

Growth Strategies and Dynamics: Insights from Country Experiences

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About the Series

The Commission on Growth and Development led by Nobel Laureate Mike Spence was established in April 2006 as a response to two insights. First, poverty cannot be reduced in isolation from economic growth—an observation that has been overlooked in the thinking and strategies of many practitioners. Second, there is growing awareness that knowledge about economic growth is much less definitive than commonly thought. Consequently, the Commission’s mandate is to “take stock of the state of theoretical and empirical knowledge on economic growth with a view to drawing implications for policy for the current and next generation of policy makers.”

To help explore the state of knowledge, the Commission invited leading academics and policy makers from developing and industrialized countries to explore and discuss economic issues it thought relevant for growth and development, including controversial ideas. Thematic papers assessed knowledge in areas such as monetary and fiscal policies, climate change, and equity and growth and highlighted ongoing debates. Additionally, 25 country case studies were commissioned to explore the dynamics of growth and change in the context of specific countries.

Working papers in this series were presented and reviewed at Commission workshops, which were held in 2007–08 in Washington, D.C., New York City, and New Haven, Connecticut. Each paper benefited from comments by workshop participants, including academics, policy makers, development practitioners, representatives of bilateral and multilateral institutions, and Commission members.

The working papers, and all thematic papers and case studies written as contributions to the work of the Commission, were made possible by support from the Australian Agency for International Development (AusAID), the Dutch Ministry of Foreign Affairs, the Swedish International Development Cooperation Agency (SIDA), the U.K. Department of International Development (DFID), the William and Flora Hewlett Foundation, and the World Bank Group.

The working paper series was produced under the general guidance of Mike Spence and Danny Leipziger, Chair and Vice Chair of the Commission, and the Commission's Secretariat, which is based in the Poverty Reduction and Economic Management Network of the World Bank. Papers in this series represent the independent view of the authors.

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We would like to acknowledge the extensive comments from Edwin Lim and Roberto Zagha, and to thank the numerous participants in the workshops of the Commission on Growth and Development (CGD).

Abstract

The paper examines the challenges that developing countries face in accelerating and sustaining growth. The cases of China and India are examined to illustrate a more general phenomenon which might be called model uncertainty. As a developing economy grows, its market and regulatory institutions change and their capabilities increase. As a result, growth strategies and policies and the role of government shift. Further, as the models of economies in these transitional states are incomplete and because models used to predict policy impacts in advanced economies may not provide accurate predictions in the developing economy case, growth strategies and policies need to be responsive and to evolve as the economy matures. This has led governments in countries that have sustained high growth to be somewhat pragmatic, to treat the policy directions that emerge from the advanced economy model with circumspection, to be somewhat experimental in seeking to accelerate export diversification, to be sensitive to risks, and as a result to proceed gradually in areas such as the timing and sequencing of opening up on the current and capital accounts. The last is an area in which existing theory provides relatively little specific guidance, but in which there are relatively high risks that decline over time as the market matures.

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Growth Strategies and Dynamics

Mohamed A. El-Erian

Michael Spence¹

1. Introduction

Designing and implementing strategies for growth in a developing economy is an important and difficult challenge. Most developing countries have legitimate high aspirations with respect to growth and poverty reduction. Indeed, it constitutes an important economic, political, and social challenge.² Yet in the period following World War II, only 12 countries have achieved sustained high growth, that is, average annual rates of growth of 7 percent or above over a period of two and a half decades or more. A decade of 7 percent growth produces a doubling of income and in all the known cases, leads to a dramatic reduction in poverty. The majority of the developing world has until recently not grown significantly on a sustained basis or in the case of many countries in Latin America, have stalled in the middle-income category with large fractions of their citizens remaining poor.

The aim of this paper is to contribute to the understanding of what works best in terms of encouraging sustainable and inclusive growth, and why. In the process, we also highlight what does not work well. To do so, we draw on country experiences, focusing in particular on China and, to a lesser extent, India. We argue that successful growth strategies require clarity about the objective, realism about the underlying model, and sociopolitical buy-in. The strategies involve a dynamic mindset that addresses the inevitable uncertainties and risks through an iterative process. And they need policy reaction functions that can readily respond to the “challenges of success,” particularly as they pertain to internal and external financial matters.

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² The political challenge includes the task of building a consensus behind a strategy or set of policies that lead to growth and poverty reduction, where the benefits come in the future, there are sacrifices in the short run, and investment displaces consumption. The nature of this challenge varies from country to country because of different forms of political organization, governance, and traditions. Although the political and consensus building challenges are not the main subject of this paper, they are important dimensions of development and they interact with the ability to produce coherence in the strategies and packages of policies designed to produce inclusive growth (inclusive in this case refers to growth benefits being broadly shared by the citizens over time).

We know that sustained high growth is possible. The 12 sustained high-growth cases referred to above all occurred in the postwar period. Of these, six saw their countries grow from very low income levels all the way to advanced country income levels today. There are of course significant differences across countries and over time within a country in policies, the role of government, and the state of market and regulatory institutions, for reasons we will discuss later. Having said that, there are also some interesting common features of the growth dynamics of these economies. These are not policies per se but ingredients in recipes that generate growth, and include the following::

1. Reliance on the market system for resource allocation (price signals, incentives, decentralization, and enough clarity of definition of property ownership to facilitate transactions and investment).³
2. A commitment to and intense focus on sustained growth and a government that acts in a manner that is representative of the interests of the citizens of the country. Persistence and determination are key ingredients as the process takes decades and involves inevitable bumps along the way. It is a multi-decade endeavor, somewhat akin to a long voyage (unique to each country in some respects), inevitably undertaken with incomplete and sometimes inaccurate charts and requiring midcourse adjustments, especially as the structure of the economy and the appropriate supporting policies shift significantly over time.
3. Effective governance and leadership in building consensus behind policies designed to produce intertemporal improvements in the lives of citizens by choosing the right models and strategies for growth.
4. Competent management of the macroeconomic environment in such a way as to promote domestic and foreign investment, including control of inflation and avoidance of policies that lead to damaging periods of very high inflation followed by growth-slowng policies needed to bring inflation down.
5. High levels of saving and investment, especially public and private sector investment (in physical and social infrastructure, education, and health).
6. Resource mobility, particularly labor mobility, combined with rapid creation of new productive employment and rapid movement of people

³ Reliance on market mechanisms does entail the requirement that market institutions are fully developed. In fact it is normally quite the opposite: in many cases, the maturation and deepening of market institutions and related government regulatory processes is an important part of the development process. It is a common part of the process that the government's role evolves as the private sector market institutions develop and mature. This is clearly evident in China, which began the reform process from a centrally planned economy starting point.

from rural to urban centers. The result is rapid diversification and structural transformation of the economy.

7. Leveraging the global economy to accelerate growth. This is the most important point of commonality and has two components: inbound transfer of knowledge and technology, and drawing on global demand to complement domestic components. The former rapidly increases the potential output of the economy, the latter permits much more rapid growth with exports as the driving force.⁴

At one level then, the challenge of sustained growth is to set in motion reforms, investments, and adaptive processes that in conjunction with the domestic and foreign private sectors lead to these kinds of dynamics. But the challenge is considerable. Were it not so, the list of sustained high-growth cases would be longer.

Against this background, the objective of this paper is to address some of the complexities in formulating strategies and policies for accelerating and sustaining high growth. It also considers related issues associated with governance of the global economy and the relation between developing and industrialized countries.

The paper is organized as follows: Section 2 discusses why growth challenges can be and have been easily misunderstood in the context of developing countries. This sets the stage for Section 3's discussion of China's impressive growth performance, including the manner in which the authorities have succeeded in avoiding some of the classic policy traps and slippages. We also consider the Indian case, albeit in less detail. Following this relatively general analysis, Section 4 deals with the specific challenges that arise in the implementation of rapid growth strategies. In doing so, we cover a spectrum of issues ranging from the evolution of the model to more micro considerations in the areas of industrial policy, external account liberalization, and managing capital flows. Section 5 highlights the importance of a dynamic mindset, detailing the critical role of the learning process in growth and development. The relevance for other countries is the topic of Section 6, followed by Section 7's assessment of the effectiveness of cross-border conveyors of best practices. Section 8 contains the paper's concluding remarks about accommodating developing countries' higher growth in the global economy in a manner that enhances overall welfare.

⁴ Stressing the open economy model as the appropriate *direction* of strategy is not meant to preempt a subsequent discussion in the report about the important and challenging issues of the *speed and sequencing* of the opening up of a developing economy on both the current account (goods and services) and the capital account (financial flows). These are subtle issues about which there is continuing discussion and learning from experience.

2. Why Growth Challenges Can Be Easily Misunderstood

There are several critical factors that surface repeatedly in discussions with leaders and policy makers in developing countries: how to formulate, sequence, and implement growth policies in the presence of uncertainties; the limitations of the mature market economy model and theories when applied directly to growth strategies and dynamics in developing economies; the coexistence of uncertain macro predictions with more predictable micro outcomes; and the building of enabling conditions, most importantly institutional and governance aspects.

At their roots, growth strategies involve, especially in the initial phases, formulating responsive and sustainable policy approaches in the context of significant headwinds. The latter include uncertainties pertaining to economic and social reaction functions, underdeveloped national consensus, weak institutions (both market and government), and fluid (and not always benign) international influences.

There are a number of issues that have undermined growth strategies and related reform efforts in developing countries:⁵

- Inconsistencies between the elegance/simplicity of growth models⁶ developed for advanced market economies and the reality of their application in developing country contexts, stemming particularly from implicit and inaccurate assumptions about the behavior of the economy and its responses to policies.
- Lack of knowledge of the necessary and sufficient conditions for growth and development, with emphasis on the sufficiency part. Put differently, the state of our knowledge is such that there is as yet no known set of conditions and policy actions that necessarily produce a very high probability of accelerated and sustained growth.
- Lack of coherence in the design of policies so that they don't add up to a plausible overall growth strategy, but rather work at cross purposes.

⁵ The term reform is used to cover a broad range of changes. In some cases it refers to a simple change of rules and can be accomplished quite quickly. In other cases it refers to complex processes of human capital accumulation and institution building in the public and private sectors that require decades to complete. References to financial market reform often include both types.

⁶ In this paper, we talk about models in relation to growth and development. When we use the term models, we do not mean to refer only to the kinds of formal models that one associates with economic theory. Rather, we have a broader concept in mind. We mean the assumptions that analysts, policy makers, and decision makers use to predict how the economy will behave, and in particular to predict how the economy will react to changes. The changes could be shifts in policies, regulations, degrees of openness to or events in the global economy, and government or public sector investments. Policies are selected because of their intended effects, and thus there is something (sometimes explicit, often unstated or implicit) that is being used to make the predictions.

- The inherent complexities of market formation and deepening, including the weakness of supportive institutions in the economic, political, and regulatory space and the varying time horizons required to change them.
- Complex learning processes associated with the maturing of an economy, its institutions, and its market and regulatory systems. These learning processes that run in parallel with the evolution of the economy (as conventionally measured by income levels and tangible assets accumulated) in the aggregate create a substantial portion of the intangible assets of an economy. The processes are not well modeled and measured, and as a result the policy levers that affect the pace of learning are not well understood.
- The derivation and maintenance of national consensus, especially in the context of segmented and incomplete social contracts.
- The impact and uncontrollable nature of the external environment, and the need to adopt strategies that provide a degree of insurance or insulation from external shocks.

While social scientists continue to make progress on creating models of the dynamics of economies and political economies and of institutional development broadly speaking, those in charge of economic strategy and policy making continue to face the difficult challenge of deciding on implementable policies with incomplete theories and models of the process, as well as partial and mixed data that are often subject to considerable lags. It is a form of classic decision making under uncertainty, not unlike the policy challenges associated with global warming.⁷ The science, or in our case the social science, progresses, but lags behind the need to act.

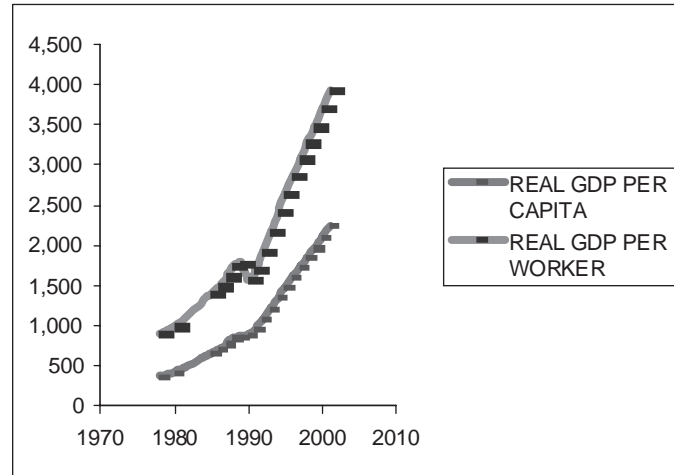
3. Salient Characteristics of China's and India's Growth Processes

China's impressive growth record attracts significant attention, and rightly so. The average annual growth rate of over 9 percent over 29 years has been transformational, driving the increase in per capita income and reducing the

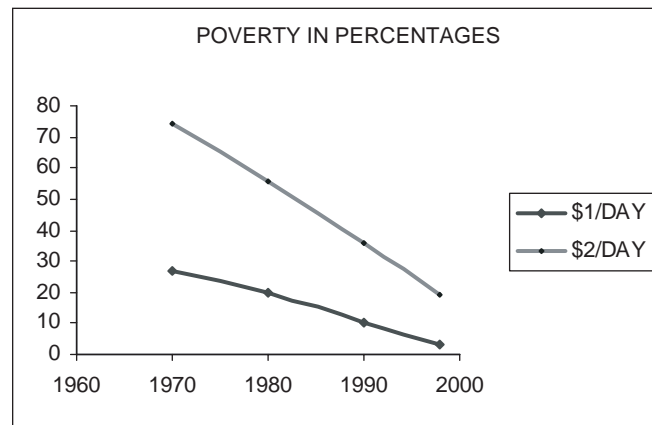
⁷ The science of global warming is incomplete, but progresses all the time. The range of temperature outcomes from greenhouse gas emissions is very wide. Scientists quite rightly refine their models and are skeptical of conclusions that go beyond the evidence. Policy in this context has to be made with this uncertainty present. Sometimes the correct policy is to wait for better information, but that is an OUTCOME of the analysis, not a premise of the policy decision-making process, as it is in science. Certainly scientists urge action, but in doing so they are wearing a different hat: the policy one not the scientific one. Generally sound policy choices in global warming seek to avoid the worst outcomes, keep the economic costs down as much as possible, and try to ensure that the costs are distributed equitably.

incidence of absolute poverty (using the standard of two U.S. dollars per day) from 75 percent in the 1970s to 15 percent today.

China Growth in GDP Per Capita and GDP Per Worker



China Poverty Reductions since Reforms



As important as these results are, they only tell part of the Chinese growth story. Another part—the manner in which China designed and implemented, in the context of high levels of uncertainty, what turned out to be a highly successful growth strategy—is equally notable. It is also of direct relevance to other countries seeking to meet the legitimate economic aspirations of their people.

In 1978, China made an important change in its approach to managing the economy. In fairly rapid steps, starting in agriculture, but with township and village enterprises and opening up following with a small lag, China allowed price signals to come into being and market systems and incentives to work accordingly. There was a push, led from the top, to learn market and capitalist economics quickly. This is by now familiar history. What is less well known is that also from the start, the leaders and policy makers in China understood that although they might end up with a mature market economy with socialist

inclusive values sometime in the future, they did not have one at the start, and they also did not have the intermediate steps clearly in focus. They only understood that they were embarking on a decades-long journey, during which the elaborate institutions and deep infrastructure that underpin a modern market economy would be created and evolve. In addition, the end goal itself was controversial and the subject of a tense debate throughout the 1980s, a debate that was not really resolved in favor a full commitment to a market-driven structure until after Tiananmen Square in 1989 and the subsequent southern tour by Deng Xiaoping. At the start, there was probably little agreement on anything except that a fundamental restructuring and reform of the economy was necessary.

The Marxian background of the economy and its governance placed ideological constraints on what were acceptable ways of thinking about the economy and its responses to structural and policy changes. There was a kind of “orthodoxy constraint” that did not disappear overnight. In particular, a sudden shift to a market and capitalist framework with much of the dynamics coming from the private sector investment process was not possible for two reasons: first, the market institutions and capabilities didn’t exist; and second, the prevailing ideology would not have permitted it.

A market economy was arrived at in steps and elements of the transition continue today. For example, there is not yet unanimity on the question of reducing the government’s ownership of key enterprises below 50 percent, a step that would clarify the boundary between government and the private sector and that would reduce the uncertainty about the governance and the behavior of these enterprises, and uncertainty specifically with respect to the relative importance of market signals and government priorities in the setting of their enterprise strategies.⁸

However, probably because the starting point was so dramatically different from a mature market economy in the full-blown sense, China avoided a mistake that could easily have been made with dramatic results: that is, to simply take their newly acquired knowledge of mature market economies in the rest of the world, and to apply that theory to their own economy without adjustments.

Economic theory as developed and taught largely with reference to mature market economies would have given very imperfect predictions about regulatory and policy impacts when applied to the early post-reform Chinese economy at best, and might have been simply wrong at worst. Neither the Chinese authorities nor anyone else knew how a formerly centrally planned economy would react in such a transition. And of course the transition was anticipated to

⁸ John Thornton, former head of Goldman Sachs International, is heavily involved in governance reforms at the board level in state owned enterprises in China. See the interview with Thornton in the *McKinsey Quarterly*, February 2007. You can think of this as a learning process, one of literally thousands, that commonly accompanies and in many ways forms the essence of economic development.

be, and has turned out to be, very long, and the entity being regulated and managed, their economy, changes continuously. (Both of these features are common to developing economies and are not idiosyncratic to China).

Today, almost 30 years after the adoption of the new course, the transition is still ongoing. The capital markets are understood to be relatively immature by advanced country standards; state-owned enterprises have shed many of their social investment and insurance functions (leaving gaps that are now a high priority to fill), but are not yet fully commercially oriented; and the existence of a clear dividing line between government and the private sector that in advanced countries is simply taken for granted is still a blurred line in China.

Skeptical of theory, the tendency was to look for practical lessons and insights in the international arena. Case studies had a pronounced influence. Demonstration effects were then and continue to be surprisingly important.⁹ Though the approach to reforms was pragmatic, somewhat experimental, and gradual in the sense of being a step at a time, implementation of the individual steps was not and is not slow.¹⁰ It is an unusual combination of caution in the face of uncertainty combined with speed in implementation once a decision is taken.

Notwithstanding the uncertainty and the ideological differences, there has been virtually no retreat in China, although mistakes have been made. (One of the most prominent was the flawed price reform of 1988, which was a factor in the economic problems leading to the Tiananmen Square disruptions.)

The fundamental fact that was recognized early on was that the models with which China was equipped to predict the effects of policy actions were very imperfect and partial, and hence the policy makers had to navigate higher subjective ex ante uncertainty about policy predictions than we are used to in advanced countries. The response was probably as expected. If the dynamic system that you are trying to influence has uncertain characteristics and if you are pretty sure that it is changing over time (a kind of system-wide learning curve, with the object changing while you are learning), then you experiment, take small steps, learn and refine your understanding of the economy, and try to avoid high-risk moves and big mistakes.

Critically, China understood the challenges ahead but did not overstate them. Specifically, the theory of market prices and incentives was regarded as relevant from the beginning. At the start of the reforms, farmers responded as predicted when told that if they could produce more than the quota under the

⁹ We suspect this is because demonstration effects are “real” to leaders and citizens in a way that abstract arguments are not. It is said that Deng Tsiaoping was strongly influenced by his first encounters with Singapore and New York City (on a visit to the United Nations). There is almost universal agreement that China’s growth has had a galvanizing effect in India and helped the leaders and reformers accomplish their challenging roles more easily.

¹⁰ Deng Tsiaoping is reported to have described the approach as crossing the river by feeling for the stones, an oft repeated phrase in China.

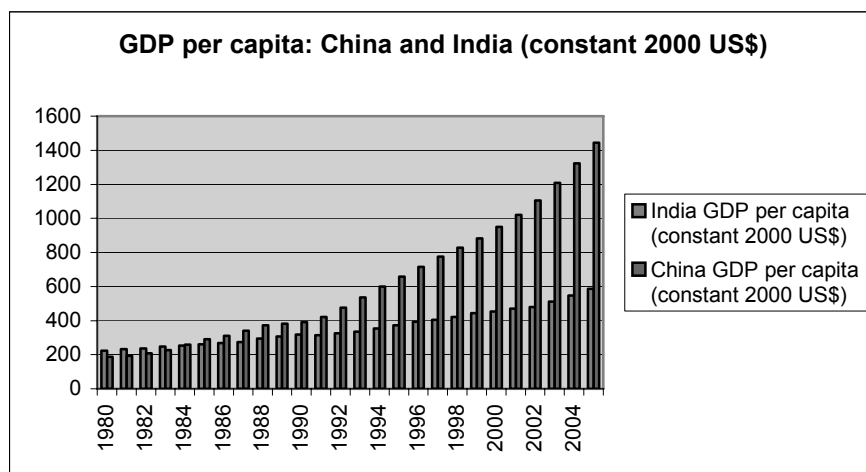
planned economy, they could sell the increment on the open market. Theory predicted improved incentives and expanded output and farmers who were a lot better off,¹¹ which is largely an accurate portrayal of what happened. But when it came to the question of how China's capital markets would respond to an opening of the capital account, they and others viewed the outcomes as quite unpredictable, and continue to some extent to hold that view today—for good reasons.

China is one of many countries to have faced the challenge of dramatically changing the approach to managing the economy in the recent past, and to have done so in a manner that recognized development as a lengthy dynamic process, which avoided radical change through experimentation and learning.

India has followed a different and increasingly successful path to higher growth and poverty reduction. The country has recently entered a period of high growth (above 7 percent a year) with underlying dynamics that make it likely to be sustainable.

In the 1950s, shortly after independence, in seeking to break away from a century of economic stagnation and recurrent famines, the founding fathers of India introduced industrialization policies based on import substitution that gradually but persistently led to an economy where the existing institutions of a capitalist society were put to the service of the goals of a planned economy.

Growth in India and China since 1980 (*India has accelerated and will likely follow the Chinese path with about a 12-year delay*)



¹¹ At the time of these reforms in 1978–80, 82 percent of the population was in the agricultural sector. As a result, the beneficial effects of reform were experienced by a huge majority of the people, and this made it easier to pursue further reforms. In terms of building consensus around growth oriented reforms, what is fixed first matters. There are numerous countries today that are experiencing growth acceleration but where the effects are not being felt by a large majority of the citizens. The latter poses a threat to the sustainability of the policies and reforms that in turn sustain growth.

This was achieved through detailed, mostly indirect, controls of economic activities and state ownership of a large number of industrial enterprises and financial intermediaries. Although India was successful in establishing a well-diversified industrial base and putting the economy on a sustained, albeit slow, growth path, by the 1970s it was evident that this strategy had exhausted its potential.

Undoing the web of regulations and controls started with a few experiments in the 1980s: price liberalization of some key industrial inputs, deregulating road transport, and encouraging exports. Mostly positive results helped the technocrats and political leaders overcome the apprehensions of the other politicians and the populace, and prepared the ground for further deregulation and liberalization in the 1990s. The crisis in the financial markets in the early 1990s, including a disruptive unwinding of foreign currency deposits and related balance of payments problems, undoubtedly accelerated the process of reform that began a decade earlier.

The deregulation and liberalization of international trade and finance were characterized by experimentation, medium-size changes, and evaluation of results and then more steps. As in the China case, this process was how the technocrats “discovered” how the economy responded to changes in incentives, institutions, regulation, and exposure to the global economy. As compared with China, the consensus-building aspects of the process have been different, more overtly democratic, and probably more gradual.

India is a complex democracy, with European-like diversity in languages, religion, and ethnicities. Collective and social decision making is an intricate process (not always easy to understand for outsiders) that invests considerable time and effort in reaching compromises and building consensus while moving forward. So for a variety of reasons (some similar, some different), India and China experimented their way to successful policies and reforms. In India’s case respect was given to the need to bring large numbers of people along in a democratic system. China, however, was constrained more by ideology and more importantly by extreme uncertainty about the impacts of change, because of the absence of many mature economy market institutions and other less-favorable initial conditions.

Indeed, China and India offer a number of practical lessons that are worth considering and discussing, the most important of which pertain to the basic decision to avoid an approach based on a static and constant model and opt instead for a dynamic and iterative approach. The lessons that emerge from these two important cases with respect to the kinds of approaches and strategies seem to us to include the following.

First, economic growth models and macroeconomic models generally derived from the experience of industrial countries will differ in the accuracy of the predictions about the impact of policies in developing countries. The accuracy will vary with the state of maturity of the economy. A corollary is that

external policy advice (that often comes from the use of the mature market macroeconomic models and is often delivered with greater confidence than the state of our knowledge would justify) may not be well matched to the state of the economy and need not be accepted without qualification.

Second, there is a potential trap of reacting to genuine uncertainty with inaction and paralysis, a kind of strategy of “waiting for better information and more certainty.” The correct response to uncertainty is not paralysis. It is better to show willingness to embark on a partially designed approach with explicit recognition of the need for experimentation and periodic reassessments, and with a willingness (indeed an expectation) to implement midcourse corrections as appropriate. Mistakes (viewed *ex post*) will inevitably be made (because of the presence of great uncertainty). Good policy involves acknowledging and learning from mistakes, rather than adopting an overly timid approach that simply tries to avoid them.

It is important to support this experimental approach with (i) a targeted institutional focus designed to increase policy and implementation effectiveness, and (ii) a degree of central coordination of policies in order to ensure that policies and reforms add up to a coherent growth strategy.

While there is a limited applicability of top-down growth models in the early stages of growth, microeconomic insights remain valid and crucial, including the role of market-based signals and incentives in motivating individuals and allocating resources. Market-based price signals, decentralization, and incentives have proved critical in all successful cases of growth and development.

Finally, early and continuing attention to the importance of the social compact(s), including distributional ones, appears to be a critically important feature of successful and sustainable growth strategies

4. Growth Strategies and Specific Policy Challenges

In addition to these general issues, China’s experience (and with variations India’s) sheds light on how to approach specific challenges that are inherent to a successful growth process. These include the pace and sequencing for liberalizing internal and external markets for goods and services, how and when and in what order to liberalize the capital account, management of the exchange rate, the role of industrial policy, overcoming the constraints imposed by a banking system riddled with NPLs and noncommercial operations, dealing with surges in capital inflows, and management of national financial wealth.

One view is that most developing economies are market economies that just happen to be poorer than advanced countries. What distinguishes them is that growth takes time and they are at an earlier stage because of different starting

points. In this view, the model of the economy does not vary much across what Rostow¹² would call stages of development.

This is probably not a good way to think about developing-country growth dynamics. There are important differences between developed and developing countries; and, critically, these create policy challenges that are not encountered in advanced-market economies in a number of areas.

The Surplus Labor Condition

Poorer countries that are in the early stages of growth (or that have not started growing rapidly and diversifying the economy) tend to have surplus labor in traditional (often largely agricultural) sectors, and that labor is extracted in the growth process at very low social opportunity cost, to be deployed in new sectors that serve a large and elastic global demand. This diversification and structural transformation enables rapid growth and rapid increases in productive employment as Sir Arthur Lewis¹³ insightfully described.¹⁴

This structural condition also creates an early problem of a potential divergence between (i) the private and social returns to investment that is linked to the divergence between the marginal product of labor in the traditional sectors, and (ii) the cost of drawing that labor into the modern and export-oriented sectors. In the extreme case, if the marginal product in the traditional sector is zero, it is almost certainly not true that labor can be attracted into new higher-productivity sectors with a wage of zero; hence the divergence between marginal product in the traditional sector and the wage in the modern sector. This translates into a private return to investment in the modern sector that for a period of time is below the social return to that investment. It is not therefore surprising that many developing countries including high-growth ones have found ways to subsidize employment or investment, directly or indirectly in the export sectors.

This divergence does not exist in advanced economies and is not captured in growth models that apply to advanced economies. Part of the early development process, therefore, is the development of the labor market and the convergence over time of prices and opportunity costs, as the surplus labor condition is

¹² W.W. Rostow, 1960, *The Stages of Economic Growth: A Non-Communist Manifesto*, Cambridge: Cambridge University Press.

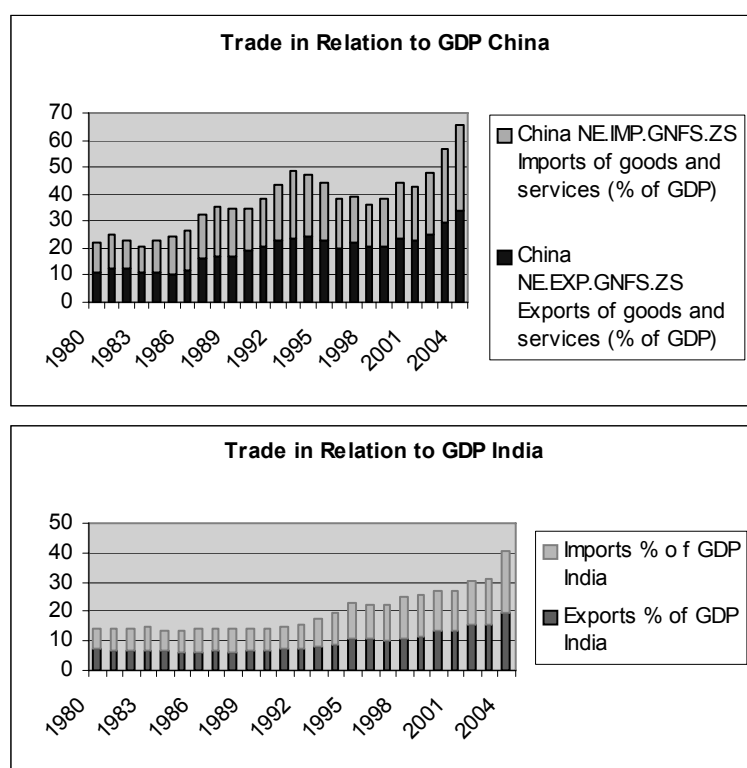
¹³ Sir Arthur Lewis, 1954, "Economic Development with Unlimited Supplies of Labor," Manchester School of Economic and Social Studies, Vol. 22, pp. 139–91. The model itself was named in Lewis's honor. First published in *The Manchester School* in May 1954, the article and the subsequent model were instrumental in laying the foundation for the field of developmental economics.

¹⁴ Another way to say this is that for a period of time, the supply curve of labor is not upward sloping. In addition, the supply curve of inputs that are purchasable on global markets and global demand is highly elastic, so that in the tradable sector demand is not downward sloping. Under these conditions, there is a kind of linearization of the growth process, and its speed is driven largely by investment rates. Of course, this set of conditions does not and cannot last indefinitely. It is a kind of transition model.

eliminated by new productive employment. The low opportunity cost of employing surplus labor is one of the reasons why developing countries can grow at higher rates than mature economies can achieve. In addition, as noted above, early-stage, high-growth developing economies rely on the global economy to drive growth. The large and elastic demand of the global economy helps generate incremental productive employment, and accelerates the inbound transfer of knowledge and technology that is imported from the global economy to produce a rapid increase in potential output.

The importance of the expanding share of trade in GDP is clear in the cases of both China and India.

Share of Trade in GDP



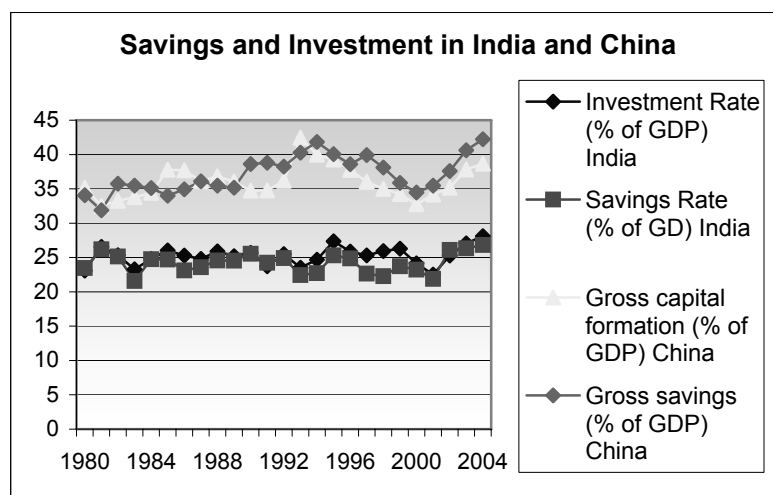
Policies to Promote Export and Domestic Diversification

For this type of growth dynamics to start, it is necessary that sectors be found in which the country has a comparative advantage. That is to say, the combination of domestic prices for nontradable goods and services and global prices for tradables result in a positive risk-adjusted return to investing in these sectors. Note also that the sectors in which the country has a comparative advantage will shift over time as a result of changes in relative prices (including especially labor), the accumulation of human capital, and the maturing and deepening of the institutional foundations of the economy. This evolution is commonly referred to as the dynamics of comparative advantage in the growth process.

In the early stages of growth acceleration, there is a process of discovery that occurs. It involves the domestic and global private sectors, and also potentially the government of the developing country. This last statement is controversial among economists and analysts of growth and development. Some argue that there is no necessary role for policy at this kind of microeconomic level: the private sector (global and domestic) will find the opportunities and exploit them.

That investment is a crucial ingredient is not controversial, including high levels of public sector investment in education and infrastructure. China and India clearly illustrate the point.

Investment and Savings Rates in China and India



It is in the area of microeconomic intervention and incentives to jumpstart export diversification that the divergences of opinion appear.

All successful high-growth economies have had policies that were designed to help start and accelerate the process of export diversification and structural transformation. These included the following (with the mix varying):

- Tax and other incentives to attract foreign direct investment.
- Special export zones with supporting infrastructure, tax provisions, and import tariff relief.
- Management of the exchange rate to maintain competitiveness in the export sectors. Exchange rate management included inbound and outbound capital controls and, when necessary, reserve accumulation to counteract the combined exchange rate effect of a trade surplus or a large inflow of private capital or both.

These facts however are not decisive with respect to the issue of whether the interventions were necessary or productive. The success of particular policies seems to vary somewhat and it is difficult to know the counterfactual—that is,

what would have happened absent the interventions. It is nevertheless striking that the sustained high-growth cases all chose, as part of the experimental approach to starting the growth engines, to provide incentives for investment in export diversification and to structure in particular foreign direct investment so as to increase the rate of inbound transfer of knowledge and technology to domestic individuals and institutions.

Many countries, including in Africa, have effectively not started the process of export diversification beyond the sectors of agriculture and minerals. Recent growth due to global increases in commodity and food prices emphatically is not the basis of sustainable growth, though if the price changes are permanent they do produce an increase in income and wealth. To become sustainable, the expanded incomes and opportunities need to lead to a process of public and private sector investment designed to move the economy in the direction of diversification, incremental productive employment creation, and expanded interaction with the global economy.

There are several arguments that suggest that experiments with incentives designed to increase investment and diversification are worthwhile. One is the demonstration effect. External investors in particular do not have *ex ante* knowledge about the business, investment, and labor market environment. Specifically in China, foreign investors now have a lot of knowledge of how to function in that complex economic environment, but this was not true in 1985 or before. Successful early investors reduce the *ex ante* risk for followers. Hence there is a return to the early investment that does not go to the investor. This type of incentive should not be needed for an indefinite period. The demonstration effect is a temporary phenomenon. Thus the incentives should be designed to be temporary, so that only economically viable economic activity remains. In the case of China, the incentives associated with foreign direct investment, with the special economic zones that are being phased out as their useful life has ended, and with continued subsidies distorts both foreign and domestic investment.

A second type of intervention is associated with export zones. These often combine direct investment incentives with other inputs. In relatively poor countries, the infrastructure deficit cannot be fixed in a short period of time because of limited capacity for public investment. Nor can tariffs on imports be always safely eliminated quickly for the whole economy. Well-designed special export zones often provide investment incentives but also focus infrastructure investment, import tariff relief, and other regulatory provisions (with respect to labor markets for example) so as to create a favorable environment for export diversification and incremental productive employment. In the case of China, the export zones were located in coastal areas, in the south on the Pearl River Delta and near Shanghai and the Yangtze River.

A third set of policies that has been used to sustain export diversification is related to the management of the exchange rate. China is perhaps the clearest

case of this. There are two components that are critical to the exchange rate management system. One is a set of capital controls that, in principle and if they are not too leaky, allow the central bank to manage for a while domestic inflation and the exchange rate independently. The second is the accumulation of reserves. There is a net inflow of foreign currency resulting from the sum of a surplus on the current account and the net private capital inflows. In China's case, both of these flows are positive and recently the trade surplus increased from about 3.5 percent of GDP in 2005 to an estimated 10–12 percent for 2007. To prevent a rapid upward revaluation of the currency, the central bank intervenes and recycles the foreign currency into investments, mainly in safe assets in the United States. Some of the recycled capital comes back through several intermediate steps in the form of foreign direct investment in productive assets. The result has been a rapid increase in foreign reserves held by the central bank—currently estimated to be about US\$1.6 trillion. Since 2005, the currency (the yuan) has been allowed to appreciate modestly against the U.S. dollar. Under increasingly intense international pressure, the appreciation has accelerated somewhat. Until the past couple of years, the reserve accumulation has been largely the effect of neutralizing the exchange rate effect of large inbound private capital flows, rather than the trade surplus. But as noted, that situation is now changing.

This exchange rate management policy has as its focus export competitiveness and the retention of exports as a driver of growth and incremental productive employment. There remain approximately 600 million people in the agricultural sector (about half the population). The productivity differential between the urban/modern sectors and agriculture is estimated to be on the order of 4 to 6 times, in favor of the modern sectors including exports. The belief has been that a significant loss of competitiveness in the export sector would reduce growth and employment opportunities, leading to unfulfilled expectations in the population and the risk of a chaotic situation economically, socially, and politically. This concern is now having to be increasingly balanced against the mounting inflationary impact of incomplete sterilization—a phenomenon that is being accentuated by the impact of higher food prices.

Generally, the exchange rate sets the relative prices of traded and nontraded goods and services. Holding the exchange rate down keeps the relative price of nontraded goods and services including labor down and promotes investment and growth in tradables. As an industrial policy, exchange rate management favors exports over investment for domestic consumption and is therefore in theory biased. It is also, on the more positive side, neutral with respect to the particular type of goods or services exports that are being promoted.

There are risks associated with these policies that need attention. In the case of the exchange rate management system there are several. In principle, one would want to subsidize new investment and not just in the export sector. From this point of view, the exchange rate policy that implicitly subsidizes the export

sectors is a kind of second best.¹⁵ It distorts investment away from investment to serve the domestic economy. It favors producers over consumers.

Restrictions on capital inflows (foreign direct investment is normally exempt) will raise the cost of capital. Probably most important, as with other types of export-oriented industrial policies, if pursued too long, they will distort the structural evolution of the economy by removing the natural market pressure for change. Specifically, they will tend to lock the economy into labor-intensive export sectors, reduce the return to skills upgrading, slow the rate of structural evolution of the economy and hence its productivity and growth, and slow the movement toward having domestic demand and consumption increase in importance as a driver of growth.

Restrictions on outward flows of capital can result in asset price inflation. This is particularly the case where financial sterilization policies are weak and the domestic banking system has inadequate lending procedures.

In the case of diversification incentives, skeptics have accurately catalogued the risks. One is that while the informational gaps in the early stages may be real, the government is unlikely to have the knowledge to target incentives properly. A second is that even if the incentives could be targeted properly, in the political economy of many countries, the risk that the policy process will be captured by domestic industrial interests is high. In both cases the policies are likely to be ineffective and wasteful. A third is that incentives are easier to install than remove and tend to become permanent. Permanent subsidies and incentives to deal with transitory challenges would be a policy failure.

To conclude this discussion, one might ask why these issues do not seem to be particularly salient in management of advanced market economies. The main reason is that in an advanced market economy, the transitory informational gaps are far fewer and both the markets and the regulatory institutions more fully developed and mature. In the advanced economy, one does not encounter an incomplete labor market or a divergence between wages and opportunity costs for the most part, for example.

There is a certain amount of confusion in the literature with respect to informational gaps in the context of development. There are informational gaps and asymmetries (and related phenomena such as signaling, screening, and reputation building) throughout advanced economies in financial, labor, and other markets. These informational gaps are structural and do not disappear over

¹⁵ In surplus labor economies, there is a potential divergence between private and social returns to private sector investment. It comes from the fact that while the marginal product of labor is low in traditional sectors, and as a result the labor markets are unformed, attracting labor from the traditional sector requires a payment that is higher than the marginal social cost of attracting it. As a result, until the surplus labor is absorbed and the labor market forms, the divergence between the withdrawal wage and the social marginal cost translates into a difference between the private and social return to investment, with the latter being higher. Subsidizing investment in the export sector via the exchange rate mechanism during the period of absorbing surplus labor can be viewed as a response to this structural problem in the early stages of development.

time, absent regulation that alters the incentive structure with respect to disclosure. They also exist in developing economies, but they are fundamentally different from transitory informational gaps that tend to characterize new entrants to the global economy. The latter are not structural in the same sense, and they do decline over time with experience and normal informational spillovers. Domestic investors learn over time about the global economy and foreign investors learn about the domestic investment environment and institutions. The exception of course is when there is a blockage and relatively little interaction with the global economy. Under these conditions, incentives to jumpstart the process are appropriate.

The Advanced Economy Policy Model and the Issue of Necessary and Sufficient Conditions for Growth

In advanced economies, much of the dynamics of growth, innovation, productivity increase, and structural change occurs largely within the private sector. Public sector policies and investments are supportive: tax policy and incentives, public spending on education and research, and the maintenance of a stable macroeconomic environment. Indeed, there is a general sense that a suitable array of public sector policies and investments are not only supportive of growth (necessary conditions if you like) but also are sufficient. By sufficient we mean that the assumption is largely correct that in the context of appropriate government policies, the private sector will pick up the ball and generate the desired dynamic results through investment, innovation, and competition. Experience suggests that this conceptual framework is largely right.

In developing countries, the situation is different. Specifically, the capabilities that we presume to be present in advanced economies in the private sector, capabilities that make the handoff in terms of growth dynamics successful, are in the process of developing, which means that to some extent they are not there. Two consequences follow. It is unwise to assume that what are plausible sufficient conditions for growth in advanced economies are sufficient in many developing country contexts. That is not to say that the policies that work in advanced countries are not necessary or supportive of growth in developing countries; but they may not be enough. This emphasizes that effective strategy and policy setting in developing countries should not be based on the assumption that they are sufficient, and these countries need to find ways to fill in the gaps. Educated guesses, experiments, and incremental incentives are useful tools in this context.

In many respects, what makes development and growth difficult is that as the private sector develops and deepens its capabilities, the role of government shifts. To add to the complexity, the array of private sector capabilities that are in the process of developing vary across countries and across time within a country. So the role of effective government evolves in response, and what works as a matter of strategy in one country or at a particular stage of development may not

work in another. For example, in certain settings the potential supply of commercially sophisticated entrepreneurial talent may be ample and in others much less so.

The truth is that we do not know what are the necessary and sufficient conditions for growth. In advanced economies, what appear to be sufficient conditions are complemented by a lengthy and unstated list of private sector capabilities. If we could specify and measure the latter in detail, then we would be well on our way to expanding the models of growth and development because we would know what is missing from the creative aspects of the development process. But at this stage, our knowledge of the private sector capabilities that, in conjunction with more-or-less known policies in advanced countries, drive growth is not precise enough to help with understanding the subtler dimensions of development—what might be called the learning processes. We comment more on this in the next section.

The conclusions that are relevant to policy are as follows. First, we do not have a complete and widely accepted model of growth in the developing country context. Policy needs to be adaptive to this circumstance. Second, adopting the advanced-economy model full stop is not a good idea, and using it as a basis for policy predictions needs to be done with caution, judgment, and some circumspection.

Monetary Policy and Central Bank Independence

Turning to monetary policy and central bank independence, there is widespread agreement that central banks operate best with a certain amount of autonomy. It is particularly important to insulate central banks and bank supervisors from potentially irresponsible economic behavior on the part of election-focused governments and legislatures that are dazzled by the power of the monetary printing presses. At the same time, central banks have become much better at controlling inflation all over the world, without causing damage to growth.

The downsides of independence seem pretty modest in a mature economy because of the aforementioned division of function between policy and the private sector. In a developing economy the issue is more complicated. The desirability of independence does not go away, but the need for coherence in the strategy is ever more present. High-speed growth is associated with exports and integration into the global economy. That process is affected by exchange rates, interest rates, and inflation. Thus the central banks choices are an integral part of the strategy. Judgment is required to incorporate the benefits of independence within the need for overall macro policy coherence.

The existence of an appropriate and responsive monetary policy approach is needed irrespective of the moves made in opening up the capital account. Indeed, the experience of China highlights the extent to which surges in capital inflows can materialize notwithstanding limitations on capital outflows. These inflows need to be managed lest they excessively distort asset prices, undermine

the activities of domestic financial intermediaries, and bias behavior of retail investors—all of which increase the risk of a financial crisis.¹⁶

Opening the Capital Account: The Capital Account and Financial Market Maturity

The issue of opening the capital account is an example of the challenge of pace and sequencing. It would be hard to argue that the informational depth and maturity of the financial markets in many developing countries fits the description of the modern well-regulated advanced country financial system. Theory and experience would predict what Stiglitz, Rogoff, and others have argued: unconstrained openness in immature financial markets often leads to volatility in the costs of capital and exchange rates, which can be destructive to domestic and foreign investment, particularly in the export sector.

Almost everyone agrees that increasing openness is the right long-run direction in parallel with the maturing of the capital markets. The issue is speed and sequencing—what is practical and reasonable, and given the uncertainty, safe or lower risk. A fully developed capital market has among other things large amounts of human capital and experience that underpin its informational and regulatory structure, and that enhances its ability to navigate bumps along the way. Those intangible assets take time to develop. When a country sets out to “fix up” the capital markets, depending on the starting point, we could be talking about a couple of decades to get the job done.

In the meantime, there is a set of policy choices about degrees of openness. Though we do not have well-specified models that capture the dynamics of financial market maturation, the evidence we have is that immature markets when totally open are subject to greater volatility than is ideal and more than would be present in mature financial markets. Volatility has several destructive effects. It can cause financial institution failures that become burdensome public liabilities. In addition, volatility will increase investment risk, particularly in the fixed foreign investment area. That in turn may limit or slow down export diversification and growth.

Since the currency crises of the late 1990s there seems to be a growing understanding that capital market maturation is an integral part of the development process. Indeed, here and elsewhere, analysts are paying much greater attention to the complex linkages between the real economy and the financial sector. The China case, where for much of the period of sustained growth the capital markets have been quite underdeveloped, should cause a

¹⁶ The majority of sustained high-growth countries have had periods in which capital flows and exchange rates were managed so as to be consistent with the overall growth strategy. Yet there is surprising little direct discussion of the challenges, merits, and pitfalls of various approaches to this critical dimension of economic and growth strategy management. We suspect the rather muted discussion is in part the result of a concern in developing countries that forthright deviations from orthodox market-determined exchange rates and capital flows of the type advocated by the international financial institutions will not be well received.

certain amount of skepticism about the necessity (as opposed to desirability) of financial market efficiency for growth. (Although, one could reasonably argue that in China, while it is hard to imagine the growth being much faster, it could have been more efficient and enabled more consumption along the way.) Inside China and outside there is agreement that capital market development is an important input to the sustainability of future growth. This general understanding has led to a highly useful discussion of how to match the opening of the capital account with the maturing of the domestic financial markets. But we are still far away from being able to provide useful concrete guidelines based on measurable market characteristics, with respect to the pace and sequencing of financial market opening.

Global Imbalances

Much has been written about global imbalances and this is not the place to review it all. Suffice it to say that the United States has been running a large deficit on the current account (and an equivalent excess of investment over savings), financed in part by reserve accumulations (some in the form of sovereign wealth funds) in oil-producing states, Japan, and many developing countries, including prominently China.¹⁷ This pattern is unlikely to last indefinitely but unwinding it quickly could take the global economy along a bumpy road.

Closely related is the fact that there is a very large “dollar zone” in the global economy, including much of South East Asia, to some extent Japan, and a good portion of the Middle East (and most prominently, five of the six members of the Gulf Cooperation Council). These are areas in which the currencies are managed in relation to the U.S. dollar.

Outside the dollar zone, in part because of the global imbalances, there is a flood of capital into many countries that run more flexible exchange rates (some running current account surpluses and others deficits). These large flows are elevating the currencies in these countries relative to the currencies in the dollar zone. For the subset that are developed economies (like the euro zone), this may not be an overwhelming problem except in specific sectors that suffer loss of export competitiveness. But for the developing countries that are outside or have chosen to be outside the dollar zone, this pattern, if it goes too far, can threaten to truncate export diversification, incremental productive employment creation, financial market stability, and growth in the longer term. The problem became evident recently in India, which has been experiencing a large influx of capital and an appreciation of the rupee while in the early stages of building its manufacturing export sector, growing its vibrant trade in services sectors, and deepening its domestic financial markets.

¹⁷ See Michael Spence, 2007, “We Are All In It Together,” *Wall Street Journal*, January 5; Mohamed A. El-Erian and Michael Spence, 2007, “Capital Currents,” *Wall Street Journal*, March 24; and Michael Spence, 2007, “Global Imbalances Diverging,” *Business Standard*, June 30.

Together, global imbalances and the associated unusual pattern of capital flows significantly complicate the developing-country challenge of managing the capital account so as to achieve and sustain growth and diversification. As a result, this aspect becomes a key component of the required policy response to sustain growth.

The Pace of Opening in Goods and Services Trade

Opening the current account, trade in goods and services, is a second area in which there is no consensus and reasonably high variance across cases, both successful cases and ones that are less so. The practice in many countries might be characterized as follows. Because the effects of opening up are subjectively correctly perceived as somewhat unpredictable and therefore risky, the strategy has often been to be gradual and experimental, including limiting the opening up regionally in order to assess the effects, before proceeding to the next step. Export zones of a variety of kinds would be examples of selective opening up.¹⁸

As in the case of the capital account, there is relatively little disagreement about the endpoint, which is an open economy with liberalized trade flows. The controversy and the challenge for leaders and policy makers in developing countries is to make wise choices and reduce risks in the process of getting to that endpoint.

In an economy that has not been open to global competition, there are likely to be many sectors that are relatively inefficient and uncompetitive by global standards. Therefore the risks in this context include the possibility of bad economic outcomes (greater loss of employment in uncompetitive sectors than new employment created in growing sectors for example) and political risks associated with loss of support for the growth strategy. There is the real possibility in the opening-up process that the process of creative destruction will produce more destruction and less creation in the short to medium run. That may be a price worth paying but it is a political problem that will not be ignored by leaders making the decisions and that requires careful management.

Misdirected Controversy

There are a number of areas in which disagreements about policy can be traced to disagreements about other things. One example is objective functions. It is fine one might say for China to appear to choose a social discount rate that is zero or low, resulting in high levels of investment (and public sector saving) and rapid growth. But other countries including democracies may make different choices, placing a higher value on current generations, a higher discount rate, and lower growth. Or, some societies may correctly perceive that very high-speed growth—which we know to be quite chaotic at the microeconomic level and which may cause periods of rising income inequality—imposes costs on individuals

¹⁸ The literature assessing the impact of selective export zones and similar entities suggests that there is high variance in their performance and impact.

asymmetrically that are viewed as unfair. The choice may be for slower and more orderly growth. Or in another scenario, democratic consensus building and decision making may slow the process down while doing better at enfranchising people and possibly of ensuring an element of empowerment and inclusiveness, for some a price well worth paying. One could go on.

These divergent choices should not be seen as problems in any way, and nor should they be confused with policy disagreements. The latter should be largely confined to whether the objectives are being pursued efficiently (in the Pareto sense).¹⁹

A second area in which there may be misdirected controversy has to do with unstated variables in the models. An example would be trust as analyzed by Arrow and others.²⁰ At the risk of oversimplifying a rich set of ideas, the notion is that trust is an important input to efficiency in a market system. Why? Because predictability and enforceability of agreements are important and absent trust, the transactions and institutional costs required to restore these attributes are high. But we do not normally include them in models because for many economies, the trust variables or parameters don't vary much. They are, if you like, implicit. On the other hand, it is imaginable that there are significant differences across societies and countries and time in these variables so that their absence from the models becomes problematic. In particular, absent reasonably high levels of trust, and institutions that substitute (admittedly at a cost) for them, there may be a collection of missing sufficient conditions for effective contracting and investment. Leaders, who among other things set examples, might ignore the issues associated with honesty and trust at considerable cost.

Starting Points

Of all the areas that relate to high economic growth, perhaps the one about which we have the least knowledge is how does it start. A thoughtful analysis from Singapore reflecting on their own and others' experiences suggests that political leadership, vision, and a process of consensus building in society is an important early foundation for support for policies that lead to growth. It also is reasonable and consistent with the thoughts of experienced leaders that once the process of reasonably inclusive growth starts and as the results and effects become visible and affect a growing number of people, a kind of reinforcing momentum and confidence builds that reduces the difficulty of keeping it going. We have cases like China, in which dramatic changes in direction were preceded

¹⁹ European social policy is understood to be more protective of individuals in transitions caused by the creation and expansion of the EU, the global economy and the normal forces of competition. The subcomponent of the debate that is about policy has to do with whether the protections are implemented in a manner that minimizes the impact on efficiency and growth. The tendency to implement the objectives by protecting companies and jobs as distinct from a more macroeconomic approach of protecting people probably is not optimal, because it hampers the private sectors ability to compete and to adjust to competition.

²⁰ Arrow, K.J., 1974, *The Limits of Organization*, New York, NY: W.W. Norton.

by very poor economic performance, which may have made the shift to very different strategies and policies easier. On the other hand, we have cases like Brazil, which after several decades of rapid growth saw the economy come to a halt in the 1980s; the question here is whether it was political leadership and consensus building around needed actions that has been missing, or whether the actions taken have not been conducive to growth—that is, the model was wrong.

We also have a sense that externally imposed “solutions” do not work, because they lack domestic legitimacy and understanding. The choices seem to need to come from within and be subjected to a process of buy-in. That said, there is anecdotal but persuasive evidence that external examples and demonstration effects can stimulate changes in strategy and direction as policy makers responsively tweak their domestically driven choices.²¹ In this context, crises (whether external in origin, as in a shock, or internal in origin, as in the accumulated effects of misguided policy) have sometimes served as powerful stimuli. Leadership in identifying a viable strategy, communicating an understandable vision, and building a consensus around a growth strategy seems critical. Nevertheless, there is much that we do not know about the initial phases of the shift to a pattern of growth. The payoff to progress and insights in this area would be high.

5. Learning Process in Development

The accumulation of human capital in a wide variety of forms is a central part of economic development. Human capital is accumulated in schooling and job-related skills acquisition. It is the base of a pyramid upon which is constructed the elaborate capabilities of a modern advanced economy: institutions and human capital in the public and private sector that solve complex economic problems, create the capacity to learn, and generate new knowledge and transform it into commercially viable products and services.

There is a network structure to the learning processes that increasingly includes multiple countries. Because of information technology, the diffusion of knowledge is accelerating. There is a rapid expansion of valuable and accessible human resources and of knowledge-generating capabilities that utilize these resources in the global economy. The maturing and development of an economy is in part the process of investing in the human capital and then acquiring the institutional capabilities and network connections that underpin growth in a modern advanced economy.

²¹ China’s growth has had a galvanizing effect on the pace of reform in India, not because the political and policy leaders did not know where to head, but because the benefits of reform became much more concrete and clear to a large fraction of the population in a complex and successful democracy.

These processes occur through the decades of economic development in parallel with the accumulation of more easily measured physical assets, and are an essential aspect of what we understand to be the institutional development and maturing of an economy. Scholars are right to focus on these dimensions and drivers of growth, but the truth is there is much left to do in terms of both theory and empiricism: we do not know much about them. In the early stages, again built on a sound educational base, high-speed growth is enabled in part by the importation of knowledge that already exists from outside the country. Of course it needs to be absorbed and embodied in people, and in business, governmental, regulatory, and judicial institutions. The combined effect is to change the productive capabilities and the overall productivity of the economy.

One can think of the embedded human capital and the institutional capabilities as a collection of intangible assets whose accumulation is part of the process of growth and maturation. They are very hard to measure properly and as noted above, our understanding of the investment and accumulation processes is limited. At a most basic level, measurement of embodied human capital using inputs (years of schooling) as opposed to outputs (skills and individual capabilities) is imperfect because of widespread quality problems in education in advanced and developing countries.

There are numerous examples of learning and institutional development. We mention just two.

Consider a modern financial system. It's functioning depends on a host of categories of people and institutions that, in the aggregate, enable the efficient allocation of capital and the spreading of risk. A nonexhaustive list would include securities and corporate lawyers, regulatory institutions and disclosure laws to deal with the informational gaps and asymmetries in many financial markets, securities laws, investment and commercial bankers and banks, portfolio managers, traders, analysts, brokerage firms, risk managers, private equity entities and professionals, hedge funds and their staffs, government debt markets and traders, and a competent central bank. All of this gets created over the course of economic growth and development *and takes decades*.

Consider a second example. Silicon Valley has developed in northern California over the past 50 years as a complex set of institutions and relationships that have the capacity to undertake risky investments in technology, and support the creation of new products, services, and businesses. Part of the evolution includes the creation of infrastructure that dramatically increases the efficiency of the start-up process and handles the complex informational structures required to sustain proper incentives in the face of risk. From an economic standpoint, it is a system that conducts economic and technological experiments, the output of which is businesses, jobs, and new products and services. Put succinctly, it is an example of an institutionalized system of innovation that accelerates growth.

Learning processes should be a high priority for research on development and growth. For leaders and policy makers they are also eminently worthy of

attention, notwithstanding the limitations of the current state of our knowledge. The reason is that public policies and public sector investments affect the pace of development in these dimensions. Furthermore, the more complex aspects of learning and institutional development are likely to be dominantly important in the transition from middle-income to advanced-economy income status. It is in this evolution that the relative importance of agriculture, manufacturing, and extractive industries declines, and the size of the services sector expands. It is striking that a significant number of countries have decelerated or stalled in middle-income status. In the middle- to high-income passage, neither the surplus labor/low labor cost driver, nor the physical tangible capital accumulation and deepening, are available as major engines of growth. It is the intangible assets that take center stage.

The following issues seem to us to be deserving of policy attention.

- Education at all levels is the critical necessary condition for effective learning processes and institutional development, with appropriate attention to quality and outputs, not just inputs.
- Cross-border learning through multiple channels is essential at all stages of development, though the portfolio will develop with the evolution of the economy. Aspects of cross border learning can be accelerated by public policies and investments.
- Openness to ideas from outside remains a prominent feature of innovation and growth in advanced economies. Early development of the capability creates a durable asset.
- The vigor of the learning environment positively affects the retention of highly educated people and the reacquisition of human resources that may have migrated at earlier stages. Indeed the migration and then return of highly trained people is one important dimension of learning and development and the transfer of knowledge.

6. Why Other Countries Should Notice: Learning without Overgeneralization

Although there has been no lack of emphasis on the importance of economic growth, many countries have not succeeded in their attempts to sustain high growth rates. In discussions and domestic analyses, the argument for dismissing as not relevant experience from other (especially developing) countries is frequently encountered and comes in numerous forms: every country has idiosyncratic characteristics, or the comparison country is too small, too large, wrong continent, different culture, different stage of development—the list goes on.

Underlying these assertions and debates is a deeper issue. As argued above, developing economies are not mature market economies, and they are not the same as each other in dimensions that go beyond the stage of development as conventionally defined. At this stage of economics, we do not have models that capture in any precise way the parallel processes of learning and accumulating intangible assets that go along with measurable capital accumulation and income growth.

In the volumes on Economic Growth in the 1990s, authors from the World Bank and outside drew out lessons from growth experiences in that decade. One lesson was that there is no universally applicable formula for growth.²² Countries are different and have relevant differentiating characteristics. They also change over time, requiring shifts in strategy to be successful.

This perspective is a healthy development and, we think, consistent with the thoughts expressed here. What seems to us less useful is what might appear as an extension or corollary—something like, “There is no point in learning about the growth paths of other countries or regions because the lessons cannot be applied at home.” We would resist this extension. It seems to us that the experience of other countries and case studies improve our sensitivity to growth drivers and to relevant variables and hence improve the models that are used to assess policy impacts in particular cases.²³ And they serve as a complement to imperfectly developed theory. In China, cases were influential in the policy debates throughout the growth period. More generally, leaders and policy makers in developing countries often cite the benefits of direct learning from each other, notwithstanding the differences across their countries’ circumstances.

Our point here is not to single out these examples so much as to suggest that in the developing country case a heightened sense of potential missing variables and a certain amount of nosy microeconomic empiricism may be beneficial.

Acknowledging the clear presence of relevant differences across countries that preclude the simple cross-border transfer of strategies and policies, the case for the relevance of other countries’ experiences is nevertheless strong. It lies in part in the nature of policy debate. There is a striking (admittedly impressionistic) correlation between the quality of the internal policy argument and debate and the outcomes. China and India in rather different ways have an extraordinarily high level of ongoing policy debate. In circumstances in which the underlying dynamic model is uncertain, such debate, which includes prominently relevant experience from other countries, leads to a healthy and self-corrective mechanism with respect to the adoption of policy actions based on particular points of view. In India, that debate is clearly visible within the

²² World Bank, 2005, *Economic Growth in the 1990s: Learning from a Decade of Reform*, Washington, D.C.: World Bank.

²³ The case method has been used successfully in business schools for many years, notwithstanding the fact that every corporate case is inherently different and idiosyncratic. Both the principles and the analytic skills appear to be transferable and useful.

country and outside. In China it is not. The image on the outside is of a governance system that precludes debate. But that is because the debate and argument (as opposed to the conclusions or decisions) do not for the most part spill out into the press and the public domain—although this is changing. In fact, the internal debate is spirited and serious and quite catholic with respect to different perspectives.²⁴ In China, it is still more corporate in character (active debate not conducted in public followed by clear decision making and swift implementation). Underpinning this is a sense of confidence among the people, inherited from the prereform period, that the governing structure is attempting to act in the interests of the people. Chinese leaders are well aware that this perception of inclusiveness is a critical underpinning of the governance structure and that when economic outcomes, such as rising income inequality or subgroups not benefiting from growth, lead to questioning of the premise, decisive action is called for.

7. Effectiveness of Cross-Border Conveyors of Best Practices or Why the International Institutions Should Also Notice

The discussion so far has focused on the lessons of China's and India's growth experience for other developing countries. This focus is important, but it is not the full story. The discussion also has implications for the role of multilateral institutions, including their ability to react appropriately to national initiatives and to fulfill the role of effective cross-border conveyors of best practices. Failure to deliver in these areas risks, in turn, undermining the ability of the international economic system to accommodate the breakout phase of some developing countries. At the extreme, such failures can also increase the risk of policy mistakes in both advanced and developing countries that are detrimental to global growth and financial stability.

It may be argued that, in addition to having insufficiently understood and recognized China growth lessons early on, the community of nations currently lacks adequate mechanisms for the cross-border conveyance of such lessons. This comes at a time when, having lost the "influence" associated with large-scale lending programs, international financial institutions (particularly the IMF and the World Bank) are looking for ways to be relevant to policy makers (and populations) in developing countries. It also comes at a time when many observers and country officials feel that these institutions have yet to step up effectively to the role of "knowledgeable trusted advisors." This is partly an issue

²⁴ This insider/outsider characterization is similar to one that prevailed at the IMF during the controversial formulation of megafunding packages for emerging economies in the 1990s and early 2000s.

of process; it is also an issue of responsiveness, expertise, governance, and representation.

The role of effective cross-border conveyor of best practices is a natural for these institutions. It speaks to their mandates, their histories, their membership, and the considerable expertise that resides within them. It supplements their technical assistance role, and it flows naturally from the cooperative philosophy that is said to underpin their deliberations and work programs. Importantly, it also addresses one of the key policy challenges facing developing countries—how to sustain high economic growth.

For the IFIs to play this role effectively, they must be viewed as knowledgeable, trusted advisors. This presumes a high level of current understanding of country developments, an ability to transfer internally knowledge gained from individual country experiences, sensitivity to the particular set of policy challenges facing individual countries, a thoughtful analysis of the range of possible policy reactions, and an ability to convey all this to national authorities in a timely and credible fashion.

It is now generally recognized that IFIs fall short in this domain. Such recognition was one of the catalysts behind the IMF's release in September 2005 of the Managing Director's medium-term reform strategy, and its subsequent elaboration in April 2006.²⁵ It is also behind the large proliferation of studies on how to meet, to use the words of the former Managing Director of the IMF, "the imperative to stay relevant in a changing world."²⁶ It is also a factor behind the efforts being undertaken by the World Bank staff to reinvigorate the institution.

A more complete understanding of growth dynamics is, of course, a necessary condition for the IFIs to better respond to the challenge of being knowledgeable trusted advisors. But it is not sufficient. IFIs must also adopt a more open mindset to the circumstances of individual economies. At a minimum, this requires a change in procedures and emphasis to ensure that the staff is both able and willing to move from historical institutional comfort zones that, to date, have been excessively concerned with headquarter-driven presumptions. There is little doubt today that these approaches have proven too static and risked being overly dependent on advanced-market economy models that only partially apply to developing countries.

The inability to perform effectively the role of knowledgeable, trusted advisor to national authorities also hinders the institutions' ability to fulfill adequately the multilateral part of their mandates—this at a time when the global economy is fundamentally imbalanced. As an example, witness the extent to which the "global surveillance" initiative is faltering at an early stage and also

²⁵ See, in particular, the Managing Director's statements to the September 2005 Annual Meeting and the April 2006 Spring Meetings.

²⁶ As an example, please refer to Edwin M. Truman, ed., 2006, *Reforming the IMF for the 21st Century*, Institute for International Economics.

the controversy that has surrounded the June 1997 changes to the institution's surveillance policy.

Such weakness in international coordination and collaboration mechanisms is accentuated by the limitations of the G-7/G-8 construct. This construct illustrates the extreme example of the representation and governance problems that also undermine the IMF and the World Bank: they are dominated by an outdated approach that constrains the participation of the set of countries now having important systemic impact on global growth, trade, price formation, and capital flows.

The representation and governance problems are deep rooted. They are most vividly highlighted in the distribution of voting power and Board representation. And while some reform steps are being considered, they may well fall short of what is required. There is also increasing discomfort with the fact that both the Bank and IMF have continued with essentially what boils down to a feudal process (invoking the "droit du seignor") for the appointment of the heads of the institutions. By eschewing a selection process that is open, transparent, and merit-based, the institutions undermine the effectiveness, credibility, and international standing of the appointed leaders from day one.²⁷

These issues will loom particularly large in the years ahead. After all, both the Bank and Fund need significant and broad-based shareholder support to improve their finances, retool their expertise, and refocus their activities. And the financing challenge is particularly pressing. A lack of funding will accelerate the dynamics that undermine the relevance of the institutions and their (actual and potential) role at the center of the international monetary system.

In the case of the IMF, there is a need to evolve a new income model. The previous model was based on the ability of the institution to derive a significant lending fee from its funding operations. With the sharp decline in lending to developing countries, the IMF now runs an annual deficit that requires it to draw on financial reserves. In the case of the World Bank, the mechanism used for funding flows to the poorest developing countries—the IDA facility—is in need of a major replenishment.

The welfare cost to the global economy of weak IFIs goes well beyond the opportunity cost associated with the imperfect cross-border conveyance of best practices. There is also a significant question mark as to whether the global system can accommodate the breakout growth performance of developing countries—a phenomenon that offers significant long-term upside for the global economy but also involves potentially complex changes in country entitlements and expectations.

As developing countries reach a critical mass in their growth dynamics, their systemic influence changes. This is most vivid in five areas. First, they become a

²⁷ See, for example, the discussion in Mohamed A. El-Erian, 2005, "Time to End Feudal Selection Processes," *Financial Times*, March 30; Mohamed A. El-Erian and Michael Spence, 2007, "The Fund Needs to Refocus its Agenda to be Relevant," *Financial Times*, August 7.

more important contributor to global growth. Second, they meaningfully impact international trade flows. Third, the growing integration of their workers into the global labor force impacts the global wage structure, productivity, and the dynamics of price formation. Fourth, with their growing international reserves, these countries influence the cross-border flows of funds and pricing in a host of markets.²⁸ And fifth, with their growing demand, they are impacting demand for and relative prices of energy, commodities, and food, probably permanently.

These five influences have the potential to enhance global welfare—specifically, to increase the potential for noninflationary growth at the global level while facilitating the management of large liabilities in some industrial countries (particular the United States).²⁹ But they also put pressure on resources and the environment. These influences require thoughtful navigation. At the minimum, they need to be fully understood, both as standalone influences and as a set of interacting forces on the global economy. In the absence of this, the risk of a “policy error” and/or a “market accident” increases substantially, with potentially negative implications for the global economy.

8. Encouraging and Accommodating Higher Growth in the Global Economy

A key challenge for the global economy is to better understand the dynamic progress of growth. This is a work in progress, with important implications for individual countries and for the ability of the global system to accommodate the breakout performance of developing countries. A growing body of experience is now available to support the learning process. The misapplication of the advanced country model has lead to a new era of humility about the depth of our understanding of growth. And it is not just the economic dimensions. The critical political components of growth strategies are starting to be better understood.

But there are still considerable challenges. Not all elements of orthodoxy have been subjected to scrutiny; and there is still a powerful tendency to rule discussions of the unorthodox out of order. In the absence of a clear and precise alternative to the mature economy model, it is too often used without suitable circumspection. There are also considerable challenges emanating from the lag in adjusting multilateral frameworks that, despite mounting evidence, still speak to the world of yesterday rather than the world of today and tomorrow. For example, the IMF and World Bank’s governance and representation deficits undermine their institutional effectiveness and legitimacy. Generalized pursuit of cookie-cutter WTO negotiations risks imposing costly external constraints on

²⁸ As an example, see the discussion of the impact on global M&A activity in Mohamed A. El-Erian, 2007, “Foreign Capital Must Not Be Blocked,” *Financial Times*, October 3.

²⁹ Refer to the discussion on global imbalances in Mohamed A. El-Erian and Michael Spence, 2007, “Capital Currents,” *Wall Street Journal*, March 24.

strategy and policy coherence in developing countries. And the international discussions of global imbalances (at least the ones that are available to a broad audience) are too ad hoc, and still lack sufficient institutional context and robustness.

These factors all speak to an important reality that is often obfuscated by the attractiveness of pursuing easy solutions to difficult problems. At a fundamental level, economic development is about the building of individual and institutional capabilities that we understand exist but do not as yet model well. The economic models that we have help us understand how these institutions and assets work in an economy, but not how they come into existence and develop sufficiently deep roots.

Our main point is that in the past, many of the mistakes at the country level and in international interactions have been based on inattention to the model and the (often implicit) economic assumptions; overestimates of the state of our knowledge about economic development and growth; and a lack of attention to highly relevant differences across countries in starting points, political configurations, and capacities. Cross-country experience confirms that there are good reasons to be skeptical or at least agnostic about whether the advanced country approach to economic policy and growth can or should be applied without modification to developing countries. The issue really is the model: what is it and how sure are we of it. And that has two parts. One is whether the models are sufficiently similar to justify the approach of using the advanced-market economy model as the best alternative. The second is the fact that in the case of developing countries, the degree of uncertainty surrounding the models is much higher at this stage in their histories.

The proposition that sound macroeconomic management and appropriate legal and regulatory institutions are necessary for growth is not very controversial, but that they are sufficient to ensure growth is probably not true and not a good foundation for a growth strategy. It is more complex than that. Among other things, these propositions have the side effect of marginalizing the critical role leadership and political insight play in starting and sustaining growth. Moreover, if these and other propositions were advertised as key necessary and *complementary* ingredients and inputs to growth, but not the whole story, it would represent significant progress. The incentives to sell the silver bullet and the key ingredient are strong. A balanced assessment is sorely needed as a counterweight.

The state of our understanding of growth and development has implications for the accumulation of knowledge, cultures governing philosophy and process, the derivation of growth approaches, and the openness to midcourse corrections in the context of responsive application. Our hope is that the complexity, the uncertainty, the risk, and the limits of our current knowledge are coming into focus.

For better or worse, we are still in the process of constructing and adapting the institutions of governance of the global economy. It is not surprising that this is a complex and challenging journey that will take years. In our view, progress will be faster if there is a shared understanding of the dynamic processes that are actually or potentially in play, particularly in the developing nations that still account for the vast majority of the world's population. This means that the international organizations need to develop a deeper understanding of the challenges and have the capacity to serve as knowledgeable trusted advisors. Given the need for strategy and policy coherence, silos of expertise in any and all aspects of policy (environment, urbanization, monetary policy, labor markets) may be useful but not if delivered separately as ingredients of a package that does not constitute a whole recipe.

We conclude by going back to the China case. In many ways China's economy is rapidly becoming a market economy, though the process is still incomplete. But if you put yourself in the position of the early reformers some 30 years ago and ask yourself, would you or they, emerging from almost 30 years of a centrally planned economy, have adopted the modern market economy model without modification as a basis for formulating and predicting the effects of possible policy choices (quite apart from ideological constraints and considerations), for thinking about the degrees of uncertainty surrounding the impacts, or for deciding about the evolving role of government as the market side of the economy developed and matured, the honest answer is probably no.

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