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In Pursuit of a New Paradigm

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Not fare well
But fare forward, voyagers.
T. S. Eliot: *The Dry Salvages.*

After 40 years of its birth, development economics has come to be widely accepted – without universal acclaim. In sharp contrast to some pessimistic evaluations of the subject, the academic community has granted it the right to a separate existence. But the recognition has not come easy. From the first full-length evaluation of the discipline by Chenery (1965), in which he looks at it as a variation on the classical theme of comparative advantage, to Stern's (1989) sympathetic review of the contributions that the discipline has made to the state of economic knowledge, development economics has experienced many a vicissitude – both the laurels of glory and the "arrows of outrageous fortune". But, finally, it has become an industry in its own right, of which not only social profitability but also 'private' profitability appears to be strictly positive: the publishing industry continues to patronize it and publish full-length books on the subject. Four decades of development experience, the production of massive cross-country and time-series data about a large number of development variables, the construction of large macro-economic models and fast-running computers, and the application of mathematical methods, have all combined to lay the foundations of a theoretically rigorous and policy-relevant development paradigm, which is gradually replacing the old one. All this is good news for development economists, who can now afford not only bread but also some butter for their daily parsnips.

But, as Newton's Third Law of Motion has taught us, "to every Action there is always opposed an equal Reaction". Thus, quite expectedly, the agnostics (the so-called 'liberals') have stepped up their (intellectual) 'reactionary' activities in direct proportion to the gains made by development economics. The *etatisme* implied strongly by some of the earlier development doctrines – e.g., the "balanced growth", the "big push", "the minimum critical effort" – is held by them not only as the indelible birthmark of the sub-discipline, but as having defined its entire personality once and for all. Thus a proof – indeed, *any* proof – of the superior-

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ity of the free markets is taken as a decisive refutation of the *etatistic* development economics. [Haberler (1988).] For instance, the Pareto-optimality principle, of which development economics is not even a distant cousin, is cited as the real contender to the throne because the former implies a regime of competitive efficiency, which the latter does not always do. [Lal (1983).] Not only on the pages of the textbooks and scientific journals, but also in the real world – e.g., Eastern Europe, Soviet Russia, China, Japan, Southeast Asia – the market forces are seen to be defeating development economics. [Crook (1989); Little (1982).]

What, then, explains the survival of development economics through this ordeal by fire? The answer is, simply, that there never was any real fire in the alleged (intellectual) ordeal! At the logical level, the general proofs of government failure based on isolated instances of the triumph of the market over the government are in fact non-proofs because it is not permissible, by the (insoluble) Hume's problem of induction, to infer universal statements from singular statements. At the theoretical level, the Pareto-optimality principle has nothing to do with development economics; indeed, this alchemic rule has precious little to say on such pedestrian matters as economic growth in developing economies – or even in developed economies. At the empirical level, there is nothing to substantiate the charge that development economics "constitutes in itself a major obstacle to development in backward regions." [Walters (1989).] In fact, the developing countries, where development economics is taught, have grown reasonably fast (e.g., Pakistan, India), while some others have done so very fast (e.g., South Korea). Then, the developing countries of Eastern Europe, where the state-controlled *political* system has recently broken down, are not the ones where development economics has been either taught or practised; indeed, they do not learn much neoclassical economics either. Thus the political cataclysm in Eastern Europe could hardly be attributed to the economic thoughts which never found currency among the citizens of those countries! And, finally, if the developed countries have grown at a *lower* rate than many developing countries, it is not because of development economics, which was born *there*. Instead, it is due to the talismanic quackery of supply-side economics, which seeks to cure every economic ill, in the North or in the South, by invoking the "magic of the market" through the intermediation of tax cuts, Laffer curves, rational expectations, and Friedmanic monetarism.

But while development economics as a (sub-) discipline in its own right is in no danger of evaporating under the heat of liberalist ideas, it is a fact that in many vital aspects it is not what it used to be in the Fifties, and that it is undergoing a dynamic process of consolidation and change. The very meanings of development economics are being investigated – e.g., it is not commodity-centred but one based on capabilities and entitlements [Sen (1985)]; the objectives of the disci-

pline have become more comprehensive, not restricted to maximizing GNP alone, but maximizing instead a mixed bag like literacy, longevity, and income [UNDP (1990)]; the chatter of the balanced-unbalanced-growth controversy has all but died down; the strategy of development now appears to emphasize the growth of both the agricultural and the industrial sectors [Mellor (1986)]; and the canvas of the discipline is being widened to encompass the anthropological and the demographic considerations as well [Coale (1973); Sirageldin (1979); Khan (1989)]. Indeed, a lot more is happening.

But there is still quite a ground to be covered to make the subject not only academically rigorous but also useful for development policy. The first step in this direction is to steer clear of the supply-side economics and the associated magic of the market: the wiser course of action for development economics will be to stick to its own mixed-economy philosophy. That done, the informational base of the discipline must be considerably expanded by the use of methods made known by Klein (1983). Another fruitful line of advance is to incorporate explicitly ethical considerations into the corpus of development thinking in order to allow a discussion of the distributional aspects of the development process. All this is required to make the paradigm of development economics more consistent and complete – indeed, in the sense of Lakatos (1970), to make it a "progressive" scientific research programme.

I shall come to all these matters in the course of this Address; but let me first clear the classical Augean stables in order to put the state of the debate about our discipline in a clear focus.

THE ROOTS

The lineage of development economics has been variously described. Sen (1988) considers William Petty to be "certainly" the "founder of development economics" because of his earth-shaking observation that "the French grow too fast"! Arthur Lewis's (1984) archaeological explorations find the subject buried in the writings of Hume, Cantillon, Smith and Wallace, among others. Indeed, according to him, the lineage of our discipline goes farther back in time: "the theory of economic development established itself in Britain in the century and a half running from 1650 to Adam Smith's *The Wealth of Nations* (1776)". Thus, according to the father of development economics himself, many of the concepts of modern development economics were already in currency in those days – e.g., the principle that the size of the agricultural surplus and the availability of foreign exchange determine the size of the non-farm population; the concept of gains from trade; the distinction between tradables and non-tradables; the determination of net saving out of profit rather than wages; a significant promotional role for the govern-

ment, etc.

All this is interesting but not very useful in getting a hold on the distinctive character of development economics. Between the occasional concern among the classical economists about economic development in the days of yore and the many-sided, *perennial* intellectual activity of development economics in the modern times, there is only a tenuous link. The fact of the matter is that one does not have to go back more than fifty years or so to see the new discipline still in diapers. Its foundations were all but laid between Rosenstein-Rodan's "big push" conjecture (1943) and the celebrated Lewis's two-sector model (1954), based on the dual concepts of an unlimited supply of labour in the rural sector and a capitalist urban sector. In between, we have the Prebisch (1950); Singer (1950) export pessimism; Gerschenkron's pioneers'-latecomers' syndrome (1962); Nurkse's "balanced-growth" hypothesis (1953) and Mahalanobis's heavy industry advocacy (1953). And a little later, in 1958, comes Hirschman's "unbalanced growth" hypothesis.

In these contributions we have the first glimpses of a new 'paradigm', with economic development and not *just* allocative efficiency as its central theme. Such a concern with the *growth* of the key inputs (i.e., labour, capital) over time – rather than with their efficient use in a static economic framework – was dictated by conditions of extreme resource scarcity in the "initial conditions". Helped by a perfectly elastic (i.e., unlimited) supply of labour in the rural sector – resembling the Marxian reserve-army-of-labour – the process of economic development is initiated in the initial conditions, and then sustained along the growth path by continuous capital (saving) accumulation in the capitalist sector. All investing (saving) is done by the capitalists out of their profits. Hence, the rate of growth in dynamic equilibrium is determined by the profit rate multiplied by the capitalist's saving. In this formulation, the distribution of income is likely to worsen, at least initially – a hypothesis that received empirical support from Kuznets (1955) conjecture regarding the U shape of secular structural change. The process of growth, in a closed-economy framework – or in one nearly "closed" by excessive export elasticity pessimism, would be a "balanced" one in case of the elastic supplies of the key industrial inputs, making a maximum use of the horizontal and vertical interdependences between sectors. It will, however, be "unbalanced" if investment resources are assumed to be fixed with the explicit aim of attaining some kind of a dynamic balance – or of "exploiting dynamic external economies" [Scitovsky (1954)] – but it will happen only by suffering in the interregnum an appropriate dose of "creative tensions". This is borne out by the experience of the 'pioneers' (the Europeans) who, according to Rostow (1956); Ohlin (1959) and Gerschenkron (1962), grew by taking advantage of vertical interdependences between sectors. The 'latecomers'

can grow even faster than the teachers by learning from the latter's experience – and by drawing upon their "book of blue prints" of technical knowledge, *free of cost*. The state may have to intervene when the factor prices do not reflect the opportunity costs; when sizeable external economies exist; or when there are large complementarities between the sectors. The less are the opportunities of profitable international exchange, these factors will be the more important.

Development policy and, to some extent, development theory drew freely on the Keynesian (paradigmatic) Revolution and its immediate successor, the Harrod-Domar model. From the former, development economics also got the courage to declare independence – or, shall we say, autonomy? – from the mainstream classical economics. Not only that; some of the new discipline's intellectual armoury was supplied by concepts which were directly inspired by the Keynesian Revolution – e.g. the concept of "rural underemployment", a first cousin of the Keynesian unemployment equilibrium, and the vision of a mixed economy, with the state playing a dominant role to correct the strategic macro-economic imbalances that the market cannot do much about. However, cross-fertilization of ideas was the most intense with the Harrod-Domar model, wherefrom development economics borrowed, for keeps, its central concepts – i.e., of the national saving rate(s), the capital-output ratio(v), and the growth of the labour force(n), *without* falling in love with the foibles of steady-state growth paths. Not bothering much about the highly restrictive assumptions on which the Harrod-Domar model was based, development economists were more interested in the model's *predictions* – a Popperian methodological ploy also advocated by Friedman (1953), one that is now widely accepted by (the mainstream) economists. These predictions relate to the key role played by the growth of labour supply, which sets the upper limit on the sustainable growth rate of output, and to the basic result that, given a technologically fixed capital/output ratio and growth rate of employment, the economy can be made to grow twice as fast only if the saving rate is twice as high. (Note that the capital here is exclusively the *physical* capital.)

THE DEFECT OF HERITAGE

I may now recount some of the weaknesses in – indeed, the disabilities of – the development paradigm that I have just described. First, a basic weakness relates to the centrality of the saving rate in the process of growth – an aspect of the Harrod-Domar model that development economists accepted uncritically. It was not clearly understood that an increase in the *ex ante* saving rate will not translate into a corresponding increase in the *ex post* saving rate unless specific steps are taken by the Visible or the Invisible Hand to raise the *ex ante* investment rate as well. The correct proposition that a higher rate of growth of saving will enable

the economy to grow at a higher rate for some time was sometimes confused with the wrong statement that a higher growth of saving is required to achieve a *permanent* increase in the rate of output. As Solow (1988) points out, "... it is an impli cation of the diminishing returns that the equilibrium rate of growth is not only not proportional to the saving (investment) rate, but is independent of the saving (investment) rate."

Second, the crucial role of the technological process in generating a high enough (*ex ante*) rate of investment to raise output on a permanent (rather than on a transitory) basis was not clearly understood by the "pioneers" of development economics. Looking back, this appears to be a rather surprising omission because Solow's classic article (1957) showed clearly what is involved in correcting the built-in instability of the Harrod-Domar model, according to which all its three elements (n, v, s) are given constants for various reasons: the trick is to let the capital/output ratio vary due to technological change. But there is a deeper reason why technological change must be brought into the picture; this is that, without it, the per capita income will at best be growing at a *constant* rate, along the steady-state growth path. But this is not what development economics is concerned about; instead, it is concerned primarily with the ways and means of *raising* the per capita income (output) over time.

Third, the importance of the human factor – especially of education – was not fully understood by the pioneers. Here, again, a feedback from the neoclassical growth theory would have helped. Solow showed clearly that about seven-tenths of the increase in gross output per hour of work in the U. S. between 1909 and 1945 was due to "technological progress in the broadest sense". What it means is that the contributions of physical capital and labour were considerably less important than one would normally have thought – to the chagrin of both Lewis and Marx! Later, Denison (1967, 1985) showed, in his growth-accounting framework, that a full 30 percent of the per capita growth of output between 1929 and 1982 was accounted for by education per worker, while 64 percent of it was explained by the advance in knowledge. This is a striking result, the importance of which should not have been lost on development economists.

Fourthly, Lewis's two-sector model led to a frame of thinking in which the growth potentialities of the agricultural sector were grossly under-estimated. This was a damaging omission because, as Johnston and Mellor (1961) were to show clearly in their classic paper, "economic development is characterized by a substantial increase in the demand for agricultural products, and failure to expand food supplies in pace with the growth of demand can seriously impede economic growth." This is so because "if food supplies fail to expand in pace with the growth of demand, the result is likely to be a substantial rise in food prices, lead-

ing to political discontent and pressure on wage rates with adverse effects on industrial profits, investment, and economic growth." Kalecki (1971) echoed the same theme: the process of development is constrained by the availability of capital; but investment is determined not only by saving but also by the supply of wage goods, which are typically supplied by the agricultural sector. There is another reason, again recognized by Mellor and Johnston (1984), why the development of agriculture is crucial: it relates to the role of varying the capital-output-ratio to maximize output at the least cost in terms of the required capital inputs – an echo of Solow's. Recognizing that "extremely low capital-labour-ratio in the dominant rural sector is at the heart of the development problem", it would clearly be desirable to 'spread' the scarce capital resource between the low capital-labour-ratio agriculture sector and the relatively higher capital-labour-ratio industrial sector.

Fifthly, the development paradigm, noted in the preceding section, is also inadequate because of its "bloody-mindedness" with respect to the distributional aspect of growth. For instance, Lewis (1955) laid down: "First, it should be noted that our subject-matter is growth, and not distribution." Indeed, in his two-sector model with unlimited supplies of labour, economic growth is a function solely of the profit rate; "the central fact of economic development is that the distribution of income is altered in favour of the saving class." Thus, in this model, the distribution path is completely determined by the rate of economic growth, with the wage-earner's losing out to the capitalists from the very word 'go'; and a rise in the real wage rate, for whatever reason, signals a weakening of the growth impulse. In the Fei-Ranis model (1963) a less fatalistic scenario is presented: once all surplus labour has migrated and the urban wage starts to rise, the wage-earners will find their lots improved. Thus, in the growth process no one income group loses out *absolutely*. But, somehow, Lewis's lesson dominated the class of development economists. [For instance, Galenson and Leibenstein (1955) and Kaldor (1955).]

In this respect, one should think that development economists were marching with the spirit of the times. For instance, according to the so-called classical saving function, used by the neo-Keynesians – e.g., by Robinson (1979), the rate of growth of income is simply a function of the saving of the profit earners times the profit rate. The empirical studies done by Kuznets (1955) lent respectability to this view by reference to the forces of history, according to which income inequity tends to increase in the initial stages as income rises – following an inverted U pattern; and income inequalities tend to be bigger in the poor countries than in the rich countries. That may be so; but the fact that income inequality is a necessary accompaniment of growth does not mean that nothing should, or can, be done about it. It should, at least, be possible to state unambiguously that growth with better distribution is superior to growth with worse distribution. But the founding fathers

of development economics could not give much serious thought to distributional matters – an omission that would cost many of these countries dearly in terms of the loss of potential output.

MAKING A VIRTUE OF THE DEFECT

But a somewhat defective heritage is better than no heritage at all; indeed, given a lively on-going intellectual debate, such 'defects' lead to a better – but never a perfect – paradigm. Hirschman (1981) thought that development economics was a 'done thing' because it did not respond creatively to the many challenges it faced, both from the Left and the Right. But a spate of sympathetic review articles and full-length books have appeared at regular intervals since then [Sen (1983); Lewis (1984); Stern (1989)]; and most recently a two-volume *Handbook of Development Economics* [Chenery and Srinivasan (1988, 1989)] has been published by North Holland, which runs to the impressive length of 1773 pages. It includes comprehensive surveys in as many as 32 areas, including such important matters as trade and development, fiscal policy, project evaluation, processes of structural transformation, migration and urbanization, and the economics of health, nutrition and education, to name only a few; and each of the surveys includes a large bibliography. With such credentials and life, development economics can be hardly faulted for intellectual moribundity.

In this section I shall confine myself to a consideration of a few aspects of the creative response from development economists to the changing realities of life in the developing countries, and to the new theoretical advances made in mainstream economics.

(i) The 'Meaning' of Development

The development experience was recorded, mostly in the early Seventies, in a large body of literature focusing on a more comprehensive indicator of social welfare than the GNP. Morris (1979) suggested a Physical Quality Index (PQI), including life expectancy, infant mortality, and literacy as components. But the problem here is that life expectancy and infant mortality are significantly correlated. The basic-needs approach [Streeten *et al.* (1981)], with the blessings of the World Bank, also tried to provide an answer. Partly because of its open-endedness, it was soon talked out of the literature. However, it did correctly highlight the need for making a greater provision for the social sectors. Sen's (1981) study of famines led him to look at the development process as a matter of "entitlements" and "capabilities" [Sen (1985)] and ultimately of enlarging people's choices.

A similar formulation appears in a recent UNDP report (1990), where the

concept of human development is introduced to encompass "the production and distribution of commodities and the expansion and use of human capabilities". An HDI (Human Development Index), taking into account the longevity of life, knowledge, and basic income, replaces the GNP as an indicator of economic *development*, in distinction to economic *growth*. The first two elements of this index measure the formation of human capabilities, while the third one serves as a proxy variable for the use of these capabilities. There are some obvious problems with the way the HDI is constructed. For instance, the practice of adjusting the GDP by the relevant Gini coefficient to yield a more welfare-oriented (cross-country) ranking is especially problematical when Lorenz Curves intersect over the relevant range; but even when they do not intersect the welfare-ranking is not invariant with respect to the type of inequality measure used. Another problem relates to the elements of the HDI – namely, life expectancy, literacy, and income – which are accorded equal weights in the construction of the Index, even though each one of them is measured on different scales. But the point is that efforts are being made, in the right direction, to remedy the perceived defects of the original development paradigm.

An important philosophical clarification needs to be made at this point. While economic development, in the last analysis, enlarges people's capabilities to choose freely from a larger menu, such freedom is also neither *absolute* nor simply *negative*. Instead, it is *relative* to the extent that the enjoyment of the fruits of economic growth cannot be a matter of only a privileged few monopolizing them to the exclusion of the majority of the population. Thus, development economics negates the Nozickian "entitlement" principle (1974) that "what we have we hold". Such freedom is *positive* in the sense that it is not just a matter of respecting some legal *procedures*, but that it also entails a duty (on the part of the individuals, the State) to prevent the undesirable social consequences of the exercise of one's individual freedom. For instance, if the feudal structures get strengthened in the process of economic growth, then this is *not* a matter of unconcern for the policy-maker, nor even for the development economist. Considerations like this negate the point of view that development can be left entirely to the magic of the market *because* individual liberty "is best preserved in a regime that allows markets a major role." [Buchanan (1986).] Actually, the process of development is much wider in scope, involving more than the protection of individual liberty as an *absolute* value. In this view, liberty and freedom are more in the nature of instrumental values which ensure that the economic freedom for a few is translated *through the development process* into a freedom for all, especially of the members of the least-privileged classes in the society.

(ii) Growth and Distribution

The founding fathers were reluctant to focus explicitly on the redistribution of income and wealth. Their reluctance can be attributed to a (blind) faith in the "trickle-down" effects of growth – a faith attributed to the alleged success of the Industrial Revolution in raising labour's share in total output by raising the real wage. But such a simplistic belief in the trickle-down effect was questioned soon by Baran (1952); Prebisch (1959) and Myrdal (1956), among others. They highlighted the forces that limit the size of the trickle-down effect – or, the "spread-effect".

There is a consensus now that economic growth could come about with less inequality, or more of it; but this realization has sunk very slowly in the development thinking. Based on the 1970 census, Fishlow (1972) found that, in Brazil, notwithstanding – or perhaps as a result of – the high growth rates, income inequalities grew bigger, with the poor losing out even in *absolute* terms. Kuznet's hypothesis, which predicts rising inequalities in the early stage of growth, sparked off a series of cross-country studies – e.g., Adelman and Morris (1973); Papanek and Kyn (1986) and Ahluwalia (1976) – which tend to test the *U*-shaped relationship between growth and distribution. Kuznet's hypothesis is generally supported, but with the caveat that the relationship may be the act of history (*U*-shaped) or the outcome of specific policies (*J*-shaped).

Not only has the distributional problem been investigated thoroughly, but research has also been done on the ways and means of correcting the de-equalizing biases of growth. One approach has been to reorientate the production structure in a labour-intensive way so that employment can grow faster and raise real wages, especially of the unskilled labour. Leontief (1983) conjectures that such a sequence explains the relatively more equitable industrial growth in Europe in the nineteenth century. In our own times, Japan and South Korea are the principal examples of such a growth strategy, which seeks to minimize the trade-off between growth and equity. Papanek's (1972) study on Hong Kong is in the same vein. Another route to enhance the distributional content of growth is to devote an increasing proportion of the increments in national income to the provision of basic needs [Streeten *et al.* (1981)]; or, to the creation of assets owned by the poor [Chenery (1975)]. In contrast to this 'incrementalist' approach, there are others which focus on the creation of assets for the poor even before growth takes place [Adelman (1978)]. An important aspect of the problem is that the people's evaluation of their well-being is essentially a relative matter, because they relate their welfare to their location relative to the mean [van Praag *et al.* (1978)]. Thus, any successful programme of redistribution must ensure that structural reforms aiming at a radical redistribution of assets are carried out, *and* steps are taken at the same

time to ensure that the rate of increase of the income of the poor is always kept higher than the rate of increase of the income of the rich [Naqvi and Qadir (1985)].

(iii) The Question of Sectoral Balance

An important, though unfortunate, fall-out of the original development model was to develop industry *at the expense of* agriculture. For instance, Lewis's two-sector model sees agriculture as home to the "unlimited supplies of labour", which must be drawn on to serve as an input into industrial production. Not only labour, but also capital would flow *to* the industrial sector *from* the agricultural sector to provide the basis for a sustained capital accumulation and accelerated economic growth. Hirschman (1958) supported a subservient role for agriculture in the growth process; he wrote: "agriculture certainly stands convicted on the count of its lack of direct stimulus to the setting up of few activities through linkage effects – the superiority of manufacture in this respect is crushing." Later on, the celebrated Fei-Ranis model (1963) which became a required reading in the graduate schools, popularized the 'extractive' view of agriculture – as a self-sacrificing provider of inputs for economic growth. Such a forced concept of agriculture, emphasizing *extraction* from it rather than it being assigned a positive *role* with a personality of its own, was mainly responsible in the late Fifties and early Sixties for agricultural stagnation and increasing rural poverty in the developing countries.

A vast literature has developed to correct this defect in our heritage, by emphasizing the dynamic linkage between sectors, especially that between the agriculture sector and the manufacturing sector. The main contributions have been by Ruttan and Hayami (1970); by Johnston and Mellor (1961); by Mellor and Johnston (1984); and by Mellor (1986). The central point of these and other contributions to the area is that they consider, in one go, both the contributory role of agriculture to economic development *and* the factors which lead to the modernization and growth of the agricultural sector itself. In their classic paper, Johnston and Mellor (1961) wrote: "It is our contention that balanced growth is needed in the sense of simultaneous efforts to promote agricultural and industrial development." Among such factors, technological change figures prominently – and 'naturally' because, as Schultz (1964) pointed out, continuing investments in traditional technologies are quickly thwarted by diminishing (marginal) returns. Helped by an "endogenous" technological change, agricultural growth increases food output; and, by the same token, enlarges the size of the market for urban output. This enlargement of the market takes place by increasing the real income of the rural poor by generating rural employment, and by *lowering* food prices through technological change. (Note the important point here: in this view, higher food output is secured by lowering – instead of by raising – food prices. This is because continuously rising food

prices would *contract* the size of the market by reducing the real income of the rural poor, who spend an overwhelming proportion of their income on food.)

(iv) Labour Markets in Developing Countries

Another unfortunate consequence of the original development model is the rather simplistic view of the labour market in developing countries – i.e., that labour commands a very low, or even zero, wage in the agricultural sector because of its being in unlimited supply. Thus, in this model, the scattered, ununionized labour migrates unidirectionally from the rural backwaters to the urban 'growth poles', where they will hopefully be fully employed. Indeed, this aspect of development economics – that labour's marginal product is zero in agriculture – was used (mistakenly) by Schultz (1964) to deny the very existence of development economics. (This view is mistaken because, as noted by Bell (1987), all that is required for the validity of the Lewis model is that the urban sector can attract rural labour at a *constant* real wage. This constancy may, in turn, be ensured by population growth, greater women participation in the labour force, etc.)

Such a simplistic view is clearly unsatisfactory. This defect of our heritage has attracted a large amount of literature looking at the peculiarities of the labour market in developing countries in general, and of the rural market in particular [see Rosenzweig (1989) for a useful review of the literature on this topic]. The research in this area has been helped by the advances made by micro-economic theory about the information and risk problems, by the availability of better and larger data on the labour markets in developing countries, and by learning from the objective reality in these countries. I have already noted the contributions by Kalecki (1971), and by Mellor (1986) in which a rising real wage plays a critical role in expanding the size of the market for industrial goods. Another important theoretical contribution in this area is the Harris-Todaro model (1970), which has been generalized by Khan (1980). The point of this research is to explain urban unemployment, and to analyse the consequences of the policies in order to reduce it. In this model, the rural wage is determined competitively but the urban wage is set institutionally, and is typically higher than the rural wage; which starts up Lewis's process of rural-urban migration in the *hope* (measured by the relevant probability) of finding (full) employment in the urban sector. But is this hope fulfilled? Remember, Lewis said "Yes"; but Harris-Todaro say "No" – because of the labour market distortion caused by an institutionally set urban wage, which is typically too high. (The *un*employment equilibrium condition in this model is the equality of the rural wage to the expected urban wage.) Does it help, then, to provide a wage subsidy to cure the urban unemployment problem? No, because it only increases the number of the urban unemployed by attracting rural labour in the expectation of finding more

employment there. It is interesting to note that the Harris-Todaro model, rooted in the realities of the developing countries, not only corrects the defect of our heritage, but also the one in the neoclassical model, which conjures up the myth of permanent market-clearing in the labour market – a myth shown by Malinvaud (1984) as an untenable hypothesis even in the developed countries.

(v) Endogenizing Demography

My last example of the creative intellectual response to the defects of the development model is of the attempts, both theoretical and empirical, made to endogenize the demographic variables, e.g., fertility, age-composition, migration, etc. We know that, in the age of the (classical) magnificent dynamics, population was treated as an endogenous variable; Malthus treated it so. An example is the wage fund theory wherein any attempt to improve the worker's lot by increasing wages will only be rewarded by an increase in labour supply, which will in turn reduce wages. And vice versa, if wages are reduced below the subsistence level. But, by the time Lewis wrote, population had come to be regarded as an exogenous variable; it was treated so in the Harrod (1939); Domar (1946) model, which, as we have noted, influenced both development theory and practice. (Looking back, it is somewhat ironical that Lewis, notwithstanding his many intellectual journeys back in time to 'visit' Adam Smith, Malthus, and Mill, did not notice this aspect of the classical growth model.) Lewis did note that population growth would lower the rate of return per capita on capital formation, and would slow down the rate of absorption of labour in the urban sector. Coale and Hoover (1958) also confirmed this conjecture: a higher population growth would lower saving and capital formation.

The next step is to study the effect of economic factors (e.g., an increase in income) on population growth. [This work, both theoretical and empirical, has been well summarized in Birdsall (1988).] I shall simply mention a few points here. Coale (1973), in explaining the determinants of fertility, duly emphasizes the role played by the economic factors – namely, the decision to produce more (less) children is an integral part of household decision-making; and that the couple have a clear understanding of the advantages flowing from having a smaller family. (The third technical factor is the supply of contraceptives.) These economic factors are examples of 'internalizing' the fertility decisions within the calculus of household decision-making. If the parents do not do so, they may desire more children than is socially desirable; and conversely so, too. Here is an example of externality – i.e., of market failure – because, in the absence of the possibility of making profits the information regarding contraceptives may not be made available by the 'market'.

More explicit on this are the fertility models of Becker (1960) and Mincer (1962) which include the activities of child-bearing and child-rearing as optimizing decisions taken by the households. Then, attempts have been made to measure the effects of the family income on income distribution, labour force participation, and wages on fertility behaviour [Kelly (1980)]. Some modelling activity has also gone on – e.g., the Bachue model – to relate the economic and the demographic variables. Another pioneering study of this kind – linking household fertility decisions with income and expenditure, labour force participation, and rural-urban migration – has also been completed at our Institute (PIDE). The study shows that the two-way link between the economic and the demographic variables is significant.

ON FARING FORWARD

I would now draw your attention to those areas where the development economist's response has been weak and muddle-headed; and to those cases where a lot remains to be done to complete the task of creating a new paradigm of development economics, a science rich in empirical content which predicts novel facts about the real world and is, at the same time, more fully embedded in the metaphysical environment of the developing countries.

(i) The Market vs the Government

The development paradigm discussed above, especially as it was formulated by Rosenstein-Rodan (1943); Nurkse (1953); Scitovsky (1954) and Hirschman (1958), did imply government intervention to take care of incidents of market failure, or markets which are too imperfect, or too thin, or which simply do not exist. In the absence of a strong role of international trade, due to the alleged export elasticity pessimism, coordinated investment decisions need to be taken to maximize output by taking advantage of intra-industry and intra-sector complementarities. And this is the case where investment decisions are required to be taken simultaneously to secure a structure of outputs corresponding to the structure of income elasticities of demand (Nurkse's "balanced growth" doctrine); or when, due to the shortage of investible resources, investment must be undertaken sequentially (Hirschman's "unbalanced growth" doctrine) to achieve a balanced production structure only gradually. In both these cases, the profit-maximizing private producers are not likely to optimize output because of the presence of externalities – i.e., as output expands for one firm, its output-raising consequences for other firms cannot be (fully) internalized; which, in turn, prevents market prices from summarizing the information required by the private investor to maximize output. Of course, if individual firms could have complete information about the strategic

responses of the other firms, then profit-seeking behaviour can do the job.

The state intervention might be only of the indicative type [Scitovsky (1987)], when the market for such information does not exist, or because it is too costly or fragmentary, or where comparative advantage unfolds itself only with the passage of time; or it may be more comprehensive when the strategy of investment emphasizes, as was done in India under the influence of Mahalanobis (1953), the priority of capital goods-producing heavy industries to facilitate the development of downstream industries, and partly for non-economic reasons, like defence or national pride. But there is no evidence of the development economists going for an all-out *etatisme*. In fact, the "mixed-economy" model was preferred over the socialist (communist) model. For instance, in Pakistan and India, the founding fathers explicitly rejected both the (unalloyed) capitalistic model and the communistic model. With the government engaged actively in economic activities, the productive, and the complementary role, of the private sector has been duly accepted to the extent that it is forthcoming. And even when it does not come out into the open due to too much risk or uncertainty, the government has sought to establish industries with the explicit aim of selling these to the private takers, when they are ready to invest.

True, the government will not always succeed where the market fails; but, the development experience shows that the government has succeeded splendidly in raising agricultural productivity by helping technological change through research institutes, and by ensuring rising prices both to the producers and the consumers of food. Also, the government has managed to create fairly impressive infrastructures, and industrial structures in most of the developing countries. If the element of success has been greater in one case (e.g., South Korea) than in the other case (e.g., India), the difference is attributable to the quality of government, and to the political leadership in these countries; it did not necessarily hinge on the government being less dominant than the market. Indeed, Reynolds (1977) in his wide-ranging study explicitly attributes the differences in the comparative growth experiences of developing countries to the differences in the managing capabilities of various governments.

Keeping these developmental facts in view, the critics of development economics who focus on the *dirigistic* practices in (some) developing countries [e.g., Little (1982); Lal (1983); Crook (1989)] look somewhat comical. They attribute the differences in the growth achievements of India and South Korea exclusively to the much greater role of the market in the latter than in the former. Such dubious empirical studies have been rationalized by equally dubious theoretical contributions of the so-called "neoclassical political economy" to the development literature, which put the government in the dock for its "failures" with the

help of rent-seeking [Krueger (1974)] and directly unproductive profit-seeking (DUP) hypotheses [Bhagwati and Srinivasan (1982)]. But this literature, notwithstanding its mathematical elegance, suffers from very serious defects. First, it is not logically permissible to infer, as these critics of development economics do, general 'statements' (the unambiguous superiority of the market-based solutions) from singular statements (the alleged growth experience of South Korea). As Popper (1980) points out, the only valid procedure is to empirically test theories after they have been advanced, *not* the other way round. Second, these critics also commit the error of trying to explain a non-existent phenomenon (free-markets in South Korea vs pervasive governments elsewhere) with reference to yet another non-existent situation (i.e., Pareto-optimality). Third, as if to turn the tables against everything including common sense, proofs have been given to establish the phenomenon of (*generalized*) government failures as opposed to the (*selective*) market failures that everybody else has believed in, which is again a *non-sequitur*. Fourth, it is hard to understand what to make of such proofs, in practice; should one abolish governments altogether and leave *everything* to the Invisible Hand? The fact of the matter is that if the government must always fail, then there is no guarantee that the market will always succeed, especially where none exists [Arrow (1979)].

These critics among development economists seem to rest their faith on the spirit of the times. The spirit is made of the material of Friedman (1968); Lucas (1972) and Buchanan (1986), whose contributions I have reviewed at length in my previous Addresses. Briefly, according to this iconoclastic group, a real-world economy is essentially self-regulating and self-equilibrating – the economic agents are the incorrigibly profit-seeking, utility-maximizing individuals. In such a scenario, the government is both irrelevant and counter-productive. This is because the individual economic agents have access to all the information that the government may ever be able to lay its hands on. The government can at best hope to take these all-knowing individuals by surprise; but that too only very temporarily, according to the rational-expectations hypothesis; and only for some time, according to the adaptive-expectations model. Typically, such individuals, by appropriately adjusting their (economic) behaviour, can defeat the government in its own court. Furthermore, there is no possibility of any social injustice occurring in such a situation because if, for example, unemployment prevails, it is due to the *voluntary* actions of the wage-earners themselves!

Another source of strength for the critics of development economics has been the ("populist") supply-side economics, which was supposed to be the nearest real-world thing to the neoclassical ideals, promising (in the 1980s) to promote growth, productivity, and savings, and to reduce the budgetary and the balance-of-payments deficits. The cure-all for serving such a tall order is to implement a sharp scaling

down of the top marginal tax rates, which would stimulate the economy enough to yield substantially *greater* tax revenue yields (at the lower tax rates), which would then (nearly) balance the budget. Another idea, reinforcing the expansionary effect of the proposed tax cut, is due to Laffer, according to whom labour tends to work harder on finding their after-tax real wage income rising.

But what is the evidence to support these somewhat off-the-cuff ideas? The rational expectationists do not like to give any empirical evidence, but only a list of conjectures; which is highly unsatisfactory because the supply-side economics was meant to be translated into policy. The record shows that the economic effects of the "half-baked ideas" of supply-side economics were just the opposite of what it had intended to achieve. The budgetary deficits increased sharply, earning for Mr Reagan the dubious title of the greatest Keynesian who ever lived! Thurow (1990, 1990a) shows that (in the U. S.) as a direct result of such policies, economic growth has stalled, savings are lower, productivity is slower, budgetary deficits have touched record highs, and the country has slipped from the position of a net creditor worth $ 141 billion in 1981 to that of a net debtor of $ 620 billion in 1989. The equity record of the supply-side economics is no better: the income differential between the rich and the poor has increased substantially in the last decade, partly because of a sharp reduction in the size of the welfare transfer payments made to reduce inflation and increase industrial productivity. Truly, has it been remarked that there is nothing wrong with supply-side economics that dividing by ten will not cure!

The fact of the matter is that, in general, the debate in the developed countries about the role of the government is mostly ideologically motivated, not based on very strong empirical foundations. It is, therefore, best for development economists to stick to their *mixed-economy* model. In the conduct of economic matters, there is plenty of room under the sun for both the government and the market. Needless to point out, the development process itself may lead developing countries to rely increasingly on the market; but this is neither to discredit development economics nor to offer a prescription for embracing unalloyed capitalism nor does it provide an excuse for social irresponsibility.

(ii) The Development Economics of Supply and Demand

The (original) development model has been described as demand-oriented, and also as supply-oriented. Indeed, Lewis (1954) himself made the supply-side considerations prominent by viewing the availability of fixed capital as the main constraint on growth. In view of the (allegedly) low supply elasticities, he did not assign any significant role to demand-management policies. Thus, for instance, the Keynesian remedy of increasing the effective demand to cure unemployment in a

developing country would only be penalized by greater inflation. It was thus contended that, instead of leaning on the Keynesians, the development economist should learn at the feet of classical economists (especially Ricardo) because of their emphasis on capital accumulation and a greater supply of saving as crucial factors in the development process. But, as noted by Syrquin (1988), the dynamic version of the Keynesian (Harrod-Domar) model, the two-sector Lewis model (1954), and the balanced growth models of Rosenstein-Rodan (1943) and Nurkse (1953), are, more appropriately, examples of according greater importance to an emphasis on the demand-side factors.

However, it is better to think of development economics as an economics both of supply and demand – just as all economics is. While physical (and human) capital accumulation continues to be the constraining factor on growth, the inadequacy of effective demand, especially among the rural poor, also limits the growth of output and employment. This is brought out most clearly in the famine condition, when its cause is not the supply of food but a failure of the "exchange entitlements" of the poor [Sen (1981)]. This argument can also be reversed: the growth-promoting impulses emanating from the demand side will not fructify into higher levels of output (and employment) if the supply elasticities are not high enough.

The economists, including the development economists, too easily forget the Marshallian scissors, that we need both the supply blade and the demand blade to cut anything economic. Recently Klein (1978, 1983) has reformulated the problem as one of linking up the Keynesian income-and-product accounts (the demand side), the Leontief input-output framework (the supply side), and the flow of funds accounts (the financial side) to get a complete picture of the economic universe, and to devise and implement policies on both the supply and the demand sides of the equation. It is necessary to have such a comprehensive analytical framework to analyse the effects on the economy of an increase in the prices of food, energy and the costs associated with protecting the environment, controlling population growth, and increasing agricultural output. Such information is needed for policy-making in the developed countries as well; but it is much more pressing in the developing countries. There is an 'educative' aspect of such an exercise which is also very important. The vast data requirements of building such systems lead to a further strengthening of the data-base required for development policy. Many developing countries, including Pakistan, already have medium-sized macro-econometric models and fairly disaggregated input-output tables; and attempts are also being made to build financial flow-of-funds accounts. The next step, by no means a technically easy one to take, should also be taken. There Klein's advice (1978) is apt: "it is wise for the development economist to be forearmed with a full model

for analysis of both supply and demand sides."

(iii) Mixing Economics with Ethics

I now come to a more controversial, but in my view the most fundamental, problem facing economists in general, and the development economists in particular. It is to synthesize development economics with a set of universally held ethical norms of behaviour in the society. Such a step is necessary if only because it is the most natural and realistic thing to do – natural and realistic, because ethical considerations mingle with economic compulsions 'effortlessly' at the level of man's (even economic 'agent's') primary motivation, which then translates into social action. Indeed, in the real world, the plurality of motivations is the rule rather the exception; and we would be hard put to prove *either* that only self-interest *or* pure altruism explains a large enough segment of social or individual action. As Solow (1980) pointed out, without positing some kind of ethical norms of behaviour it is not possible, for example, to explain why sometimes labour market is *not* self-clearing. "Would not you be surprised if you learned that someone of roughly your status in the profession, but teaching in a less desirable department, had written to your department chairman offering you to teach your courses for less money?" Normally, the answer would be in the affirmative – yes, I will be damned surprised if someone did this to me or to you. Although it may not be the economically optimal situation, yet it would be most desirable if someone did *not* undercut me, or you.

And yet development economics, *even more so* than the mainstream economics, has remained a rock of positivity. The original development model had no place for the 'warm hearts'. By making economic growth (the GNP) the sole maximand, and by making it exclusively a function of physical capital accumulation, there was no room left in it for ethical considerations. And recent efforts to fill in the many gaps in that model also do not come to grips with the ethical question. And if, God forbid, the attempts to make development economics conform to the neoclassical prescription of cold-blooded market-oriented efficiency succeed, our discipline will become even more amoral than it already is. It is interesting to note in this context that the two-volume *Handbook of Development Economics* [Chenery and Srinivasan (1988, 1989)] does not include any separate review of the literature on the subject – because there is not much available on the subject! (Only Sen (1988), at the beginning of the *Handbook,* talks about some of his own work on the subject – mostly relating to his 'capability' theory – but this discussion does not produce any ripples in the positivist analyses in the remaining 1700-plus pages! The same is true of the most recent survey of literature by Stern (1989).

What influences, then, explain this neglect of ethics? Perhaps, once again,

the spirit of the times – indeed the spirit that has moved economists since the times of Adam Smith, who pronounced the separation of economics from ethics, a separation formalized later on by Robbins (1932) into a divorce. More recently, Stigler (1981) (a Nobel Laureate) laid down: "Economists seldom address ethical questions as they impinge on economic theory or economic behaviour." This is because man is "eternally a utility-maximizer, in his home, in his office – be it public or private – in his church, in his scientific work, in short, everywhere." Proceeding in the same vein, he adds: "Let me predict the outcome of systematic and comprehensive testing of behaviour in situations where self-interest and ethical values with wide verbal allegiance are in conflict. Much of the time, most of the time in fact, the self-interest theory (as I interpret it on Smithian lines) will win."

It is, thus, not without justice that an economist who boasted of maintaining a "business-as-usual" attitude in times of adversity was promptly reminded that perhaps what he meant was: "business, *comma,* as usual"!

But whatever may be said of neoclassical economics, featuring ethical values *explicitly* in any interesting development paradigm is the work of ironclad logic. As Hirschman (1981) points out, "the paradigm about self-interest leading to a workable and perhaps even optimal social order without any admixture of 'benevolence' has now been around so long that it has become intellectually challenging to rediscover the need for morality." One important reason for doing so is that the self-interest theory does not rest on any empirical basis; indeed, as Machlup (1956) notes, such a theory (or postulate) is not even verifiable.

I have dwelt at length on these matters in my previous Addresses, but let me briefly recapitulate that discussion. The point of departure for extending the development economists' problematic is to reject the Pareto-optimality principle – i.e., roughly speaking, a social state where the utility of one individual cannot be raised without reducing the utility of another individual. The reason is that this positivistic rule is distributionally neutral; indeed, it is also essentially *status quoist* by construction. This is because it *cannot even distinguish the rich from the poor*; which is a consequence of the utilitarian and welfarist 'nature' of the principle, and also because it does not allow inter-personal comparisons of utility. As non-utility indicators of welfare are not admissible in the utilitarian framework, the income levels enjoyed by the rich and the poor can also not provide a basis for setting up a scheme for redistributing income to the poor. But economic development, to make any sense at all, must be *basically* concerned with distributional matters – indeed, with matters regarding structural change.

What else there is, then, for the development economist to draw on from contemporary thought on economics? A whole lot, I believe. For instance, the public choice theory provides an excellent source for thinking about such matters.

[See, for instance, Sen (1987).] In place of the Benthamite utilitarianism and the principle of Pareto-optimality, which are the central tenets of neoclassical theory, my choice for development economics is a modified Rawlsian principle (1971) of 'justice-as-fairness', which would involve maximization of the welfare of the least-privileged in the society, with the explicit proviso that the number of persons so situated is minimized at the same time. An attractive feature of the Rawlsian rule is that it explicitly stipulates *change* of the existing social order if it is not consistent with the prevalent notion of justice as fairness.

Another thing that development economists must reject is the Nozickian non-consequentialism, with a strictly procedural and negative view of human freedom. In this view, state intervention is allowed only to prevent everyone from interfering with the entitlements of those who pass the test of procedural formalities; but no such intervention is allowed to prevent anyone from the exercise of his (legal) freedom even if that has extremely adverse consequences for the rest of the society. The state is also not allowed to intervene to redistribute income and wealth, which again is seen as an infringement of individual liberties. It should be obvious that such views cannot be of any use in a typical developing country where redistribution is the essence of the development process.

THE REGIMEN OF POSSIBILITIES

Let me add, finally, a few remarks to put the preceding discussion in a wider perspective. It should be clear by now – at least it is clear to me – that there should be no question about the existence of development economics, if only one looks at the lively debate that has raged on matters which the original development model did, or did not, highlight. The fact that some elements of the development model – e.g., the balanced, or unbalanced, growth doctrines and the excessive elasticity pessimism leading to the relative neglect of international trade – have fallen into disuse does *not* mean that development economics as a sub-discipline has ceased to be useful because of any growing incapacity to generate new ideas (new ideas are being generated); it is only that the discipline has entered a new cycle of advancement to explain better the phenomenon of development.

There are problems with the original development model, fathered by Lewis and many others, but the important thing is that development economics, at the time of its birth, did constitute a "paradigm-change" – namely, it shifted the focus of scientific enquiry from steady-state solutions, characterized by a constant growth in per capita incomes, to the central development concern about the causes of rising per capita incomes. The development paradigm asked many more new questions; and, even more important, led to scientific explorations in altogether new directions, including a critical re-examination of those aspects which it featured promi-

nently – namely, labour surplus in agriculture, the low mobility of factors, price-inelastic demands, export pessimism. And many ideas of development economics have found their way into the mainstream literature – e.g., the Harris-Todaro conjecture which explains the phenomenon of urban unemployment, the cost-benefit analysis apparatus designed to appraise the social profitability of investment projects, etc. It shows that development economics is by no means the black hole of the economic universe. Especially in response to the objective realities in developing countries, some areas of knowledge – e.g., economic demography, economic anthropology – are more relevant there than in the developed countries.

As we – the development economists – think about redesigning a new paradigm it is essential that we have a critical look at our 'heritage', which is admittedly defective – and which heritage is perfect? But while we do all this, we must *not* give up the "mixed economy" aspect of the development paradigm. The heated debate about the ills that government *must* bring about is based neither on good logic nor on a solid empirical base. Rivlin (1987) in her Presidential Address before the American Association said: "... the arguments among economists about the merits of larger vs smaller governments too often revolve around anecdotes or, worse, misleading statistics quoted out of context." Furthermore, the new-found love for the free markets that we hear so much about these days is not exclusively motivated by a concern for human freedom; instead, as Hirschman (1988) has pointed out, it is a part of a *reaction* against the twentieth-century extension of the idea of citizenship in the social and the economic spheres. The main theoretical plank of this reaction is an extreme case of the (Hayekian) principle of the "unintended social consequences of individual action", or the "perverse reaction" principle. According to this extremist formulation, every step taken by the government to improve the lot of human beings, especially of the poor, *must* always have the perverse result of worsening it. Such a view of human nature – that man is simply unable to make correct decisions under conditions of uncertainty – is both unscientific and contrary to facts. The fact of the matter is that individuals do learn by doing things – perhaps first the wrong way; and that they do acquire in the process the capacity to forecast with a reasonable degree of accuracy. If this were not so, all econometricians would have long gone out of business. Similarly, it would be wrong to deny the government the ability to produce the *intended* effects of its decisions on economic variables because such an assertion is contrary to facts; and because, to quote Hirschman (1988), "policy-making is a repetitive, incremental activity".

That ideas do influence human lives, for good or evil, is illustated best by the rapidity with which the reactionary "liberal" thought has spread all over the globe. Armed with nothing more than the dangerous weapon of infinite repetition

of a basically wrong idea, the so-called 'liberals' have pulled down in one country after another welfare states, promoted high unemployment rates, widened the chasm between the rich and the poor – and that between the rich and the poor countries. Much worse is the predicament of the developing countries which routinely receive the compulsory advice to dismantle the government, and to give free rein to the so-called Invisible Hand (of vested interests). It is now an open secret that such advice has already done great damage to the developing countries. Indeed, such advice is a kind of intellectual terrorism of which there are few parallels in recent history. It has inculcated in the economists, and especially in development economists, a *trained incapacity* to see the real-world in the right perspective. Thus it would not be atypical to find some neoclassical development economist joyously proclaiming that even though the unemployment rate is 10 percent, yet 90 percent of the work force is still employed; thus, forgetting about the unemployment problem, and then carrying on with the (efficiency) business, *comma,* as usual!

What must have happened in the world to make social scientists – which economists are basically supposed to be – insensitive to unemployment, to human sufferings, to the widening gulf between the rich and the poor? The invariable answer given by the "liberals" seems to be that the greater efficiency gains due to the liberalist – e.g., supply-side – policies will be large enough to offset the deprivations they cause to the poor. The argument is then made respectable by reference to the Pareto-optimality rule, or the "neutrality property" that Arrow made fashionable. This is heartless; but I suspect that the liberals also have a conscience. It is only that they subject this poor thing to a sleep-inducing godwottery that it does not know how to cope with. But if one's conscience is still murmuring unbelievingly, it is finally silenced by reference to some variant of the perverse-effect thesis: every effort to *dehumanize* the society will end up by *humanizing* it! And who will pull this trick? Of course, our father Adam Smith's Invisible Hand; or, according to Friedman and Lucas, the wage-earners themselves. A poetically-inclined economist may even quote Goethe's Mephisto: "part of that ever wills evil, but ever brings forth good."

However convincing may be such arguments, I consider them unhelpful *because* they make society poorer by benumbing our sense of social responsibility, and by depriving us of compassion. Development economists must, therefore, resist such unscientific and harmful ideas; for development economics is nothing if it is not relevant to policy, if it is not sensitive to social suffering, if it is not explicitly geared to raising social welfare. Our discipline cannot afford that Olympian detachment from the real world which has, unfortunately, become the hallmark of much of neoclassical economics. For the real world is much too complex to be tackled by the "magic of the market", or kept on-course by the "auto-pilot

approach" [Rivlin (1987)] of the (populist) supply-siders. The task of economic development is difficult enough for the Invisible Hand to handle all by itself, it is to bring about structural changes, especially those which break down the strongholds of the vested interests. This sounds disruptive, even anarchic, but one should not be fearful on this account because, as Whitehead (1927) observed, "the major advances in civilization are processes which all but wreck the societies in which they occur". This is what economic transformation has done elsewhere – e.g., by destroying feudal structures in the West. That epic must be re-enacted in the developing countries as well to crown the developmental effort with success.

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