Miracles and Reform: Policy Reflections for India*

Nirvikar Singh
Department of Economics
University of California, Santa Cruz

Miracles and Reform

These two terms come from contexts other than India, contexts east and west of India: "miracle" from the famous World Bank study of East Asia's equally famous growth experience, and "reform" chiefly from the project of transforming the formerly communist countries of Europe. India stands between these two historic events, its economy and polity driven by their lessons, as well as by its own internal dynamic. (It's nice to be able now to use the word "dynamic" about India, and not feel a jarring sensation.)

"Miracle" has two meanings in the dictionary (my son's *Webster's New World Student Dictionary*). First, "an event or action that seems to go against the known laws of nature or science". Paul Krugman seems to have had this definition in mind in his controversial *Foreign Affairs* article[1], when he argued (based on his reading of the empirical work of other economists) that East Asian growth was no miracle, but *simply and only* the result of rapid input accumulation. I think this explanation is wrong, based on my own empirical work with my former student Hung Trieu[2]. This issue will be important later, as I talk about India. But for now I want to note that there is a second definition of miracle, "an amazing or remarkable thing". Even if we can explain East Asian growth -- whether as due to input accumulation, technological change, or both -- by all historical standards of growth experience, it has been an amazing and remarkable thing. And since we aren't ready to throw out the laws of nature or science, East Asia's growth may be a replicable experiment, a standard that India can think of attaining.

"Reform" has a less wondrous, more pedestrian ring to it than "miracle", although, like "miracle", "reform" can also have religious overtones. My son's dictionary says it means "correction of faults or evils". It gives examples of usage such as "reform of a criminal", and (in an interesting juxtaposition as well as a telling sign of the times), "reforms in government". At this level, "reform" seems quite innocuous -- who can object to making things better by removing faults or evils? I certainly prefer it to the term "liberalization", which seems to prejudge the issue, which seems to be one-sided, and which becomes a straw man for intellectual target practice. Ultimately

---

* This is an annotated version of a talk given at the symposium "India at the Crossroads: The Challenge of Nation-Building and Economic Reform" at Southern Methodist University, Dallas, March 26-27, 1998. I am grateful to Rajat Deb and Shlomo Weber of SMU for inviting me to speak, and for their hospitality. The views expressed here are mine alone.

[1] See Krugman (1994). The works he relies on in his paper are those of Young (1992, 1995) and Kim and Lau (1994).
[2] See Singh and Trieu (1996a, 1996b).

-- and here these intellectuals who are wary of liberalization[3] have a point -- reform means much more than a cutting loose. It means a reshaping, and that requires more thought and effort than the easy and welcome tasks of reducing long lists of prohibitions and qualifications on action. So “reform” is perhaps as challenging a concept for action as “miracle” is for achievement. Certainly, the former communist countries of Europe have found it a difficult road to travel, and this will be the case for India also.

Metaphors and Reality

The metaphor of the road is a common one. I used it without thinking, wondered if it was too obvious, then realized with relief that it was built into the title of this symposium. So let me continue with it for a little bit. To my mind, India has a clear destination. This destination is the achievement of average rates of growth of 8 per cent per annum for a sustained period, say 25 years -- or one generation. Let me assume a rather high population growth rate of 2 per cent per annum. Then we have growth of 6 per cent per year in per capita income. This implies that in 25 years, average income will be multiplied by 4.3. Now, of course, the benefits of growth are not necessarily spread evenly, and the poverty line is a moving target, but the implications for poverty reduction in India of achieving this growth goal are enormous. I recognize that there are other goals also to be aimed for, but I want to keep things simple for now, and will touch on broader issues of development later in my talk.

This may seem like old hat. After all, growth targets have been a central feature of India’s planning process for almost five decades. The more serious issue is how to achieve those targets. But, as I tell my undergraduate students when I teach them business strategy, one starts with a vision and mission, then translates the vision into challenging, but concrete objectives. Sustained growth of 8 per cent a year meets that criterion for me. It is a measure of how far India has come in the last decade that Raj Krishna’s well-known crack about the “Hindu rate of growth” of 3.5 per cent has been almost forgotten[4], and growth rates of 5 per cent are taken for granted. This 5 per cent growth rate has been sustained since the eighties, before the liberalization of the nineties, and even allowing for the crunch of 1991. How the rate can be accelerated is the crucial question. Going from 3.5 per cent growth to 5 per cent growth doubled the per capita growth rate; going to 8 per cent will double it again.

So, continuing with the metaphor, I suggest a simple, if challenging, destination. East Asia’s miracle has told us that this destination is attainable. But India’s starting point is different, and the road it takes must inevitably have some different features. However, the road it chooses, and how it travels that road, must, in my view, inevitably involve reform. Reform is the correction of faults or evils. Identifying them will mean aiming for some intermediate destinations; correcting them will mean implementing the reforms. The remainder of my remarks today will be about policy -- setting and achieving the goals of reform in several key dimensions.

---

[3] An eloquent example is Bhaduri and Nayyar (1996).

[4] I believe that this term did not originate with Raj Krishna, but he certainly popularized it. I am grateful to Kaushik Basu for the clarification.

Sources of Growth

A good place to start for thinking about policies to promote growth is the basic categories of inputs. These are, according to one simple scheme, physical capital, labor power, and embodied and disembodied knowledge. Growth in these will lead to growth in output. Consider the first of these, physical capital. If the investment-GDP ratio in the economy is 20 per cent, and what economists call the incremental capital output ratio (ICOR) is 4, then some simple arithmetic implies that the economy will grow at 5 per cent. Suppose that the investment-GDP ratio is, instead, 25 per cent. Then the implied growth rate pushes past 6 per cent. And if, in addition, the ICOR becomes 3, then the implied growth rate crosses 8 per cent.

This kind of simple arithmetic is a familiar part of Indian planning exercises. It formed the basis of mathematical modeling and elaborate calculations of where resources ought to be directed. But the danger of economists' models, as some wit remarked, is that they fall in love with them. A ratio, once defined, does not automatically become a constant. Indian planners worked to push up the investment rate, and succeeded in great measure. But (and no doubt I am oversimplifying, and doing many bright minds an injustice) the ICOR was taken almost as a technological constant. So investment-GDP ratios of 25 per cent, as were achieved, and ICORs of 6, which were also achieved (for want of a better word) went with a growth rate of about 4 per cent. This is good compared to colonial times in India, and good compared to 19th century experience in the West, but not enough for Nehru's "tryst with destiny". As ICORs have moved down toward 4 and even 3, India has, tautologically of course, seen higher growth.

This is not a causal theory: just an accounting exercise. But it focuses us on ICORs. So why were ICORs so high in India? The reciprocal of the ICOR is essentially the marginal product of capital. So the question is, equivalently, why was capital use so inefficient in India? I think there are two quite distinct answers. First, the system of industrial controls, affecting both domestic and external commerce, and including government's own involvement in production and trade, was inimical to efficient investment. This, put simply, is what liberalization is about: more efficient use of capital to promote growth. And I think the effects of liberalization are at least partly what is reflected in the higher growth of the eighties and nineties. I will not go into the well-known causes of the inefficient system of capital allocation, and the factors in its partial overhaul. But it is clear that there are still issues of reform to be dealt with: government policies that can support the more efficient use of capital. I will add this to the issues to which I must return, and turn to the second reason for inefficient capital use in India.

I think this second reason has to do with the other inputs in the growth process: labor power and knowledge. Now, increasing the utilization of labor power, by reducing unemployment or underemployment, will increase output per head. This is, of course, what matters: simply increasing numbers does not lead to per capita GDP growth. But labor has to work with capital to be productive, and certain types of capital need less labor. India's path of heavy industrialization did not help here. More importantly, the productivity of both labor and capital depend critically on knowledge, both disembodied (technology as blueprints) and embodied (human capital). It is here that some key issues of reform lie.

Earlier, I noted Krugman's suggestion that East Asian growth was all due to input accumulation. Now I wish to make three observations on this assertion, with reference to India. First, this misses the point that I have just made, about ICORs and efficiency of capital: East Asian investment rates with Indian-type ICORs (and associated efficiency) would have meant much lower growth rates for East Asia. Second, input accumulation in the kinds of growth accounting exercises typically done includes allowances for improvements in labor quality, or human capital accumulation, as measured by increased educational attainment. This is outside the usual neoclassical growth model that Krugman seems to want to appeal to. India has failed in this respect. Third, I think Krugman was not correct in his assertion: the growth accounting residual -- total factor productivity growth (TFPG), representing efficiency improvements -- was significant for several of the East Asian high performers, as my empirical work with Hung Trieu argues. In particular, this provides a striking contrast to India's case, where separate empirical work by Isher Ahluwalia and by Bishwanath Goldar indicates that TFPG was negligible in India for a substantial period of time[5].

Growth accounting is just a more elaborate arithmetical exercise of the kind I illustrated today with ICORs. It requires special assumptions that may not be valid, and it does not provide a causal model either. But it helps to clarify our thinking on what is feasible, and what is important, in framing policy objectives and policy instruments. For me, the growth accounting for India, and the comparisons with East Asia, focus attention on human capital accumulation and technological progress as significant inputs for achieving sustained 8 per cent growth for India. Here is a different presentation of similar ideas, by a famous economist:

> In any economy, the major source of productive power is not machinery, equipment, buildings and other physical capital; it is the productive capacity of the human beings who compose the society. Yet what we call investment refers only to expenditures on physical capital; expenditures that improve the productive capacity of human beings are generally left entirely out of account. ... Destroy the physical plant of the United States and leave the skills of the people and it would take but a few years to restore the initial position. Destroy the skills and leave the plant and the level of output would sink irretrievably.

I shall reveal who said this, when, and to whom, shortly. Let me turn now to some specifics on skills and knowledge.

Details and the Devil

The growth accounting I have presented is in very aggregate terms. The broad conclusion that enhancing knowledge and skill levels will be crucial for attaining growth rates once considered miraculous is nothing new, and quite innocuous. As India's planners and other policy makers could no doubt confirm, the devil is in the details.

Let me begin with technological change, which, in its purest form, is advances in knowledge that improve productivity of existing inputs. Other kinds of technological change require training of workers, or installation of new machines as complementary advances. This latter is the more usual

[5] The references here are Ahluwalia (1985) and (1991) and Goldar (1986).

case, perhaps. Putting aside human capital aspects for the moment, my own survey of the pre-liberalization innovation regime suggests that it was one where both the demand and the supply of new technology were remarkably constrained by government policy. Demand was constrained by a dual lack of incentives for firms to innovate: limits on expansion attenuated the Schumpeterian carrot of supernormal profits, and, more importantly, lack of competition meant there was no Leibensteinian stick[6]. Supply was constrained by the case-by-case approach to technology imports, and the virtual ban on foreign investment. In both cases, I think liberalization has an important role to play. It does not have to mean "selling out" to multinationals, or relying solely on foreign investment for technology. The market may not be fully efficient here, and the government may have a role to play in some technology assessment, but I think I shall simplify and say liberalization is the most significant reform for this important input to growth.

Now I turn to human capital -- embodied knowledge. A key component of this is education. And, as Jean Drèze and Amartya Sen have so eloquently argued[7], India's record here is dismal. Not, perhaps, in higher education, where India's universities continue to be a fuel source for the engines of Silicon Valley and its many American clones. But in basic education, India has failed. Dreze and Sen demonstrate this convincingly, with an incredible marshaling of comparative statistics. For example, they note that India's adult literacy rate in 1992 was lower than those of South Korea, Hong Kong and Thailand *in 1960*. The lost opportunity and human deprivation behind such dry statistics might move one to tears.

Therefore, if one is serious about the goal of growth which I have suggested, and which many people would think reasonable and desirable, improving the quality and quantity of basic education in India must be a part of the reform process. Here I am, of course, echoing Drèze and Sen, and numerous others. But I would like to offer an alternative way of thinking about the attainment of this goal. Drèze and Sen rightly stress the importance of education and other dimensions of improvement in human capabilities as valuable in their own right. They repeatedly note the resistance to such improvement by elites at various levels, the lack of political will of the state, and the importance of movements originating in civil society in overcoming this resistance and inertia. These are important things to recognize, and I will return to them. But I think that Indian business needs to, and can, be made aware of the benefits to it of chipping in with respect to education. Focusing narrowly on the productivity benefits of basic education makes this (and here let me use one of my favorite Silicon Valley phrases) a clearer value proposition than the broader capabilities approach. At this point let me reveal the source of my earlier quote, which was really about the productivity aspect of knowledge and skills. It was no leftist or radical: Milton Friedman wrote those words in a memorandum to India's Ministry of Finance on November 5, 1955[8]!

Business is already important for the other kind of human capital acquisition, besides education -- training. An enormous amount of learning takes place on the job. Here I am not talking just about high tech or white collar jobs. Even the most basic factory jobs, from janitor on up, involve learning about routines, the scheduling of tasks, and the general working of the organization.

[6] For these terms, I am indebted to Mookherjee and Ray (1991). See also Marjit and Singh (1995).
[7] See Drèze and Sen (1995).
[8] The full text of this remarkable memorandum may be found in Roy and James (1992).

This process of learning and training is enormously eased if the worker comes into the organization with a basic education. Now that the Babu is not quite as suspicious of the Bania, perhaps there is some scope for the corporate sector to contribute towards the goal of increased basic education. This could be through funding of private non-profit schools or through business acceptance of a tax surcharge earmarked for primary education.

These ideas may seem farfetched, and something that will not penetrate enough to help the disadvantaged in rural areas -- for example, those whose plight is poignantly described in Drèze and Haris Gazdar's survey of Uttar Pradesh's rural schools[9]. But I think that it will help many, and it is more feasible now that the interest of urban capitalists, including small businesses, in having a better educated labor force is enhanced by liberalization. I see no reason why positive coalitions as well as blocking ones can not arise: coalitions can be re-formed as liberalization changes incentives. What about those rural schools though? Drèze and Gazdar document the remarkable inefficiency of government expenditures on education in rural Uttar Pradesh. In these schools, teachers do not teach. The chief culprit is the lack of incentives: the teachers are not monitored effectively, they face no penalties for nonperformance, and most students have no alternative. In fact, this is a pervasive problem with the "street-level" delivery of government services in many parts of India -- not just education, but also health care, drinking water and local infrastructure.

Earlier, I alluded to government policies that can support the more efficient use of private capital. Local government services come under this category. So do larger scale examples of public or quasi-public goods: national highways, power grids, and information networks. And so do less tangible public goods like contract enforcement, and the provision of justice more broadly. In fact, to broaden the point made by Friedman in 1955, those intangible goods can easily be neglected if they do not count as physical investment. India's record on all these fronts also leaves much to be desired[10], although, as in the case of education, the rhetoric has been substantial.

Note that I am now moving, perforce, beyond the growth accounting framework. Note also that one possible response to India's "government failure" is a version of liberalization, namely "privatization". Not much has been accomplished here, as far as I can tell, though there are bright spots. And privatization evokes much concern and suspicion. I think several points are worth making here. First, in some areas, privatization should be rushed -- there is no reason for government to be in the hotel business, for example, and perhaps not in the steel business either. This also relates to issues of increasing the efficiency of capital use and fostering innovation. Second, we need to recognize that resistance to change leads to *de facto* privatization, but of a kind that is inefficient or ethically unacceptable. For example, the failure of government to provide enough reliable electric power has led to privatization through the use of inefficiently small generators by households and by firms. And the failure of government to provide an effective legal system has allowed, in places, the development of private "justice" based on muscle power. The latter example leads to the third point: privatization is not a universal answer. No

---

[9] See Drèze and Gazdar (1997).

[10] This does not mean one can be pleased with the record in physical infrastructure either, as my brief discussion of local infrastructure suggests. I am most grateful to Amartya Sen for this cautionary point.

one can seriously think of privatizing aspects of the economy such as the legal system, both for ethical and distributional reasons, and for efficiency reasons. (Kaushik Basu, for example, has pointed out the efficiency problems with having markets for things like drivers' licenses.[11])

Therefore "reform" also means reform of government so that it does better the things only it can do -- at least "enabling the market" if not "governing the market". Now we have come to the topic of "governance", another of those magic words like "miracles" and "reform". Governance is the real devil, because I think understanding it and changing it are enormously difficult. And it provides my next and major theme.

Policy and Governance

There is a simple view of government and governance, that those who govern are benevolent rulers, like the Ashokas and Akbars of historical legend. In the simplest case, they are omniscient as well as benevolent, which makes policy formulation and implementation a matter of simple calculation. In a more sophisticated approach, the benevolent rulers may be ill-informed, but can make policy allowing for these informational constraints, as in a theoretical mechanism design problem. Implementation is easy and automatic once this mechanism design problem has been solved, given the crucial benevolence assumption. Perhaps many well-meaning planners, politicians and technocrats have had some model of this kind implicitly guiding their approach to policy-making.

Removing the assumption of benevolence brings us closer to understanding real-world government. Thinkers of all political shades will agree that this is particularly appropriate for India. Self-interested decision-making in government implies not just inefficiency due to lack of proper incentives or experience, but also inefficiency due to the creation of rent-seeking opportunities. India's experience provides many examples of both kinds of inefficiencies, and the policy changes that come under the heading of "liberalization" have surely helped to some extent. But, as I have emphasized earlier, liberalization alone will not lead to sustained growth of 8 per cent. There are some things the government must keep doing, and do better. So policies for reform must include reform of government and the system of governance.

In principle, there is a simple *mantra* to guide action here: transparency and accountability. Accountability means that government decision-makers must answer, either directly or indirectly, for their actions to citizens. Direct accountability in a democracy comes through the ballot box, while indirect accountability must apply for the many government decision makers not directly elected by citizens. For elected as well as non-elected government decision makers, direct accountability also comes through the legal system in cases where incompetence descends to illegality. Transparency is clearly a prerequisite for successful implementation of mechanisms of accountability: citizens must be as well-informed as possible -- another reason for the importance of basic education.

[11] See Basu (1992).

One can add another conceptual dimension to guide us in considering governance: the ability to make credible commitments. This can be a knotty problem, because governments are sovereign -- they are delegated by an electorate to make and implement laws for a particular term of office, and they can therefore unmake laws as well as make them. Constitutions exist to partially solve this problem: creating hard-to-change frameworks within which everyday governance must take place. But they do not solve the commitment problem for everyday governance, and many issues of governing the market, whether for stocks of wheat or stocks of firms, fall in this realm. I must resist the temptation to discuss these conceptual issues further but I have already done it elsewhere[12]. Instead, I will jump to some simple assertions.

Commitment, transparency and accountability are all aided by unbundling government. Where regulation of markets or of private provision of goods and services is required of government, unbundling means creating separate regulatory agencies that are not under the thumb of ministries. The Securities and Exchange Board of India (SEBI) is the most obvious and important example of such an agency. Of course this does not guarantee that regulation will automatically be more efficient: SEBI is still feeling its way, and has had missteps. Other examples of existing and potential specialized regulatory institutions include the Reserve Bank of India, and bodies to deal with anticompetitive practices, consumer protection, and specific industries such as energy and telecommunications.

It may seem that removing such tasks from the direct control of ministries reduces accountability. It does make the link indirect, but by increasing the ability to commit to policies, and increasing transparency in the sense that there is a well-identified individual with whom the relevant buck stops and can not be passed on, accountability is potentially enhanced. The potential for rent-seeking is also reduced by the transparency of specialization. This kind of sideways delegation will require granting some genuine independence if decision-making incentives are to be improved. In some cases, complete independence may not be feasible or desirable, but creating separate departments may still improve incentives.

A second kind of unbundling is similar in spirit but broader. It requires revitalization of an existing set of institutions, rather than the creation of new, specialized institutions. I am referring here to the Indian judicial system, which is creaking and groaning under the weight of the issues it must deal with. It is starved of resources, inefficiently organized, and has sometimes been overawed by strong executives (interpreting the Prime Minister as the executive in India, rather than the largely ceremonial President). It has recently started to emerge from the shadows, aided, I think, by the weakening of central legislative power. But explicit reform that strengthens judicial institutions and improves their efficiency (in particular, reducing delays) will also strengthen the accountability of the legislative and administrative branch[13]. This might seem innocuous, but I have heard senior “heaven-born” bureaucrats complain about the increasing power of the courts in India. This kind of complaint has a historical background of course: the courts are not always right -- checks and balances are necessary in both directions, and they will always be contentious in some areas. The judicial system also provides examples of possibilities for the first kind of unbundling, specialized delegation. For example, my research with Alan

[12] For example, see Singh (1997a).
[13] In particular, see Mookherjee (1993) for a detailed discussion of these issues.

Richards[14] suggests that interstate water disputes in India could be better handled by tribunals that are more independent of the legislative and executive branches. Other kinds of specialized arbitration might also be handled by permanent, dedicated courts, rather than in the general judicial morass, or by *ad hoc*, but independent and binding commissions or tribunals.

A final kind of unbundling is decentralization. Liberalization has brought with it some kinds of decentralization, where state governments rather than the central government can negotiate over and decide on certain matters, such as investment in power generation. The center may still have a role in coordination, but its main role in such circumstances should perhaps be toward providing carrots and not vetoes. The Indian Constitution's assignment of responsibilities gave the states much notional power, attenuated in practice by the center's political compulsions and by the paraphernalia of planning. A major factor in this attenuation has been the vertical fiscal imbalance created by the mismatch between expenditure responsibilities and revenue authority: Indian states raise much less in revenue than they spend, relying on central transfers (grants and loans) for the rest. In practice, this has led to inefficient influence activities in the determination of transfers, as Govinda Rao, as well as Ken Kletzer and I have argued independently[15]. Part of the solution is a strengthening of the sideways delegation that already exists through the Finance Commission, giving it more scope, simplifying the transfer formulas, and reducing the role of the Planning Commission in determining transfers -- replacing discretion with more rule-based transfers. This effectively decentralizes control over resources. It might be argued that the states are profligate, and my recommendation is a bad idea, but I see this problem as one of incentives rather than of structure. More transparent, rule-based transfers will be less subject to the problem of soft budget constraints that now plagues federal finance in India. Moving towards market borrowing for the states will also aid this goal.

Exactly the same analysis applies to state-local government relations. Local governments in India have been very weak, completely under the thumb of their state government superiors. I will forgo a detailed analysis here (again having done it elsewhere[16]), but note that clearer functional assignments, expanded revenue authority, and greater transparency and accountability through more independent organizational structures, regular elections and rule-based transfers via state-level finance commissions are all positive developments that must be supported. The 73rd and 74th constitutional amendments and following state-level legislation provide some of this support, while nongovernmental action builds on this new legal framework. So decentralization down to the local level, often viewed in more Gandhian terms, and in practice impelled by varied ideological and political motives, in my view fortuitously complements the reform of Indian government's relationship to the market. This perspective also allows to me address concerns about inequities at the local level -- concerns that go back to debates between Gandhi and Ambedkar. The difference now from 50 years ago is the change in the political equation at the state level. This happened earlier in southern states like Tamil Nadu: in 1965, André Béteille was already noting changes in power relations at the local level[17]. It has happened more recently, though incompletely, in the northern Hindi belt. So the states still have a role as monitors and

[14] See Richards and Singh (1996).
[15] See, for example Rao (1997) and Kletzer and Singh (1997).
[16] See Singh (1997b).
[17] See the latter part of his book, Béteille (1965).

regulators of local government. But just as government's regulation of the market must change from case-by-case intervention to rule-setting, transparent redistribution, and (sometimes) putting out fires, higher level government's regulation of lower levels in a federal system must reform in the same way.

It may be remarked that I have gone from simple arithmetic on growth to some sweeping suggestions for institutional reform. What is the evidence that reforms of governance will add two or three percentage points to India's growth rate? I do not have any econometric results to carry the day here, nor is casual empiricism based on East Asia's varied experience a convincing guide[18]. If anything, my suggestions grow from reading (and sometimes living through) numerous case studies of India's experiences with governance at different levels, combined with some understanding of the modern economic theory of incentives.

I close this discussion of governance with some remarks on government expenditure. The crisis of 1991 is said to have been precipitated by government profligacy. A key component of reform was supposed to be a correction of that tendency. It is feared that decentralization of governance (as in the Brazilian case) will instead exacerbate it. But the Brazilian experience almost amounted to a decentralization of the power to print money. One virtue of the unbundling approach to governance I have taken here is a stress on its different dimensions: everything need not be, should not be, decentralized in a bundle. Money creation should not be decentralized. Less obviously, certain types of tax authority should not be -- here let me note that India may suffer as much from internal trade barriers due to inappropriately decentralized tax authority as it did from external trade barriers. Government expenditure may indeed need to go up, and this will require more government revenue to be raised. Suitable incentives and better payoffs from existing expenditure will make this possible. Those better payoffs will come from assignments of expenditure and revenue responsibilities and governance structures that promote transparency, accountability and hence efficiency. Greater efficiency in expenditure for things such as basic education and infrastructure may make it politically possible to justify greater expenditure on them as well.

Miraculous Reform

I began by talking about miracles of growth, in the sense of "an amazing thing". It may seem that the kind of reforms in governance I have outlined will require a miracle in the sense of "going beyond the laws of nature". Many who have studied the Indian case believe that the coalition of interests that holds power has no interest in changes of the sort I am describing[19]. Ministries resist giving up power to other regulatory bodies. States resist decentralizing to local governments. Firms resist reforms that will increase competition, or scrutiny of their actions.

---

[18] One of the other speakers at the symposium subsequently raised the issue of corruption, and its inverse relationship to growth. I believe some empirical evidence for this exists, but my argument on governance is somewhat broader, and unfortunately harder to quantify.

[19] Pranab Bardhan makes this case cogently in a new postscript to his classic analysis of Indian political economy, Bardhan (1998).

On the other hand, "developmental coalitions" do also arise[20]. I think the "green revolution" in Punjab agriculture in the 1960s represents one successful Indian example, where the state government and farmers implicitly worked together for their mutual benefit: the provision of information and infrastructure responding to the wants of farmers, and complementing the thrust of private incentives[21]. The green revolution was decried by some as leading to increased inequality, dislocation, conflict and loss of values. All of those problems were real, but they were, in my view, outweighed by the positive consequences, providing examples, lessons, and beneficial spillovers to other parts of India, along with the increased crop yields we now take for granted. Growth was good.

Let me conclude. Reforming the structures of governance is a particularly thorny problem, though perhaps not as bad as Russell's paradox ("The barber shaves everyone in the village who doesn't shave himself -- who shaves the barber?"). It requires a multipronged attack. Some of it may happen from leadership within the corridors of power -- people like Manmohan Singh. Some of it may happen because the state -- here using the word in its abstract sense -- is not a monolith. For example, the center's self-interested desire to counter state government power is said to have been one motivation behind the ultimately positive policy of local government reform. But presumably some of the reform of governance will come from outside pressure and analysis: from the grassroots, from political and other kinds of entrepreneurs, and perhaps even from meetings of minds, such as this symposium. Thank you.

[20] An alternative positive dynamic may come from "competitive developmentalism" among the states, as suggested by John Echeverri-Gent in his presentation at the SMU symposium.
[21] I have discussed these ideas more fully in joint work, Kohli and Singh (1997).

References

Ahluwalia, Isher Judge, (1985), *Industrial Growth in India*, New Delhi: Oxford University Press.

Ahluwalia, Isher Judge, (1991), *Productivity and Growth in Indian Manufacturing*, New Delhi: Oxford University Press.

Bardhan, Pranab, (1998), *The Political Economy of Development in India*, Second Edition, Oxford: Blackwell.

Basu, Kaushik, (1992), “Markets, Laws and Governments”, in Bimal Jalan, ed., *The Indian Economy: Problems and Prospects*, New Delhi: Viking.

Bétéille, André, (1965) *Caste, Class, and Power: Changing Patterns of Stratification in a Tanjore Village*, Berkeley: University of California Press.

Bhaduri, Amit, and Deepak Nayyar (1996), *The Intelligent Person’s Guide to Liberalization*, New Delhi: Penguin Books.

Drèze, Jean and Haris Gazdar, (1997), “Uttar Pradesh: The Burden of Inertia”, in Amartya Sen and Jean Drèze, *Indian Development: Selected Regional Perspectives*, Delhi: Oxford University Press.

Drèze, Jean, and Amartya Sen (1995), *India: Economic Development and Social Opportunity*, Delhi: Oxford University Press.

Goldar Bishwanath, (1986), *Productivity Growth in Indian Industry*, New Delhi: Allied Publishers.

Kim, Jong-Il, and Lawrence Lau (1994), “The Sources of Growth of the East Asian Newly Industrialized Countries”, *Journal of the Japanese and International Economies*, 8, 235-271.

Kletzer, Kenneth and Nirvikar Singh, (1997), "The Political Economy of Indian Fiscal Federalism", in *Fiscal Policy in India*, ed., Sudipto Mundle, New Delhi: Oxford University Press.

Kohli, Deepali Singhal, and Nirvikar Singh, (1997), “The Green Revolution in Punjab and Technological Change”, processed, UCSC, paper presented at a conference on Punjab agriculture, Columbia University.

Krugman, Paul, (1994), “The Myth of Asia’s Miracle”, *Foreign Affairs*, November/December.

Marjit, Sugata, and Nirvikar Singh, (1995), “Technology and Indian Industry”, in *Indian Industry: Policies and Performance*, ed., Dilip Mookherjee, New Delhi: Oxford University Press.

Mookherjee, Dilip, (1993), "Redefining the Economic Role of the State: The Role of 'Positive' and 'Negative' Institutional Reforms in India", paper presented at conference on Economic Liberalization in South Asia, University of California, Berkeley, April.

Mookherjee, Dilip, and Debraj Ray, (1991), “On the Competitive Pressure Created by the Diffusion of Innovations”, *Journal of Economic Theory*, 54, 124-147.

Richards, Alan, and Nirvikar Singh, (1996), "Water and Federalism: India's Institutions Governing Inter-state River Waters", IRIS India project paper, June.

Rao, M. Govinda, (1997), "Fiscal Federalism in India: Problems and Prospects", Sudipto Mundle (ed.), *Fiscal Policy in India*, New Delhi: Oxford University Press.

Roy, Subroto, and William E. James, (1992), *Foundations of India’s Political Economy: Towards an Agenda for the 1990s*, New Delhi: Sage Publications .

Singh, Nirvikar, (1997a), “Governance and Reform in India”, *Journal of International Trade and Economic Development*, June.

Singh, Nirvikar, (1997b), “Issues in Local Government Reform in India”, University of California Santa Cruz, Department of Economics Working Paper, November.

Singh, Nirvikar, and Hung Trieu (1996a), "Total Factor Productivity Growth in Japan, South Korea, and Taiwan", UCSC Working Paper, July.

Singh, Nirvikar, and Hung Trieu (1996b) "The Role of R&D in Explaining Total Factor Productivity Growth in Japan, South Korea, and Taiwan", UCSC Working Paper, September.

Young, Alwyn, (1992), “A Tale of Two Cities: Factor Accumulation and Technical Change in Hong Kong and Singapore”, *NBER Macroeconomics Annual*, Cambridge, MIT Press.

Young, Alwyn, (1995), “The Tyranny of Numbers: Confronting the Statistical Realities of the East Asian Growth Experience”, *Quarterly Journal of Economics*, 110, 641-680.