Fifty Years of Economic Development: What Have we Learned?

by Irma Adelman

I. Development Defined.

Before addressing the question of lessons of development, we must make clear at the outset the sense in which the term is used. Economic development, as distinct from mere economic growth, combines: (1) self-sustaining growth; (2) structural change in patterns of production; (3) technological upgrading; (4) social, political and institutional modernization; and (5) widespread improvement in the human condition. Kuznets used “development” in the sense of the first three elements; development historians, new institutional development theorists and the neoclassical development economists of the eighties added increasing the sphere in which markets guide economic decisions (institutional modernization) to the Kuznetsian definition of development. Modernization theorists have added social and political development to the list of transformations that development entails while the deficient entrepreneurship school has added socio cultural evolution to the necessary aspects of development. Finally, the deficiencies of the concentrated growth process of the first two decades of economic growth have led those concerned with the welfare of the poor (Mc Namara 1973, Adelman and Morris 1973; Adelman 1973, Streten and Stewart 1976, Sen 1988 and the UNDP, 1990 onwards) to add widespread improvements in national welfare explicitly to the list of characteristics of economic development which distinguish it from economic growth.

When the notion of “development” is used in this sense, less than half a dozen countries, mostly East Asian, have traveled the whole path from underdeveloped to developed, since the end of World War Two. Others have progressed part-way. The semi-industrial countries have achieved substantial transformation of their patterns of production, gone part-way in increasing the sway of markets and the democratization of their political institutions but failed to share the benefits of growth widely. And the Sub Saharan countries have accomplished some growth in human capital and infrastructure but are still relying on primary production and its processing for whatever growth they attain, if any.

II. Lessons About the Development Process:
Lesson One: Perhaps the single most important lesson we have learned is that economic development of developing countries is possible. This was not obvious in the 1950s, since prior to the end of the second World War, growth in developing countries had been purely cyclical and exogenously induced. There was little structural change in patterns of production, and even less institution-building or human-resource accumulation. Developing countries’ growth was linked to the growth-cycles of metropolitan centers and waxed and waned in response to changes in international demand for raw materials and food. The growth of overseas territories also depended heavily on the import of factors of production from industrial countries—cyclically varying inflows of investment-capital and immigration of skilled and unskilled labor.

Economic development became feasible only after the second World War, when developing countries acquired an unprecedented degree of autonomy in managing their economic destinies thanks to political independence, a benign global system, subsidized capital and technical assistance from developed countries, and rapid economic global economic growth. Thus, during the last fifty years, five countries that were developing in the nineteen fifties (Israel, Japan, Korea, Singapore, and Taiwan) became developed by the 1990s and about twenty, mostly Latin American, countries in which manufacturing played only a minor role at the end of World War Two became semi-industrial by the eighties. The rest of the paper will attempt to describe what we have learned about the nature of the development process and answer the question of how the transformation of developing into developed countries became achievable.

Lesson Two: The process of economic development is both multidimensional and highly nonlinear. It entails dynamic change not only in production patterns and technology but also in social, political and economic institutions, as well as in patterns of human development.

With respect to multidimensionality, there is ample empirical evidence that economic development is multidimensional. Quantitative studies of development since the nineteen sixties have indicated that economic change is an interrelated multifaceted process and that the rate of economic growth is intimately linked to changes in social, institutional, cultural and political factors. (Adelman and Morris 1967 and Adelman 1999). Abramowitz (1986) found that initial levels of social capability explained intercountry differences in the trajectories pursued by different European industrializers during the 19th century. This finding was confirmed for current developing countries by Temple and Johnson (1998). Using the Adelman-Morris index of socio-economic development in 1960 as an indicator of initial levels of social capability, they found that rates of growth in per capita income and in total factor productivity are strongly related to the extent of a country's initial level of social capability. They therefore rejected the Solow
model, in which technology is the same across countries, in favor of a model in which technology differs and preexisting social factors play a role in the speed. Finally, recent cross country regression studies of the rate of growth of per capita GNP have found that they obtain better explanations of this rate when they add to the rate of change of the capital labor ratio and technical change, one or more of the following economic, or socio-political institutions: the economy’s openness (Krueger 19XX; Balassa 1989; and Bhagwati 1988); or the degree of development of capitalist institutions (De Melo et al 1996 and World Bank World Development Report 1993); the availability of human capital (Lucas 1988 and his followers); the degree of democracy (Barro 1996 and his followers); the degree of corruption (Mauro 1995); or the degree of development of political institutions (Campos and Nugent 1996).

Nevertheless, till recently, with a few notable exceptions, most of the development literature and most prescriptions for development policy have concentrated on the purely economic aspects of the development process and ignored interactions with social factors, political institutions, and with institutional and cultural change. Not all development theorists viewed the development process as purely economistic. Just the reigning paradigms. Important exceptions to the economistic view were offered by the classical economists, the comparative economic historians, the dependency theorists, and the modernization theorists. Thus, the classical economists, from Adam Smith, through Marx and Schumpeter, had a multidimensional view of the grand dynamics governing the economic fate of nations. Indeed, the general analytic framework I used in my first book to present their theories as special cases of each other (Adelman 1958) was based on an expanded production function whose arguments consisted of vectors describing not only the physical resources used in production, but also the technical knowledge applied in various sectors, and the different social and institutional structures within which the economy operates. Economic historians, such as Abramovitz (1986), Kuznets (1966), North (1973 and 1990), and Landes (1969 and 1998), all had a multidimensional view of the sources of economic progress, which included institutions, culture and technology. So did Polanyi (1944) and Myrdal (1968) and the dependency theorists, such as Baran (1957), Furtado (1963) and their followers. They all viewed economic retardation as being due not to resource constraints but rather to inimical domestic political structures, adverse international institutions and to path dependence. Finally, modernization theorists, such as Black (1966), Hoselitz (1960), Inkeles (1966), Lerner (1958) and Adelman and Morris (1967) all adopted a multi-indicator theory of development including transformations of production structures as well as social, cultural and political modernization. A Schumpeterian school of economic development emerged which studied the social origins of entrepreneurship. Also, a socio-cultural school of economic development (Hagen (1962) and McClelland(1961)) sought to analyze the socio-cultural and psychological barriers to
entrepreneurial attitudes and the differences in the prevalence of entrepreneurial attitudes. The multidimensionality of the process is now starting to be recognized. A social development division, composed of a large number of non-economists concerned with development has been formed at the Bank and the Bank’s president has called attention to this fact (Wolfenson 1998).

With respect to the non-linearity of development, we also have ample empirical evidence. Kuznet’s (1966) delineation of the systematic changes in the composition of output that, on average, take place at different levels of per-capita GNP traced nonlinear paths. Similarly, in their pioneering studies of the systematics of industrialization and social change Chenery (1960) and Chenery and Syrquin (1975), found the best fit to be non-linear in logs. Their best fits related intercountry differences in GNP to both the logs of the levels of per capita GNP and population and the logs of their squares. Using country-deviations from the average process, they established that one could distinguish among four different developing country-strategies: primary-oriented development; import-substitution; balanced growth; and a program of industrialization. Finally, in their statistical analysis of sources of intercountry differences in growth rates of per capita GNP between 1950 and 1965 Adelman and Morris (1967) found that interaction patterns among economic, social and political institutions differed systematically at different levels of socio-economic development. Thus, in developing countries at the lowest levels of socio-economic development (Subsaharan Africa and a few severely underdeveloped countries in Latin America and Asia) the primary variables explaining intercountry differences in economic growth were intercountry differences in degrees of social development. Next, at a development level characteristic of the more developed but still transitional developing countries, social development no longer exerted a significant impact on economic growth. The important interactions between economic growth were mostly with economic variables, investment and the rate of modernization of economic institutions, particularly financial systems. Finally, in the socio-economically most developed LDCs, in which the primary social-development and infrastructural barriers had been overcome, one political variable—leadership commitment to development—and two technological variable were added to the previous list of significant economic interactions explaining intercountry differences in rates of economic growth.

The impact of initial conditions on subsequent development options, in turn, implies that the development process is characterized by path-dependence. History matters, as it exerts a strong influence on both the tangible and intangible initial conditions for successful subsequent longrun development. In turn, path-dependence implies the need to understand the country’s prior history.
of social interaction patterns between civil society and the government, the bureaucracy and the military; how existing institutions have operated, and the history of prior interventions before prescribing a blueprint for institutional change in a given country. For example, countries such as the former Soviet union that have only known oppressive government are more likely to get away with abusing the economic freedom generated by market institutions than countries that have known responsive democratic government before communism, such as Czechoslovakia, or than countries whose governments have been authoritarian, but in which the government is expected to act in the social interest, such as those of East Asia. Path dependence also suggests that good or bad luck may have a lasting impact. For instance, good weather in the initial years of market reform in rural China increased generated bumper crops which raised the likelihood of continuation and widening of market reforms to industry, while the droughts, which plagued the early years of Soviet reform, contributed to the eventual discrediting of market systems and resurgence of pro-communist sentiments evident in Parliamentary elections. Thus, unsuccessful initial ventures make the adoption of following initiatives less probable, even though the community might have learned from its initial mistakes.

Classical development theory recognized that long-run economic growth is a highly non-linear process which is characterized by the existence of multiple stable equilibria, one of which is a low-income-level trap (e.g. Leibenstein 1957). They saw developing countries caught in the low-income-level trap, which occurs at low levels of physical capital, both productive and infrastructural, and is maintained by low levels of accumulation and by Malthusian population growth. They argued that industrial production is subject to technical indivisibilities, which give rise to technological and pecuniary externalities. They therefore argued that coordination failures would lead to the realization of systematically lower rates of return from investments based on \textit{ceteris paribus}, individual, profit maximization than those that could be realized with coordinated, simultaneous investment programs. Together with low incomes, which restrict levels of savings and aggregate demand, and with Malthusian population growth, the result would be to ensnare an economy starting at low levels of income and capital in a low-income-level trap. Government intervention would be needed to propel the economy from a low level income trap onto a growth trajectory which permits the realization of the inherent technological and pecuniary increasing returns to scale achievable through coordinated investments.

The implications of this understanding of the development process, as a dynamic, ever-changing, nonlinear, multidimensional process that is characterized by varying interactions over time has important implications for development policy. It implies that interventions may have to be multipronged; that what is good for one phase of the development process may be bad for
the next phase; that there are certain irreversibilities in the development process which create
path-dependence; and hence that policy prescriptions for a given country at a given point in time
must be anchored in an understanding of its situation at that point in time as well as how it got
there, not only recently but on a historical time scale. Thus, while there are certain regularities
and preferred time sequences in the development process, universal institutional and policy
prescriptions are likely to be incorrect.

Lesson Three: There is scope for choice in institutions, policies and in their sequencing,
even at similar levels of development. The choices made, in turn, generate the initial conditions
for subsequent development. This is why understanding how development has taken place is
critical.

The development process has been characterized by alternative trajectories, which
constitute special, extreme, forms of non-linearity and imply that choices can and need to be
made. There have been numerous examples of alternative development paths in the last fifty
years of development:

First, developing countries have differed sharply in their patterns of accumulation. This
is significant because the different accumulation sequences pursued by individual countries
during the fifties and sixties led to their subsequent achievement of comparative advantage in
either labor intensive or capital intensive exports (Balassa 1979), with different consequences for
inequality, industrial structure, domestic price levels, competitiveness, and optimal commercial
policy.

Thus, some countries, primarily in East Asia, initiated development by stressing the
accumulation of human capital prior to embarking upon serious industrialization, with favorable
effects on income distribution, growth, industrialization and productivity. Others, especially in
Africa and the Middle East, initially stressed infrastructure investment while importing the
necessary human resources for industrialization and developed indigenous skills only
subsequently. This accumulation strategy resulted in a narrow-based, dualistic development path;
little, low-productivity industrialization; natural-resource based exports; cyclically varying

1 David Landes (1998) makes a convincing case that the current travails of transition
to market economy in Russia have their roots in the social structure prevailing in Russia
under the tsars, in which the division of society into oppressed serfs, on the one hand, and
profligate and incompetent noblemen, on the other, imprinted cultural attitudes which are
inimical to interactions between labor, management and government based on honesty,
public spiritedness and hard work.
growth, responding to changes in world demand for raw material inputs; and shallow social change. Still other LDCs, mainly in Latin America, embarked on the accumulation of physical capital at an early stage in their development, widening inequality and developing an insufficient domestic market for the output of manufactures. They pursued low-productivity industrialization by engaging in import-substitute industrialization, starting with consumer goods and subsequently widening import-substitution to encompass industrial inputs.

Second, the sequences of industrialization and trade policies diverged significantly among countries at similar levels of development. Some LDCs, primarily in Latin America, pushed into the second phase of import-substitution, in capital-and-skill-intensive producer goods, after completing the first phase of import-substitution, in labor-intensive consumer goods (Waterbury 2000). While they succeeded in promoting significant structural change in their economies, this was at the cost of slow growth, loss of competitiveness, and worsening distributions of income (Krueger 1983). Other LDCs, mainly in East Asia, shifted immediately to export-led growth in labor-intensive consumer goods after a short period of import substitution (Kuo, Ranis and Fei 1981 and Wade 1990). These countries experienced egalitarian growth, increased competitiveness, and rapid economic growth.

Third, while during the first two decades of post WWII development all Sub Saharan countries pursued a resource intensive development strategy, during 1980-94 some sub-Saharan countries shifted to broadly-based rural-development while others continued their earlier trade-led, natural-resource intensive, limited industrialization pattern, of narrowly-based economic growth (Adelman, 1999). In addition, some intermediate social-development-level countries have continued their previous dualistic, export oriented, growth while others have concentrated on developing the institutional bases for subsequent broad-based development. (Adelman, 1999)

Fourth, the role of governments in economic development has contrasted considerably among countries. In some East Asian nations, the government has successfully played an entrepreneurial role, in much the same manner as it did in the late comers to the Industrial Revolution (Amsden 1989 and Wade 1990). The governments of East Asian countries shaped their financial, investment, trade and commercial policies so as to promote their countries' climbing the ladder of comparative advantage. They restructured institutions to conform to their policy aims, changing old institutions or introducing new ones whenever they embarked on new policy initiatives. And they exhibited high degrees of government-commitment to development and enjoyed high degrees of autonomy from pressures by business or workers. At the beginning of each policy phase, their initiatives were market-incentive distorting, though the extent of market distortions was limited by tying subsidies to the firms' export-performance; and, once
industries attained certain levels of proficiency, the government spurred competitiveness by shifting to market conforming policies and liberalizing trade. By contrast, Latin American governments enjoyed less autonomy, exercised less direction, and had less commitment to the economic development of their countries (McGuire 1997). Their main struggle was over social reform rather than over economic development. Their governments started out as captives of landed feudal elites and the foreign interests to which they were allied (Furtado 1963) and tailored institutions, especially land tenure, to favor landed-elite interests. When urban middle class interests became important, they embarked on import substitution policies, to benefit them, and stayed with these policies till the 1980s.

Fifth, adjustment patterns to the debt crisis of the 1980s have varied significantly among countries (Balassa 1989). Some developing countries, mostly in Latin America and Africa, adopted restrictive import regimes, deflationary government expenditure and macroeconomic policies, and restraining wage policies, reduced subsidies, and liberalized their domestic markets to reduce their current account deficits, lower inflation, and increase competitiveness. For the countries that followed this path, this was a lost development decade, with substantial increases in poverty, inequality and characterized by low- growth, from which these countries have started to emerge only in the 1990s. By contrast, a few countries, mostly in East Asia but also in Latin America (Brazil and Chile), coped with the adjustment problem by exporting their way out of the crisis. They shifted from import-substitution to export-promotion, devalued to promote expenditure switching among imports and domestic goods, and raised interest rates to increase net capital inflows. After a short period of curtailed growth rates, these countries rebounded remarkably quickly, and success fully grew their way out of the crisis.

Lesson Four: Development occurs in an uneven manner in which different aspects of change leap frog one another and play a game of continual catch-up. The accomplishments of each phase generate the initial conditions and challenges for the next phase. Creative evolution, redirection and destruction constitute the essence of successful long term development.

Institutional development has generally lagged behind industrialization efforts in the great majority of developing countries. For example, Korea’s Commercial Law, enacted in 1962, when Korea’s was largely an agrarian country, remained unchanged till 1984, by which time the share of agriculture in total output had shrunk to 14% and that of heavy industry had risen to 50%. (Song Byung Nak 1997). In most less developed countries, the major thrust during the first twenty years of development policy was on increasing the productivity of factor
use by shifting away from low-productivity activities, such as extensive agriculture and mining, into manufacturing. It is only during the eighties that greater emphasis started being placed upon institutional modernization in the direction of marketization and trade liberalization (Pistor 2000 and McKinnon 1995). Within manufacturing, in most non-communist developing countries, the initial thrust was in expanding the production of consumer goods and the processing of domestic raw materials and only subsequently turned to the expansion of producer goods and heavy industries. Some have recently progressed to information industries.

Similarly, the expansion of human resources and infrastructure investment have preceded early industrialization efforts in most LDCs (Chenery and Syrquin 1986). For example, the primary enrollment rate in Sub Saharan Africa has risen from an average of 20% in the sixties to an average of 78% in the 1980s, while the share of manufacturing expanded only by a factor of two. Similarly, at independence, Korea’s literacy rate was only 13% (!) (Hong 1994); by 1964, the share of college graduates has become triple that of Great Britain (Cole and Lyman 1971). During the same time the share of industry in value added had only risen to 15%.

But political development has lagged behind industrialization. The democratization of political systems came late in most developing countries, and achieving some depth in the development of democratic institutions still has some way to go in the great majority of developing countries. Political development first stressed achieving some degree of effectiveness of government and only afterwards turned to increasing its degree of representativeness. The process of democratization has lagged behind that of structural change in production patterns and the modernization of economic institutions. Finally, the evolution of an independent judiciary is still in its infancy in most developing countries. The judiciary in developing countries reflects primarily the interests of the government and those of the ruling elites rather than dispensing impartial justice (Pistor 1999).

Lesson Five: Technological change, demographic change, and changes in economic, social and institutional conditions provide the major impetus for change. They generate both new challenges and new opportunities for national development. They have multifaceted implications and trigger switching points in economic development.

The historical importance of technological and demographic change as prime movers was emphasized by Kuznets (1966) and stressed in the grand dynamics of the classical economists (Marx 1853 and Malthus 1798). In modern developing countries, technological change takes the form of technology transfer, rather than endogenous R&D, and occurs mostly through sectoral change in the composition of output (i.e. dynamic comparative advantage). Endogenous growth
models view technological change as giving rise to increasing returns which affect long term equilibrium growth prospects (Roemer 1986 and Lucas 1988), and can explain both a low level income trap and self sustained per capita income growth. The import of the industrial revolution technology into developing countries gave rise to economies of agglomeration (Landes 1969) and economies of scale (Rosenstein Rodan 1943); it increased rural-urban migration (Harris and Todaro 19XX) and its capital-intensity decreased the equality of the distribution of income (Streeten 1986), at least initially. The technological characteristics of the industrial revolution led to geographic concentration of development, urbanization, marginalization of less well linked areas and communities and to a tendency towards monopoly. By contrast, the new communication technologies underlying the current industrial revolution destroy the economies of agglomeration generated by the energy-intensive production patterns to which the 19th century industrial revolution gave rise and substitute economies of scope for economies of scale through e-commerce. It also raises returns to specific kinds of education; and enhances the extent of globalization of production (World Bank 1999 and Gurevitch, Bohn and McKendrick 2000). The technological characteristics of the new economy thus offer an unprecedented opportunity for more decentralization and more even economic development, provided the initial conditions in the form of appropriate infrastructure and human resource development are more evenly distributed geographically.

Similarly, along demographic lines, urbanization and the growth of the middle class, themselves generated by the spread of urban manufacturing activities, have changed the political landscape towards greater economic and political participation (Adelman and Morris 1973). At the other extreme, the increase in share of people below the age of 25 in high-fertility African countries has contributed to the prevalence of bloody ethnic civil wars, political instability as well as to the rise of fundamentalist and terrorist activities. Finally, along political lines, a decline in the political power of the rural traditional elite and a rise in the political influence of urban workers explain the persistence of import-substitution policies in Latin America (Mc Guire 1997 and Kagami 1995). The divergence in subsequent trajectories between two countries with very similar initial conditions towards the third quarter of the 19th century, Argentina, whose polity represented the feudal landed elites, and Australia, where urban workers had captured the polity, illustrates this point (Morris and Adelman 1988).

Lesson Six: The most critical factors needed to generate development are both tangible and intangible..

In order of importance, they are:
leadership commitment to economic development; this includes not only the willingness of the leadership to submerge personal and short run considerations to the common long run welfare but also the capacity of the bureaucracy and its dedication to the pursuit of common long run goals. Adelamn and Morris (1967, pg 241) found that, once the major economic and social obstacles to development had been overcome, intercountry differences in leadership commitment to development explained as much as 66% of intercountry differences in rates of economic growth. Similarly, in Korea, it was not until President Park, whose major commitment was to economic development, had replaced President Syngman Rhee, whose primary commitment was to achieving and maintaining political autonomy, that the economy started taking off. Prior to that Korea was considered by the US as a basket case and “the hell hole of foreign assistance” (Cole and Lyman 1971). Also, visionary leadership has been identified as a significant factor in instituting and maintaining credible commitment to institutional and policy reforms (Williamson 1994).

Is leadership commitment to development or exogenous? Some elements of leadership commitment, particularly the integrity and efficiency of the bureaucracy are endogenous. For example, in Korea, within the first three months of his taking office, President Park succeeded in transforming the ethos of the bureaucracy from a corrupt self-serving, inefficient one to a managerial one that was committed to the achievement of social goals, through a combination of firing or jailing of corrupt higher level civil servants, and retraining the rest (Mason et al 1980). But I do not believe that commitment at the very top can be regarded as endogenous: one cannot explain the emergence of a Park in Korea, Kemal Ataturk in Turkey, or Lee Kwan Yu in Singapore except with Toynbee’s (19XX) optimistic historical theory that fundamental challenge, such as those posed by unacceptably low levels of performance at the very top, eventually produce the man needed to respond to them. It is also true that greater social capital tends to amplify the effectiveness of leadership commitment to development, as, for example, in Korea’s very rapid and largely strifeless recovery from the recent Asian financial crisis.

(ii) the level of social capital. Social capital includes not only the supply of human resources but also the extent of social cohesion, and the willingness to act in the social good. The notion of “social capital”, as used by economic historians (Abramowitz 1986), reflects the extent of social trust, cooperative norms, and the density of interpersonal networks (Evans 1997). The critical importance of social capital for developing countries has been confirmed by Temple and Johnson (1996). Social capital generates a synergistic relation between the state and civil society, in which social capital can be coproduced between the state and civil society (Evans

2 I am indebted to Karla Hoff for raising this issue.
1997) and, in turn, encourages the creation of a situation in which active states and mobilized communities enhance each others’ effectiveness. The degree of homogeneity in social structure, ethnic homogeneity and religion/culture are important in determining the level of social capital in a given society and hence its acceptance of reform initiatives.

Kerala, for example is a case in point. There, the interaction between state and labor in a high social-capital society generated the economic processes and political institutions for redistributive growth (Heller 1997). Similarly, the contrast between the effectiveness of irrigation systems in Korea and Taiwan, with socially cohesive citizenries, and their ineffectiveness in India, with a highly stratified community, (Wade 1985) is another. So is the drastic difference in the nineties between the evolution of China, a high social-capital civilization in which GNP rose at an average rate of 10%, and Russia, a low social-capital civilization characterized by age-old norms of distrust (Landes 1998) which experienced drastic declines of GNP, is also partially due to the differences between them in levels of social capital (Burawoy 1997). Social capital is also an important ingredient in economic reform, as social consensus for reform widens the political base for change (Williamson 1994) and thus facilitates its implementation and enhances the probabilities of reform-survival. A deeply stratified society with low levels of mutual trust is likely to fight over the distributional benefits from reform, even when the net benefits of reform are widely distributed, since different groups are unlikely to feel that commitments to sharing of benefits will be honored, once reforms are implemented (Bardhan, forthcoming).

Till recently, there has been a tendency to ignore social capital as an input into the process of development, as development economists concentrated primarily on the macroeconomic and microeconomic features of developing countries and largely ignored the mezo-economic, the intermediate, institutional features which mediate between the macro and the micro. Fortunately, however, social capital is endogenous and can be enhanced (or depleted) by the nature of interactions between the state, external agents (such as students or NGOs) and societal civic actors. To mobilize communities for the next thrust of development requires forging alliances between “good bureaucrats”, reformists within the state, the media and socially motivated groups that articulate civic aspirations and grievances, on the one hand, and civic groups, on the other.

(iii) **the tangible inputs** (infrastructure, physical and human capital, investment and finance). The tangible inputs, while important, tend to respond to the intangible ones. The

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3 This term is due to Paul Streeten.
classical economists regarded investment as the critical prime-mover of development. Indeed, Rostow (1960) posited that an increase in the national savings rate to above 15% was a precondition for development. And, the World Bank was founded to provide foreign savings to provide additional finance when domestic savings are insufficient to finance the necessary investment push. However, the tangible inputs are the handmaidens of development, not the ultimate source of development and certainly not the appropriate criteria for quantifying development achievements. For example, a statistical analysis of time series for the last fifty years of development in Korea indicated that leadership commitment to development Granger-caused investment. (Adelman and Song 2001). When there is leadership commitment to development, investment resources can be mobilized. But investment by itself can only contribute to economic growth, not generate development, in the sense the term is used in this paper.

(iv) **appropriate policies**, especially with respect to trade, investment and macroeconomic management are important for both growth and development. But, they must change dynamically with development and are not constant either across different industrial sectors or across the same sector over time. They are also interrelated. We will discuss this point at some length in the next section, which is devoted to development policy.

(v) **institutions and culture**. These can support or thwart development. It is important to note that they are not immutable but are rather quite malleable. They can be influenced by leadership and by the mobilization of social capital as well as by domestic crises and external pressures. Institutional change can occur endogenously, in response to a change in transactions cost (North 1977), crisis (India in 1991), technological or social change in power relations (Marx 1859). But, in developing countries, reforms occur mostly in response to state action, since coordination failures, free rider problems, risk, distributive conflicts and moral hazard impede automatic responses from the private sector through the creation or amendment of existing institutions (Lin and Nugent 1995).

The structural adjustment era of the eighties saw substantial evolution of market institutions and liberalization of trade in most Latin American and Asian countries; the Latin American liberalizations occurred in response to their financial crises and to pressure from international institutions urging pursuit of “Washington Consensus” policies. These exemplify institutional change introduced from above in response to a crisis and to external influences. A different example of institutional change, is offered by Korea in the sixties and seventies, where each major new government policy-initiative entailed creating a new institutional vehicle for its implementation. For example, the assumption of an entrepreneurial role by the state when President Park took office, entailed deep institutional reform in the bureaucracy and strengthening
of the Economic Planning Board; similarly, embarking on broad-based rural development called for the creation of a new superagency to coordinate and oversee rural-animation policies of different government-departments (Adelman and Song 2001).

And (vi) **institutional and social resilience and malleability.** These attributes of the society and polity are critical to successful long run economic development because development consists of continual nonlinear dynamic change in all aspects of economy, polity and society. One therefore needs to be able to switch out of activities and institutional modes that have become unprofitable or undesirable. For instance, state development initiatives are not always wise, well timed and of appropriate scale. When mistakes are made or when development changes the initial conditions or when the global environment changes sufficient institutional malleability, social capital and social resilience are needed to allow what may be even a drastic about-turn. For example, the heavy and chemical industry drive undertaken by President Park in the late sixties, was premature, extremely costly, and ill-timed, occurring as it did just before the formation of the oil-cartel which drastically raised the input prices for these industries. Fortunately, in 1980-81, Korea was able to abandon the subsidies to these industries and force them to become competitive. This enabled these industries to become the backbone of the economy and over 50% of its exports during the mid-eighties and throughout the nineties. Historically, economies that cannot adapt get stuck in a particular developmental phase in which they ultimately stagnate. Thus, most East European countries had sufficient political flexibility to enable them to introduce partial market reforms even during the Communist era, and, after a short period of adjustment to the breakup of the CIS, resume economic growth (World Bank 19XX). By contrast, the Communist Party in the Soviet Union was sufficiently strong to block all attempts at even partial market reform. It started to stagnate under Communism and, when the Soviet Union broke up, its economy went into a tailspin.

**Lesson Seven: The relationship between growth and distribution depends primarily on the factor-intensity of growth and on how concentrated is the distribution of the most important factor of production.**

The distribution of income is established mainly through the primary distribution of income that is generated by the production-determined circular flow. Secondary redistribution through transfers, while needed to relieve the poverty of the intrinsically non-working poor, is effective in changing the distribution of income only as long as it is continued. Even then, the effects of transfer programs on the distribution of income are quickly dissipated. (Adelman and
Robinson 19XX). Mere add-ons to unchanged basic development processes are therefore an expensive and largely ineffective way of tackling the equity problem.

The failures of the capital-intensive rapid industrialization programs typical of the first two post WWII decades of development to improve the welfare of the poor and their tendency to deteriorate the distribution of income indicated the importance of the main factor-composition of growth and the main means by which this growth is induced. The main thrust of development strategies, how these affect real factor prices and the nature of property-right institutions are the main determinants of how growth impinges on the distribution of income. Different industries have different factor-intensities and therefore emphasis on different sectors implies a different factor-intensity of overall growth. When the main thrust of development is based on a factor whose ownership is concentrated, development is unequalizing. More specifically, when ownership institutions for the primary factor of production, or when the institutions for access to the factors that are complementary to it are concentrated, or when the policies adopted to induce that type of growth depress the prices of the main factor of production owned by the poor, growth is unequalizing. By contrast, when the ownership of primary factor of production and of access to factors complementary to it are equally distributed, and when the policies used to foster growth do not result in reducing the returns to the main factor owned by the poor, growth is equalizing.

For example, whether land-intensive growth is equalizing or not depends on land-tenure conditions. When land ownership is characterized by small and medium sized owner-operated farms, as in Korea and Taiwan, agricultural productivity enhancing growth is equalizing, provided access to credit and irrigation are egalitarian. By contrast, when, as in most Latin American countries, land tenure conditions are of the latifundia-minifundia variety and subsistence agriculture, small tenancies are prevalent, improvements in agricultural productivity, even when technologically neutral as with HYV (Longhurst and Lipton 1989), are unequalizing because access to credit and irrigation, which are needed to use the new technologies, are generally withheld from smaller, subsistence farms. A shift towards rural development and against urban bias will therefore not automatically improve distribution or reduce poverty, even though this sector is more labor-intensive than even labor-intensive industry and contains the poorest of the poor, landless labor, demand for whose services depends on the technological characteristics of agriculture as well as on the distribution of land.

Also, natural-resource intensive growth is almost always unequalizing, because the ownership of natural resources, whose returns growth raises, is unequally distributed. The primary exception is when natural resources are state-owned, as in some oil-exporting countries, and the proceeds are used to enhance social development and build up infrastructure and industry.
Similarly, capital intensive growth raises the share of income of the wealthy groups of owners of capital and of middle-income skilled and professional workers in capital-intensive industries at the expense of the lower income groups. By contrast, labor-intensive growth tends to be equalizing, since raw labor is the primary asset owned by the poor. However, education-intensive growth is equalizing only when the educational pyramid is flat, as in East Asia. By contrast, when primary and secondary education are restricted to mostly the numbers needed to fuel University enrollments, as in Brazil and India, knowledge-intensive development is unequalizing. In sum, the factor-content of growth, the distribution of ownership of the relevant assets and the institutions and policies used to promote that form of growth are at least as consequential as the rate of growth for egalitarian development.

The equitable-development trajectories of the East Asian countries were due primarily to their having equalized access to the main factor of production before investing in enhancing its productivity and its importance in economic growth. Thus, they implemented redistributive land reforms before embarking on rural development. This meant that the benefits from subsequent improvements in agricultural productivity were widely distributed. Also, they invested heavily in universal primary education before embarking on labor-intensive growth. They subsequently widened access to secondary and University education before embarking on capital-and-skill-intensive growth in the seventies and eighties. Finally, they drastically increased engineering, professional and computer-education before turning to technology-intensive and information-intensive industries. There was therefore no conflict between growth and distribution in these countries. On the contrary, there was a synergistic relationship between them (Kuo et al 1981, Wade 1990 and Adelman 1974).

Trade and accumulation policies are important in determining the spread-effects of growth and how growth and inequality interact. With respect to trade, import substitution in capital-intensive industries, is unequalizing both because it raises the capital-intensity of growth and because it tends to raise the prices of consumer-goods on which the lion share of income of lower-income households is spent, through anti-import-biased measures such as tariffs, quotas, and high exchange rates. By contrast, export-oriented growth in labor-intensive, consumer goods industries is equalizing because it raises employment and returns to labor unless specific policies are instituted to foster low wages. Also, when export-oriented growth is accompanied by low tariffs and low exchange rates, it turns agricultural terms of trade in favor of farmers and lowers consumer goods prices, with favorable distributional consequences.

With respect to accumulation, when policy favors investment in education with a flat educational pyramid, it tends to be equalizing. By contrast, when accumulation policies are intended to increase the supply of investment-capital, by providing subsidized finance for
investment in capital-intensive industries and raising the real rate of interest on savings, growth is unequalizing. Also, macroeconomic policies that increase asset prices, such as real estate, are unequalizing.

Finally, the government-market institutional profile of the economy also influences the equity of growth. In the eighties, the view that income-distribution failures were due to state intervention was prevalent. The state was seen as a price distorting, rent seeking, protectionist, and corrupt and it was argued that both growth and equity would be well served by reducing state intervention in the economy. However, it soon became apparent that unchecked market-based growth tends to be unequalizing, because it tends to tilt policy against labor, the main asset of lower income groups, and restrict competition. This is why in the early part of the twentieth century most currently developed, market-based industrial countries have had to introduce legislation establishing the right of labor to organize and bargain collectively; antitrust legislation to increase competition; regulations to protect against predatory market behavior by enterprises; regulations mandating safe working environments etc. The current view is that a balanced mix between state and market are required for development. What matters more than the government-private sector mix is the distribution of economic and political power to which policies and institutional behavior respond. Taiwan and Korea were able to adopt the redistributive policies needed for equitable growth because, for historical reasons, they started accelerated growth from an egalitarian distribution of wealth and hence of power.

Is there a Kuznetz curve? Not in the sense that a U-shaped course of inequality is inevitable. (Adelman and Morris 1973, Aghion, Caroli and Garcia-Penalosa 2000 and Squire 1993). We have seen that the course of development is characterized by choice, and many of the choices impinge on the growth-equality relationship. It is probably still true that, even if at low levels of development the stress is placed on rural development, the early stages of industrialization are still unequalizing because of the large wage differentials between workers in manufacturing and real-incomes in agriculture and the high levels of open unemployment in urban areas induced by rapid migration reflecting expected urban-rural wage differentials. But the increase in equality at high levels of development is a matter of national choice: if access to secondary and higher education are restricted, or where the emphasis is on capital-intensive development there will not be an increase in equality until very late in the development process (as in Turkey and Mexico, where the distribution of income is still concentrated despite their OECD status). In any case, the share of income accruing to the poor is likely to be J-shaped with per capita income, tracing a very flat curve during the middle and late phases of development. (Anand and Kanbur 1993 and Papanek and Kim etc).
The World Bank’s approach to poverty alleviation is based on “poverty conditionality” (World Bank 1991). This entails a three-pronged attack: targeted transfers, which do not affect the primary distribution of income, to reduce the poverty of those who cannot work for demographic reasons (age, infirmity); productivity enhancing expenditures for education and health biased toward the poor; and sectoral shifts towards improving the productivity of small farms -- the most labor-intensive -- , away from large-scale, capital-intensive projects in industry and infrastructure, and towards general rural development and export-orientation in labor-intensive consumer manufacturing.

Lesson Eight: Cultural factors play a significant role in shaping institutions and societal responses to new challenges and opportunities.

The primary difference for development purposes is in whether the culture promotes individualistic or communitarian values. This determines among other things the respective roles of markets and government, how they interact, and how economic and political institutions are structured. It also impinge upon the extent of social cohesion and malleability and how the economy, society and polity respond to shocks.

Both individualistic and communitarian cultures have advantages and disadvantages. Both can be the basis for successful development, but their relative spheres of operation and how they interact must also evolve dynamically. Individualistic responses foster innovation, dynamism, creative destruction and geographic and social inequality. They put a premium on competitiveness and on market-based approaches to development. Communitarian responses foster social cohesion and the social ability to absorb change, and hence national resilience and malleability. They place a premium on social equity in growth outcomes and foster societal and governmental approaches to development. They also enable societies to more easily absorb short run decreases in personal welfare in the interest of the common long run good (Rodrik 1997, 1998). Each culture assigns the task of correcting the deficiencies it gives rise to the complementary sphere (e.g. either government or markets).

One can illustrate the impact of culture on economic institutions by contrasting the structure of firms in East Asia, whose culture is communitarian, with their structure in Western industrial economies, whose culture is individualistic (Adelman 2000). We start with the proposition that a firm which faces cyclically fluctuating revenues can only have two of the three following characteristics: (1) non-decreasing employment; (2) non-decreasing wage rates; and (3) a strict budget constraint. This is so because, under the first two constraints, the bulk of the firm’s contractual obligations cannot be reduced below those of the previous year. Its wage bill
is non-decreasing; its capital costs are sunk; and its interest obligations are fixed. Under these circumstances, if the firm operates under fixed budget constraints and the declining phase of the business cycle is sufficiently long, the firm will eventually have to declare bankruptcy. The long term viability of firms therefore requires them to relax one of the above three constraints.

When choices need to be made, the choices flow not only from the perceived objective situation and interests of the chooser but also from his values. Therefore, which one of the three constraints upon firms’ operations is dropped depends upon the society’s religious and cultural values.

Western firms, operating in societies that embody individualistic Weberian values, chose to resolve the trilemma facing the firm by relaxing the employment constraint (1), while largely meeting the non-decreasing wage rate constraint for those workers whom they continue to employ (2) as well as maintaining tight budget constraints (3). The wage-bill of Western firms thus became flexible and, during the downward phase of the business cycle unemployment rises, sometimes dramatically. This throws the entire burden of cyclical adjustment on the unemployed and, to counteract this, society as a whole accepts the duty of providing a social safety net in the form of unemployment insurance, albeit at a much lower income levels.

By contrast, in accordance with Korea’s communitarian Confucian values, Korea’s pre-crisis firms accepted conditions (1) and (2) while violating condition (3). Thus, Korea’s chaebols were constrained to non-decreasing employment and wages, while enjoying a soft budget constraint. The soft budget constraint was implemented through an implicit commitment by the government, reflected in the directives it imparted to the banking system, to support the continued economic survival of the chaebols as well as underwrite their expansion. In turn, the chaebols used this implicit commitment to meet their obligations to lifetime employment contracts at non-diminishing wages even during periods of economic downturn. This institutional construct shifted the burden of providing a safety net from society as a whole onto firms in an institutional system of communitarian capitalism (Song 1997). But the Korean solution led to an overleveraged economy, which, as we saw in the 1997 financial crisis, eventually became economically untenable, as a result of the growth of firms and globalization. It is also difficult for the two different types of firms to coexist under globalization of capital flows.

III. Lessons Concerning Development Policy:

We shall concentrate on only a few major lessons in this section, drawn from long term experience. For reasons of space, we omit macroeconomic management lessons and more recent lessons on the management of capital flows. Since the North East Asian economies have been incontrovrebly the best development performers in the modern era (World Bank 1993) we will
use East Asian experience to illustrate the propositions in this section. While applicable to other developing countries, the lessons for development policy will be drawn primarily from Korea, the star performer in this group (Stiglitz 1996)

**First, development policy consists of the creation of dynamic comparative advantage.**

In this process, economies mature through the sequential acquisition of comparative advantage in successively more sophisticated branches of production. Investment patterns, human resources, institutions, culture and incentives must be continually adapted so as to foster the formation of comparative advantage in the next set of industries. As one type of comparative advantage is acquired, by mastering its technology, or as specialization in a sector, or in a specific activity within a sector, become obsolete, emphasis must be shifted to another sector or activity.

During the past 50 years, Korea, for example, moved systematically from an agricultural economy in 1953 (when the share of agriculture in value added was \(49\%\) and that of industry only 6%) specializing in primary exports (85% of total exports); to a manufacturing economy concentrating on the production and export of manufacturing by 1966 (14% of value added and 61% of exports) centering on light, labor-intensive industry (74% of manufacturing); to a heavy industry focus by 1981 (54% of manufacturing and 64% of exports); to a technology and knowledge-based economy. It became an industrial country in 1985 (Krueger 1997). Within broad sectors, the composition of output also changed, sometimes dramatically. For example, in the sixties, the output of petrochemical sector consisted primarily of labor-intensive coal briquettes, produced in small shops with less than five employees; by the late seventies, the main activities in the petrochemical sector had evolved into oil refining and agricultural and industrial chemical inputs, produced in large, capital-intensive factories, in a new urban complex of large state-owned enterprises and their employees. Similarly, in the eighties, the primary steel firm produced mainly rolled-steel sheets, while by the early nineties it had branched out into specialty steels. (see also XX for further examples).

The process leading to the acquisition of dynamic comparative advantage is complex and multifaceted. New comparative advantage is achieved through a large variety of coordinated means whose nature and magnitude change dynamically: investment in specific factors of production (the acquisition of special skills and human capital; and the construction of plant and

\[^4\] The numbers in this paragraph are computed from Bank of Korea Statistical Yearbooks, various years.
machinery) and in infrastructure (roads, ports, airports, electricity generation, telecommunication facilities, etc); the creation of an enabling policy environment which restructures incentive systems; the building of the institutions (financing facilities, national research institutes, trade-promotion centers, industrial processing complexes) needed for this phase; and through technology policy. This implies that comparative advantage is man-made, not God-given.

Strategic approaches to the development of dynamic comparative advantage require a dynamically changing, anticipatory, thrust of policy initiatives. Policy prescriptions cannot remain constant. Rather, they must change with the country’s initial conditions -- her resource endowments, both physical and human; her development levels; and her institutions. The same policy prescriptions are not appropriate for all countries or even for a single country at all points of time. The primary thrust of development policy must change with changes in (i) domestic conditions, including but not limited to its natural and human resources, its physical capital and its institutional infrastructure; (ii) technological and demographic trends; and (iii) national and international conditions. The thrust the policy initiatives should focus on creating the initial conditions for generating comparative advantage in the new activities one wants to promote at that point in time as well as on improving the productivity of existing activities one wants to retain. The created initial conditions include not only resources, both physical and human, but also the country’s institutions, outlook and behavior.

In identifying which new economic activities to stress, one needs to take account of the linkages of the new activities in factor and inputs markets; their optimal scales; and the local initial conditions needed for them to thrive. In choosing which activities to develop one also needs to evaluate how potential new activities might contribute to overall objectives when their direct and indirect effects and their positive and negative externalities are taken into consideration. Because of virtual markets and globalization of trade, local output-demand markets are becoming much less important than backward linkages through production.

The East Asian countries have been particularly aggressive and skillful in the acquisition of dynamic comparative advantage. For example, the switch from import substitution to outward-oriented development in both Korea and Taiwan entailed: substantial devaluation (by as much as 50% in Korea in 1964); aggressive investment in new capacity and infrastructure (investment rates were raised above 20%; investment in electric energy was undertaken and in Taiwan in the construction of a processing facility for reexport). In both countries a multitude of subsidies were granted to exporters. The export incentives included: numerous quotas on imports-- in Korea by commodity, in Taiwan not only by commodity but also by country of origin (Yotopoulos 19XX); automatic import licenses and foreign exchange allocations for inputs used in the production of exports and their duty free entrance; access to
otherwise tight credit at high nominal but subsidized real rates); and, in Korea, an industry specific wastage-allowance system that permitted the domestic sale of some portion of the raw-materials imported for export purposes. In Korea, individual firms were allocated export-targets and their performance relative to the target was strictly monitored by the Ministry of Commerce as well as by the President himself (Cole and Lyman 1971; Jones and Sakong 1980). If the firms exceeded their target, they were rewarded with further credit and foreign exchange allocations; if they fell short, they were admonished and, if they did not “shape up” they were punished with sanctions ranging from turning off utilities, to IRS audits, to shutting them down by revoking their trading licences.

When, in 1973, Korea embarked on its Heavy and Chemical Industries (HCI) drive, the government’s role in promoting this reorientation from textiles and footwear towards steel, petrochemicals, shipbuilding, machinery, non-ferrous metals, and electronics, became especially heavy handed. Some Koreans perceived it as a forced march, and worried about its inflationary implications, the substantial difficulties it generated for traditional exporters, and the concentration it promoted in industrial organization in manufacturing (private communication from Dr. Nam Duck Woo, Minister of Finance at the time). The transition to the HCI industries was in part a response to Nixon’s rapprochement with China, in part a response to enhanced competition and increased controls on textile industries worldwide (Krause 1997).

The switch from the promotion of comparative advantage in light, consumer goods production to heavy and engineering industries entailed a second, substantial shift in policy, just as extensive as the prior shift from import-substitution in consumer goods to export orientation. The special export incentives were largely withdrawn from the labor-intensive industries (indeed they became starved of credit) and shifted to capital-intensive Heavy and Chemical Industries. The HCI industries received massive financial assistance: over 50% of policy loans at specially subsidized rates and 47% of general bank loans in manufacturing (Nam and Kim, 1997). Tax incentives for traditional exports were reduced while tax incentives for the new industries the government wanted to develop were raised, albeit temporarily. Also, the HCI industries benefitted from a multitude of extensive industry-specific, targeted supports, granted under special laws enacted to promote each individual HCI industry. At the same time, protection of light industries was withdrawn and extended to the HCI industries. In sum, there was a shift to a classical import-substitution program in producer-goods industries.

Whether the HCI drive was successful or not is debatable. It was certainly very expensive, drastically increased the capital output ratio of the economy (by 50%), raised concentration, promoted industrial giantism and produced severe dislocations for other industries. It also increased the government’s role in the economy not only indirectly but also directly, since
many of the HCI industries were state owned enterprises (managed by former generals), and gave a large push to the conglomerates (chaebols) who were “asked” to branch out into some HCI industries. It was also ill-timed, coming, as it did, just before the first oil-shock which tripled the cost of oil inputs into oil refineries and petrochemical industries. But, the economy’s growth rate continued high as did its exports despite the worldwide recession. The potentially negative distributational effects of the reorientation towards capital-intensive growth in manufacturing were mitigated through simultaneous emphasis on (labor-intensive) rural economic and social development. Some of the HCI industries became internationally competitive very quickly, with Korean steel displacing steel production by US Steel and Korean shipbuilding displacing Swedish shipbuilding in less than five years from their start. Others, especially in petrochemicals, did not become internationally competitive for 10 to 15 years. And, last but not least, by the eighties, the HCI industries had become the backbone of the economy and its predominant exports.

Not only trade and commercial policies but also investment strategies play an important role in the development of dynamic comparative advantage as different types of investment strategies give rise to different types of comparative advantage. Investment in the accumulation of physical capital breeds subsequent comparative advantage in capital-intensive industries, while investment in human resources generates comparative advantage in labor, and skill-intensive industries. Latin American countries invested in physical capital and relatively neglected investment in education; scrutiny of their factor-intensity of their exports indicates that they wound up with comparative advantage in capital-intensive manufactures (Balassa 1979). East Asian countries, on the other hand, invested heavily in education, starting at very low levels of per-capita GNP, both because they lacked natural resources and because Confucianism places a high value on education; they developed comparative advantage in, first, labor-intensive exports, then, in skill-intensive exports, finally graduating to engineering and high-level manpower-intensive exports.

The effects of failing to adopt a dynamic approach to comparative advantage are illustrated by Latin America, where countries have, by and large, stuck with their large heavy industry, import-substitute development focus from the sixties to eighties. Their history indicates that countries that have used static rather than dynamic comparative advantage as a guide for development policy, have eventually stagnated.
To have sustained development, policy must anticipate the challenges and opportunities generated by technological, institutional and demographic change. Thus, the current changes in communication technology and in globalization-institutions are likely to have significant implications for the future production patterns of developing countries. Most likely, the “new economy technology” will generate even greater international specialization, increase international trade not only in goods but also in services and alter the nature of comparative advantage. For instance, with instant communication, greater, efficient, geographic specialization becomes possible across countries and continents, leading to more subcontracting of the production of parts and software services. The advent of the “new economy technology” will therefore entail changing the foci of development policy.

It should also be emphasized that the change in global trade institutions consisting of the creation of the WTO make it doubtful whether the trade regime it imposes on its members will permit developing countries to pursue a dynamic approach to comparative advantage as aggressively as did Korea and Taiwan. Many of the market instruments they used to promote the acquisition of dynamic comparative advantage (quotas, tariffs, and industry specific subsidies) are “illegal” under WTO rules. What this leaves is direct government investment in new activities, and non-market pressures on individual private firms to develop new types of comparative advantage. It is an ironic thought that the international rules aimed at leveling the international playing field and making it more market-oriented will result in greater intervention and more targeted discretionary activities by governments wishing to develop their economies.

Second, the nature of trade and commercial policies is critical to development. Export orientation promotes growth and structural change.

Trade is important because it is the only wild card in the deck, which enables a decoupling of national production from national consumption. Shortfalls in domestic production can be corrected through imports and surpluses can be absorbed through exports. This is especially important for small countries, to enable specialization and efficient production-scale and thus promote competitiveness. But, as we saw above, the structure of trade-incentives offered to particular industries needs to be changed dynamically. Infant industry protection is required to encourage new activities but it must be replaced by export orientation once the infant approaches adolescence. Trade policies must therefore consist of a changing mix of selective protection for some industries and free trade for others.

The evolution of trade and trade-related incentives in Korea and Taiwan illustrates this point (Scitovksy 1984). The East Asian economies pursued four different trade regimes. They
started with import substitution in manufactured consumer goods; moved to export-expansion in consumer goods; then embarked on import substitution in producer and intermediate raw materials; and then moved to successively more neo-classical free trade in the 1980s and beyond. The changing dynamic thrust of trade regimes is a direct result of the pursuit of dynamic comparative advantage. However, one must noted that, even though one may distinguish four phases in Korea and Taiwan’s trade regimes, their trade policies were never pure, as the detailed description of their policy phases given below indicates. The import-substitution periods in both countries, emphasized exports as well as import substitution. Conversely, selective import-substitution was also promoted even during the heyday of their export-led growth.

Export-led growth did not always characterize Korea and Taiwan’s trade policies. The export-led growth period was preceded by a brief initial period of classical import-substitution during 1961-65 in Korea and 1952-1958 in Taiwan, during which import substitution provided the major contribution to economic growth (in Korea, growth decomposition indicates that 36% of growth during this period was due to import-substitutions, as compared to only 7% for export expansion (Kim and Roemer 1979). It should be noted, however, that, in contrast with most developing countries, the primary focus of their import-substitution was on consumer rather than producer goods industries, though some producer-goods industries (cement, fertilizer) were also developed during this period. Therefore, like most countries practicing the first stage of import substitution (Krueger 1997) economic growth and restructuring were rapid also during this import substitution period, which set the stage for the export-led growth which followed.

Next came a period of export-orientation, during which the previously import-replacing consumer goods industries were reoriented towards exports. The stress upon export-orientation in this early phase was where the East Asian economies differed from all other developing countries, which followed up their initial import-substitution in labor-intensive consumer goods with import substitution in capital intensive producer goods. This difference in trade strategy is responsible for the contrast between the rapid expansion of the East Asian economies and the slow growth of the rest of the developing world.

However, it should be emphasized that the export-oriented trade and industrialization policies of Korea and Taiwan were mercantilist (Hong 1994) rather than guided by either neo-classical free-trade principles, or by “open economy”, neutral, trade-incentive systems. This was deliberate, rather than the result of ignorance, as Bela Balassa, an adviser to Korea during this period, kept pressing for more neoclassical trade policies. The trade strategies of East Asian countries were generally characterized as “open” (Krueger 1997), in the sense that they did not discriminate in their effective rates between incentives granted to exports and imports. However, this characterization is incorrect. As it relies on a partial quantification of the value of incentives
granted to exporters. When both the direct and indirect values of the entire system of incentives, including the value of the export-linked subsidies such as credit and foreign exchange allocations, and of duty-free entrance of inputs are incorporated, the results indicate that, when they shifted to export-led growth, the real effective real exchange rate became biased towards exports. In Korea, this calculation reveals that the real effective exchange rate for exports was 20% higher than that for import (Kim and Westphal, 1977). Even this more comprehensive calculation substantially understates the bias of incentives towards exports since it excludes the value of monopoly profits accorded exporters as a result of protection of the domestic market for their products; the money equivalent of import quotas; or the value of reduction in incentives to import competing production. Furthermore, since the export-incentives were detailed and industry-specific, especially in their import-export linkage mechanisms, in practice they discriminated among commodities and sectors, even though this was not the a priori intention. In practice, this system resulted in a pattern of multiple, commodity specific, effective exchange rates. The effective government-subsidy rate varied substantially among commodities, ranging from an effective subsidy rate of 125 won per dollar of exports in nylon fabrics to 5 won per dollar of fresh fish exports (Koo, 1984). Finally, most finished manufactured products were either on the “Prohibited” or on the “Restricted” list (Hong 1994). Thus, it would be incorrect to view this period as an “open economy” period. Rather, one should view this period as one of export-led growth in labor-intensive, consumer-goods industries, during which a multitude of measures was used to promote exports.

Even though export-oriented, this period also included some selective import substitution, in cement, fertilizer, refined petroleum, and textile yarn and fabrics. These industries were also subsidized through various specific incentives, similar to those granted exporters.

It is true that there was some trade liberalization as well as general liberalization of the economy during the export-led growth period. The number of items whose imports was forbidden was reduced substantially. Tariff rates were lowered. The real effective exchange rate for imports and exports moved towards greater neutrality and the incentive-bias towards imports was less than in most other developing countries or than it would become during the HCI period. Finally, the import privileges of exporters were transformed from being targeted in a discretionary manner to individual firms, to generalized, non-targeted incentives attached to any exporter. Thus, the Korea-Taiwan experience suggests that a country cannot launch a successful export drive while maintaining extreme degrees of import restriction.

5 Hong Wontack "Growth and Trade Pattern" in Kim C.K. op. cit., pp 361.
This export-led growth period led to accelerated growth and structural change, as is typical of labor-intensive manufacturing export-led growth periods in most developing countries. Exports grew by a phenomenal average rate of 46% annually and that of GNP rose by almost 25% over the import-substitution period, to 9.6% annually. The direct and indirect contribution of exports to industrial growth averaged 32%, and their contribution to GNP growth rose by a factor of 2.5. The share of manufacturing in GNP increased by 50% while that of agriculture dropped by a third. Manufactured exports rose to 70% of total exports and manufacturing export industries accounted for 33% of total employment (directly and indirectly).

The third trade policy phase, the HCI phase, entailed a return to heavy-duty protectionism and intensification of government interventionism. However, despite increased emphasis on import substitution this period was not accompanied by an abandonment of export-led growth. Nor did it lead to a slow-down in economic growth, in part because of continued stress on exports even in the newly established HCI industries but also because of the increased demand for exportables originating from the Vietnam war. The average legal tariff rate in Korea was increased initially by 50%, and then reduced gradually, though, because of exemptions of raw-material imported for exports and for capital goods needed for the HCI industries, the actual tariff ratio to imports was quite low (Hong 1994). The import-liberalization ratio declined from a high of 60% in 1967 to 50% in 1978 and there were significant increases in import restrictions on HCI-competing imports even when needed for exports. Even raw material imports were subjected to increasing restrictions. The share of manufactured consumer-goods imports dropped to about 15 and about 80% of imports consisted of raw material, machinery and intermediate goods.

The fourth and final phase in Korea (and Taiwan’s) trade policy came in the eighties, when most trade restrictions were dismantled and most subsidies, even to HCI industries, were withdrawn. This was an abrupt about-face. By 1982, the overall proportion of automatic approval import items had been raised to 77%; but the real rate of protection was actually increased somewhat (12% higher in 82 than in 1978). The growth rate continued to be very high, especially throughout the eighties and that of exports, though less than half that in the previous period and only a third that in the export-led growth period, was still a very high 14% in the twenties and almost 11% between 1987 and 95. Growth and exports became self-propelled, rather than government-driven.

**Third, a mix of government and market is needed to promote development. This mix must adapt dynamically, as development proceeds.**

No area of economic development has been as contentious as the professional attitudes concerning the role of government in the economy. General professional attitudes have
undergone three different phases. The first thirty years of development economics viewed government as a necessary prime mover, and reflected the view that the state represents a Platonic, social welfare-guided arbiter among conflicting interests. It was needed to correct coordination failures in interdependent investments in industry and move the economy out of the low-level equilibrium trap.

Then, in the eighties, with a recognition of the failure of the government-guided process to deliver improvements in the living standards of the poor, and with the replacement of democrats and labor-governments in developed countries by republican and Tory governments in the OECD countries, the pendulum swung against government-led development. This was the Washington-consensus period. Government policies in distorting factor prices were blamed for the failures of rapid growth and structural change to deliver commensurate benefits to the poor. Government focus on industry, neglect of agriculture, and reliance on capital-intensive factor-price-distortion-induced inappropriate imported technology were blamed. The view of the state was changed from Platonic arbiter to a predatory, rent-seeking, corruption and waste inducing entity. The weight of professional opinion shifted towards a limited state, which can do best for development by doing least. (It is amusing to note, however, that the Fourth Five Year Plan of Korea, of 1981, which aimed at marketizing the economy, contained 41 statements starting with the phrase “The government must...”).

The third phase, in which we are currently, saw a rehabilitation of the State. This rehabilitation was due in part to a shift against socially conservative governments in ORCD countries, in part to a reinterpretation of East Asian experience promoted by Japan who financed the “East Asian Miracle” study of the World Bank (1993) and in part to the disastrous consequences for Latin America of “Washington Consensus” growth. The current phase adopts a more balanced view of the role of government, which incorporates and melds some of the insights of the previous two phases. (World Bank 1996).

Government action is critical to get development started. However, as development proceeds the role of the private sector in development must increase. As we saw in the previous section, the government must aim at working its way out of supporting adolescent industries, so as to foster their maturing into competitive activities and proceed to stress the infrastructure, accumulation patterns and acquisition of resource endowments required for the development of the next phase of comparative advantage.

Markets and the state have different, complementary strengths. The strength of markets is their emphasis on efficiency, but only when institutions are competitive. (To make them competitive is a function of the state). However, markets are not particularly good at predicting the future when development is nonlinear and at taking account of externalities, both positive and
negative. While governments may not be better than the private sector in forecasting the future, but, for better or worse, their investment, policy change and institutional-reform activities have the force of self-fulfilling predictions. In the presence of externalities, reliance on markets alone is likely to promote monopoly or oligopoly, lead to underinvestment in both industry and infrastructure, and to negative externalities on the environment and on distribution. On the other hand, government is not particularly good at inducing efficient use of resources.

The strengths of government reside in correcting coordination failures (Stiglitz and Hoff forthcoming and Hoff forthcoming) in both investment and institution creation. The coordination failures in investment are due primarily to externalities and economies of scale in production; the coordination failures in building institution arise primarily from collective action difficulties (free rider problems, distributional conflicts, and the fact that losses are almost always immediate while gains are delayed).

Governments perform other functions as well: Nineteenth century governments of currently developed countries (Morris and Adelman 1987) used a large variety of instruments to promote industrialization: general and targeted subsidies; tariffs; credit and direct finance; incentives; monetary policy; monopoly grants; quantitative restrictions; licensing; tax privileges; and regulation of immigration, foreign investment and foreign capital inflows. Challenged by Britain's industrialization, latecomer governments enlarged the size of their domestic markets through: political unification; investment in inland transport; and abolition of internal customs duties and tolls. Governments increased the supply of labor by removing legal barriers to worker-mobility across regions and sectors; establishing favorable immigration laws, importing foreign skilled workers; and investing in education. Governments increased the supply of domestic finance by promoting the creation of investment banks; the formation of financial intermediaries; the establishment of institutions and policies fostering the transfer of finance to industry; and by direct finances. Governments promoted the import of technology from advanced countries. Governments were also a source of externality for private investment by fostering investment in infrastructure (electricity, power and transport-infrastructure), both directly and indirectly, and investment in human resources. Finally, governments lowered risk by enabling the establishment of limited liability companies, increasing the security of property rights, and enforcing private contracts. They also manage and set the ground rules for resolving distributional conflicts by setting labor and tenancy laws, enforcing competition rules and, in the twentieth century, establishing institutions to protect the weak. These functions are also performed by current developing country governments, as well as setting the macroeconomic framework for development and economic stability.
Since the strengths of markets and governments are largely complementary, a mix of the two is needed. The relative roles of the two evolve with development. Initially, the government must take a more active role in economic activity through direct investment in infrastructure and (more controversially) economic enterprises as well as through investment, policies and institutions for increasing the supplies of factors, reducing risk, and trade and commercial policies. Thus, the East Asian states have relied most on government for their first thirty years of economic development. As evident from the description of their trade policies above, the instruments they used before 1980 were of three types: market and non-market incentives; discretionary and non-discretionary bureaucratic interventions; and moral suasion. As Amsden (1989) says about Korea, her economic growth was not a case of simply "getting prices right"; in addition to price policy, a multitude of market and non-market, discretionary and non-discretionary incentives were used to achieve both general and specific industrial policy goals. Neither was it a case of "getting prices wrong". Rather, it represented a creative mix of prices that were almost right with subsidies, targets, directives, regulation and controls that provided just the right mix of carrots and sticks. The mix among instrument-types varied over time, but even now Korea's institutions do not fit the pure neoclassical, laissez faire, mold. (It is indicative that several current economic Ministers and government advisers to President Kim Dae Jung on financial crisis management and institutional restructuring are graduates of the Economic Planning Board that directed the private sector during the heyday of government-entrepreneurship in economic development.)

As development proceeds, developing countries should rely less on direct investment (though Korea and Taiwan did not do so during their second import-substitution phases) and more on setting appropriate policies, developing financial, tax and technology institutions and on striking an appropriate balance between macroeconomic stability and the promotion of economic growth through macroeconomic stimuli. Finally, when developing countries become NICs, the weight should shift to market-guided development and the functions of government should approximate those in developed countries.

**Fifth, human resource policies are critical to development outcomes.**

This is a proposition that both liberal and conservative economists agree upon. Liberals stress the beneficial distributive effects of more investment in human resources and their capability raising and empowering consequences (Adelman and Morris 1973 and Sen 1988). When accompanied by investment in human-resource, labor and skill-intensive industries, greater investment in human resources leads to more egalitarian outcomes. Conservative stress
that investment in the creation of different types of human resources is critical for climbing the ladder of comparative advantage, and thus has not only private but also social rates of return.

Ranis, Stewart and Ramirez (2000) reconcile the two views. They sketch two-way links between education and development, which can give rise to either a virtuous or vicious cycle. On the one hand, there is a feedback from growth to human-resource investment that operates through the availability of fiscal funds for investment. On the other hand, there is also a feedback from human-resources to growth, which operates through factor supplies for structural change to more skill-intensive industries. If growth is rapid, it can support higher investment levels in human resources which, in turn, stimulate faster growth and structural change. If the economy is stagnant, human resource investment is very limited and this leads to further stagnation. Their analysis is supported by endogenous growth A(k) models (Lucas 1988 and Romer 1986), in which knowledge generates external economies and raises the productivity of physical capital and raw labor.

Schultz (1981) was the first influential advocate of greater investment in human capital, in order to improve productivity, raise responsiveness to economic incentives and improve decision-making capacity while Adelman and Morris (1973) argued for investment in education for equality increases. Other benefits from education, especially female education, are reduced fertility and better nutrition. Schultz’s insights were supported by rate of return to education calculations (Psacharopoulos 1981) which indicated that, generally speaking, returns to education in developing countries are greater than returns to investment in physical capital.

**IV. Conclusion**

Both the process of development and development policy are interdependent, multifaceted, dynamic, and highly non-linear. Development therefore entails systematically altering the portent, mechanisms, modalities, agents and institutions for its promotion. The only constant in development is systematic dynamic change. This would hardly be worth stating, were it not that development theory has been presented as if its propositions are universally applicable, no matter what single feature of development policy they choose to stress and no matter which country its recommendation address. As a result, development policy advice has rarely been specifically tailored to the country’s initial conditions, widely interpreted. Also, largely as a consequence, development theory and policy have been unusually contentious.

In this context, I am reminded of an anecdote, related by Abba Lerner, about a Rabbi and his wife. Two contending parties come to the Rabbi and state their case. After the first party finishes the Rabbi says: “You’re right”. After the second party finishes, the Rabbi says: “You’re
right”. After both leave, the Rabbi’s wife, who has been listening at the doorway says: “How can they both be right?” and the Rabbi turns to her and says:” My dear, you’re also right.”

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This column asks: what have we learned from the experiences of developing countries over recent decades? a. A. It is more than 50 years since the establishment of the first modern special economic zones. But it is only relatively recently, particularly since the 1990s, that their popularity as a policy instrument has taken off. The International Labour Organization’s database of special economic zones reported 176 zones in 47 countries in 1986; by 2006 this had risen to 3,500 zones in 130 countries (Boyenge 2007). The World Economic and Social Survey is the flagship publication on major development issues prepared by the Department of Economic and Social Affairs of the United Nations Secretariat (UN/DESA). Under the overall guidance of Lenni Montiel, Assistant Secretary-General for Economic Development at UN/DESA, the Survey 2017 was produced by a team led by Diana Alarcón. What have we learned in seventy years of development policy analysis? Key messages. World Economic and Social Survey 2017 reviews the seventy-year history of a flagship publication, the oldest continuing report of its kind. Economists have used the disequilibrium adjustment property of growth models to justify the view that convergence should occur. Unfortunately, the empirical literature does not obey the “Lucas” admonition of estimating the structural parameters of a growth model that has the conditional convergence property and then computing the speed of convergence implied by the estimated structural parameters. In modern economies a number of variables undergo changes of various kinds: we have economic growth, business cycle variations, and seasonal fluctuations. Seasonal fluctuations occur within the span of a year, such as the demand for heating and Christmas trees.