbying).

A major modification of neoclassical analysis occurred in the 1980s and 1990s when "new market failures" were analyzed. The recognition of informational

limitations, incomplete markets, transaction costs, and absence of future markets extended the range of market failures beyond the earlier attention to public goods and externalities that required only selective government intervention. Risk and information imperfections in the economy became highly relevant for development analysis. Correction of the new market failures provided a basis for a potential role for more pervasive government intervention.¹⁸ In the 1990s, however, more emphasis was given to government failures than market failures, and concern with policy reform dominated.

The recognition of risk and information imperfections did, however, improve analysis of two sectors that had been relatively neglected by the first generation--namely, agriculture and finance.

Countering the first generation's emphasis on industrialization, the second generation emphasized policies that would promote the important role that agriculture must play in the process of structural transformation. The effects of government intervention in agricultural pricing became a major concern. Numerous studies presented evidence that agricultural-pricing policies had an adverse effect on the gap between urban and rural income, the incentive to produce food and export crops, the ability of governments to establish food reserves, and employment opportunities in farming, processing, and rural industries. The theory of rural organization was advanced through the use of information, risk, and contract analyses.¹⁹ The microeconomics of the rural sector examined the organization of

¹⁸Stiglitz, op cit, 58-59.

¹⁹Stiglitz, "The New Development Economics," World Development 14, no. 2 (1986): 258-61; Hans P. Binswanger and Mark R. Rosenzweig, Contractual Arrangements, Employment and Wages in Rural Labor Markets, (Agricultural Development Council, 1981); A. Braverman and J.L. Gausch, "Rural Credit Markets and Institutions in Developing Countries," World Development, 14, no. 10/11 (1986): 1253-62.

labor, land, and credit markets – and also their interlinkage. The decision making of members of rural households was also studied from the perspective of the maximization behavior of a “household-firm.”²⁰

Financial institutions and financial markets had also been neglected by the first generation. A too facile approach had been taken in the spirit of Joan Robinson’s comment that “where enterprise leads, finance follows.” Based on experience with financial bottlenecks and financial repression, the second generation was concerned with the design of financial systems that would allow the banking system and money and capital markets to perform their proper functions in financial intermediation between savers and investors, and in efficient investment allocation. “New market failures” also gave due weight to transaction costs, adverse selection, and moral hazard in an analysis of capital market imperfections and the requirements for more effective financial policies.²¹

The second generation’s recognition of new market failures has also renewed interest in the first generation’s models that were concerned with issues of investment allocation and coordination activities. So too have elements of the new growth theory (knowledge, externalities, dynamic increasing returns), the new institutional economics (information, contract, response to missing markets), and the new international economics (imperfect competition, strategic trade theory). This new or extended neoclassical analysis provides a basis for increasing returns and coordination of externalities resulting from capital accumulation. As such, there is a return to the first generation’s emphasis on the importance of increasing returns and pecuniary external economies arising from the effects of market size.

²⁰Inderjit Singh, Lyn Squire, and John Strauss, “A Survey of Agricultural Household Models,” World Bank Economic Review, vol. 1, no. 1, September 1986: 149-54.

²¹Joseph E. Stiglitz, “Financial Markets and Development,” Oxford Review of Economic Policy, 4 (4), 55-68.

As Krugman now concludes, "intellectual credibility" can be restored to a useful set of core ideas from the early analysis of the 1950s. "What was ironic was that a competitive neoclassical orthodoxy settled in on the development front just as the orthodoxy was breaking up in other fields. We can now see that whatever bad policies may have been implemented in the name of high development theory, the theory itself makes quite a lot of sense. Indeed, in some ways it was a remarkable anticipation of ideas that would come to analytical fruition thirty years later in the field, for example, of international trade and economic growth."²²

Although a more meaningful case can now be made for a "big push" or "balanced growth", the experience with government failure has remained dominant in weighing against government intervention. The common consensus in the 1990s is for the promotion of policy reform. The state is believed to be overextended. A market price system is needed to get prices right. And now to get policies right, there is a need for stabilization, liberalization, deregulation, and privatization. Supporting these policies are the IMF's requirements of conditionality and the World Bank's structural adjustment lending.

Finally, to get prices right and to get policies right, there is increasing recognition of the need to "get institutions right." But the model of the competitive ideal world is essentially institutionless and provides little guidance on the establishment of efficient markets. As North observes [1997], we now know a good deal about what makes for successful development, but we still know very little about how to get there – especially how to establish the institutional and organization structure that will support the desired rate and composition of economic change.

²²Paul Krugman, "Towards a Counter-Counterrevolution in Development Theory," World Bank Economic Review Supplement (1992): 29.

Although at the end of the 20th century, the second generation of development economists leaves the subject in a far more advanced state than it was at mid-century, there is clearly much unfinished business and many unsettled questions to be considered by the new generation.

3. The New Generation

It would be presumptuous and unrealistic to dictate a future research agenda, but we may suggest some central topics that deserve the consideration of future development analysts.

It may, however, be questioned whether the future will justify a separate sub-discipline of "development economics." Will not the future analysis of development be simply equivalent to the application of universal economic principles? In noting the decline of development economics, Hirschman [1981] has pointed to a dominance of monoeconomics. Kreps [1997: 65-66] has also characterized economics since World War II as having "a single methodological tongue" of mathematical modeling and a "sparse set of canonical hypotheses" that became the maintained hypotheses in almost all branches of the subject.²³ But as long as the LDCs have characteristics that distinguish them from more developed countries, a sub discipline of development economics will be relevant. And even though there is a set of basic economic principles, their particular application to any one country will depend on the economic structure, institutions, political regime, administrative capacity, culture, and history of the particular country. As Bliss states,

"general economic principles are precisely too general to give us insights into applications for less developed economies. Alone, the parts of economic theory and

²³But Kreps [1997] recognizes that, after narrowing the issues addressed, in recent years "the field seems to be returning to something like the breadth of the discipline before World War II." (p. 66).

method they apply more or less universally tell us less than we need in particular application. To give them life they have to be enlarged and translated. When this is done a specialty is created. Development economics consists in part of the refinement of general economics to deal with questions which arise in the context of development, and partly of certain special ideas which have proved useful in studying developing countries."²⁴

We should also realize that the transfer of ideas between mainstream economics and development economics is not only one way, but that development economics can contribute new insights for economics in general [Bardhan, 1993].

Given then the future existence of distinctive issues in development economics, the new generation must still begin with an understanding of the meaning of "economic development". The earlier generations meant growth plus change, leading to an increase in per capita real income (or in a purchasing power parity index per capita income). Sen has expanded the meaning of development in terms of "entitlements" and "human capabilities." So too has the UNDP's Human Development Index included other objectives besides per capita income. The conception of "development" may acquire even wider meaning in the future, incorporating for the purpose of better governance such objectives as civil liberties, popular participation, and democracy. Although specific strategies will be necessary to achieve the non-monetary objectives, growth and change will continue to be central to any explanation of the determinants of development.

Advancement in determining the sources of growth has been notable. Given the importance of total factor productivity, however, future research will have to increase our understanding of the "unexplained residual factor" in aggregate

²⁴Christopher Bliss, "Trade and Development" in *Handbook of Development Economics*, vol II, op. cit., p.1188.

production functions. As Stern observes, " We seem to have too many theories claiming 'property rights' in the unexplained 'residual,' and have no reassurance that any of them, separately or together, really capture what is going on. Just as worrying is that they omit many issues which are probably crucial to growth in the medium run, including economic organization and the social and physical infrastructure." [Stern 1991:131] Beyond disaggregating the residual into recognizable elements, attention will have to be given to how these elements are to yield to policies. Many policies that economists have considered bear on the supply of inputs, but it will be a more difficult challenge to devise and implement policies to promote the income-raising forces constituting the residual.

To explain the residual in growth accounting or TFP, refinement and extension of the new growth theory will be a major task for the new generation. Central policy questions remain to be answered by endogenous innovation models. If deliberate technical progress is to be achieved, what is the institutional design that will motivate behavior for the creation of knowledge? What is the search mechanism for the discovery of the most productivity-enhancing ideas? Can the sectors or locations be identified where the spillover effects may be large? And with globalization, what are the extensions of endogenous growth theory to international trade, international capital flows, and the international diffusion of ideas? Given their increasing openness, the developing economies will be most affected by the international aspects of the new growth theory. More extensive analysis will have to be given to the non-convexities involved in the process of diffusion and adoption of new goods and techniques in a developing economy.

Not only the rate of growth but also the pattern of growth is relevant – especially for greater understanding of the role of income distribution in the process of development. The persistence of poverty – even with creditable rates of growth – is the shame of inadequate development policy. The World Bank estimates that approximately 1.3 billion people in the developing world will be consuming less

than \$1. a day (at 1985 prices) by the year 2000.²⁵ If poverty is to be reduced, future analysis will have to give more attention to how the pattern of growth determines who are the beneficiaries of growth. Patterns of growth will have to be designed that avoid urban bias, displacement of unskilled labor, alteration of relative prices to the disadvantage of the poor, gender gaps, deterioration of child welfare, and the erosion of traditional entitlements that have served as safety nets. Moreover, insofar as experience indicates that economic growth does not always lead to widespread improvement in standards of health and education, policies that differ from those for simply increasing income will have to be devised to improve the health and educational attainment of the poor. [Squire, 1993: p. 379]

When forces in certain types of growth regimes can plunge some groups into poverty, it becomes all the more essential to devise governmental policies that are adequate to lift them out of poverty. A central problem of development will remain surplus labor. The need to create jobs will be especially pressing, given that the world's labor force will increase by 40% over the next two decades, and 95% of the increase will be in the LDCs where less than 15% of the world's capital investment will occur.²⁶ To reduce poverty by increasing productivity and earnings, government will have to devise appropriate policies in four crucial sectors of the economy: the rural sector, urban informal sector, export sector, and the social sector.

To understand the heterogeneous experience of developing countries, it will be necessary to appreciate the role of institutions more fully. It is common to say that institutions matter. And to overcome dualism and establish a robust market

²⁵World Bank, Implementing the World Bank's Strategy to Reduce Poverty (1993), p.7.

²⁶Lawrence Summers, "Research Challenges for Development Economists," Finance & Development, September 1991, p.5.

price system, it is now common to say "get institutions right." But what is the meaning of "right"? And how are the right institutions to be established? These are important questions for the new generation's research agenda.

Some preliminary insights have been offered by North (1997) and Williamson (1994). North emphasizes that the incentive structure of society – which is fundamental for the process of change – is a function of the institutional structure of that society. Institutions are the rules of the game: formal rules (constitutions, law, regulations) and informal constraints (norms, conventions and internally devised codes of conduct). Similarly, Williamson interprets the new institutional economics from the perspective of the institutional environment – i.e., the macroanalytics of political and legal rules of the game – and from the microanalytic perspective of the firm and market modes of contract and organization. Based on the objective of economizing transaction costs, the latter establish institutions of governance of contract, investment, and private ordering. There are alternative modes of organization: markets, hybrids, hierarchies, public bureaus. Each mode establishes different incentives and controls that lead to different degrees of cooperation and/or competition, credible investment conditions, and credible contracting.

Neoclassical institutional economists have tended to focus on allocative efficiency-improving institutions and have considered relative price changes to be the main motive force for institutional changes. [Bardhan, 1989: 1391-93] Institutional change, however, also involves a redistributive change. This raises issues of collective action, bargaining power, class capacity, and political processes that neoclassical institutional economics has ignored.

The future concern with institutions may also revise and extend the dual sector model of earlier generations. Early on, Myint (1985) suggested that dualism is pre-eminently a phenomenon of an underdeveloped organizational framework, characterized by an incomplete development, not only of the market network but

also of the administrative and fiscal system of the government. Contrary to the second generation's reliance on the limited neoclassical analysis of a two-sector model, the concept of "organizational dualism" moves the policy implications away from "getting prices right" to an examination of what constitutes the development of appropriate institutions.

Further, North's contention that cultural beliefs are a basic determinant of institutional structure should also move the explanation of the process of change into a multidisciplinary endeavor. Not economics, but psychology, sociology, political science, anthropology, law and history must provide the answers to what are the origins of cultural beliefs and how they lead to institutional change over time. Only a beginning has been made in this area.

Analysis of the foregoing issues – and others such as those involving gender or the environment – would all benefit from multidisciplinary attention. It is important to correct the economists' assumptions about institutions and motivations that have been generally derived from only western societies. The social infrastructure that underlies the process of development will merit deeper analysis. So too will the contribution of socio-cultural development and political development to economic development. Insofar as the elucidation of institutional change must go beyond the perfect competition and rational choice framework of neoclassical analysis, development theory will not be locationless, as it was in large part for the second generation, but will have to be more country-specific and time-specific.

It will be especially important to achieve a better understanding of the evolution of financial institutions in the process of a country's development.

Regarding banks and other credit institutions, Stiglitz [1992:69] has said:

"There seems an almost universal under-appreciation of the importance of the role played by these institutions in our society...Recent work on the economics of information has led us to understand better that what used to be thought of as

'capital market imperfections' are simply the reflections of the informational imperfections which are endemic -- and which it is the social function of these institutions to address. However, the LDCs should be wary in concluding from these theoretical assertions that the government can do the job better. While the market allocations may well not be (constrained) Pareto efficient, there is little evidence that governments can -- without considerable thought about the design of appropriate institutions -- improve upon the allocations, and there is considerable evidence that it can do worse. What is more, the discretionary power resulting from charging below-market rates of interest gives those in the government assigned the task of allocating credit enormous power, which can and has been used either for the personal interests of these individuals or for the interests of the party in power."

The collapse of Asian financial markets in 1997 certainly reinforces this view. More generally, there is a need for more attention to the widespread problem of strengthening the social infrastructure and overcoming deficiencies in management and organization in the LDCs.²⁷

Issues of transparency in decision making, effective accounting, reliable legal system, avoidance of corruption, improvements in corporate governance, and state capability and credibility require more analysis. Some of this may come by establishing more linkages between development economics and the new institutional economics and organizational economics. Especially relevant will be more empirical research on problems of risk, uncertainty, incomplete property rights, information and transaction costs.

²⁷Cf. Stern, "The Determinants of Growth," Economic Journal (January 1991): 128-29. By "social infrastructure" is meant "the way in which business is done, rather than human capital. A system in which individuals behave dishonestly or where bureaucracy is obstructive, or where property rights are unclear may lead to a very wasteful allocation of resources in insuring against dishonesty, circumventing bureaucracy or enforcing property rights. The costs involved and the distortion of incentives may constitute serious impediments to growth"(p.128).

If institutional change is of prime importance in development, then the new generation might also gain significant insights from more attention to the history of the evolution of markets and economic institutions as integral components of the development process. More serious exploration of the effects of institutions and policies on economic development can be based on a merging of endogenous growth theory and economic history.²⁸

With Jeffrey Williamson [1991: 2-3] we may lament that:

"caught up in the urgency of contemporary crises, development economists today seem to be less interested in the big questions informed by economic history than was an older generation who eagerly read Kuznets when he began publishing his articles in *Economic Development and Cultural Change* in the 1950s. Indeed there seems to be a growing gap between contemporary development economics and economic history. What a great irony this is since we know far more about past industrial revolutions than we did three decades ago. To put it quite bluntly, economic history is far better equipped to educate contemporary debate in the less developed world than it was back in the 1950s and 1960s."

From the heterogeneous experience with development policy-making, it will be vital to know what has caused the positive "turning points" in policy reform in various countries. What forces induce political innovations? Policy reform requires political entrepreneurship, but a theory of political entrepreneurship is yet to come. For this, we must also look beyond economists to historians, social psychologists, and political scientists. Simplified public choice theory is insufficient, especially for the governments of LDCs. The analysis of development policy will have to identify

²⁸For an illuminating discussion of the fruitful two way relation, see N. F. R. Crafts, "Endogenous Growth: Lessons For and From Economic History," in David M. Kreps and Kenneth F. Wallis, eds., Advances in Economics and Econometrics: Theory and Applications, vol. II (Cambridge: Cambridge University Press, 1997), ch. 2.

the functional relationships between economic and non-economic factors, and their quantitative significance, in order to determine how to operate on incentives, attitudes, organizational structure, social relations, or any of the many other factors that connect noneconomic and economic change. Clearly, the future success of economic policies in achieving structural transformation will depend on a better understanding of how to achieve social and political transformations.

Moreover, as globalization deepens, new problems of undertaking national development in the context of an integrated world economy will become more prevalent. Even more than for the previous generations, open economy models will be the rule. And while previous international policy issues revolved around trade policy, the next generation will have to devote more attention to determining the effects of international capital movements, migration, and technology transfer.

The previous provocations of dependency thinking and a New International Economic Order are over. But there will be more controversy over whether globalization benefits the poor countries and whether it creates benefits for poor people within countries.²⁹ The next generation will have to sort out the positive and negative impulses resulting from globalization.

Insofar as markets, technology, and corporations are global in scope while the jurisdiction of the nation-state is only local, there will be a need for new actions by the World Bank, IMF, and WTO. As the major constituents of the international public sector, they will have to devise new programs to ensure that the benefits of global integration are more equally shared, that competitive policymaking is avoided, and that problems of incomplete risk markets are mitigated as international integration becomes ever more complex.

²⁹Some indication of this controversy is indicated in UNDP, Human Development Report 1997 (New York: Oxford University Press, 1997), ch. 4.

If the future of development economics is to be dominated by any one theme it will be, as in the past, that of the respective roles of the state and the market. But there will be new perspectives on the role of the state. The issue will not be market failure or government failure, as viewed from the neoclassical perspective. Instead, future analysis will have to recognize the new market failures, undertake cost-benefit analysis of government policies, and determine how state action can support the institution and deepening of markets.

The future is likely to witness a reaction to the minimalist state that was advocated by the second generation. True, the state should not be overextended. And it is true that government cannot engage in the direct production of consumer and producer goods better than the private sector, and cannot induce innovations and change better than the private sector. But government will still have extensive functions in dealing with the new market failures (imperfect information, imperfect and incomplete markets, dynamic externalities, increasing returns of scale, multiple equilibria, path dependence), providing public goods, satisfying merit wants such as education and health, reducing poverty and improving income distribution, providing physical infrastructure and social infrastructure, and protecting the natural environment.

The objective will be to have government do what government does best. The challenge will be to obtain the benefits of government action at the least cost.

Although past generations have regarded government and the market as alternative resource allocation mechanisms, it will be more useful to treat government as an integral element of the economic system, functioning sometimes as a substitute for and at other times as a complement to other institutional elements. The complementary relationship of state and market will have to be emphasized in policymaking. This will require more extensive analysis of what Aoki has termed a "market-enhancing" view that examines the role of government

policy in facilitating or complementing private sector coordination. "Government should be regarded as an endogenous player interacting with the economic system as a coherent cluster of institutions rather than a neutral, omnipotent agent exogenously attached to the economic system with the mission of resolving its coordination failures...In this view, government policy is not aimed directly at introducing a substitute mechanism for resolving market failures, but rather at increasing the capabilities of private sector institutions to do so."³⁰

Market-enhancing can take many forms – from indirect rule making that affects incentives to direct government interventions that structure markets. As an example of indirect rule making, Aoki and others have applied the market-enhancing criterion to the deepening of financial markets. [Hellmann et al. 1996] The government can support the banking system through deposit rate controls and restrictions on entry – that is, the exercise of financial restraint – thereby avoiding excessive competition and creating rents that would increase the franchise value to banks and induce banks to refrain from moral hazard and provide more effective monitoring of loans and risks. The general principle is that government action can facilitate private sector coordination and provide necessary incentives to the private sector by creating "contingent rents"--returns in excess of the competitive market, provided certain conditions are fulfilled (as for patents or export subsidies based on targets.)

In the future, the theory and practice of development policymaking should give much more consideration to this type of interdependence between state and market in a variety of policy situations.

³⁰Masahiko Aoki, et al. 1995. "Beyond the East Asian Miracle : Introducing the Market-Enhancing View," Stanford University, Center for Economic Policy Research, Discussion Paper no. 442, October 1995: 25-26.

Although the new generation may focus on these policy issues, their efforts will be to little avail if governments do not heed their normative conclusions. Why do governments not listen to development economists? And how can their policy advice be better implemented? These questions will be a major preoccupation of the next generation.

To answer them, the new (neoclassical) political economy provides a beginning in helping economists to understand the policymaking process, endogenize government, and identify the conditions that may be conducive to policy reform. But the new generation will have to go beyond a neoclassical type of analysis of political preference functions, political resources, and political constraints as applied to political markets.³¹

Although the NPE can provide insights into some instances of government failure, it is over-generalizing to maintain that all policy making can be explained in terms of rational choice self-interest models. Indeed, no single universal characterization of political behavior is possible. Instead of a unitary state, there is in reality an aggregation of preferences. Moreover, at times, altruism or some sense of the social good may be more operative than self-interest. Other social-psychological elements enter into decision making, especially when "bounded rationality" prevails. [Simon, 1957] Nor should insights from the old political economy be ignored: historical tradition, social structure, ideologies, and institutions can all influence policy decisions at the expense of rational choice models. And at times economic rationality can take precedence over political rationality.

³¹For a discussion of game theory as an analytical methodology that can be applied to political competition as well as market competition, see Roger B. Myerson, "Economic Analysis of Political Institutions: An Introduction," in David M. Kreps and Kenneth F. Wallis, Advances in Economics and Econometrics: Theory and Applications, Seventh World Congress, Vol. I, (Cambridge: Cambridge University Press, 1997), ch. 3.

Beyond its positive analysis, can the NPE also have predictive and normative value in promoting policy reform? The NPE is most robust in illuminating instances of government failure ex post. Its attention to policy reform ex ante has been almost negligible. The relative neglect in advocating political change for purposes of economic reform is because the NPE implies a minimal state. As Grindle states, the NPE "is weakened as an approach to understanding policymaking in developing countries and as a policy analytic tool by the assumption that politics is a negative factor in attempting to get policies right."³² In contrast, politics should not be viewed as "a spanner in the economic works, but as the central means through which societies seek to resolve conflict over issues of distribution and values. In such a perspective, politically rational behaviour would not be viewed as a constraint on the achievement of collectively beneficial public policy."³³

Crucial for policy reform is an understanding of what causes the successes of government policy. The NPE ignores what Grindle calls the "critical moments," the turning points when policy changes occur: for example, from import substituting policies to export promotion, from inflationary policies to successful stabilization, from financial repression to financial liberalization. The general problem in explaining turning points is to determine what are the forces that induce political innovations. But a theory of political entrepreneurship is not to be found in the NPE.³⁴

³²M. Grindle, "The Limitations of the New Political Economy: Positive Economics and Negative Politics," in Politics and Policymaking in Developing Countries, ed. Meier, p. 44.

³³*Ibid.*, p. 45.

³⁴See, however, the beginning of some illuminating political-economic modeling of policy reform: Dani Rodrik, "The Positive Economics of Policy Reform," American Economic Association Papers and Proceedings, vol. 83, no. 2 (May 1993): 356-61. Also, Gustav Ranis and Syed Akhtar Mahmood, The Political Economy of Development Policy Change (Oxford and Cambridge, MA: Basil Blackwell, 1992);

In the past, the critical moments and turning points have normally involved what Hirschman calls "pressing" problems.³⁵ Hirschman distinguishes between "pressing" problems and autonomously "chosen" problems. Pressing problems are those "that are forced on the policymakers through pressure from injured or interested outside parties." In contrast, chosen problems are those that decision-makers "have picked out of thin air" as a result of their own perceptions and preferences. Pressing problems are generally those in which a perception of crisis is apparent. The undertaking of policy reform involving large innovative changes tends to be induced by pressing problems. But we must now ask: do economists exercise sufficient influence over these large innovative changes?

Economists are most knowledgeable for situations susceptible to "ordinary" economic analysis. Such situations occur in a policy space characterized by incremental policy changes involving chosen problems. They are subject to more technical analysis and hence a "low" degree of politics (i.e., politics as usual). They involve an instrumental type of rationality (i.e., technical policy instruments as the means to achieve policy objectives). The perspective is from a society-centered type of policy (with government as a clearing house or broker among interest groups). And institutions are given or ignored. See the northwest quadrant in Figure 1, representative of ordinary economic analysis with a high understanding by economists of the policy-making process.

In contrast, when economists have to deal with situations involving large, innovative policy changes, they are called upon to advise in a political economy

Anne O. Krueger, Political Economy of Policy Reform in Developing Countries (Cambridge and London: MIT Press, 1993); John Williamson (ed.), The Political Economy of Policy Reform, (Washington, D.C.: Institute for International Economics, 1994).

³⁵Albert O. Hirschman, Journeys Toward Progress (New York: Twentieth Century Fund, 1963): 254-335.

context in which the economist has a lower understanding of the policy-making process. In this policy space (see the southeast quadrant in Figure 1), the problems are pressing problems. They are not amenable to as much technical analysis but instead are highly politicized. The rationality involved is of a constitutive type: that is, decisions have to be made about how decisions are to be made. A constitution is needed and an institutional context for decision-making has to be established. The policymaking process is more state-centered. And institutional structures need to change.

If the new generation is to become more influential in advising on how to correct nonmarket failures and overcome resistance to policy reform, they will have to give more attention to the policy situations represented by the south-east quadrant in Figure 1. Their task will be to make policy changes transparent by identifying the distribution of not only the economic, but also the political costs and benefits of policy changes and by identifying the gainers and losers. To promote policy reform, they will also have to examine feasible ways to compensate the losers, discover the possibilities for building supportive coalitions, and consider the scope for alternative institutional arrangements. It will be especially important to insulate policy makers from rent seekers and interest groups so that government can give more attention to the efficiency of the economy and less to distribution for favor-seeking groups.

The new generation needs more insights from both the old and new political economy in order to better understand the causes of differential development performance and how to institute policy reform. Going beyond the limitations of formal rational choice models, a richer analysis might be achieved by incorporating some concepts of the old political economy, such as nationalism, power, ideology, class, and relationship between state and society. Future research may provide a synthesis of the old and new political economy that will point up the possibilities of

policy changes including more political variables and a more favorable view of the political process.

So, too will more research be required to understand the nature of institutional change and its effect on development performance. In doing this, more attention will have to focus on the functions of markets, property rights, formation of contracts, information problems, organizational change and incentives. These concepts from the new institutional economics may also enrich the old and new political economy. They also relate to further illumination of Aoki's market-enhancing concept.

From this more comprehensive view of the policy-making process in practice, economists might be in a better position to advise on how to correct nonmarket failure and overcome resistance to policy advice. It is to be hoped that future research may allow the new generation of development economists to achieve greater understanding of pressing problems that are less tractable to technical analysis, more politicized, involve issues of constitutive rationality, and require institutional change. As analysts of development policymaking, the new generation may then move from the southeast quadrant of Figure 1 to the northeast quadrant.

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