THE STAGES OF ECONOMIC GROWTH

This third edition of The Stages of Economic Growth brings a classic work up to date thirty years after its initial publication. In a new Preface and Appendix Professor Rostow extends his analysis to include recent economic and political developments on the world scene as well as theoretical insights provided by non-linear and chaotic phenomena. For those coming to his work for the first time, the original text and the introduction and appendices from earlier editions are included. In the text Professor Rostow provides an account of economic growth based on a dynamic theory of production rooted in the flow of changing technologies, illustrated from the history of particular societies. He distinguishes five basic stages of economic growth and presents detailed discussions of each stage. He also applies the concept of stages of growth to an examination of the problems of military aggression and the nuclear arms race, as well as to an ending of the cold war he foreshadowed as early as 1960. The final chapter includes a comparison of his non-Communist manifesto with Marxist theory. Materials from the second edition include an appendix in which he responds to his major critics.
TO

ALISON, TATIANA AND
WILLIAM ROSE
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PREFACE TO THE THIRD EDITION

1

When first published in 1960 this book stirred up a considerable controversy, which continued over the subsequent decade. During most of that time I was a public servant and not in a position to respond to the views of others. Therefore, the preface of the second edition (1971) and its Appendix B deal with the debate unleashed by the *Stages of Economic Growth*. The debate has died down, but two related intellectual issues have by no means been resolved: What kind of a growth theory do we need? How does the reality of large innovations, with irreversible positive and negative structural consequences, affect the answer to that question? Appendix B, therefore, has been extended in this edition to reflect the debate from this larger perspective, including the insights provided by the emergence of non-linear dynamics and efforts over the past decade to apply its methods to economic phenomena.

The preface to the first edition is also included in this volume. It briefly evokes the lectures to Cambridge undergraduates in 1958 that were the origin of the text and records certain abiding debts to colleagues. The text remains as originally published in 1960, although the accompanying chart (p. xviii) has been up-dated and slightly modified.

The principal rationale for this third edition lies in the possibility that *Stages* might provide some useful insight into problems of the present and the future, as well as the past. This preface attempts to show why this may be the case.

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The concept of sequential stages of economic growth was initially presented not only as one component of a dynamic, disaggregated
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general theory of production⁠*⁠ but also as a way of looking at the contemporary world that might illuminate a number of quite specific questions of wide interest and concern in the late 1950’s (p. xlv):†

- What were the prospects for growth in the Soviet Union and the meaning of relative U.S.–U.S.S.R. growth rates?
- What were the prospects for U.S.–U.S.S.R. relations, as the march of the stages of growth forced a partial diffusion of power away from Washington and Moscow?
- What were the prospects for moving from cold war to stable peace in this world of diffusing power?
- What were the prospects in the southern developing regions of the world; how did they relate to the prospects for peace; and what ought we, in the developed north, do to help them?
- What were the problems and possibilities for America (and other foreseeably rich nations) beyond high mass-consumption?

In returning to these questions with an additional three decades of hindsight available I shall begin with the transformation of the Soviet Union and its Eastern European empire; then consider in a stylized way the course of economic development and modernization in Latin America, Africa, the Middle East, and Asia; and, finally, say something about the role of the present advanced industrial countries in determining the outcome of the powerful forces evidently at work in the world arena. At the close of this exercise I shall try to place the agenda that emerges within the sweep of modern history.

III

First, the Communist world. When I lectured in Cambridge in the autumn of 1958, those concerned with international affairs were much affected by the image projected by the Soviet launching a year

† The questions are slightly reordered here to fit the logical sequence of this preface.
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earlier of the first Sputnik, which suffused the Communist world with an optimistic sense of rising relative power. That mood was heightened by the display of apparently greater momentum in Mao’s China, then in the grip of the Great Leap Forward, than in Nehru’s democratic India.

Building my projection on the disaggregated mode of analysis that lies at the heart of The Stages I argued (pp. 102–3):

First, it is necessary to beware of linear projections. A variety of forces at work in Russia, already evident in her projected figures for expansion, are making for deceleration. The E.C.E. [Economic Commission for Europe] Survey of Europe in 1957 (published in 1958) presented, for example, the official projected rates of growth in key sectors of Russian industry shown in [the following table]:

<table>
<thead>
<tr>
<th>Annual average rate of increase</th>
<th>Coal</th>
<th>Oil</th>
<th>Pig-iron</th>
<th>Steel</th>
<th>Electric power</th>
<th>Cement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955–60</td>
<td>8.6</td>
<td>13.6</td>
<td>10.0</td>
<td>8.5</td>
<td>13.5</td>
<td>19.5</td>
</tr>
<tr>
<td>1957–72</td>
<td>2.8</td>
<td>9.4</td>
<td>5.3</td>
<td>5.3</td>
<td>9.7</td>
<td>8.6</td>
</tr>
</tbody>
</table>

...the composition of Russian output must certainly change. The present higher Soviet rate of increase in GNP is the product substantially of a peculiar concentration of investment in certain sectors. If steel is not to be used for military purposes, what will it be used for? An enormous heavy industry, growing at high rates, is not a goal in itself; nor is it an intrinsic international advantage. This is gradually being reflected in Soviet allocations: in agriculture, for example, where the pressure to increase the supply of higher grade food is a major domestic goal; to a degree in housing; to a degree in other forms of consumers’ goods—for example, television.

I then referred to some slight evidence that Khrushchev’s Soviet Union might move in the direction of the mass automobile, durable consumers’ goods, and suburbia. If expanded on the requisite scale, these sectors and those linked to them might have been a source of sustained momentum as the older heavy industry sectors decelerated; for, of its nature, economic growth after take-off can only be sustained by a succession of leading sectors because each leading sector is subject to deceleration with the passage of time.

As we now know, Soviet growth rates in the classic heavy industry sectors did decelerate, as foreshadowed by Moscow’s central planners of the 1950’s; but the sectors of high mass-consumption
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Table 1. U.S.S.R.: Average Annual Growth Rate of Industrial Output, 1961 to 1986

<table>
<thead>
<tr>
<th></th>
<th>%</th>
<th></th>
<th>%</th>
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<tbody>
<tr>
<td>1966–70</td>
<td>6.4</td>
<td>1981–85</td>
<td>1.9</td>
</tr>
<tr>
<td>1971–75</td>
<td>5.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


never took hold sufficiently to counter the drag of the decelerating older sectors. The over-all rate of industrial growth, therefore, progressively declined (Table 1).

Meanwhile, even deeper forces helped bring the Soviet Union to the Brezhnev stagnation of the 1980’s: the need to allocate increased investment resources to a perverse, inherently low productivity agricultural system; the need to rely increasingly on distant and expensive sources of raw materials and energy; and the continued allocation of the society’s best scientific, engineering, and entrepreneurial talent to military production, including space.* These depressing forces were compounded by extraordinary neglect of the physical environment and demographic trends. The latter yielded an absolute decline in the able-bodied population of European Russia, where most of Soviet industry is located. This circumstance rendered further Soviet growth increasingly dependent on accelerated improvement in productivity rather than on population increase or the transfer of the working force from rural to urban life. In fact, the rate of productivity increase declined.

This grinding to a virtual halt of a massive economy—investing more than 30% of GNP to achieve an increase in output that barely matched its decelerating rate of population increase—was climaxed by the palpable inability of Soviet society, endowed with ample cadres of well-trained scientists and engineers, to absorb and diffuse efficiently the array of new technologies that moved from invention to innovation during the mid-1970’s: microelectronics, genetic

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engineering, lasers, and a batch of new industrial materials. The Soviet system, with its bureaucratic compulsion to meet quantitative targets irrespective of quality, set up powerful perverse incentives that discouraged innovation except in the one field where Russia inescapably confronted international competition—the military. I have the impression from discussions with Soviet officials in the Gorbachev period that the image of a Soviet Union falling rapidly behind the United States, Japan, and Western Europe in the new technologies may have significantly helped to crystallize an elite consensus that a radical restructuring of Soviet society was imperative.

At some risk of caricature, the Soviet system emerges, in terms of stages of growth, as one that could manage and even expand output using incrementally improved pre-1917 heavy industry technologies: steel, electric power, cement, general purpose machine tools, basic chemicals. But it was a system that could not bring itself to make the political, social, and economic transition to the attitudes and technologies of the age of high mass-consumption or to make the profound institutional and policy changes required to absorb efficiently the post-1975 technologies. The Soviet system simply could not cope with the extraordinary rates of obsolescence of these technologies stemming from their close linkage to areas of science themselves moving at a revolutionary pace. Thus, a system at technological maturity after 1945 found it impossible either to move into high mass-consumption or to maintain itself at the always outward-moving technological frontiers after 1975. It tumbled off its growth curve. Ironically, we have witnessed an extreme version of a Marxist clash between technological change and an out-moded economic, social, and political superstructure. The required changes go to the heart of a one-party dictatorship, as the Central Committee meetings in February 1990 dramatized. The outcome cannot be predicted with confidence, except to say that the future of the U.S.S.R. is unlikely to unfold in a straightforward, linear way.

In different degrees the countries of Eastern Europe shared this descent to societal as well as economic bankruptcy, their dissidence heightened by two ultimately irrepressible forces: nationalism and a desire for the dignity of human freedom.
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But another broad conclusion flows from this perspective. Should Soviet society succeed in transforming itself, after whatever vicissitudes may be required, into a system with strong incentives for regular innovation, an enormous backlog of unapplied technology awaits it. Like Japan from, say, the mid-1950's, Russia may one day enjoy an extraordinary phase of economic growth as it moves from its present laggard position to the technological frontier now occupied by Western Europe, Japan, and the United States. The same can be said of Eastern Europe, which may well demonstrate this potentiality sooner than the U.S.S.R. because it is likely to be easier to break the grip of single-party rule and central bureaucratic control over the Eastern European economies.

IV

Soviet policy as it emerged under Gorbachev has included “new thinking” in foreign policy as well as перестройка and glasnost. Although the product of painful and costly frustration of external adventures, Moscow’s ‘new thinking’ flows ultimately from a phenomenon rooted in the stages of growth: the progressive diffusion of technological capacity, military potential, and sense of national identity and pride into the developing regions. The implications of the progressive diffusion of power away from Moscow and Washington is the central theme of Chapter 9 of The Stages, where it is seen, along with the transformation of Soviet domestic society, generation by generation, as the key to stable peace (see, especially, pp. 126–16). These matters are further pursued later in this preface (pp. xxii–xxiii).

The diffusion of power away from Washington and Moscow can be symbolized by three events in 1948: the passage of the Marshall Plan legislation; the currency reform in West Germany; and Tito’s successful break with Stalin. A second benchmark in the process occurred a decade later when, early in 1958, China and Russia split definitively over the nuclear question, and the United States shifted policy to begin systematic support for Latin American and Indian economic development.

Indeed, with the remarkable revival of Western Europe and Japan in the 1950’s, the center of gravity of the cold war moved to the
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developing regions—a change in strategy foreshadowed as early as September 1947, at the founding meeting of the Cominform. That initial shift was probably inspired by the prospect (unexpected in Moscow) that Mao would triumph in the Chinese civil war. Khrushchev, it is true, exerted pressure on Western Europe with his Berlin ultimatum and Brezhnev with nuclear blackmail via the SS-20’s; however, those dangerous but sporadic efforts ended with the Cuban missile crisis and the votes of the European parliaments to accept the cruise missiles and Pershings on their soil. The principal arena of sustained Soviet effort over the past forty years has been the developing regions.

Looking some sixty years ahead, the first edition of The Stages engaged in some high risk speculation about the prospects for the developing regions (pp. 126–7).

THE DIFFUSION OF POWER IN THE LONGER RUN

. . . the central fact about the future of world power is the acceleration of the preconditions or the beginnings of take-off in the southern half of the world: South-East Asia, the Middle East, Africa, and Latin America. In addition, key areas in Eastern Europe (notably Yugoslavia and Poland), and, of course, China, are hardening up, as their take-offs occur; and while they remain vulnerable to military conquest and occupation . . . they have lost or are losing their old spongy character. . . .

In short, looking ahead some sixty years it can be said with reasonable confidence that the world will contain many new nations which have achieved maturity. They may not be rich in terms of consumption per head; they may not yet be prepared by the turn of this century to plunge into the age of high mass-consumption; but they will have the capacity to apply to their resources the full capabilities of (then) modern science and technology.

To make this notion still narrower and more concrete, it is fairly safe to predict that, by 2000 or 2010—which is not all that far away—India and China, with about two billion souls between them, will be, in our sense, mature powers. They may not be ready for the age of the mass automobile; and it is by no means assured that Communism will then dominate China, and democracy India. . . . But it is reasonably clear that compound interest has come to be built into those two massive societies; and three generations of an environment of growth should produce maturity—perhaps less than that, if China maintains forced draft and solves the food problem.

Along with the stagnation of its economy, a rapidly widening technological gap, and the failure of its SS-20 nuclear blackmail cam-
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Campaign against Western Europe, it was Moscow's disabuse with the prospects for enlarging its power and influence in the developing regions that accounts for the timing of "new thinking" in foreign policy. Looking back to 1945 from the mid-1980's, Soviet analysts could identify some tactical successes as well as failures in cold war terms. But both successes and failures proved costly in Soviet resources. Moreover, the tactical successes yielded no long run strategic results because the highly nationalistic governments of the developing regions served Moscow's purposes only when they converged with their own interests. From a Soviet perspective, the developing countries did not stay bought. This underlying dissatisfaction over an expensive policy long pursued out of ideological and institutional inertia was brought to crisis and fundamental review by the tragic misjudgment in Afghanistan.

Thus, sober cost-benefit assessment of four decades of ardent adventure in the developing regions appears to have yielded a negative result. Perhaps a few Soviet analysts might even have looked back wistfully at Dwight Eisenhower's August 1958 prediction of future great power relations with the developing nations (quoted on p. 131).

Now, what of the future? Was the vision in The Stages of the first decades of the twenty-first century credible?

There are certain errors of detail, and one major factor was not fully taken into account. The latter error arises from the inherently dynamic definition of technological maturity in The Stages. Arrival at maturity is achieved when a society has absorbed efficiently all the then-existing technologies. After that point a society must rely for a sustained increase in productivity on the current flow of new technologies from the R&D sector of global investment.

In terms of the major technologies of 1960, most of the more advanced developing countries of that time were clearly on their way to achieving technological maturity, e.g., in steel, metal-working, plastics, synthetic fibers, the basic pharmaceuticals, electricity, radio, television, motor vehicles, the simpler forms of electronics. China and India were soon to manufacture aircraft and build nuclear reactors, nuclear weapons, and rockets. A good many other commanded the necessary technological know-how.
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But between 1960 and 1990 a major batch of new technologies came on stage—shifting radically outward the technological frontier and altering the substantive content of ‘maturity’. The question as of 1990 is, then: How soon will the more advanced developing countries get an efficient grip on micro-electronics, genetic engineering, and so on? A few are clearly on their way—notably, South Korea, Taiwan, and India; and some of the fast-moving countries of East Asia (e.g., Thailand and Malaysia) are not likely to be far behind. That could also be the case in Latin America—notably, in Brazil and Mexico—if the debt burden is lifted. China would certainly be among the earliest of the developing nations to move out to the new technological frontier if, like the Soviet Union, its political system did not frustrate its extraordinary intellectual and entrepreneurial potential as it did in the Great Leap Forward, in the Cultural Revolution, and in June 1989.

In short, it may be sometime beyond 2010–2020 that the more advanced developing countries fully absorb the technological revolution now still rapidly unfolding. However, barring some kind of global disaster, I have little doubt that the emergence of what I call the Fourth Graduating Class (Chart 1) to full technological maturity, with all that implies about the distribution of economic power and political influence, will be a central characteristic of the global arena in the course of the first half of the twenty-first century.

This prospect poses one of the great foreseeable policy problems: can the global community adjust peacefully to the absorption of these new technologically mature societies? The history of the past century—since, say, Kaiser Wilhelm took control of German foreign policy from Bismarck in 1890—suggests that arrival at technological maturity can be a dangerous age, to whose temptations Germany succumbed twice, Japan and Russia once.

Peace in the next century will depend on an array of contingencies: (1) the continued mutual restraining role of nuclear and other weapons of mass destruction; (2) the capacity of India and China to avoid a phase of tragic rivalry like that of France and Germany between 1870 and, say, 1950 when the European Coal and Steel Community was created; and (3) the creation of global and regional institutions that will permit enlarged scope and influence for the
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FOUR GRADUATING CLASSES INTO TAKE-OFF STAGES OF ECONOMIC GROWTH, TWENTY COUNTRIES

- Great Britain
- United States
- France
- Germany
- Sweden
- Japan
- Russia-USSR
- Italy
- Canada
- Australia
- Argentina
- Turkey
- Brazil
- Mexico
- Iran
- India
- China
- Taiwan
- Thailand
- South Korea

Take-off:
- Class I, 1783-1802
- Class II, 1830-1850
- Class III, 1870-1901
- Class IV, 1939 to present

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a New England regional take-off, 1815-1850
b Sao Paolo regional take-off, 1900-1920
c Manchurian regional take-off, 1930-1941


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new technologically mature nations without tempting them with chimerical visions of global or regional hegemony. We are much closer now to these challenges than when the following more general passage in The Stages was drafted (p. 128).

The central fact to which all nations must foreseeably accommodate their policies, then, is the likelihood that the arena of power will enlarge to become, for the first time in history, truly global; and that the centers of effective power within it will increase. The image of a bi-polar world, in which all but Washington and Moscow are spectators, is inaccurate now, and it will become progressively more inaccurate with the passage of time. Although still gripped in an essentially bi-polar arms race, we are, in fact, approaching an age of diffused power, in which the image of Eurasian hegemony—fearful and enticing—will lose its reality, and world domination will become an increasingly unrealistic objective—assuming, always, maintenance of nuclear stalemate.

Later in this preface (pp. xxv—xxx) I shall consider some possible implications of this perspective for the presently more advanced industrial societies that moved into take-off in the first three graduating classes, that is, Western Europe, the United States, Japan, and Russia.

V

There is another problem, which flows from the likelihood that the members of the Fourth Graduating Class, notably China and India, will arrive at technological maturity before, say, the middle of the twenty-first century; namely, the strains on the physical environment that global industrialization and urbanization may impose. Estimates of future population, with all their uncertainties, suggest why the problem justifies anxiety. Current World Bank calculations yield a hypothetical maximum global population of 11.2 billion, levelling off progressively to that figure in the period 2025–2100. The proportion of the total population in presently more developed countries declines by half between 1980 and 2100: from 26% to 13%. This is a revolutionary shift. It is, of course, in the developing regions with high rates of population that the greatest expansion in energy consumption and over-all output will take place.

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Present scientific knowledge by no means justifies dogmatism about such possible threats to the global environment as the greenhouse effect, the attenuation of the ozone layer, and acid rain. But existing strains on the forests, arable land, and species as well as increasing pollution of air and bodies of water make it difficult to contemplate complacently a more than doubling of global population, with the increase overwhelmingly concentrated in countries likely to be experiencing dramatic increases in those technologies that now carry with them the greatest threats of pollution. In the first instance, the control and roll-back of pollution is a charge on national and local communities. But the international dimension of the task will remain critical, become increasingly expensive, and require intensified international cooperation.

In a longer historical perspective, the problem can be set out in somewhat different terms. From its eighteenth-century origins a recurrent theme asserts itself in political economy, fades away, and once again appears; that is the notion that diminishing returns to non-renewable natural resources will, in the end, set limits to population expansion and economic growth. This proposition was at the root of the classical judgment that the prices of food, energy, and raw materials relative to manufactures would rise with the passage of time. Over the sweep of the last two centuries, this did not happen as a clear-cut, linear, or even persistent erratic trend; but it did happen periodically during the intervals, say, 1790–1813, 1848–1873, 1896–1920, 1933–1951, 1972–1981. In each of these intervals some thoughtful analysts addressed the policy issue that would be posed if the trend were to persist in a linear manner. Malthus and Ricardo in the first such phase; W. S. Jevons in the second; J. M. Keynes and D. H. Robertson in the third; the authors of the Paley Commission Report at what turned out to be the close of the fourth; the Club of Rome in the fifth. In each case, the relative price shifts that marked these phases set in motion incentives to invest in expanded supplies, in the development of substitutes, and in conservation. Given the time lags involved in this process of correction via shifts in the pattern of investment—often requiring large population movements and consequently long periods of gestation—there was a persistent tendency to over-shoot substantially. Phases of falling
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or low relative prices of basic commodities followed. Some analysts—notably, W. A. Lewis and I—would hold that this oscillation in relative prices and investment patterns, accompanied by a related sequence of trends in over-all prices, interest rates, income distribution, and real wages, is at the core of the long cycle phenomena that N. K. Kondratieff identified but for which he never found an adequate explanation.

What I am asserting here is that, given apparent trends in population and industrialization, the world economy is likely to confront a somewhat similar phase centered on a relative rise in the cost of clean air, clean water, and so on, induced by the need to correct past erosion of the physical environment. To a substantial extent, pre-1914 periods of relatively high priced food, raw materials, and energy could be corrected by the working of relatively free markets. Now all these markets are strongly influenced by public policy. The markets for clean air, clean water, forests, and arable land have almost always been substantially in the hands of governments since, for example, the Swedish King began to set limits on the annual cutting of forests in the seventeenth century. This time, more than in the past, corrective action will depend on forehanded domestic and international public policy.

The history of recurrent anxiety about the limits to growth giving way to effective corrective action is prima facie ground for a degree of optimism that the forthcoming period of maximum pressure of increasing population and industrial growth on the physical environment can be successfully weathered. But easy complacency may well prove dangerous. Corrective processes in the past required massive investments, population movements, and a concentration of inventive talent on generating alternatives. This will remain true. Limits to growth crises already can be observed in parts of Africa south of the Sahara, and the brutal, protracted assault on the environment has already shortened the average length of human life in the Soviet Union and Eastern Europe. These warnings are none the less real because they were brought about by unwise public policy rather than inescapable conflicts between the aspirations of man and the limitations of nature.

There is one more thing to be said about this prospect: the imper-
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A fourth challenge which clearly relates to the stages of growth is the fate of societies that appear still trapped in the preconditions for take-off. They are not traditional societies, because the world of contemporary technology is so powerful and intrusive that it has introduced elements of modernity in all nations. Nevertheless, perhaps 20% of the human race—a billion or so men, women, and children—lives in countries that have not yet attained self-sustained growth. This group includes, inter alia, most of Sub-Saharan Africa, Bangladesh, Burma, Haiti, Yemen, Afghanistan, Vietnam, and some of the Pacific islands. This list suggests the variety of circumstances that may have forestalled entrance into take-off: climate, historical and cultural heritage, partial or total rejection of modernity as an explicit objective, resource limitations, war, endemic political instability, perverse public policies, or various combinations of these frustrating constraints.

The first and most important thing to be said about international development policy in relation to these late-late-comers is that, in the end, it will have to focus on each society, with all its unique features. No one can now state with confidence how many will achieve take-off. Some may turn a corner fairly soon and move ahead rapidly, as South Korea did in the 1960s. Others may be frustrated for decades by problems of resource constraints and/or aspects of their political, social, or cultural heritage, and/or bad public policy.

Evidently, the development problems of Sub-Saharan Africa are currently the most challenging, both because of their scale and because, as nearly as one can judge, the popular desire for development appears authentic. The plight of these aspiring but frustrated peoples was made vivid by a question put to me by an African agricultural technician attending an international development center in India where I spoke in 1983. He said, in effect: “Many African
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countries became independent twenty years ago but have not entered take-off. What’s wrong with your theory?” When the laughter had subsided, I discussed the wide range of mainly non-economic forces that have historically determined the length of the preconditions for take-off: short for Japan (32 years from Commodore Perry’s arrival, only 17 from the Meiji Restoration); long for China (110 years from the Opium wars); even longer for Mexico (120 years from independence). Evidently, no uniform time-period could be defined for developing the preconditions for take-off. I concluded that the people of each country, suffused with their respective cultural, social, and political heritages, would determine if, when, and how their entrance into sustained growth would begin. The African heritage—including strong tribal attachments and arbitrary boundaries derived from colonial history—was likely to make the interval between independence and takeoff protracted but, probably, shorter than for China or Mexico.

A part of the challenge posed by these hard cases is that economists cannot usefully come to grips with them unless we are willing to make cultural, social, and political factors—as well as history—a living part of our analyses. The reason for this assertion lies ultimately in the character of the technical tasks of the transitional stage (see pp. 6–7 and 17–31). Three such tasks are of particular importance.

First, food production must increase, almost always requiring an increase in agricultural productivity. The classical political economists took for granted that an increase in agricultural production was necessary to supply the enlarged working capital a growing urban, industrial system demands. A lively sense of this vital link was, for a time, lost among a good many development economists in countries run by both Communist and non-Communist governments.

Second, export earnings must expand, usually out of agriculture and/or the extractive industries.

Third, investment in infrastructure (including education) must also increase. In a developing country about 35% of total investment is in social overhead capital; almost 60% if housing is included.

As The Stages argues (especially, pp. 26–31), in different ways
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each of these three inescapable tasks requires positive political decisions in a setting where the development must compete with other possible political objectives. Nowhere—not even in Britain or the United States—did modern private-enterprise industrial systems emerge without substantial government action to facilitate the process.

So far as policy on development aid is concerned, the relatively advanced developing countries have an important role to play in assisting the laggard societies. Countries in the drive to technological maturity are closer to the early phases of development and should be able to provide effective technical assistance, as, indeed, Taiwan has done for a number of African countries. The assumption of that responsibility would be easier and more natural if the regional structures of the world economy were to be strengthened, each embracing nations at different states of growth. The Pacific Basin appears ripe for such an effort, and the Western Hemisphere is ripe for a renewed and heightened collective effort. As for Africa, a parallel regional effort appears appropriate, with Western Europe taking the lead among the advanced industrial countries and the United States and Japan as junior partners, and with the World Bank working in collaboration with the African Development Bank. Some such purposeful, collective effort may have to await the subsidence of certain political and diplomatic problems, but in terms of the fate of the men, women, and children of Africa, the effort is long overdue. The larger case for such regional organizations is explored later in this preface (pp. xxxii–xxxiii).

There is nothing in The Stages that decrees that all societies must accept the goal of modernization. Assessing the advantages and costs of economic growth against those of their traditional societies, nations might well decide to opt consciously for the latter, as have some American Indians and, for a time, Burma. But in a world of modern weapons, communications, and technology it is a difficult decision to make and sustain. It is, for example, virtually impossible for responsible political leaders to reject measures of public health that will lengthen life but put pressure on the food supply, as Burma demonstrated in moving from food surplus to deficit in its period of purposeful withdrawal from modernization. Similarly, with satellite
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communications it is virtually impossible to keep the talented young from knowledge of the world outside and from wishing to exercise their talents in that tempting, diversified, competitive setting—adventures that often yield disappointing and sometimes tragic results. And there is a still older lesson: societies that deny themselves modernization also leave themselves open to intrusion, and soon or late they may be driven to accept the world of modern technology. Thus, Jefferson ended by accepting Hamilton’s case for manufactures and, via Eli Whitney, set in motion the mass production of guns with interchangeable parts. Thus, the Samurai, responding to the enforced opening of the Hermit Kingdom by the guns of Commodore Perry’s seven black ships, brought the young Emperor Meiji back to Tokyo from Kyoto and wrote for him the Charter Oath announcing the search throughout the world for science and technology to advance the greater glory of the Empire.

Contemporary countries that have not yet entered take-off do not, on balance, represent a group trying to fashion viable traditional societies in revolt against the costs and distortions of modern life. In different ways, they all reflect failures to achieve avowed modernizing objectives, selected after the believed costs and benefits had been weighed.

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The fifth challenge confronting the world community concerns the older industrial nations, that is, Western Europe, North America, and Japan, perhaps joined in time by the Soviet Union and Eastern Europe. These countries face at least four major uncertainties: (1) Can they maintain the vitality and cohesion to preside over a peaceful ending of the cold war? (2) Can they assist the members of the Fourth Graduating Class to make a peaceful transition to the rights and responsibilities of technological maturity? (3) Can they lead the way in organized international efforts to contain and roll-back environmental degradation? And (4) can they assure that the late-comers are assisted in moving into a Fifth Graduating Class—if they so desire—with external support, to the extent that such assistance can be absorbed efficiently.

In the context of the first half of the twenty-first century the ques-
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tion remains essentially that posed by David Hume in the second half of the eighteenth: Can the advanced industrial societies remain ‘industrious and civilized’ in the face of the rise of new, aspiring nations increasing their command over modern technologies? I posed essentially that question thirty years ago (pp. 91–2).

After all, the life of most human beings since the beginning of time has been mainly taken up with gaining food, shelter and clothing for themselves and their families. What will happen when . . . diminishing relative marginal utility sets in, on a mass basis, for real income itself?

Will man fall into secular spiritual stagnation, finding no worthy outlet for the expression of his energies, talents, and instinct to reach for immortality?

After citing a wide range of possibilities, from larger families to boredom, I concluded:

. . . But we need not brood excessively over this matter. For the moment—for this generation and probably the next—there is a quite substantial pair of lions in the path. First, the existence of modern weapons of mass destruction which, if not tamed and controlled, could solve this and all other problems of the human race, once and for all. Second, the fact that the whole southern half of the globe plus China is caught up actively in the stage of preconditions for take-off or in the take-off itself. They have a reasonably long way to go; but their foreseeable maturity raises this question: shall we see, in a little while, a new sequence of political leaders intent on aggression by their new-found technical maturity; or shall we see a global reconciliation of the human race. . . . [W]e had better turn our minds [to these two problems] if we are to have the chance to see whether secular spiritual stagnation—or boredom—can be conquered.

As for ‘large families’, the unexpected rise of the birth rate in the 1950’s did not persist. For virtually all advanced industrial countries (including European Russia) birth rates fell and net reproduction rates became negative. But the baby-boom generation is leaving or will leave its mark on the size and age of the working force, on the ratio of working force members to young and old dependents, on the structure of demand for consumers’ goods, and on claims for social security as that generation comes to retirement in the second quarter of the next century. But between now and then another

* For discussion see *Theories of Economic Growth From David Hume to the Present*, especially pp. 27–31.

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A surge in birth rates is wholly possible; for, despite a plethora of statistics and refinements in demographic analysis, the history of population is just as non-linear as the rest of human experience and demographers just as prone to inaccurate predictions as other social scientists.

There are also in the first edition quaint references to life in the 1950’s, for example, to Lambrettas and monstrous twin-tail U.S. automobiles. But what is palpably true is that, for the advanced industrial societies, there is still ‘a most searching agenda’ that should continue to postpone the test of ‘whether secular spiritual stagnation—or boredom—can be conquered’. Within our societies—most notably in the United States but in parts of Western Europe as well—there is a contemporary version of Disraeli’s ‘two nations’, that is, generally vital, relatively affluent societies containing an underclass with a considerable tendency to reproduce itself. There are the linked problems of drugs and crime, related, in part, to the phenomenon of an underclass for whom the civilizing agents of society—family, church, and education—do not work. There is AIDS suddenly reminding a high-tech world that plague has not been conquered once and for all, just as threats to the environment recall that the old devil diminishing returns has been kept at bay for two centuries only by large investments and endless innovative effort.

Then, of course, there is the international agenda outlined in this preface, which was partially—but only partially—suggested in the first edition of The Stages. An ending to the cold war was, indeed, envisaged.* But as of 1990 we can see much more clearly how complex, precarious, and perhaps protracted the transitions of the Soviet Union and Eastern Europe to their own versions of democracy and welfare capitalism—or something else—will prove to be. Basically, the peoples of those regions will have to find their way through these transitional passages on their own, although the West and Japan can and should help marginally. The same is true for China, which also must build a political and social system compatible with the imperatives of the coming century. Nevertheless, the perfor-

* See pp. 133–6 ("The Great Act of Persuasion") and p. 162.

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ience of the Atlantic world and Japan during this process may prove to be decisive to the outcome. For example, if NATO’s military strength is excessively weakened, if the present political and economic bonds across the Atlantic and Pacific are broken, and a neo-mercantilist struggle ensues in the non-Communist world, those in power in the Soviet Union and Eastern Europe (and China as well) may well be tempted to try to substitute external adventure for difficulty, but necessary, domestic change.

Put another way, the task of understanding what might be called historical sympathy and responding sensitively at each phase to the succession of problems that the Soviet Union and Eastern Europe now confronts is much more complex than uniting to contain the succession of outward thrusts of Stalin and Mao, Khrushchev and Brezhnev. But the stakes in an era still characterized by enormous stockpiles of nuclear weapons may be quite as great; and the premium on the maintenance of strength, a common vision, and common purposes from day-to-day may be at least as high as in the less complex days of the cold war.

Take, for example, the great tripartite architectural task the Atlantic world confronts if the cold war is to give way, in time, to a reasonably harmonious and secure structure in Europe. The three imperatives are these: the peoples of Eastern Europe must be free to form national governments reflecting their own wishes—which is now happening; NATO and the Warsaw Pact countries must, by agreement, radically lower the level of arms in Europe and provide long-term monitoring arrangements in which both the United States and Russia would participate; an economic structure must be completed in Western Europe toward which the Eastern European states are virtually certain to be drawn; Germany, almost certain to be unified, must be fitted into this security and economic structure by mutual agreement.

This is big business indeed, much more complex than the execution of the Marshall Plan and the building of the Western European communities and NATO. It is most unlikely to happen unless the Atlantic Community maintains its strength, generates a common vision, and sustains common purposes from day-to-day.

So far as the Pacific Basin is concerned, a little noted, quiet step
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was taken at Canberra on November 9, 1989, which may outrank in history the joyous bringing down of the Berlin Wall on the same day.

Foreign Ministers of twelve Pacific nations, including the United States, Japan, and ASEAN, decided in principle to move forward toward the creation of an inter-governmental organization for the Pacific Basin. Work on the initial agenda and organizational structure was set in motion. Although neither China nor Taiwan was present at the meeting, their membership is explicitly envisaged. The Soviet Union has exhibited serious interest in joining such an organization, but its membership may hinge on the prior negotiation of a Japanese peace treaty.

An intergovernmental organization for the Pacific Basin has been discussed and analyzed for a quarter-century at least. Its long period of gestation and the modesty of the steps taken at Canberra reflect two sharp-edged problems. The first is the need to include countries whose stages of growth vary over a wide spectrum: from, say, Japan and the United States to Indonesia and the small Pacific Islands. Quite particularly, there have been strong reservations among the members of ASEAN, who fear a free trade area or common market within which their nascent industries might be throttled in competition with the industrial giants of the region. The challenge has been and remains to devise and act effectively on a working agenda of authentic interest to members at all the relevant stages of growth. Second, there is the need to embrace, in the end, China and Russia, both authentic Pacific States, and to find the terms on which both China and Taiwan would agree to participate.

It is precisely these challenges that render the creation of a Pacific Basin organization potentially so important. In terms of rates of growth, the region is likely to sustain for some time its current position as the economically most dynamic area in the world economy. The volume of trade across the Pacific has regularly exceeded that across the Atlantic since 1976. Perhaps most relevant here, a good many of the rising members of the Fourth Graduating Class are in the Pacific Basin. The region thus contains nations on whose civilized relations with one another future peace clearly depends.

But the evident advantages to all peoples of building over time the
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habits of negotiation and cooperation within a Pacific Basin organization will certainly be denied if the United States and Japan do not settle soon and amiably their dangerous trade deficit-surplus problem and agree that building with their neighbors a Pacific Basin organization and nurturing within it a communal spirit is a shared goal worthy of extremely high and steady priority in Tokyo and Washington. The emergence of agreement on such a positive common goal between Japan and the United States will, I believe, prove a necessary condition for ending the post-Bretton Woods trade and payments anarchy and creating a successor regime with new rules of the game.

A similar case could be made for a revived economic organization in the Western Hemisphere and for new organizations, when history permits, for the Middle East and for Africa—each containing and reconciling the interests of advanced industrial and developing countries at different stages.

The countries of the Indian sub-continent have already created such an organization: SARC (The South Asian Regional Commission). The fulfillment of its mission of reconciliation and cooperation evidently awaits the emergence of a firm consensus in New Delhi that amicable relations with its smaller neighbors are fundamental to Indian security and prosperity—an insight that required considerable time before it was more or less accepted in American political life. In the Indian sub-continent the major role of advanced industrial powers is likely to be financial assistance in carrying out bi-lateral or multi-lateral projects within the sub-continent, for example, reforestation on the slopes of the Himalayas and the development of the great potentials of the Ganges-Brahmaputra river complex.

Why do I emphasize regional organizations? In a world where heightened interdependence has progressively reduced the capacity of the nation state to solve by itself the problems of its people, why not global solutions? The answer is that the United Nations in New York contains some 160 members. It is too big and too remote to do the detailed serious house-keeping business required to meet the various needs of specific countries in each of the regions. An implicit or explicit acceptance of this reality in fact led to the crea-
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The United Nations Economic Commissions for Europe, the Far East, Latin America, and Africa—the first three as early as the late 1940’s.

There is one further reason why the members of the first Three Graduating Classes should strive to remain ‘civilized and industrious’. If present projections of population and technological virtuosity are roughly correct, they confront a problem of scale worth noting. By 2050—a date well within the probable lifetime of children born in 1990—the population of India and China is responsibly estimated, in each case, to be 1.5 billion.* Our imaginations do not stretch easily to the notion of highly industrialized and technologically competent nations each six times the size of the United States.

However, one analyst of current Soviet affairs has asserted that President Gorbachev’s imagination has already taken in this point.†

In the early years of the Gorbachev period, the question was: ‘Does Gorbachev want to split Western Europe and the United States?’ In fact, Gorbachev has never had such an aim, but rather has had a conception of Europe that extends from Vladivostok westward all the way across Eurasia, the Atlantic and North America to California. He has not wanted to split the United States and Western Europe, because he senses that the superpowers of the future lie on his border, and that they contain a billion people and more: he wants his country to be a part of a European community that also has a billion people. When the head of the Soviet General Staff, General Mikhail Moiseev, recently spoke fervently on an American television program about the reestablishment of the wartime alliance, his point was not merely propagandistic. (‘60 Minutes,’ CBS News, Sept. 17, 1989)

In the perspective of Russian history this is a not wholly unlikely or, indeed, irrational conclusion. Russians have been obsessed with the abiding danger posed by China since the Mongol victory of 1223 at the Kalka River. In its wake the Khanate of the Golden Horde was established in Southern Russia in 1237, asserting suzerainty over the country as a whole for about two centuries. The historical evolution of Russia did not cease in this period, notably in the north, which was virtually free, but the traumatic Mongol intrusion, around which Russian nationalism began to form, has been transmitted over

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the centuries to every Russian schoolchild. As Deng’s reforms in the
countryside took hold and China, despite many distortions, began to
exhibit considerable momentum at a time of the Brezhnev stagna-
tion, far-seeing Soviet analysts and political leaders might well have
arrived at the strategy Hough evokes. With their eyes on China,
they might even have noted that population projections for the ‘more
developed’ nations in 2050 came to a reasonably comfortable 1.4 bil-
lion, embracing in that category Europe, the Soviet Union, the
United States, Canada, Australia, New Zealand, and Japan.

Even assuming that there is a measure of validity in Hough’s inter-
pretation of Gorbachev’s strategic vision, I would not commend its
rationale as a general basis for policy among the advanced industrial
countries. The structure of global power decreed by the diffusion of
technology and the stages of growth sequence has broken the simple
succession of hegemonic powers some have appeared to see in mod-
ern history. Moreover, the history of hegemonic visions is a history
of tragic failures, compounded in the case of the cold war by the
powerful restraining force of nuclear weapons and other instru-
ments of mass destruction technologically available to an expanding
number of nations. These have violated—and probably violated per-
manently—the proportionality between a nation’s population—
industrial base and usable military force.

Nevertheless, I suspect, for quite different reasons, that there is
something in Hough’s interpretation of Gorbachev’s vision. Indeed
a non-military imperative is now helping move nations into regional
organizations. As of, say, 1983, Western Europe was in a state of
Euro-pessimism as it observed the momentum of Japan and the
United States in generating and diffusing the new technologies.
Rousing itself, the European Community set the integration targets
for 1992. Suitably impressed by these goals, the Americans and
Canadians moved forward toward a common market—an idea can-
vassed indecisively since before the Civil War. Impressed by both
developments, Tokyo exhibited a new seriousness about a Pacific
Basin organization. And, to close the circle, when a Brussels Euro-
crat briddled in public about Europe’s exclusion from a serious pre-
liminary meeting on the Pacific Basin, he was told off as ‘cheeky’ by
an Australian diplomat. The impulse to match someone else’s big