Catch-Up

Why Poor Countries Are Becoming Richer, Democratic, Increasingly Peaceable, and Sometimes More Dangerous

Henry S. Rowen

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Asia/Pacific Research Center
Stanford University

About the Author

Henry S. Rowen is director of the Asia/Pacific Research Center at Stanford University. He is a senior fellow at the Hoover Institution and a professor of public policy and management emeritus at the university's Graduate School of Business. From 1989 to 1991, Rowen was the assistant secretary of defense for international security affairs in the U.S. Department of Defense. He was also chairman of the National Intelligence Council from 1981 to 1983, served as president of the RAND Corporation from 1968 to 1972, and was assistant director of the U.S. Bureau of the Budget from 1965 to 1966. He recently published an article in *The National Interest* (fall 1996) titled "The Short March: China's Road to Democracy." Most recently, he was the editor of *Behind East Asian Growth: The Political and Social Foundations of Prosperity*, published by Routledge Press, 1998.

Preface

My interest in the developing countries, and some consequences of their catching up with the advanced ones, has several origins. One is experiences in government, at the RAND Corporation and at Stanford's Graduate School of Business, experiences that brought me into contact with people from many developing countries—or at least data and analyses about them. One of these was the Soviet Union, although it was not then widely regarded as underdeveloped. In the mid-1980s, Charles Wolf and I edited two books on the economy of the Soviet Union whose principal thesis was the advanced state of decay of that system. It was, to be sure, a pathological case but pathologies can be instructive.

The immediate cause of my work on the developing countries was Professor Samuel Huntington's book *The Clash of Civilizations and the Remaking of World Order*. My immediate reaction was that most people in the future would be too rich to be engaged in "clashing." That was not an especially well informed opinion but it led to my investigating the current state of development economics and some of the known consequences of development. A profoundly important one of these is the connection, evidently a causal one, between economic and political development. If one accepts, as this monograph argues, that much of the world will become economically developed, then it seems to follow that it will become widely democratized as well. So I argued in "The Tide Beneath the 'Third Wave'" (Rowen, 1995). Of particular interest, because of its large and growing importance, is the political future of China; in "The Short March" (Rowen, 1996) I proposed that it is on a path to become a democracy in the not terribly distant future.

The material that follows could be deficient in at least two ways: one is that I undoubtedly have made errors both of omission and commission regarding the literature on development and only hope that they do not invalidate the central arguments. The other is that, despite an effort to anticipate events that could derail the path of progress, I might have missed something fundamental; but if this turns out to be true, so have many other people.

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It is easy to be confused about the world's prospect. On the one hand, since the collapse of the Soviet Union and its empire, many millions of people have been freed from economic and political shackles that had long kept them under authoritarian rule and in poverty—or at least far poorer than they should be. On the other hand, several parts of the world are beset by political turmoil and conflicts, rapid population increases, and falling incomes.

This paper makes three assertions.[1] The first is that much of the current turmoil is masking a process that promises to reduce greatly the incidence of poverty in the world over the next several decades. The second assertion is that the world will become more democratic. Not all democracies are rich, as India clearly demonstrates, but the correlation between income and freedom is high, not only worldwide but within almost all regions, and the main direction of causation runs from growing wealth to growing freedoms. The third claim is that because democracies tend not to war with each other, the incidence of wars in time should recede as the proportion of democratic countries rises, assuming that other things are equal (admittedly a large assumption). A sobering qualification to this third proposition is that, inevitably, weapons capable of causing great destruction will become more widely accessible.

This (qualifiedly) bright prospect for the world might seem implausible after nearly a century of conflict and death on a staggering scale. Even now, several developing countries are suffering from the effects of financial crises (Russia, Indonesia), ethnic and religious conflicts abound (Balkans, Caucasus), populations are growing rapidly (Africa and the Arab world), economically destructive economic policies persist (Nigeria, among many others), and several have recently acquired or are trying to get weapons of mass destruction (India, Pakistan, Iraq, North Korea). The decline of the old Cold War order, imperfect as it was, has exposed underlying hostilities, and it would be an error to believe that utopia will arrive any time soon. The only solution is development, but various social disabilities pose formidable obstacles to this end.

The Shift in the Ideological Wind

Nonetheless, a change of monumental importance has occurred: the era in which the spirit of collectivism—the ideology in which the state dominates the individual—is over. A fitting analogy is the imagined fate of a fleet of sailing ships. Earlier, the prevailing ideological wind was blowing towards statism. On many ships a captain was in control and steered the ship downwind. So behaved Mao, Nasser, Tito and many others. In due course, some of these ships ran aground or were taken over by other skippers who changed their course. On others there were struggles over control of the tiller, the sails, and the cargo (with much of it being looted). The course of these ships was naturally erratic, but the prevailing wind kept pushing them towards statism. Then the wind direction changed. Some skippers are now sailing downwind towards free markets while the struggle amongst the crews persists in other ships. The prevailing ideological wind now pushes them toward freedom.

I. The Prospect for Catching Up

The Unprecedented Increase in Growth Rates

With all of the troubles in the developing world, it is easy to overlook that the condition of the average person in developing countries has improved at an unprecedented rate in this century, especially in the years since World War II (Maddison, 1994). Two hundred years ago, the modern economic growth that began in Britain was soon followed in parts of Europe and countries of British settlement. The fringes of Europe—Sweden, Russia, Ireland, Italy, and Spain—lagged, however. Meiji Japan took off in the mid-19th century and then, after a long lag, the Soviet Union began rapid industrialization in the early 1930s. There was another gap until after World War II, when the four Asian "tigers" (South Korea, Taiwan, Hong Kong, and Singapore) began to develop quickly, followed by Thailand, Malaysia, Indonesia and—most significantly—China. Chile is the first Latin American country to experience a rapid growth that promises to continue.

Before World War II, however, much of the world did not experience similar growth. From the early 19th to the mid-20th century, Latin America made the most progress, but it lagged well behind today's advanced countries. According to one estimate, per capita GDP from 1800 to 1913 grew 1.5 times in Mexico, not at all in Brazil, and sixfold in the United States (Haber).

Colonies did poorly in relation to their metropoles. India's income growth between 1820 and 1913 was one percent less per year than the UK's, and Indonesia's was 0.6 percent behind the Netherlands' (Maddison, 1992). Metropole-to-colonial growth disparities persisted in the first half of this century, with British India falling farther behind Britain, Japan growing markedly faster than its colonies in Korea and Taiwan, and the U.S. outperforming the Philippines. A similar pattern existed between France, Belgium and Portugal and their colonies.

There were also marked changes in the ranking of countries by income. It may be hard to believe today, but as late as 1950, the average income in Maddison's sample of African countries was higher than in his Asian sample. Even in 1989, only a few high-growth East Asian countries had incomes above the Latin American average. Indeed, countries' rankings shifted significantly over the years. For example, in 1890, Argentina was twelfth in the world in income, and its growth of real GDP from 1880 to 1914 was probably the highest in the world (Davis and Gallman); later, it plunged down the list (declining in absolute income between 1979 and 1989). As Vitorio Corbo puts it, Argentina went from the First World to the Third World without pausing in between.

Despite Doing Much Better, There Was a Widespread Failure to Catch Up

The years after 1950 saw a marked change in this pattern. Most developing countries enjoyed faster growth than did the United Kingdom during the Industrial Revolution, the United States during the 19th century, Japan from the Meiji Restoration to the 1930s or Europe for the 150 years after 1800 (Summers and Heston). Performance differed strongly among regions, however. While East Asia grew rapidly, South Asia, Latin America, North Africa/ Middle East and the Soviet Union and its empire in Eastern Europe made less progress and Sub-Saharan Africa languished. Variations among individual countries were, of course, even greater than among regions. Surrounding the average of two percent a year per person in the developing world was a growth spread from –2.8 percent in Chad to +7.5 percent for Singapore.

The general failure of incomes in poor countries to converge on those of rich ones was inconsistent with neo-classical growth theory, which postulates that being backward implies the potential for faster growth. However, on the average, these countries had growth rates similar to those of advanced countries, while some, largely in Africa, were worse off at the end than at the beginning. Convergence in incomes occurred mainly among the already relatively well-off countries (an observation that suffers from the fact that it is easier to identify the winners in a race after the event than before). Only in health and longevity was nearly every country better off—certainly no small achievement.

The record shows both the way experts assessed the outlook for poorer countries in the period immediately after World War II and the advice that many offered. There was widespread pessimism about the future prices of raw materials, an outlook that was interpreted as implying that raw materials producers should industrialize rapidly. Although this judgment was not necessarily a bad one, industrialization at that time usually proceeded via state-led, often state-owned, capital investment. The rapid industrializations of the Soviet Union and China were seen as successful models to emulate. That government should run the economy in detail was axiomatic, justified by the Soviet and Chinese cases and by the prevailing Keynesian doctrine, which was wrongly interpreted as applying to long-term growth. It is a striking fact that of 22 major national revolutions that occurred throughout the world between the end of World War II and the mid-1980s, all but one was or soon became socialist in ideology, while the exception—Iran—turned out to be statist in practice (Colburn). There was not a single economic success among them.

Another widely held belief in these countries was that political independence should be accompanied by economic autarky. Distrust of foreign—especially free—trade, and of foreign investment was widespread. According to Joshi and Little:

> Free trade was thought to have been the "system" by which the colonial power exploited its colonies, and in India, *swadeshi,* in effect the boycotting and destruction of foreign goods, was for a long time part of the national movement of non-cooperation.

Indian history offered an argument for wariness about foreign commerce; after all, the British East India Company had come to trade and stayed to colonize. In many colonies, local enterprises were discriminated against in favor of those in the metropoles. A widespread neglect of schooling also existed. A regime committed to development can make a great deal of difference, and the colonial powers did not have that commitment. It required independence for that possibility to exist but independence did not guarantee success, as Latin America showed.

A quasi-imperialist theory held that a condition of dependency had been created between the capitalist developed countries (the "core") that exported manufactured goods and the undeveloped ones that exported raw materials. Although especially popular in Latin America (as *dependencia*), this theory was widely held. For instance, the Egyptian government introduced the idea at the Cairo summit of the "non-aligned" countries in 1973. A kind of vulgar Marxism construed world capitalism as a system that moved from outright colonialism to capitalist relations that extracted super-profits. Its advocates advanced reasons for why the core countries had an interest in keeping the peripheral ones only as primary producers. But the dependency movement was more about capitalism versus socialism than about dependency versus autonomy (Packenham).

Indian *swadeshi* and its Latin American counterpart, *dependencia*, provided the ideological basis for trade protection and import substitution. These ideologies entailed government controls and were associated with unstable macro-economic policies, chronic balance of payment problems, and dependence—ironically—on foreign aid.

India offered perhaps the most depressing case. Its per capita output in 1960 was about the same as that of South Korea; thirty years later the income of Koreans was six times that of Indians, and the gap was widening. In 1990, India's volume of foreign trade was about the same as Belgium's, a nation with two percent of its population. Although India no doubt had a greater legacy of dysfunctional institutions than Korea, it made things more difficult for itself with an exceptionally perverse set of policies.

The damage was most evident in Sub-Saharan Africa. Not only did its elites assume that political independence should be accompanied by economic autarky, they also adopted the then-current fashions, including the nationalization of firms, controls that penalized agriculture, and extensive regulations. Government control gave politicians resources to reward supporters—and themselves. The result was mediocre performance in the 1960s, worse in the 1970s, and declines in the 1980s for many.

During the 1970s, most of the oil-rich nations went on a binge. Governments got the increased revenues and spent most of them unwisely; when the price of oil inevitably fell, they had not much more to show than some impressive airports, highways, weapons, and monuments of varying degrees of usefulness. Easy money weakened the motivation to work, to learn by doing, and to earn by exporting manufactured goods. Many set up income redistribution programs that they could not finance later but could not easily end. An exception was Indonesia that put much of its oil rents into improving rural conditions, including education. But the list of those that wasted their oil patrimony—including Mexico, Venezuela, Nigeria, Saudi Arabia, Algeria, Iraq, and Iran—is much longer than that of those who invested it wisely.

East Asia's Singular Success

There was one outstanding exception to the failure of most developing countries to converge on the leaders: the East Asian NICs. Japan had long been the region's leader, but its early modernization made it a very special case. Then, in the 1960s, the NICs started to grow at about five percent a year per capita (measured in international prices)—faster than Japan during the Meiji era. These countries were capitalist, export-oriented, and had both low levels of government spending and (Hong Kong excepted) governments that actively shaped their economies. Unlike the countries that had spurts of growth and then and then regressed—such as Brazil and Egypt—the NICs' performance was sustained for decades. Like Japan, their success could be assigned to some elusive attribute such as Confucianism, but when the more populous—and non-Confucian (albeit with many ethnic Chinese)—countries of Indonesia, Malaysia, and Thailand began to grow rapidly, the puzzle deepened. The question is not so much about the correctness of their policies but why and how they avoided the errors widely committed elsewhere and how their institutions might have contributed to success.

As for the central argument behind *dependencia* and *swadeshi,* the transition from import substitution to export-led growth in Taiwan and South Korea was sold to political leaders "on the grounds that they would increase independence; ironically, a strategy depending heavily on world markets had the attraction of increasing self-reliance" (Haggard and Pang).

The Pivot

From about 1980 on, a series of pivotal events occurred. Perhaps the most consequential was Beijing's decision at the end of 1978 to begin restoring some property rights to farmers. That decision, which directly affected 10 percent of the world's population, marked the beginning of China's long journey down the road to capitalism. Another epochal event was the collapse of the Berlin Wall in 1989 which liberated scores of millions of people in Central Europe and led to the disintegration of the USSR in 1991. These events marked not only the disappearance of the last European empire, but also the end of the world's longest and largest experiment in socialism.

Like many other revolutionary events, the demise of socialism—or at least its timing—seemed more inevitable in hindsight than beforehand. Signs had been accumulating that socialism was a movement of the past not of the future. One small indicator was an inscription on Democracy Wall in Beijing in 1978: "East Germany is not doing as well as West Germany, North Korea as well as South Korea, or China's mainland as well as Taiwan." Only walls and guards willing to kill could keep the people of East Germany and other socialist countries from fleeing. And by the 1980s, Russians had come to speak of the long Brezhnev years as an era of stagnation.

Although not widely noticed at the time, radical changes were underway far from East Asia. In the mid-1970s, Chile began to liberalize its economy under the dictator Pinochet, followed by Argentina, Mexico, Colombia and Brazil. Margaret Thatcher came to power in England in 1979 and began to roll back the state, and 1983 witnessed a U-turn toward the market by France's socialist government. And 1991 marked not only the end of the Soviet Union, but also a move to the market by the world's second most populous country, India.

All along, some economists and others attentive to these matters had been opposed to the statist program, most notably those in the tradition of Austrian economics who had been the conceptual opponents to socialism since the 1920s. And all but the most doctrinaire people were capable of learning. As the negative consequences of autarky, statism, and capital-intensive, heavy-industry-biased industrialization began to emerge, the views of many began to shift. (Even so, many American specialists on the Soviet economy continued to believe into the late 1980s that it was doing well.)

Policy failures and incipient change seem insufficient to have produced an avalanche of reforms, especially given the strength of the interests vested in the status quo. However, liberalizing ideas and a few successful examples were accompanied by an abundance of crises. For example, after borrowing excessively and spending unwisely during the 1970s, Latin American and African countries were hit by a financial crisis in 1982. Significant policy changes in Mexico and Argentina followed within a few years. Similarly, the fall in the price of oil in the 1980s bolstered liberalization in Indonesia. The Soviet Union's economic stagnation after the mid-1970s, together with the influences of the Afghan war, the oil price decline, modern telecommunications, the drain of heavy military spending, and the accident of Gorbachev's accession to power, led to the 1989–1991 revolution. Vietnam's turnabout in 1986 was due to its disastrous economic performance—especially compared to those of its high-growth neighbors. Macro-economic troubles in India led to its shift in 1991.

Crises disrupt the established order of things, including the flow of resources to elites, and create conditions for a new order to emerge. In the past, those who usually generated or exploited crises were political entrepreneurs with socialist agendas that had failed. Now, however, such entrepreneurs more often have had liberalizing agendas.

The crucial role of crises in bringing about change raises questions about the shift's permanence. For example, Brazil today is struggling with reforms and Russia's are currently in shambles. The financial crises that have affected many developing countries (aka emerging markets) have exposed much unfinished business, especially regarding financial institutions. But the reaction of governments to these crises has, for the most part, revealed a determination to press ahead with reforms.

History doesn't move smoothly or always unidirectionally, but the failures of statism have been so palpable and universal that any return to it on a large scale is very improbable. When the socialist ideal died, some suggested that a "Third Way" must exist, but Vaclav Klaus, then finance minister of Czechoslovakia, responded with this observation: "the Third Way is the path to the Third World."

The Foreign Hand Is Now Widely Seen As Part of the Solution

A large shift has occurred in attitudes towards outside links. China, Russia, Central Europe, India, and Latin America have become much more open over the past 20 years. Trade barriers have been reduced and foreign investment is now sought (sometimes in imprudent forms, such as short-term borrowing). The connection between openness and successful development in East Asia has proven to be powerful. Sachs and Warner found that countries that opened their economies after 1975 and sustained it to 1993 grew about one percent faster than those that did not (with some of the gains perhaps coming from other concurrent policy changes). Of course there are risks associated with integration into the world economy because that system itself is vulnerable to disturbances, as evidenced by the financial crisis of 1997–98. While there is a trade-off between the manifold benefits that come from engagement with the world and exposure to such risks, the record shows that the payoffs far exceed the perils.

Mario Vargas Llosa has said of his Peruvian countrymen, "One of our worst defects—our best fictions—is to believe that our miseries have been imposed upon us from abroad . . ." Or, as Bent Hansen has put it: "Egypt's main enemy has been Egypt."

The Requisites of Development

One should not simply equate an increase in money income with development. For example, oil-rich sheikdoms provide many material things to their peoples, but they are deficient in creating wealth. And while some countries that have expanded the flow of inputs into the economy with little growth in productivity achieved something substantial, they cannot keep maintain that process forever; the Soviet Union was such a case.

Countries can become developed only if three conditions are met:

- A high level of capital—physical and human—exists per worker.
- Modern technology—in a broad sense—is used.
- Competitive markets and other development-positive institutions are in place.

Physical Capital

The advanced industrial countries save about 20 percent of their national product—about the same share as mid-level developing countries. The highest savers have been the East Asians, who save and invest about 35 percent. The much poorer and slow-growing South Asian and Sub-Saharan African countries saved only 10 percent yet invest 17 percent—an inflated rate made possible by foreign, largely government-to-government, capital inflows.

Why do savings and investments vary so widely?

- Savings behavior is not necessarily determined by autonomous decisions to save. Causation can in fact run the other way: anything that increases output—say, acquiring better technology—increases the incentive to invest and thus to save. There is evidence that "growth induces subsequent capital formation more than capital formation induces subsequent growth" (Blomstrom, et al.).
- Return on capital is affected by such government policies as taxes on capital, regulations, price controls, nationalization, and unexpected inflation. A top-down allocation of capital by governments, versus the bottom-up process of the market, is predictably inefficient. In addition, a good prospect for peace, the protection of property rights, and stable economic rules encourage capital formation.
- Poorly performing countries often run large fiscal deficits, a form of national dissaving. For example, deficits have often been large in Latin America.
- The state of those financial organizations (banks, postal systems) that collect savings and distribute them to enterprises seems to affect savings rates. Governments can encourage private savings through tax-free postal savings accounts, funded social security systems, and limits on credit. Singapore's uniquely high savings rate of 39 percent of its GDP, for example, is partly attributable to its forced savings system, the Provident Fund.
- Countries vary in the efficiency with which they use capital. Lau found that even high-performing East Asian countries use around three times as much capital per unit of output as the advanced industrial countries (Lau).

Human Capital

Human capital is developed through formal schooling, learning at home, and work experience. In 1960, the average level of schooling among populations over 25 years of age in Western Europe and its offshoots then averaged 6.5 years; in developing countries, the average ranged from one to five years. It now averages about ten years in developed countries and is growing slowly. Schooling attainment in the developing world still varies widely: from about 3.5 years in the most backward region, Africa, to about 9 years in the most advanced, Central and Eastern Europe and the high-performing countries of Northeast Asia. The Confucian (i.e., Chinese-cultural-influence-sphere) nations—including their most highly educated member, Japan—increased the most, by nearly three years; the Eastern European group increased by 2.5 years, and the Sub-Saharan African nations by the smallest amount, 1.5 years. With an increase of 2.2 years, the schooling level of Western nations had grown about as much as that of developing nations, but from a much higher level.

The high levels of school enrollment in East Asia in 1960 and low ones in Sub-Saharan Africa (adjusted for their incomes then) help to explain their growth experiences later on (Baumol et al., Barro and Lee, Lau et al.). Accordingly, as output increases, some part of it is spent on more schooling, and so on. Human capital can, so to speak, contribute to building itself. But where there is a poor use of educated talent, there is also a drain of brains. Indian engineers thus find their way to Thailand and Malaysia, and graduates of the Indian Institutes of Technology come to Silicon Valley.

Technologies

The main task for applying technologies is acquiring them from the advanced countries where they're created and adapting them to local conditions. This task is more than a matter of simply reverse-engineering foreign products or buying licenses; it includes building a broad set of human and organizational capacities. (Indeed, the word "technologies" in this context includes better ways of organizing work.) Trading with advanced countries and encouraging foreign investment are effective routes to this end. The East Asian NICs built such competencies through education and involvement with the outside world; elsewhere, on the other hand, education was often neglected and policies autarkic with, among other adverse consequences, denying themselves use of modern technology.

Competition

Having institutions that encourage the mobilization of capital and its efficient use is the third requisite. Competition through markets is the *sine qua non*, and the failure to understand this fact was a cardinal sin of socialist dogma. There are other institutional obstacles: development laggards have unstable rules, weak legal systems, inefficient bureaucracies, and they are systems of privilege for elites.

The Advantage of Backwardness and the Role of Technology

A fundamental reason why poor countries can be expected to catch up is that better hardware and organizational methods are basically ideas, and ideas move relatively freely. According to neo-classical growth theory, the more backward a country the higher its return on capital (human and physical) when combined with universally available technology. This theory implies—other things being equal—that capital should rush to the poorest countries, making them the fastest growers. Because this has not been widely seen, evidently other things have not been equal or a problem exists with the theory.

The argument that conditions have not been equal is suggested by the fact that the poorest countries tend to have the worst policies, the most dysfunctional institutions, and often severe environmental and ethnic problems. An important inference is that improvements in their policies and institutions are needed for their potential advantages of backwardness to be realized—which is what happened in East Asia.

There might also be a problem with the theory. Its assumption that technologies are universally available and free contains more than a germ of truth but is not wholly consistent with the strenuous efforts that have usually to be made in acquiring them: from licensing foreign technologies, to reverse-engineering foreign products, to sending students to foreign universities, to inviting expatriates with expertise to return. It is true that some other methods of acquisition are less arduous, including buying advanced products abroad and inviting foreign firms to import them, but where foreign trade is discouraged and foreign firms are not attracted, technology doesn't flow.[2]

The main conclusion here is that every backward country has open to it the potential for adopting technology that has already been developed in the advanced countries. In general, the technology won't come free, but if one has or creates the right institutions and adopts liberal policies, it will come—and it is worth it.

The Power of Dynamic Demographics

Demographics can have powerful effects but not in the way often assumed. Population growth does not emerge as a strong factor (positive or negative) in development, but changes in the age distribution of a population do.

East Asia offers a powerful example. Between 1965 and 1980, the total fertility rate per woman fell by more than half (from about five to a little over two). The result was a sharp decline in the ratio of dependents to workers. From 1965 to 1990, several countries in East Asia received an estimated 1.4 to 1.9 percent per year growth bonus from this effect, which was about one-third of their impressively high total growth (Williamson and Bloom). In contrast, demographic dynamics added much less in South Asia—about 0.4 to 1.3 percent a year—while in South America that figure was 0.75 to 1.5 percent. Demographic dynamics added little in Africa.

It is likely that every country has begun to transition to lower growth rates. The fertility rate in the developing world has declined from an average of six children per woman in the mid-1960s to four today. In 10–15 years, that rate dropped 50 percent in Thailand, 46 percent in Indonesia, 40 percent in Colombia, 31 percent in Morocco and 21 percent in Turkey. These declines are much more rapid than those experienced by Europe during its demographic transition. The growth of the world's population has declined from 2.1 percent per year in the late 1960s to 1.7 percent per year now, and in the World Bank's middle projection it will average 1.4 percent until 2025. The momentum of large numbers of young people will cause the total population to increase for at least several more decades, but this growth will be at a declining rate. Nonetheless, some regions—in particular Sub-Saharan Africa, the Middle East and South Asia—will see large increases in numbers of people, and at least in Africa, they will be accompanied by serious social disabilities.

The transition to lower growth rates is eliciting several virtuous effects: smaller birth cohorts means that school spending is concentrated on fewer children, thus increasing the quality of education. Because mothers are caring for fewer children, a mother's time available per child is increasing, another boost for quality. And having fewer dependents, especially children, increases savings.

Among the 15 most-populous developing countries, China, Brazil, Mexico, Turkey and Thailand have come far. Notably lagging in this set have been Iran, Vietnam, Nigeria and Bangladesh, but they have now started to make the transition. Among these 15, Russia is unique with declining births and increasing death rates.

Failed Policies, Then Liberal Reforms

Consider the economic policies that became endemic to the developing world under several key headings:

Macroeconomic Stability

Fiscal Indiscipline: Large budget deficits often financed through inflation.

Exchange Rate Mismanagement: Multiple and manipulated exchange rates that are frequently overvalued, discouraging of exports and vulnerable to collapse.

Allocation of Resources

Wasteful Public Expenditures: new capital cities and other white elephants while neglecting basic education, public health and rural infrastructure.

Economically Damaging and Inefficient Tax Systems: Narrow tax bases, high marginal rates, poor compliance and collection, and widespread corruption.

Financial Repression and Segmentation: Preferential interest rates for privileged borrowers; highly negative real interest rates that discourage savings and poorly allocate capital. Government backing, sometimes implicit, for bank lending to bad projects.

State Enterprises: Inefficient organizations that drain the public fisc.

Pervasive Regulations: Impediments to the entry of new firms and restrictions on competition, thereby fostering corruption and lowering efficiency.

Openness to the World Economy

Trade Barriers: High and non-uniform tariffs that restrict competition and close off an important source of learning. Quantitative restrictions and other non-tariff barriers.

Barriers to Foreign Direct Investment: These exclude valuable technology.

Human Capital Investment

Under-investment in Primary and Secondary Education: Especially in rural areas, while subsidizing higher education for a small urban elite.

Neglect of Female Education: Lowers the productivity of much of the population, encourages larger families, and hurts the education of the next generation.

Distribution of Income

Unequal distribution of education: This contributes to highly disparate incomes, preserving privileges and inviting populist policies and unstable politics.

Herein lie sufficient reasons for failures to catch up with the world's leaders.

Slowly, governments began to learn from their mistakes and the few developing world successes. As their consequences became more widely perceived, the major international financial organizations, the World Bank and the International Monetary Fund, began to promote an agenda for change during the 1970s. The resulting liberalizing program, whose principles were opposed to those of the policies listed above, came to be labeled the "Washington Consensus" for the city where these organizations and the U.S. Treasury are headquartered. Of the seven developing regions (where per capita incomes were less than $8000 in 1995 international prices)—East Asia, South Asia, Latin America, Central Europe, the former Soviet Union, the Middle East/North Africa, and Sub-Saharan Africa—major liberalizations have been made by the largest countries in all but the last two. The changes that affected the mosr people was China's restoring property rights to farmers, a policy turnaround that directly affected the lives of about 500 million people.

Much attention has rightly been focused on those countries in transition from socialism. Within its four main parts—China, Russia and other Slavic parts of the Soviet Union, the Central European and Baltic states, and the Caucasus and Central Asia—the differences are large. China and (North) Central Europe/Baltics have achieved great success, Russia is a disaster, and the Central Asians have hardly started to move. Russia's experience starkly illustrates the consequences of not getting right the order of liberalization in a country with weak or missing key institutions (although it would have been hard to get the order right given the rapid collapse of the old regime).

Although none of the East Asians get high marks for instituting liberal policies across the board (Hong Kong excepted), they were ahead of the rest of the world. In South Asia, India began to change fundamentally from self-sufficiency to openness after 1991, but it has privatized little and continues to retain rigid labor rules, impose huge subsidies for agriculture, and still maintains many distorting regulations.

Reforms in Latin America since the early 1980s have been substantial but far from complete. Chile pioneered and Argentina and Peru followed, Mexico has been engaged in economic and political liberalizing for over a decade, and Brazil is in the midst of a struggle between a reforming president (ironically, a former *dependentista*) and politicians supporting existing privileges.

In contrast, North Africa and the Middle East, the core of the Islamic world, have made only modest reforms and enjoyed only modest performance gains. After enjoying good growth from the 1950s to the early 1980s, Egypt, for example, then stagnated. Although its macroeconomy has improved, the state's heavy hand is relaxing only very slowly through privatizations and deregulation, and there has been only modest opening to the world. Institutions are a large part of the problem; for instance it takes an average of seven years to resolve a commercial dispute (no doubt inspiring alternative dispute resolution methods). Iran's performance has also been poor during the 1990s. Its two (related) primary economic accomplishments are improving education (including for females) and lowering the birth rate; it remains a highly statist system of privilege with few signs of reform.

Although conditions in Sub-Saharan Africa remain dismal (worsened by the ravages of AIDS), there have been modest policy improvements. Most of the region's governments responded to the debt crisis of the early 1980s by placing controls on foreign exchange and imports, resulting in a vicious circle of declining trade balances and ever-increasing controls (World Bank, 1994); still, almost all of the region's nations are letting agricultural prices move closer to world levels, and some have abolished their notorious state marketing boards. About two-thirds have cut taxes on agriculture, a sector that accounts for about 35 percent of the region's output and 70 percent of employment. Price controls and government monopolies—the sources of important rents for privileged elites—are being reduced. Labor controls on hiring, layoffs, and wages, are being relaxed, state monopolies are being eliminated and more goods can be freely imported. The World Bank found that whereas 25 of the region's countries were rated as imposing "heavy" interventions in the market during the pre-reform period, only four were in that category by late 1992—but with few having "little" intervention. As a result, more than four percentage points in growth separate the countries with the best policies from those with the worst.

In some places, including Russia, Ukraine, Pakistan and Vietnam, reforms are advancing slowly or stalling, but few countries are regressing. Largely left out of the process are the communist remnants and countries ravaged by ethnic disputes, including Cuba, North Korea, Afghanistan, the Caucasus region and parts of Central Asia, much of former Yugoslavia, and Sierra Leone, Zaire, Rwanda, and Congo in Africa. But these unreformed and disrupted places contain a small minority of the developing world's peoples.

The financial crisis that hit Thailand in July 1997 and spread quickly has raised questions about the liberalizing program's benefits. At one extreme, countries not exposed to the global economy, like North Korea and Cuba, were little affected by the crisis, but they are hardly positive examples for autarky. A better case can be made for being cautious about opening financial sectors to short term capital flows before institutions for coping with them are in place. Fortunately, the main reaction to the crisis among developing country elites is to blame not the liberal elements of their policies but the illiberal ones—the continued corporate-statism in which banks, governments and firms are linked, coupled with poor government oversight of financial institutions; these connections are sometimes called CCN: corruption, cronyism and nepotism. However, norms are changing. According to one investment banker: "Dealing in government bonds used to be fun because you knew governments would eventually screw up. But increasingly, governments around the world have realized they are the losing party, thus committing themselves to sound monetary and fiscal policies."[3]

The effects of good policies (and good institutions, as discussed below) have been explored extensively in the "correlates of growth" program of economics. Although findings differ among investigators, a broad consensus is that countries with macroeconomic stability, openness to the world economy, and investments in elementary and secondary schooling have grown markedly faster than those without them. These findings, which are of the highest importance, imply that although *absolute* convergence of incomes (catching up) has not generally occurred between advanced and developing countries, convergence *conditioned* on having adopted such policies did occur. In the past, large differences could be attributed to an category such as "culture," one with virtually no explanatory power. Or analysts would focus on some single variable as the key, grossly simplifying a complex topic. Although there is much more to be learned, the code for development has been partly broken.

Life Is Unfair

Not everyone has been dealt an equal hand. Physical and social factors that are unfavorable include living in the tropics (disease, plantation-type agriculture), lacking natural harbors (isolation, high transport costs), having high ethnic diversity (domestic conflicts) and having a great deal of oil or other natural resources (low incentives to learn make things and operate competently). Two of these factors are addressed here.

The Curse of Oil

The 1970's spending binge among oil-rich countries was a manifestation of a deeper problem: that abundant natural resources per person, especially oil, is associated with low productivity. Countries with this problem include the Middle East oil-rich countries, Libya, Algeria, Venezuela, and Mexico. Such countries have little incentive to manufacture and export, activities that experience rapidly increase productivity. In addition, funds flow in large quantities to governments that need not collect taxes, welfare benefits are spread liberally, and corruption flourishes. This is a formula for creating rentiers, not workers.

The Burden of Ethnic Diversity

Since World War II, ethnic conflicts have occurred in 37 developing countries (one fourth of them). In 1995, about five percent of the world's population lived in countries or regions afflicted by conflicts, mostly in Islamic and Sub-Saharan African nations. (The obverse is that most people were spared such turmoil.) Although multi-ethnic countries obviously can succeed, high ethnic diversity seems to be a deterrent to growth (Easterly and Levine). Here, the record of democracies is better than those of authoritarian governments. India, although far from ideal, works better than one might have expected given its diversity, and one reason is its democratic politics.

Social dissension impedes timely and sound policy decision-making, while bad policies can turn possibly manageable differences into refractory ones because resources with which to lubricate friction are scant. In Africa, ethnic fracturing and bad policies are correlated: Because power is often insecure when diversity is high, the struggle for control takes precedence (Ake). Factions controlling different ministries each receive rents, and corruption tends to be unpredictable kind in a faction-ridden and unstable system. Damage can also be produced when opposing interests engage in a game of "chicken," as each faction tries to displace onto others the costs of policies that would be beneficial overall (Alesina and Drazen). When ethnic divisions contribute to bad policies, the resulting poverty exacerbates the differences and leaves everyone in an ethnic-poverty trap.

Extreme Islamism supplies an example. This is not to assert that Islamic religiosity is destructive everywhere, but the violence that has accompanied it in Afghanistan, Algeria, Egypt, Lebanon, Sudan, and Iran is certainly bad for business. Again, there is reinforcement; much of the trouble in the Islamic world is exacerbated by poverty that is increasingly perceived as a result of government incompetence and corruption. One Algerian ambassador explained the rise of dissension and terrorism in this light:

> The people have lost faith in their governments. There is a sense of failure, which has opened a gap between the rulers and the ruled. It has led to a lack of self-confidence in Arab culture, and hostility to foreign influences. (Field)

The most legitimate form of dissent is often extreme religiosity.

It is a mistake to believe that nothing can be done. The place for governments to start is the political equivalent of the Hippocratic oath: "Above all, do no harm." Those striving to deal with ethnic conflicts should try to depoliticize them by maintaining the rule of law, favor civil rights protection over minority rights, support secularism over official religions, and promote multi-linguisticities. Regional decentralization and federal political structures can be an important part of such a strategy (Brown and Ganguly).

Poor Social Capabilities As a Constraint; The Role of Institutions

Why has the entire world not reformed? If the correct actions are widely known—an assumption much closer to the truth than it was 30 years ago—why have they not been universally adopted? Why are there sometimes cycles of reform and regression? Broadly, the answer is attributable to differing "social capabilities," a label used by Moses Abramowitz for how well things function in a society (Abramowitz). Low capabilities are associated with weak worker skills, inefficient and corrupt bureaucracies, unstable governments, resources flowing to privileged elites, and slow and corrupt judiciaries.

The reasons for backwardness are sometimes obvious. North Korea's and Cuba's rulers have retained statist, autarkic systems guaranteed to produce poverty. (One might then ask what it is about these countries that left them with such retrograde regimes in a reforming world? Perhaps the answer is just bad luck.) Nor does it seem mysterious why Sierra Leone, Zaire or Afghanistan are backward: violently clashing ethnic groups and predatory governments block the generation of wealth. More interesting and important for us are the many promising cases for policy reform, where indeed some have occurred, but often with disappointing results.

A society with high social capabilities has institutions that foster development. According to Douglass North, institutions consist of formal constraints (e.g., rules, laws, constitutions), informal constraints (e.g., norms of behavior, conventions, self-imposed codes of conduct), and enforcement characteristics that together define the incentive structure of societies, and specifically, economies (North, 1994). Also, economic history is overwhelmingly a story of economies that failed to produce a set of rules that induce sustained growth (North, 1991). Institutions affect the costs of doing business; costs are high if property rights are uncertain or poorly structured, contracts are weakly protected, information is scarce and difficult to access, and corruption endemic. As a result, transactions are smaller than optimal because of people's aversion to risk, capital is kept in liquid form, and long-term agreements are avoided. Institutions supportive of growth are those that protect property rights, thereby supplying an incentive for people to invest, and those that limit cronyism, rent-seeking, and corruption.

Institutions also shape peoples' values and habits. Inkeles and Smith observe that modern organizations need workers who can adhere to fixed schedules, observe abstract rules, make judgments on the basis of objective evidence, and follow authorities legitimized not by traditional or religious sanctions but by technical competence. A modern person is open to changes in work and location, is more likely to innovate, is more tolerant and impartial, and more readily accepts differences. These qualities are less present in people rooted in traditional village agriculture, locked into near-feudal land-holding patterns, dominated by self-serving elites trying to preserve their power, dependent on inadequate and antiquated public institutions, and cut off from modern science and technology and the stimulation of modern communication. Inkeles and Smith found that the most powerful influence in creating modern man is education, followed by factory experience and access to mass media.

A example of a pre-modern state of affairs is that in a Japanese-owned factory in Thailand early in its operation:

> They [the workers] could not start and stop work at stipulated time. They did not come to factories when it rained, as if they worked in agriculture. . . . They failed to show up [when expected] and resigned without notice. . . . They could not make a distinction between what was public and what was private. They did simple work faithfully as taught . . . but they could not do applied work. They would not help

> others when not busy. They were so mobile that it was often observed that almost the entire labor force replaced itself within a year. (Ito)

The role of a foreign firm as an agent of modernization is shown this later description of the same factory:

> By the early 1970s things had changed: [E]ven with new factories and workers, these simple problems were overcome within a relatively short period of approximately one month. Skill improved and work efficiency rose. The starting and ending time was observed and absenteeism declined. The quit-rate became much lower and those workers who moved from one factory to another now constituted only a small part of the labor force. There was marked progress in wearing uniforms, cleaning of the work place and keeping machinery and tools in order. Above all, with the establishment of factory discipline, there spread a feeling of being able to live with factory work. Now, they come to factories dressed neatly. Some of them even save voluntarily. Thus, newly arrived Japanese managers think that the quality of general workers is better than expected. Some even go so far as to say that their efficiency in simple work is comparable to that of the Japanese. (Ito)

It is easy to comprehend that institutions are important but our understanding of how they arise and how they effect their economic performance is modest. For that reason, consider several cases, positive and negative.

Europe

European history offers many examples of institutions favorable to commerce which were necessary for its rise to world leadership (Rosenberg and Birdzell). They include legal systems that produced predictable rather than arbitrary decisions (notably English common law); a shift from discretionary expropriation to systematic taxation that helped establish the security of private property, bills of exchange that aided the transfer of money and provided credit for business transactions; double-entry bookkeeping that separated family and enterprise accounts, and the limited liability corporation that enabled capital to be mobilized in large amounts. Many of these institutions spread throughout the world in the 19th century. Europe also supplied the moral system of Protestantism, especially in its Calvinist variant, which fostered capitalism or at least was compatible with it. This system's emphasis on honesty, diligence, fidelity, and keeping promises was helpful in extending credit, making representations on the quality of products, and establishing personal loyalties beyond the family.

Meiji-era Japan

From the previous Tokugawa era, Meiji-era Japan inherited a well-functioning society, with a high level of education for the time, good roads and an effective government (Ohkawa and Rosovsky). Driven by fear of foreign domination, the Japanese radically changed their institutions with the Meiji Restoration in 1868. Within two years, the feudal structure was abandoned, samurai lost their privileges, barriers to internal travel were dropped, land was given to the peasants, the Bank of Japan was created, model factories were built and students were sent abroad. A steady improvement in education ensued. Institutional changes included the creation of large conglomerates (*zaibatsu*) which economized scarce management talent; after 1900, large firms began to adopt the custom of permanent employment. Government-business interactions were strong, a practice that elsewhere was associated with rent-seeking and waste, but less so in Japan. For a country well behind the leaders, such a setup can yield economies in information gathering and coordination. And government failures might have been mitigated by a national consensus to catch up with the advanced countries.

Latin America

Spain and Portugal, late developers in Europe, left behind in their colonies a mercantilist tradition of trade and centralized bureaucratic control. They also left quasi-feudal social structures, which centered on the *latifundia*; this setup perpetuated the dependence of peasants on landowners, one in which the courts and the police were used to prevent "unfair" competition. The privileged group ensured that there was a plentiful supply of agricultural labor and that rural (native) peoples were kept away from urban settlements. The Andean people, who were scattered and isolated, had little political power, and their dispersion made organized uprisings difficult.

This caste-like social structure contributed to an enduring habit of inattention and indifference by elites to the condition of the poor; what was worse, their advancement was sometimes seen as a threat to the upper classes. And less value was attached to education in Catholic Latin America than in Protestant or Confucian countries. (Back in Spain, Philip II decreed in 1623 that there were to be no schools in small townships because the instruction would be poor and students should be working at useful trades instead of wasting their time learning Latin.)

The deficiencies of Latin America's institutions have been expressed vividly by a former Minister of Industry of Venezuela:

> From anti-trust commissions to schools, from banking supervision boards to rural health delivery units, the desperate need for better institutions runs the gamut of public tasks. Many of these institutions already exist. Some are even quite old and boast all the trappings of modernity. Yet too often they are mere facades that cannot perform the functions for which they were created. . . . Throughout Latin America . . . inverted commas . . . apply to institutions like "Ministry of Education," "Child Nutrition Board," and "Technological Research Institute." (Naim)

The Inter-American Development Bank reports that policy reforms in Latin America have helped its performance but that "market reforms, no matter how deep, would not make it possible to reach the sustained growth rates attained by the Southeast Asian countries. . ." because obstacles still remain: deficiencies in education, large income differences, and poorly functioning institutions (Inter-American Development Bank).

Institutional Failures

Here is a list of institutions harmful to development (quite incomplete) found widely in the developing world:

Governing Rules

<u>Lack of Order</u>: Resources are diverted to personal protection, capital (human and financial) flees, and schooling is disrupted.

<u>Unstable Rules</u>: Shortened payback times hurt investment. But frequent changing of parties in power might not be disruptive if the underlying rules are stable (as Italy and Thailand have demonstrated).

Poor Property Rights Protection and Weak Contract Enforcement (including intellectual property). Risk premia on investments and deals are high. Transactions are based on relationships rather than rules.

Systems of Privilege: Resources are allocated to established groups, often landowners, in systems that are sometimes quasi-feudal (e.g., Pakistan and the Philippines). They contribute to large differences in incomes and political instability. Support of monopolies fosters inefficiencies and discourages new firms from forming.

Soft Budget Constraints: Weakness of the norm of balanced government budgets; central governments bail out profligate lower levels of government.

Corporate Governance Rules Favoring Insiders: Lack of transparency, insider trading, and poor protection of minority rights produce inefficient allocation of capital and reduced investment.

Lax Accounting Standards and Auditing Requirements. These make it difficult to distinguish honest accounts from those that are false and incomplete.

Poorly Defined Bankruptcy Rules: Lock assets into failed enterprises and hamper the redeployment of capital.

Role and Quality of Government Organizations

Incompetent Bureaucracies: Poor collection of taxes, wasteful spending, inefficient state-owned firms, poor bank supervision. Low pay and professional standards contribute to costly red tape.

Corrupt Bureaucrats and Politicians: Create costs and risks. Weak and corrupt judiciaries make transactions unpredictable and raise costs.

Often Problematic Militaries: Their roles are multiple: modernizers, guardians of the "nation," political stabilizers, and, sometimes, destabilizers.

Politicized/Bureaucratized Universities: Hierarchical, inbred, constrained by acceptable subjects for teaching and research, controlled by virtual state monopolies, little funding for research.

Business Enterprises

Inefficient, Poorly Capitalized Firms: Often family-controlled and privy to intimate relations with government. Protected by politicians, they offer financial and other benefits in return.

Inefficient State-Owned Firms: Subject to many governors, none having a clear stake in returns; no one has the responsibility or motivation to formulate or attain clear goals; managers face multiple and conflicting goals while being constrained on layoffs, prices, and the choice of suppliers; possessing soft budget constraints.

Countries with poor institutions, measured by perceived risks of expropriation and contract repudiation, corruption, and bureaucratic quality, have underperformed those with good institutions by an estimated two percent a year (Knack and Keefer, 1993). Where the institutions were bad enough, countries lost ground absolutely. The high-growth East Asian countries (excluding China) not only had better schooling and investment scores, they also had much higher institutional quality scores than other developing regions. Considering a related estimate, if the Sudan had institutions of Luxembourg's quality, its growth rate would have been more than two percent higher (Easterly and Levine).

Growth is undermined by political instability, measured by the incidence of assassinations, revolutions, and military coups or, in another analysis, by non-constitutional rule rather than coups (Barro, Alesina, et al., Israel, Londregan and Poole). For instance, while Peru had fewer political upheavals than Bolivia in the 1970s, its property did not seem to be more secure; Thailand, on the other hand, had many coups, but the victors usually retained its policies, and property rights were little affected.

Sachs and Warner reach similar conclusions by applying a property rights test with three indicators of a country's politics: (1) the presence of a socialist economic structure; (2) extreme domestic unrest or a prolonged war on home territory; or (3) extreme deprivation of political rights or civil liberties. A country with a bad score on any indicator failed. Those that failed (49 out of 117 total—almost all with GDPs below $4,000 per capita in 1985 dollars) grew 1.5 percent more slowly in the 1970–89 period than those that passed.

Knack and Keefer (1997) also explored the social indicators of "trust" and "civic norms." One of the questions asked in the World Values Survey of 29 countries was this: "Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?" The responses ranged from 61 percent of Norwegians who identify themselves as trusting, to 7 percent of Brazilians claiming to be so. The five countries with the highest levels of trust (with values in the 50s or more) were Norway, Finland, Sweden, Denmark and Canada. Among the low scorers were Brazil: 6.7, Turkey: 10.0, Mexico: 17.7, Nigeria: 22.9, and India: 34.3.

Knack and Keefer show that high trust measures are associated with later higher capital investments and growth. In their regressions, each ten point difference in the coefficient for trust was associated with four-fifths of a point difference in annual growth.

Why Do Bad Institutions Persist?

Existing rules have beneficiaries, and for any person trying to change them, the cost can easily be higher than the gain. Many people fear that they will lose under a new dispensation, and although better institutions can make everyone better off (materially if not in power and status), a way for winners to compensate losers may not exist. Even if top leaders want to introduce reforms, the institutions through which they must work may be recalcitrant. Thus, the president of Brazil is struggling (in early 1999) with a national constitution and political party practices that are dysfunctional and refractory; many Brazilian politicians see no personal benefit from adopting reforms.

Changes are easier to make when the number of key actors is small. A few people in a central bank, a finance ministry, and sometimes a parliament can devalue a currency, change tariff rates, or privatize a state-owned bank. In contrast, the more difficult tasks, typically involving more actors, include collecting taxes or customs, improving schools, and reducing corruption by government employees.

Bad policies and low social capabilities reinforce each other. The rules of the game tend to be unstable where social capabilities are low; this encourages shortsighted policies and a scramble by insiders to get what they can, discourages investment, and causes talented people to leave the country. The country can find itself in a poverty trap, and the difficulty of extricating itself is illustrated by "policy cycling" (Krueger). Several Latin American countries have gone through one or more cycles of trade liberalization, including Pakistan, Turkey, and the Philippines. An initial set of controls elicits undesired responses from economic actors, which leads to more controls, more negative results, and a growing demand for reforms.

Thenceforth, the reforms are far-reaching and progressively liberalizing or, alternatively, superficial, leading to a return to a control regime—in which case the cycle continues. Zambia, for example, started a reform program in 1985, formally abandoned it two years later because of mounting opposition, and then returned to market-oriented policies in 1989 (Bates).

Reforms often fail from a lack of support among powerful groups. According to the former Deputy Finance Minister of Venezuela, "such a consensus is missing in Venezuela . . . economic reforms never brought popular support . . . they have benefited the rich, and they have done nothing to correct corruption. Our task is really an uphill battle."[4] Given that firms endure costs from switching, a rational response could be waiting to see if the new policy persists. Such skepticism undermines the effect of the reform or at least produces lags in effectiveness.

The Coming Second Generation of Reforms

Mixed results from efforts to reform policies have revealed more clearly the need to reform institutions. This class of reforms is the "second generation," focusing on the state: central banks, judiciaries, civil services, labor market institutions, and the delivery of social services (mainly education and health). They include political and administrative decentralization, and the creation of independent, professional and regulatory organizations. This class of reforms is aimed at providing impersonal and clear rules of the game (Edwards).

Such changes have occurred in East Asia. Political institutions (parties, bureaucracies, semi-open electoral procedures, and some rule of law) gradually changed in ways that improved property rights and bolstered stability. These political transitions paralleled or followed market-opening ones. (That still more changes were needed was revealed in the financial crisis of 1997–98, which exposed the dangers of overly close links between government and banks.)

China has had many institutional changes (Stiglitz). After restoring some property rights to farmers, it went on to do much more, including adopting a central banking system modeled on the U.S. and Germany's and gradually building a federal system with market-enhancing properties, including a two-layer tax plan that separates central government taxes from provincial ones (Montinola, et al.). Rather than privatize inefficient state-owned industries, a change bound to be disruptive, it encouraged the creation of new enterprises, which resulted in the emergence of a new institution: town-and-village enterprises (TVEs). Being government-owned and successful seems an oxymoron, but the TVEs face competition and have hard budget constraints (no higher level of government rescues them when they lose money). Most important for the long run, the rule of law is slowly being introduced. This means that the writ of the communist party is gradually being replaced by ruled-based decisions enforced by courts. China has a long way to go in this respect, but the course is set.

The combination of more education, the telecommunications revolution, and the presence of foreign firms is vastly expanding peoples' information and their ability to evaluate events within their homeland and throughout the world. These influences undermine systems of privilege and lead to more critical views of government. Such processes usually happen slowly, but with severe enough crises, like the Soviet Union's, abrupt changes can occur. As today's Russia amply demonstrates, the formidable task of building new institutions is still left.

Neighbors can be influential. Development in East Asia moved (more or less) from the Northeast to the Southwest. Japan's influence was extended first as a colonizer and later as an investor, ultimately becoming the model for South Korea. Ethnic Chinese from Taiwan and Hong Kong also transmitted ideas and practices throughout Southeast Asia. In South

America, Chile's success was followed by advances by neighboring Argentina and Peru. Mexico's policies and institutions are being greatly affected by its northern neighbor. And the Central Europeans are rapidly adapting their institutions to make themselves eligible for membership in the European Union just as Spain and Portugal had done earlier.

Today (1999), the president of Brazil is trying to harden the budget constraints of states and municipalities by making it illegal for them to run fiscal deficits and to simplify its complex and inefficient tax structure. Meanwhile the Congress is investigating inefficiency and corruption in the judiciary and charges of insider dealings in the banking system. One proposed change would reduce the number of parties and another would introduce voting by districts. The full set of reforms needed will occupy many years, but it is significant that this effort is (finally) underway and is receiving more public support.

In many countries, well-trained professional people—technocrats—are playing larger roles (Williamson). South Korea, Indonesia, Chile, Mexico, Argentina, and India are among the countries in which economic technocrats have been prominent, including the "Berkeley Mafia" in Indonesia, the "Chicago Boys" in Chile, and much of the economic establishment of South Korea and Taiwan. Many of them have gone on to play the "technopol" role of politician/expert.

A heightened attention to institutional failings is likely to produce a New Institutional Consensus that will be the core of a Second Round of Reforms. Indeed, its outlines can be discerned from the list of failures above. As the set of what constitutes good institutions becomes better defined and publicized, political support for them will increase. More attention will be focused on tax systems, judiciaries, civil services, corporate governance and the like. And Transparency International annually publishes a ranking of corruption in countries, one which is generating much commentary (Transparency International).

Future Reforms: Liberal Economics + Better Governance

This century's great experiment with collectivism has gone a long way to clarify the proper role of government in development. Governments in almost all developing countries assumed a host of functions: running state-owned industries; owning banks; setting prices; regulating agriculture and industry; operating schools, hospitals, and transportation systems; providing jobs for university graduates; and much more. They were deficient in supplying fiscal stability, predictable legal outcomes, and honest and competent government services; collecting taxes; protecting property rights; and hardening budget constraints for lower government levels. They were also deficient in encouraging and supporting non-government institutions including: schools and universities, clinics, "watchdog" agencies that monitor government performance, independent "think tanks," and a free press.

Much of the debate about governments' role in promoting growth has focused on East Asia. Their governments, with the notable exception of Hong Kong, have actively intervened in the marketplace, favoring some industries and firms and disfavoring others. This practice did not distinguish them from governments elsewhere, almost all of which intervened similarly. The following is about all that can be firmly established: (1) Almost all developing country governments have favored some sectors over others with results that have been deemed poor, on average; (2) All successful countries perform their basic functions at least adequately and have adopted key elements of a liberal economy; (3) The high-performing East Asians have done a better job with the basics than others; (4) The social capabilities of most of the East Asians are also high, with improvements in education perhaps being most notable.

Governments should be doing fewer things and doing them better. In addition to the now-familiar liberalizing program—which is good not only in and of itself but also enables governments to focus their efforts—more attention is needed on the reforms implied by the previous list of institutional failures. If one were to single out just one of many needed, competitive pay for government workers might be it. Singapore's government salaries are explicitly and periodically compared to those of the private sector, resulting in the most senior federal employees making close to $1 million (U.S.) per year (which isn't really comparable at that level, but there are limits even in Singapore). As Prime Minister Goh says, he may be the highest-paid person in government anywhere, but he isn't the most costly.

Prospects to 2025

Fortune-telling is tricky. For example, two prominent forecasts made early in the 20th century were premised on the respective views that technological advances had made war "suicidal" and that financial interdependence among nations had made war a ruinous proposition. These views were accurate enough on the consequences of war but bad predictions of what would actually happen (Bloch, Angell). Later on, almost all predictions from the end of World War II were influenced by the dreadful previous two decades and failed to forecast the golden age of growth that lay ahead in the already advanced countries.

Predicting what will happen to any given country is even more hazardous. For example, did any analyst in 1990 foresee that Japan, that paragon of growth, was about to enter a decade of stagnation? Positive surprises can also occur as the performances of Chile and China have illustrated. Any claim that projections are to be believed, then, might be met with understandable skepticism.

Two questions are of interest here: What will happen to absolute growth in incomes, and will the gap between rich and poor countries be narrowed? Two opposing points of view might be adopted. One view holds that the main candidates for development, those with adequate institutions, are already on a good trajectory and will join the club of advanced countries in due course. The other states that those countries not already making reforms and enjoying better results are unlikely to do so for a long time. The former view seems better justified. After all, it was not so long ago that China was caught up in the madness of the Cultural Revolution and India was described as the Permit Raj. Of course, there will be exceptions, and some countries seem fated to remain in turmoil over the next several decades.

With respect to absolute growth, there are good reasons to expect many countries to do better than in the past, since the socialist model will not return soon. In short, countries will pursue the Liberal Economics+Better Governance program widely, often in fits and starts and with reverses, because no other viable system exists. This program, contrary to the experience of the past 40 years, should lead to a general (but not universal) narrowing of the gap.

What follows are several recent projections of world development for the next few decades. (Recall that average per capita growth from 1960 to 1995 was about two percent a year.)

Angus Maddison

He has estimated world economic growth to 2015 and predicts substantial overall convergence, with per capita growth in the non-advanced capitalist countries averaging 3 percent a year and the advanced ones averaging 1.4 percent (Maddison, 1998). Many Asian countries, including China and India, will be relatively fast growers (with China's growth slowing to 4.5 percent and India's speeding up to 3.5 percent) while Latin America (1.5 percent), the Middle East (1.0 percent) and Africa (1.0 percent) continue to do poorly (but for Africa it would be no small accomplishment to have positive numbers).

The Inter-American Development Bank (IDB 1997)

It estimates that reforms made during 1985–95 added about 2 percent per year to Latin American output and that the regions' potential growth with present policies is no better than 2.5 percent per capita. The main obstacles are poor schooling, inadequate rule of law, poor judicial systems, and a low quality of public institutions in general; with reforms in these areas, it sees a potential climb to four percent per capita. According to the IDB, Latin America's prospect is 3.5 percent per capita with more reforms, and 5.5 percent with also a big increase in education. (For example, Brazil's four years less school attainment than in Argentina and Chile implies a 2–3 percent growth rate disadvantage.)

The Asian Development Bank (ADB)

For the ADB, Radelet, Sachs and Lee examined growth prospects to 2025 for a set of Asian countries. They assumed that each country would maintain its 1995 policy stance for the next 30 years. While average growth foreseen for these countries is 3.9 percent per year per person, the four Asian NICs will grow at only 2.8 percent a year (versus 6.6 percent in 1965–95) because they have lost much of the advantage of backwardness and demographics now work against them. Indonesia, Malaysia and Thailand do about as well as they have in the past (around 4 percent) while China, the Philippines and the countries of South Asia improve their 1965–90 standings, largely from better policies. Despite a demographic drag, China (at 6 percent) continues to do well because of its good policies and continued advantage of backwardness. South Asia, now home to a demographic boost, nearly doubles its per capita growth to 4.4 percent

They also examined two variations to the predictions, one with policies better than 1995's and one with worse. The better ones assumed are those of the four East Asian NICs in that year; their universal adoption would increase Asia's average performance through 2025 to 5 percent a year, while poorer policies, defined as reduced openness and lower government savings, would produce growth of only 2.6 percent per person.

Sachs sees the greatest potentials for change in overall openness and the implementation of a partnership between developing countries and developed ones over the global system of trade, finance, and production.

Prospects for the Largest Developing Countries

The Radelet et al. model was applied to 13 of the 15 most populous developing countries for which data were available (omitting Russia and Vietnam).[5] In these countries, almost three-fourths of the population of all developing countries lives. Assuming that they maintain their policies of 1995—and that there are no deep or long-lasting domestic or international shocks—average per capita growth to 2025 for the 13 nations is 3.9 percent, although with significant variation in performance (see Table and Appendix).

Per Capita GDP Growth Rates, %

	1965–1990 Actual	1995–2025 Projected
China	5.5	5.1
India	1.9	3.3
Indonesia	4.5	5.7
Brazil	3.3	3.5
Russia	1.1	NA
Nigeria	0.1	2.6
Pakistan	2.5	4.6
Bangladesh	0.7	4.1
Mexico	2.8	3.0
Philippines	1.3	5.2
Turkey	2.6	4.3
Thailand	4.4	4.3
Iran	0.1	2.6
Egypt	4.1	3.2
Vietnam	NA	NA
Average	**2.5**	**3.9**

The projected future range is from 2.6 percent annually in Iran to 5.7 percent in Indonesia. Several countries' projections reveal a marked improvement over the 1965–95 period: India, Nigeria (from near zero), Pakistan, Bangladesh, Philippines, Turkey and Iran (also from near zero). Only Egypt shows a decline. Viewed in terms of people, China and India dominate. Home to nearly half of the people in the developing world, these two countries' successes would result in a large advance in human welfare. China's prospects for continued growth at over 5 percent are good while India has not achieved as high a rate and might never do so. Still, its projected growth of 3.5 percent a year is much better than its previous 1.5 percent rate (aka the "Hindu rate of growth"); if achieved, Indian incomes will nearly triple between 1995 and 2025.

If the better policies and institutions of the Asian NICs (the "Improved Standard" case in the Appendix) are adopted by these countries, their average growth would increase to 5.9

percent, whereas if they backslide on policies (the "Inward" case), it would slow to 2.9 percent.

Of course, any such modeling exercise is simply an organized way of estimating the effects of seemingly significant parameters. Among them, the most certain is a demographic transition.

Demographics, Again

East Asians will continue to have few young dependents, but the number of older ones will increase greatly, and the support they require will be an increasing burden. According to Bloom and Williamson, dependent care will mean a subtraction of 0.1 to 0.4 percentage points from annual growth, a swing of about 1.5 percentage points from the earlier period (Bloom and Williamson). They also see falling savings rates contributing to lower growth in East Asia, especially in the NICs, Thailand and Malaysia. In contrast, they forecast increases of 0.8 to 1.4 percent in South Asia, 0.6 to 1.1 percent in Southeast Asia, and 0.5 to 1.1 percent in Africa, and little change in South America.

The projections for some of the big 15 countries will be strongly influenced by demographics. Especially favored will be Iran, Bangladesh, Nigeria, Pakistan and Vietnam. Population dynamics will add 1.5 percent a year to Iran's output and 1.4 percent to Bangladesh's and Nigeria's. It will contribute about half of estimated added output to 2025 for Iran and Nigeria.

Large Changes Are Coming in the Distribution of World Income

Today, the rich countries produce about 60 percent of total world output. Their share will fall to about 40 percent in 2025. The U.S.'s contribution will fall from about 24 to 16 percent, and a similar decline is likely for the European Union. Japan will recover from its stagnation of the 1990s, but it has now become a slow-growth country. It might catch up with the leader, but its share of the world output seems likely to decline from today's ten percent to around seven percent. China looms large in the future with a projected world output share of 15 percent in 2025, about equal to that of the U.S. and the EU—compared with today's 8–9 percent.

Even if some countries, or even some regions, don't participate in the great advance, the world scene will still change dramatically within a few decades if East and South Asia stay on course. That region's six most populous developing nations are home to half of the developing world's 4.5 billion people and produce nearly half of its output. These six nations will likely be producing about one-third of the world output by 2025.

In 1995, about one-third of the world's people lived in countries classified by the World Bank as "low-income" (those with GDP's below $2,000 per capita in international dollars. This proportion will decline greatly and, to a lesser extent, so will the absolute number of poor people. By 2025, probably well under ten percent of the world's people will live in countries at that income level.

Who Might Get Left Behind?

There will be a significant overall narrowing of the gap between followers and leaders because leaders will probably grow at under 2 percent per capita (not shown in the Appendix) and followers will probably grow at 3–4 percent per capita. The main cause for the leaders' slow advance is that their additions to human capital through education, a major source of past growth, will henceforth be small (Jones).[6] They also will distribute a larger proportion of the national income from workers to retired people and will very likely spend increasing shares of output on environmental protection (which does not reduce welfare unless costs exceed benefits, as sometimes happens).

The countries most likely to get left behind are those that do not improve their institutions enough. Many of these countries will probably be those that are now lagging, especially in Africa (both parts), the Middle East, Central Asia and perhaps the Slavic countries of the former Soviet Union (Russia, Ukraine, Belarus). Regarding this last group, it was expected through the 1990s that the Slavic economies would stop declining and begin to grow, but now there are serious questions about how long their turnaround will take. Their important assets include educated people and experience with manufacturing, but their many institutional deficiencies might take long to fix.

What Might Go Wrong?

The latter half of the 19th century was marked by a vast expansion of trade, economic convergence on the world's leader, Britain, and no large conflicts. But that golden age ended in 1914, and only after 1945 did the world get back on the track it had left 30 years earlier. In the period since, countries have gone awry after doing well for a decade or more. Brazil and Egypt have been mentioned and a more recent case is Indonesia. That few have been able to sustain good growth is a warning (Easterly, et al., 1993). Although one might expect a country's success to heighten interests in the policies that are producing it, politics are often unstable, rent-seeking forces do not disappear, and the temptation to redistribute gains rather than get more can become overwhelming.

Some recent literature has predicted mostly bad things in the future. One such view is Paul Kennedy's, who states that the "poorer three-quarters of mankind" is in a "growing Malthusian trap of population growth, malnutrition, starvation, resource depletion, unrest, enforced migration, and armed conflict" (Kennedy). Samuel Huntington also writes that the future will be marked by conflicts among "civilizations" (Huntington, 1996). And William Greider warns that globalization will bring wrenching calamities (Greider).

Some of these concerns have been discussed above and dismissed (notably Kennedy's on population). Given the history of this century, however, one should not dismiss lightly the possibility of further catastrophes. One possibility is another large-scale war (discussed below). Others include regression to trade protection by major countries, deep and long financial crises, widespread social upheavals, and a global environmental disaster. There is no guarantee that such things won't occur. Interests in protection are always present but if a prolonged world economic slump can be avoided, most likely extreme protectionism can, too. There will be financial panics, but for them to become deep and lasting (unlike the panic of 1997–98), a degree of incompetence on the part of the major central banks is required that seems unlikely. There will be domestic, social, often ethnically based upheavals, but for them to affect the global economy, there would need to be a worldwide movement for which there is no current sign. And, although the accumulating evidence on global climate change is worrying, this phenomenon is unlikely to have a big economic impact by 2025.

In short, there is no good reason to expect that these troubles will prevent the movement of the vast majority of the world's people out of poverty—which, of course, leaves open the possibility of things unknown to us today.

II. Some Consequences for Politics

The Rising Tide of Democracy

These economic changes will have enormous political consequences. Arguably the most important of them is the spread and consolidation of democratic forms of government. It has been recognized since Aristotle that well-being and popular governance are associated. In modern terms, when economic activities are largely independent of political control, the coercive power of government is limited. This effective decentralization of power creates checks to it. As peoples' livelihoods become independent of the state—with property, more education, and a level of living beyond that required for subsistence—they have more choices. Moreover, as people acquire such means, they want more influence over the rules with which they live. Such desire and range of action enlarge the domain of political freedoms.

In modern times, there is a close connection between wealth and democracy, defined in terms of both political and civil rights. Of the 43 countries with per capita GDPs over $8,000 in 1997 (omitting, for reasons given above, oil rich ones), only three were rated less than wholly "free" (Malaysia, Mexico, and Singapore) and those were rated "partly free" (Freedom House). There are, of course, poor democracies, including India, Costa Rica, Namibia and Malawi, but prosperity has been almost essential as the basis for stable democracy (Przeworski et al.).[7]

Because several successful East Asian countries began with authoritarian governments, it is often suggested that such systems have an advantage in producing growth. However, the worldwide record from 1960 on shows that these countries did no better economically than democratic ones. Moreover, several nations became politically more pluralistic as they became wealthier—most notably South Korea, Taiwan, Chile, Mexico, Thailand, and Turkey. In Chile, a dictatorship allowed itself to be transformed into a democracy. Mexico's PRI is presiding over the end of its monopoly of power after 70 years of rule. And in Thailand the days of the military taking over the government whenever it sees fit may be over. Of course, it is not immediately clear that an authoritarian government's being succeeded by a democratic one is not just part of a cycle, but these evolutions have taken place over long periods of time and seem unlikely to be reversed.

East Asia experienced a clear pattern of moving away from weak democracies to authoritarian rule and then to pluralism (Pei). Initially, its institutions could not manage domestic conflicts, which led to the authoritarians taking over, but their rule gradually softened with the emergence of modern political institutions. This transition occurred under a dominant political party, but elections became increasingly open, and legal systems steadily acquired autonomy. This shift increased political stability and improved the security of property. Why this transition occurred more strongly in East Asia than elsewhere is an interesting question that is not pursued here (but see Rowen, 1998).

There is also the possibility that wealth and democracy have common causes. Northern Europe's joint evolution over several centuries of liberal politics and the institutions of capitalism suggests an organic relationship; the data also show that British colonial rule was good for democracy later. This suggests that democracy might be a largely European phenomenon. Nonetheless, a statistical analysis of incomes versus democracy worldwide that minimizes the European—and specifically British—influence still results in a significant correlation between income and democracy. This correlation holds (to various confidence levels) in every region or cultural area but one: the Arab and Iranian core region of Islam. In the non-Arab/Iranian Islamic countries, however, the pattern is similar to the rest of the world's (Rowen, 1995). This finding is relevant to the view advanced by some officials in East Asia that challenges the universality of Western democracy. In fact, East Asia closely corresponds to the worldwide pattern: the richer a region, the more (Western-type) democratic.

Democracies have a bright future. In 1998, only the Philippines among the Big 15 was rated wholly "free" by Freedom House, while the others were rated "partly free" (Bangladesh, Brazil, India, Mexico, Pakistan, Russia, Thailand, Turkey) or "not free" (China, Egypt, Indonesia, Iran, Nigeria, Vietnam). This paper's projection for 2025 shows that only four will have income levels that predict a "not free" status (Bangladesh, India, Nigeria, Vietnam—and India is most unlikely to lose its long-standing "free" status).[8] More broadly, countries with about 85 percent of today's world population should be at income levels such that they would be rated "free" or "partly free" by current Freedom House criteria.

The projection suggests that several large Islamic countries will be at least "partly free" by 2025, including Turkey, Egypt, Iran and Pakistan (Turkey and Pakistan were so rated in 1998 by Freedom House). Several smaller ones will also probably be in this category, including Jordan, Tunisia and Morocco. Such development implies a profound change for the region. However, as elsewhere, there is a possibility that ethnic rivalries and institutional obstacles will prove this projection too optimistic. If the less optimistic "Inward" case eventuates, incomes in 2025 will still be low enough that several countries will be at the margin of the stable democracy threshold or clearly below it.

The Short March to a Democratic China

The growing economic weight of China makes its future politics particularly important. When will the Chinese people be at least "partly free?" The probable answer is before 2020 (Rowen, 1996). If China continues on its trajectory, its per capita GDP will then be around \$7,000 (in 1995 dollars), the income level at which 95 percent of countries are rated at least "partly free."[9] Skeptics have to believe that either China is fundamentally different from all other societies (which it might be, but consider the evidence of Taiwan, rated as "free," and Singapore, rated as "partly free") or that it will not develop economically.

Institutions emerging within China are consistent with a projection of future political pluralism. One example is its grassroots democracy. In the early 1980s, communes were dissolved, leaving no local governments and leading to village elections; by the early 1990s, 90 percent of village committees had been elected. Although there have been problems—namely, ragged progress, discrimination against non-Party candidates, and ballot fraud—the principle of competitive elections has been established. Those who oppose Party members are no longer "enemies of the people." And in January, 1999, Sichuan province conducted China's first free, albeit unauthorized, township mayoral election. Significantly, the authorities did not reverse its results. (Townships are the lowest level of the official government structure; the wide adoption of township elections would be a signal political event.)

A second and profoundly important development is the struggle for the rule of law. Under communism, law is an instrument of politics, but now many Chinese believe that the government should observe its own rules. Values consistent with Western ideals of equality, justice and legality, which are also ancient Chinese ideals, are expressed widely and some are now embedded in legislation. Officials also recognize that a market economy and foreign investment need stable and fair rules.

The demand for law is owed to several factors, including the weakness of a state with widespread corruption, illegal businesses run by government agencies, and theft of government assets. Most basic of these is the Party's being outside the jurisdiction of the ordinary courts. Other problems include enforcing decisions in civil proceedings, the immunity of military enterprises, and the bribery of judges. In response, the National People's Congress is rewriting criminal laws. Defendants will not be presumed guilty and will have their own lawyers, and the police no longer will be able to hold people without charge. There is a long way to go, and these new laws will often be violated, but their passage is significant. One recent anecdote illustrates this progress: The residents of a district brought a class-action suit against the local authorities in protest against arbitrary and brutal behavior in collecting taxes; for this case to be possible, something important has changed.

The third main development is the liberalization of mass media. This advancement first happened in book publishing and then newspapers. Initially, the government had retained tighter control of electronic and film media, but falling demand led to the privatization of its unprofitable operations and the adoption by some government stations of live story coverage, talk shows, call-in programs, 24-hour broadcasting, and celebrity interviews of once-silenced liberal intellectuals. TVs, radios, cassette players, and VCRs became widely owned. By the early 1990's, 80,000 institutions had faxes, there were 16,000 satellite ground stations and, despite legal prohibition, 4.5 million home satellite dishes were operating. Computer ownership is increasing rapidly as is Internet use. Government censors try to control the Internet (and indeed prosecute some people), but it is an impossible task: once a totalitarian regime opts for market reforms, it loses control of information. Today, there is both self- and government-censorship, but, except for some journalists being accused of selling state secrets to Hong Kong newspapers, there have not been criminal proceedings against the press for several years.

Any inference that China's march to democracy will be smooth and peaceful is risky. But if it is to be the economic success that the Chinese people so fervently desire, it will inevitably become politically pluralistic.

III. Some Inferences for Conflict

Some Inferences for Peace

The spread of democracies might have one other major consequence: a decline in large-scale wars. There is a long record of claims that commerce promotes peace, yet over the centuries, as republican forms of government replaced monarchies and world trade burgeoned, terrible wars were waged. Those who assert today that military competition is now replaced by economic competition echo these earlier flawed predictions.

While the growth of commerce has been an inadequate indicator of peace, the growth of democracy has been a good one, albeit not in a simple way. Democracies are not inherently peaceable, but they rarely have waged war against each other. (Claims that there have been *no* such instances depend on debatable definitions both of democracy and of war.) Democracies have had many wars with non-democracies, and a world with both types of societies is not a safe place. Indeed, there is evidence that countries tend to get into conflict as they are democratizing (Mansfield and Snyder). (Mechanisms that might be responsible for the democratic peace are not addressed here, but see Buena de Mesquita et al.)

The two types of systems, democratic and non-democratic (or "free" and "not-so-free"), tend to be concentrated in distinct regions that can be regarded as zones of peace and zones of turmoil (Singer and Wildavsky).[10] A zone of peace is a region populated by relatively advanced and democratic countries within which international conflicts do not occur. Of these, there are four substantial ones: North America, Western Europe, Australasia, and, provisionally, South America.

A zone of turmoil is one in which, with few exceptions, countries are poor (excluding wealth derived from oil), democracies are scarce, politics are unstable and sometimes violent, and international tensions are common. The largest zone of turmoil, one predominantly Islamic in culture, stretches from Morocco to Central Asia and South Asia, with an extension into the Balkans. Others are Sub-Saharan Africa, much of the former Soviet Union and one centered in China.

North-Central Europe is a region currently in transition to becoming an extension of the West European peace zone, but with the caveat that troubles might come to it from Russia if democracy fails to take root there. More tenuous is the case of Southeast Asia. It has been on a strong growth track, its politics have gradually become more pluralistic and there has been a decline in regional tensions. But the financial crisis of 1997–98 has destabilized Indonesia, a country comprising so much of the region that if it stays unsettled, the outlook for peace throughout the area will be uncertain. Trouble might also come to this region from nearby China, and such intervention is more likely if the region is politically divided.

China's future will affect many countries. If it becomes more democratic, odds are it will become a peaceful zone, spreading beneficial effects throughout Asia and beyond, but if this does not happen, it will be a continuing source of trouble for its neighbors.

Several qualifications surround this prospect of a more peaceful world. One is that the speed with which some nations are becoming rich raises a question about the development of their political institutions. The lag between the rise to economic—and potentially military—power and political evolution varies and might be significant. It would not be surprising if some countries become much richer while still behaving in an atavistic way (China? India?). It has happened before. Germany became a major industrial power and a democracy before Hitler's accession to power, and Japan after 75 years of strong economic and political development, became highly militaristic (although the people in both Germany and Japan were much poorer and less educated than those in most of today's democracies).[11]

Another major caveat is that, as far as one can see ahead, there will still be many non-democracies that are unstable and prone to violence. Their activities will directly and less directly affect those who live in zones of internal peace.

Direct Effects:

- Military attacks
- Refugees, people seeking asylum, and other immigrants
- Terrorism of various kinds
- Uncontrolled epidemics
- "Chernobyls," and loss of control over nuclear weapons
- Environmental spillovers
- Denial of oil supplies
- Denial of freedom of the seas

Less Direct Effects:

- Genocide, "ethnic cleansing," and other extreme violations of human rights
- Disasters: famines, floods, epidemics
- Damage to the environmental heritage of mankind
- Incentives to help the destitute
- Desire to support shaky democracies

No nation is really an island.

Conflicts in the former Yugoslavia illustrate several of these spillovers, which are important given the destruction that has affected millions of people—many of them killed, wounded, and raped. They have caused millions of people to flee to nearby countries. The case illustrates two points, the first is utilitarian: some troubles in zones of conflict can spill over and affect those in peace zones. The other point is moral: outrage in Europe and North America against Serbian "ethnic cleansing" in Kosovo led them to attack Serbia (thereby supplying another illustration that democracies are not necessarily pacifist).

The Yugoslavia case also illustrates the problem that many countries in zones of peace have in being close to zones of turmoil. The Japanese see themselves as affected by what happens in Korea, Taiwan and China, and the Europeans are alert to developments in Eastern Europe, the Balkans, and North Africa. Even remoteness doesn't assure non-involvement as the list of direct and indirect effects above shows. The U.S., which is geographically remote from zones of turmoil, has a legacy of commitments in such areas from the Cold War (e.g., the Middle East and Korea) and, arguably, a continued interest in the fate of possibly endangered democracies.

Of the countries in zones of turmoil, China and Russia seem to have the greatest potential to cause serious trouble for those in zones of peace. China's power is rising and others will have to make room for it. By itself this power shift need not cause conflict, but such changes have sometimes inspired hostility (e.g., Germany's challenge to Britain and Japan's to the U.S. led to conflict, while Britain's displacement by the U.S. was relatively smooth). China has territorial claims, most importantly over Taiwan, and its power to do something about them is growing. Much depends on China's behavior. If it is content within its borders (which, governments agree, includes Taiwan) much will go well in Asia. If it is not, then there will be a response from—and possible conflict with—some combination of Japan, India, Indonesia, and Russia (to mention only its largest neighbors); the U.S. might also be involved as a supporter of Japan and others.

Someday, Russia might attempt to reincorporate at least the Slavic parts of the pre–World War I Russia, especially Ukraine. Any such effort by Moscow would probably not go smoothly and might engage the Central and West Europeans in an effort to contain a potentially hostile (and, for this assumption, non-democratic) Russia.

Because the democracies in zones of peace share many values and interests, they tend to cooperate on a wide range of activities, both economic and military. But the overlap in these values and interests is far from complete. During the Cold War, a common threat helped to unite them on many issues, but it remains to be seen how much cooperation there will be in the future, especially in security matters. A simple prediction is that the demand for American support from those close to zones of turmoil will be determined by the scale of the perceived threat, while America's willingness to supply aid will depend not only on the threat, but who is threatened. Undoubtedly, the U.S. will continue to be more forthcoming to places it cares most about: Europe, Japan, and some other democracies (especially Israel).

There is also the large question of what will happen in the huge zone of turmoil that is Islamic in character. As we have seen, prospects for economic and political development in this region are less promising than those elsewhere. In addition, most of the countries known to be seeking nuclear weapons are in this area. There seem to be two main possibilities. One is that the potential dangers emanating from this region will cause the outside democracies to become more deeply involved out of self-defense; the other is that the area will come to be seen as too hazardous to be involved with. Depending on the case, both responses might eventuate.

Potential Military Power Will Become More Evenly Distributed

As nations grow economically, their economic potential for war also increases: (1) Greater wealth allows them to devote a higher proportion of output to the military sector while leaving at least as many resources for civil purposes; in other words, they can have both more guns and more butter. (2) They can make more weapons domestically, which renders them less susceptible to international controls. (3) Greater wealth is accompanied by higher levels of technology, which heightens their military competencies.

Of course, there is a big difference between some index of total economic output and actual military power. For one thing, the will to create such power must exist, and this can be weak, as illustrated by the strength of pacifist sentiments in Japan and Germany since World War II. In addition, if a nation is to compete militarily with advanced countries, it must have a strong scientific and technology base. Countries such as Indonesia, the Philippines and Thailand, whose aggregate output are projected to become substantial, might nonetheless not be strong in this respect.

Considering these conditions, the coming radical change in the distribution of world income implies a considerable shift in the distribution of potential military power. For example, in 1998, three of the top eight nations in total income were Western European, while in 2025, five of the top eight are likely to be Asian, and only one—Germany—will be Western European. (But if Europe has achieved political unity, it will rival the U.S. as a great power). By 2025, Asia might contain four major military powers—China, Japan, India and Russia—and all are likely to be at least "partly free."

Mass Destruction Weapons Are Becoming Easier to Get

Perhaps the single most striking fact about the role of nuclear weapons since their introduction into the world 54 years ago is how apparently marginalized they have become (the recent Indian and Pakistani tests notwithstanding). The rate at which nuclear weapons have been initially tested by nations has declined nearly monotonically since the early 1950s, and only 10–20 percent of the countries able to make them have done so.

- Any of the industrial countries could have acquired these weapons long ago, but only four have done so (U.S., UK, France, Israel).
- A score or more of economically middle-level countries, including communist or formerly communist ones, have had the capacity to develop nuclear weapons, but only five have done so (Soviet Union, China, South Africa, India, Pakistan).
- Nine nations developed these weapons. With South Africa giving them up and Russia inheriting those of the Soviet Union, eight apparently possess nuclear weapons today.[12]

The abstention of most industrial countries has come from their position in zones of peace and the existence of domestic opposition and supportive alliances. For these reasons (in addition to economic and technical inadequacies), all but a few of the middle-income and poorer nations, most of them in zones of turmoil, haven't acquired these weapons.

Technical barriers that have been an obstacle to getting nuclear explosives and ballistic missiles (but not chemical or many biological ones, which are mostly low technology weapons) remain difficult for poor, small countries but it is axiomatic that the ability to accomplish any given technological task becomes easier from the date of its introduction. Formerly exotic materials or processes become less exotic, cheaper, and more widely used in commercial products. A nuclear weapons program is now a medium-cost, medium-technology program (May). The Manhattan Project cost the U.S. around $20 billion dollars in today's currency, but it hasn't cost India or Pakistan anywhere as much to achieve their current positions. North Korea's ability to make ballistic missiles and, presumably, nuclear explosives—despite its inability to feed its people—shows how far the barriers for making such weapons have fallen. Because supply constraints are weakening, the demand for such weapons is becoming relatively more important, so it is not surprising that all of the nations thought to be trying to get nuclear weapons in 1999 are in zones of turmoil.

One should not assume that nothing can be done. Supply constraints, even if diminishing, can still have effects, and other methods have been applied (with varying payoffs): economic sanctions (Pakistan and North Korea), economic rewards (Kazakhstan and North Korea), and force (Iraq). And it is worth repeating that some countries in zones of turmoil have voluntarily given up their mass destruction weapons. But the only real solution is for zones of peace to be extended, and many nations are not on paths that will lead to that desired end anytime soon. However, it is encouraging that most of the Big 15 countries are likely to have substantial democratic freedoms by 2025.

The Best Route to Stable Peace Is Through Development

The next several decades will see a competition between forces promoting development, democracy, and peace, on the one hand, and retrograde forces of instability and conflict on the other—with practically everyone having a greater capacity, at least potentially, to inflict devastating damage. Therefore, nations in zones of internal peace will be safe only from each other, not from those in zones of instability and conflict. During what can be considered a period of transition, of at least several decades, the United States and other countries in zones of peace will be engaged, not always peacefully, with those in troubled areas. Perhaps, by the end of this period the troubled regions of the world will have greatly shrunk in scale.

Fortunately, many of the things that people in advanced countries should be doing to help themselves are also helpful to others, including maintaining stable, growing, open economies; creating new technologies and selling them widely (even though some inevitably will have military uses); educating talented students from around the world, some of whom will eventually go back bearing much human capital; creating cross-border linkages among firms; and adhering to the growing body of international rules such as those of the WTO.

They can do many other things as well: helping others to build better institutions, including conducting free elections; creating independent universities and judiciaries; and establishing competent and honest civil services.

* * *

Skeptics will view much of this argument as too speculative, too optimistic, or as neglectful of factors that don't fit. Nonetheless, the burden of proof should rest on those who maintain that no substantial catching up can occur, that the development-democracy connection will no longer hold in the future, and that democratic peace will not exist in the 21st century.

Appendix[13]

Annual per Capita Growth Rates, %

Growth Prospects for 13 Countries, 1995–2025

	Projections		
	Per capita growth rate, 1995–2025		
	Baseline Policies	Improved Policies	Inward Policies
China	5.1	7.9	4.4
India	3.3	6.7	2.7
Indonesia	5.7	6.3	4.1
Brazil	3.5	4.8	1.9
Russia	NA	NA	NA
Nigeria	2.6	5.6	2.0
Pakistan	4.6	8.1	4.0
Bangladesh	4.1	6.7	3.5
Mexico	3.0	3.6	1.4
Philippines	5.2	6.0	3.6
Turkey	4.3	5.5	2.7
Thailand	4.3	4.6	2.7
Iran	2.6	5.3	2.0
Egypt	3.2	6.0	2.6
Vietnam	NA	NA	NA
Average	3.9	5.9	2.9

The framework, based on Radelet, Sachs and Lee's work for the Asian Development Bank (1997), is an extended version of the neoclassical growth technique as described by Barro (1991), Barro and Lee (1994), and Sachs and Warner (1995a, 1995b). The model estimates the convergence of income dependent on certain conditions. The farther an economy is located from its long run equilibrium level of income, the higher the growth rate of income at some point in time.

To estimate cross-country difference in growth rates, we used the same explanatory variables as Radelet, Sachs and Lee. They fall into four categories:

(1) Initial Conditions: There are two initial conditions. First, real GDP per worker in 1965 is taken from World Table version 5.6. Second, the human capital stock comprises the average years of secondary schooling for the working-age population at the beginning (1965). These data are originally from Barro and Lee (1996).

(2) Natural Resources and Geography: The first variable here is the ratio of primary-product exports to GDP in 1971 (the first year in which data are available for all countries.) The second is access to the sea, i.e., whether or not a country is landlocked. The third structural variable is a rough measure of the share of the population with relatively easy access to the seas; it is estimated by the ratio of a country's coastline distance to its total land area. The fourth structural variable is its location in the tropics.

(3) Policy Variables: The first policy variable is openness to international trade as constructed by Sachs and Warner (1995). Another is government saving (the difference between current government revenues and current government expenditures rates). The third is a measure of the quality of institution index, originally constructed by Knack and Keefer (1995).

(4) Demographic Variables: This variable incorporates the working-age population (aged 15–64) and the total population in the growth equation. We also include life expectancy at birth to estimate the health of the population.

We updated data for three policy variables: openness, quality of institution, and government saving rates. Unfortunately, we do not have the human capital stock for Egypt and Nigeria, so for these two, we used the average secondary schooling years of the lowest 3 countries (India, Bangladesh, and Indonesia).

The 13 countries for which projection were made for the period 1995–2025 are Egypt, Nigeria, Mexico, Brazil, Bangladesh, China, India, Indonesia, Iran, Pakistan, Philippines, Thailand, and Turkey.

The Baseline projection assumes that all countries maintain the policies recorded in 1995.

The Improved Standard projection assumes that all countries adopt the same average policies as the NICs (Hong Kong, Korea, Singapore, Taiwan).

The Inward policies assumes openness changes from 1.0 to 0.5 and central government savings/GDP decline by 5 percentage points.

Notes

[1] The published argument that comes closest to this one is Francis Fukuyama's *The End of History and the Last Man* (Fukuyama). It has been much criticized, often by people who misunderstood him (some of whom seem to have been confused by the title), but its basic elements have not been convincingly refuted.

[2] Japan and South Korea got technology the hard way by not allowing much foreign direct investment (unlike China and the Southeast Asians) and instead, by learning a great deal from exporting, buying technology licenses, training people, and creating good technical staffs.

[3] Jan Loeys, managing director at J.P. Morgan, London, quoted in *The Financial Times*, March 1, 1999.

[4] *Wall Street Journal* (Nov. 11, 1994)

[5] The results differ with Radelet et al. for some Asian countries. China's projected growth here is 5 percent rather than 6, and India's is 3.3 percent rather than 5.5.

[6] The opinion is being voiced widely that advances in information technology are finally paying off in markedly highly American productivity and growth. This might be so, but 4 years of data are too few to establish it firmly.

[7] Przeworski et al. find that dicatorships die at a rate independent of their development level but that the survival of democracies increases strongly with development level. Above $6,000 (in 1985 dollars, equivalent to $8,000 in 1997 dollars) democracies can be expected to live forever.

[8] Vietnam, whose future income was not projected, will clearly fall below the $8,000 threshold because it would have to grow annually at 10 percent per capita from today on to reach it by 2025. In contrast, Russia, whose future income level is also not estimated, would have to grow at no more than about 1.5 percent per capita to reach $8,000, a rate modest enough to likely be achieved.

[9] In the cited article, I wrote that China would become a democracy by 2015. That estimate was based on annual growth at 5.5 percent from the World Bank's PPP estimate for 1995 of $2,900 per capita GDP. Lawrence Lau advises that a better estimate for that year is $2,000. Using that number and the growth rate shown in the Appendix of 5.1 percent yields $6,900 in 2020.

[10] Singer and Wildavsky label them "Zones of Peace and Democracy" and "Turmoil and Development."

[11] The income:democracy nexus is about *absolute,* not *relative*, incomes. At the end of the Weimar Republic, Germany was relatively well off for that era, but it had a GDP per capita of only $2–3,000 in 1995 dollars, a level well below that for which a stable democracy would be expected today.

[12] When the Soviet Union disappeared, four states inherited its weapons (Russia, Ukraine, Kazakhstan, Belarus) but all except Russia discarded them.

[13] Prepared by H. S. Rowen, J.J. Lee, and John Schafer. Thanks are due to Steven Radelet for help on data. He, of course, has no responsibility for our manipulation of it.

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