

India Since Independence: An Analytic Growth Narrative

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Abstract

Before 1990 the economic growth rate of independent India looks ordinary: India's rate of growth of output per worker is square in the middle of the world's distribution, and the values of its proximate determinants of growth are ordinary too. This puts a bound on the growth-retarding effects of the "license raj" generated by prime minister Jawaharlal Nehru's attraction to Fabian socialism and central planning.

Since 1990 India does not look ordinary at all. It has been one of the fastest-growing economies in the world, with a doubling time for average GDP per capita of only sixteen years. Conventional wisdom traces the growth acceleration neoliberal economic reforms implemented under the government of Narasimha Rao. Yet the timing of the growth acceleration suggests an earlier start for the current Indian boom under the government of Rajiv Gandhi.

I. Introduction

The conventional narrative of India's post-World War II economic history begins with a disastrous wrong turn by India's first prime minister, Jawaharlal Nehru, toward Fabian socialism, central planning, and an unbelievable quantity of bureaucratic red tape. This "license raj" strangled the private sector and led to rampant corruption and massive inefficiency. As a result, India stagnated until bold neoliberal economic reforms triggered by the currency crisis of 1991 and implemented by the government of Narasimha Rao unleashed its current wave of rapid economic growth--growth at a pace that promises to double average productivity levels every sixteen years.

Yet if you look at the growth performance of India before 1992 in the context of the general cross-country pattern, India does not appear to be an exceptional country. Its rate of economic growth appears average. Moreover, its values of the proximate determinants of growth appear average as well. Simplistic growth theory tells us that the proximate determinants of growth are (a) the share of investment in GDP (to capture the effort being made to build up the capital stock), (b) the rate of population growth (to capture how much of investment effort has to be devoted to simply equipping a larger population with the infrastructure and other capital needed to maintain the current level of productivity, and (c) the gap between output per worker and the world's best practice (to capture the gap between the country's current status and its steady-state growth path, and also to capture the magnitude of the productivity gains possible through acquisition of the world's best-practice technologies). Neither India's investment share nor its rate of

population growth are in any sense unusually poor for an economy in India's relative position as of independence.

The fact that pre-1990 India appears "normal," at least as far as the typical pattern of post-World War II economic growth is concerned, places limits on the size of the damage done to Indian economic growth since World War II by the Nehru dynasty's attraction to Fabian socialism and central planning. India between independence and 1990 was not East Asia as far as economic growth was concerned, to be sure. But it was not Africa either.

One possibility is that the constraints placed on growth by the inefficiencies of the Nehru dynasty's "license raj" were simply par for the course in the post-World War II world: that only exceptional countries were able to avoid inefficiencies like those of the license raj. A second possibility is that the failure of economic policies in terms of promoting efficiency was in large part offset by successes in mobilizing resources: India in the first post-World War II decades had a relatively high savings rate for a country in its development position. Yet a third possibility is that the destructive effects of inefficiency-generating policies were offset by powerful advantages--whether a large chunk of the population literate in what was rapidly becoming the world's *lingua franca*, cultural patterns that placed a high value on education, the benefits of democracy in promoting accountability and focusing politicians' attention on their constituents' welfare, or some other factors--that should and would with better policies have made India one of the

fastest growing economies of the world not just in the 1990s but in previous decades as well.

Table 1: Indian Rates of Economic Growth

Period	1950-1980	1980-1990	1990-2000
Annual Real GDP Growth	3.7%	5.9%	6.2%
Annual Real GDP per Capita Growth	1.5%	3.8%	4.4%

Source: IMF.

If Indian economic growth between 1950 and 1990 appears more or less ordinary, no one believes that post-1990 Indian economic growth is anything like ordinary. In the 1990s India has been one of the fastest growing economies in the world. At the growth pace of the 1990s, Indian average productivity levels double every sixteen years. If the current pace of growth can be maintained, sixty-six years will bring India to the real GDP per capita level of the United States today. The contrast between the pace of growth in the 1990s and the pace of growth before 1980--with a doubling time of fifty years, and an expected approach to America's current GDP per capita level not in 2066 but in 2250--is extraordinary.

Moreover, this acceleration in Indian economic growth has not been "immiserizing."

Poverty has not fallen as fast as anyone would wish, and regional and other dimensions of

inequality have grown in the 1990s. But it is not the case that India's economic growth miracle is being fueled by the further absolute impoverishment of India's poor.

What are the sources of India's recent acceleration in economic growth? Conventional wisdom traces them to policy reforms at the start of the 1990s. In the words of Das (2000), the miracle began with a bang:

...in July 1991... with the announcement of sweeping liberalization by the minority government of P.V. Narasimha Rao... opened the economy... dismantled import controls, lowered customs duties, and devalued the currency... virtually abolished licensing controls on private investment, dropped tax rates, and broke public sector monopolies.... [W]e felt as though our second independence had arrived: we were going to be free from a rapacious and domineering state..."

Yet the aggregate growth data tells us that the acceleration of economic growth began earlier, in the early or mid-1980s, long before the exchange crisis of 1991 and the shift of the government of Narasimha Rao and Manmohan Singh toward neoliberal economic reforms.

Thus apparently the policy changes in the early and mid-1980s under the last governments of the Nehru dynasty were sufficient to start the acceleration of growth, small as those policy reforms appear in retrospect. Would they have just produced a

short-lived flash in the pan--a decade or so of fast growth followed by a slowdown--in the absence of the further reforms of the 1990s? My hunch is that the answer is "yes." In the absence of the second wave of reforms in the 1990s it is unlikely that the rapid growth of the second half of the 1980s could be sustained. But hard evidence to support such a strong counterfactual judgment is lacking.

II. Pre-1990 Economic Growth

Simple Growth Theory

The simplest of the theoretical approaches to understanding economic growth derived from Solow (1956) begins with an aggregate production function:

$$(1) \quad \frac{Y_t}{L_t} = \left(\frac{K_t}{L_t} \right)^\alpha (E_t)^{1-\alpha}$$

Real GDP per worker (Y/L) is equal to the product of two terms. The first term is the economy's average capital-labor ratio (K/L) raised to the power less than one, α , that parameterizes how rapidly diminishing returns to investment set in. The second term is the economy's level of total factor productivity, written for convenience' sake as the efficiency of labor E raised to the $(1-\alpha)$ power.

In this approach, there are three factors that are proximate determinants of economic growth. The first, labeled s , is the share of the economy's output devoted to building up its capital stock: the investment-to-GDP ratio. Higher shares of investment in GDP increase the speed with which the economy's capital stock grows, and raise productivity by increasing the economy's capital-labor ratio. (Moreover, in more complicated models in which technology is embodied in capital or in which learning-by-doing is an important source of productivity growth, higher investment raises output by more than just the private marginal product of capital. See DeLong and Summers (1991)).

The second proximate determinant, labeled n , is the population growth rate. A higher rate of growth of population means that more of the economy's resources must be devoted to infrastructure and capital accumulation just to stay in the same place. It is expensive to equip each additional worker with the economy's current average level of capital per worker, and to provide the extra infrastructure to connect him or her with the economy. In an economy with a disembodied efficiency-of-labor growth rate g and a rate of depreciation of capital equipment d , over time the capital-output ratio will tend to head for its steady state value κ^* of:

$$(2) \quad \kappa^* = \frac{s}{n + g + \delta}$$

At this value of the capital-output ratio, the proportional rate of growth of the capital stock $g(k)$ is:

$$(3) \quad g(k) = \frac{s}{k^*} - \delta = \frac{s}{\left(\frac{s}{(n+g+\delta)}\right)} - \delta = n + g$$

and is equal to the proportional growth rate of output $g(y)$, so once the capital-output ratio is at its steady-state value it will remain there.

Thus a higher level of the population growth rate n reduces the steady-state value of the capital-output ratio. It makes the economy less capital intensive and poorer because a greater share of investment is going to equip an enlarged workforce, and less remains to support capital deepening.

The third of the proximate determinants of economic growth is the economy's initial level of output per worker. The initial level captures how far the economy is away from its steady-state growth path, and thus what are the prospects for rapid catch-up growth as the economy converges to its steady-state growth path. (In more sophisticated models, the initial level of output per worker also captures the technology gap vis-à-vis the world's potential best practice. It thus indicates the scope for growth driven by the successful transfer of technology from outside to the economy.)

Under the approximations set out by Mankiw, Romer, and Weil (1992), the economy's average growth rate of output per worker, $g(y/l)$, over a period from some initial year 0 to year t will be given by:

$$(4) \quad \Delta g(y/l) = \frac{(1 - e^{-\lambda t})}{t(1 - \alpha)} \times \frac{\Delta s}{\bar{s}} - \frac{(1 - e^{-\lambda t})}{t(1 - \alpha)} \times \frac{\Delta n}{n + \bar{g} + \delta} - \frac{(1 - e^{-\lambda t})}{t} \times \Delta \ln(Y_0 / L_0)$$

where capital Δs indicate deviations from the world's average values, where lines over variables indicate that they are world average values, and where λ is a function of the other parameters of the model given by:

$$(5) \quad \lambda = (1 - \alpha)(n + g + \delta)$$

Thus this simple growth theory suggests an obvious regression to investigate the worldwide pattern of economic growth. In the cross-country sample, simply regress the average growth rate of output per worker ($g(y/l)$) on the share of investment in GDP (s), on the population growth rate (n), and on the log of output per worker in 1960 ($\ln(Y_0/L_0)$). Such a regression run for 85 economies in the Summers-Heston Penn World Table database for which data from 1960 to 1992 are available produces the estimated equation:¹

$$g(y/l) = \quad + 0.149 s \quad - 0.406 n \quad - 0.007 \ln(Y_0/L_0) \quad SEE = 0.012 \quad n = 85 \\ \quad \quad (0.023) \quad \quad (0.204) \quad \quad (0.002) \quad \quad R^2 = 0.431$$

The coefficients on these variables have natural interpretations as composed of terms-- like $(1 - e^{-\lambda t})/t$ --that capture the theoretical prediction that differences in growth rates

¹ Regression run using the Heston and Summers Penn World Table, version 5.6; data file at <http://www.jbradford-delong.net/Econ_Articles/India/Data-india_growth.jmp>. See Summers and Heston (1991).

diminish over time as countries converge to their Solow steady-state growth paths, and terms--like $1/((1-\alpha)s)$ --that captures the immediate output-boosting benefit of that factor. This estimated equation accounts for more than 40% of the variance in 1960-1992 growth rates for these 85 countries with just three simple proximate determinants of growth.

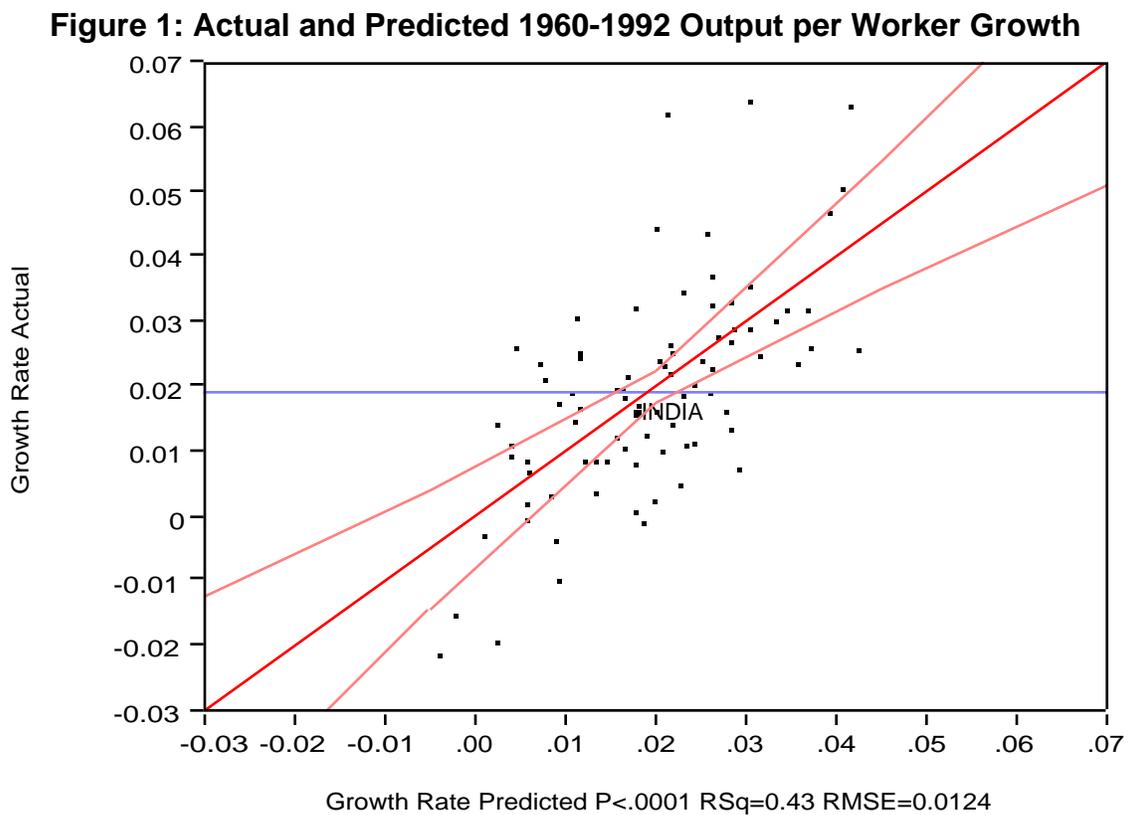
It is, however, not possible to have confidence that this equation captures a "structural" relationship. The population growth rate n is determined by where the country is in the demographic transition, and is thus highly likely to be unaffected by any growth-influencing omitted variables or residual disturbances (see Livi-Bacci (1992)). But omitted variables that slow down growth will also lead to a low level of initial output per worker: omitted variables will thus reduce the absolute value of the coefficient on initial output per worker below its "structural" value. And there is little reason to believe that the investment share is exogenous: it may be functioning as much as an indicator for residual factors left out of the regression as as a direct booster of production via a higher capital stock.²

Average India?

But the non-structural nature of this regression is not disturbing. For our purposes the most interesting factor is that from the perspective of the regression above there is very

² However, for an argument that investment shares are close to exogenous in practice even if not in theory--that shifts in investment have powerful effects on growth no matter what their causes--see DeLong and Summers (1991).

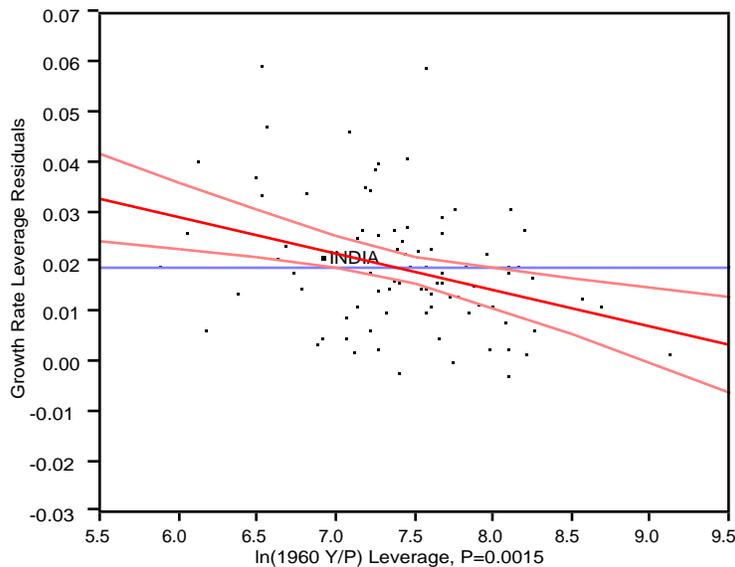
little that appears unusual about India's economic growth between independence and the late 1980s. In cross-country growth experience of 85 countries from 1960 to 1992, India lies smack in the middle of the scatter of world growth rate, as Figure 1 shows.

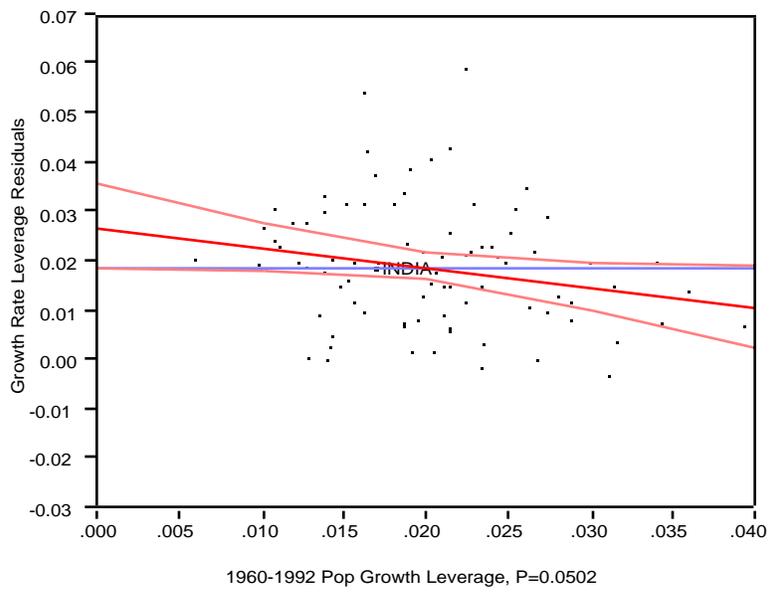
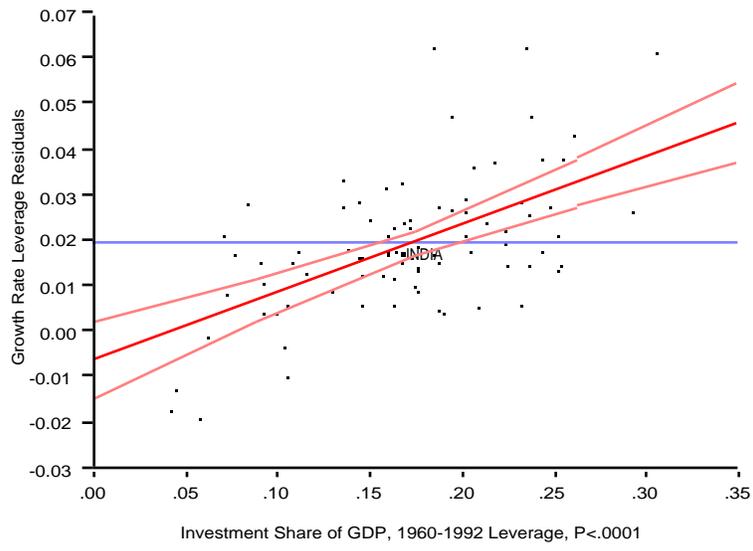


Moreover, it is not just that India's actual rate of growth of output per worker has been very close to the average across the world's nations. The rate of growth predicted for India from its initial level of log output per worker, its share of investment in GDP, and

its population growth rate had also been very close to the world's average. Conditional on the values of the other right-hand side variables, the proximate determinants of growth in India take on unsurprising values. The investment-to-GDP share is just what one would expect for a country with India's rate of population growth and output per worker level in 1960. The rate of population growth is just what one would expect for a country with India's initial output per worker level and investment share of GDP. As Figure 2 shows, leverage plots--diagrams that show the partial scatters of the variables in a multivariate regression--find nothing unusual in India's proximate determinants of economic growth over 1960-1992. For none of the three right-hand side variables is India an outlier, or does it contribute any significant identifying variance to the cross-country regression. India's 1960-1992 growth experience appears ordinary.

Figure 2: Leverage Plots for 1960-1992 Output per Worker Growth





Implications of "Average" India

The conventional wisdom today is that India's first prime minister, Jawaharlal Nehru, took it down the wrong road as far as economic development was concerned, and so wasted nearly half a century in economic stagnation. Nehru was impressed with what he (and many others at the time) saw as the successful mobilization of resources for development by the Soviet Union. In the shadow of the Great Depression only a decade past, it seemed naïve to believe that the private sector could successfully and reliably generate the investment that a growing economy needed. And in a country as desperately poor as India, the government needed to put its thumb on the scales to insure that economic growth produced widely distributed income gains. It could not afford to have increased productivity channeled into the fortunes of a small slice of the population made up of merchant and industrial princes.

As Gurchuran Das (2000) puts it, the desire to make sure that private industrial development conformed to social needs led to:

a nightmare... [a]n untrained army of underpaid engineers... operating... without clear-cut criteria, vetted thousands of applications on an ad-hoc basis... months in... futile microreview.... again lost months reviewing the same data... interministerial licensing committee... equally ignorant of entrepreneurial realities... also operat[ing] upon ad hoc criteria in the absence of well-ordered priorities.... seek approval for the import of machinery from the capital goods licensing committee... foreign

agreements committee... state financial institutions. The result was enormous delays... years... with staggering opportunities for corruption...

Moreover, established business houses learned how to game the system with "...parallel bureaucracies in Delhi to follow up on their files, organize bribes, and win licenses..." Established businesses could use the first-come, first-served nature of the licensing process to foreclose competition: apply for your competitor's license before they did, watch their application be rejected because enough capacity had already been licensed in that industry and the government did not want to see overinvestment, and then simply sit on the license without using it to build any capacity.

Thus the consensus view among economists is that of Bhagwati (2000), who describes Indian growth before the reforms of the early 1990s as having been "stuck at a drastically low level" during "nearly three decades of illiberal and autarkic policies." He endorses Lal (1998) who attributes the failures of economic growth to two factors, the first and less important "cultural"³ and the second and more important "political." As Bhagwati summarizes Lal, India's bane is:

³ A deeply-held distrust over centuries of the commercial classes and preference for dirigisme reinforced by the colonial elite's English education in Fabianism socialism. Anyone who makes any firm and bold statements about culture and economic growth is braver than I. Consider that while there is much to admire in Weber's (1904) *Protestant Ethic and the Spirit of Capitalism*, Weber also was certain that East Asia was doomed to centuries of economic stagnation because of the deep incompatibility of Confucian values with modern economic rationality.

...the professional 'povertywallas': the politicians who have incessantly mouthed slogans such as 'garibi hathao' ... [Indira Gandhi is meant here: that was the major slogan of her 1971 election campaign] and the economists who write continually about 'abysmal poverty'. Both have generally espoused policies, such as defending public sector enterprises at any cost, discounting and even opposing liberal reforms, promoting white-elephant style projects that use capital-intensive techniques on unrealistic grounds such as that they would create profits and savings when in fact they have drained the economy through losses...

The rhetoric seems to suggest that India has suffered a unique series of disasters caused by bad judgment on the part of Jawharlal Nehru in being overimpressed with the Soviet Union's resource mobilization, bad company being kept by Indian colonial elites who listened too much to British Fabian socialists, and malevolent bad judgment exercised by politicians (chief among them Nehru's daughter Indira Gandhi) who saw India's poverty not as a problem to be solved through economic growth but as an interest group to be appeased in an attempt to seize and maintain political power.

Yet as was pointed out above, the extraordinary thing about India's post-World War II growth experience is how ordinary and average it seemed to be--up until the end of the 1980s. It is not nearly as bad as growth performance in Africa (see Dumont (1965), Bates (1984)). It is not nearly as good as growth performance in East Asia (see World Bank (1994)). It is average--suggesting either that India's poor growth-management policies

were not *that* damaging, or rather that they were par for the course in the post-World War II world.

There are three ways to reconcile the widespread belief that the inefficiencies of the Nehru dynasty's "license raj" were very destructive for pre-1990 India. The first is to argue that the inefficiencies created by the Nehru dynasty were paralleled by similar mistakes of economic management in most of the countries of the world. If true, this would suggest that a different mode of explanation is needed to account for Indian economic policy and its failures in the first post-World War II generation. It is possible to attribute economic policy mistakes to bad ideology or bad judgment if such mistakes are exceptional. But if it is indeed the case that the same growth-retarding policy biases found in India were found throughout most of the world, then a different, more structural mode of explanation is called for. Why were governments attracted to an inward-looking, import-substituting path rather than an outward-looking, export-promoting one? What were the political benefits seen from a massive and monopolistic--and inefficient--publicly-owned enterprise sector? Why the fear of foreign capital and foreign technology?

At the ideological level, I believe we understand very well where the attachment to planning and near-autarky came from. But as an economist I believe that in almost all cases ideologies can become powerful and effective only if they reflect (in distorted fashion, perhaps) the material interests of politically powerful groups. And here I do not

think I understand the political strength of the interest groups that supported policies of overregulation and hostility to foreign trade, either in India or elsewhere.

A second possibility is that the failure of economic policies in terms of promoting efficiency was in large part offset by successes in mobilizing resources. For example, India in the first post-World War II decades maintained a relatively high savings rate for a country in its development position. Total private savings as a share of national product were about 6 percent of GDP in the early 1950s, but rapidly rose to 15 percent of GDP in the early 1960s, and by the 1980s averaged 23 percent of income. As Jones (1994) pointed out, however, over most of the post-World War II period India's relatively high savings effort as a share of GDP translated into relatively low increases in the real capital stock because the price of capital goods was relatively high in India. A high price of capital goods means that a given amount of expenditure on investment buys little real capital.

Under this interpretation, the conventional wisdom about Nehru dynasty economic policies is too pessimistic because it sees only the efficiency costs, and does not see the potential gains from resource mobilization, of which a high savings rate would be one. This line of argument would be more convincing, however, if more Indians were literate. The failure of Indian governments to approach universal literacy, and the failures of Indian public health, suggest that the view that Indian central planning and public investment had massive benefits overlooked by economists' current conventional wisdom cannot bear too much weight.

Yet a third possibility is that the "license raj" was very destructive, destructive enough to cripple what would otherwise have been a true growth miracle along the lines of those seen in East Asia over the past two generations. It is plausible to speculate that in the long run India *must* have powerful growth advantages. For millennia it has had a culture that places a high value on formal education and literacy. One of the legacies of the British Empire is a large chunk of the population literate in what is rapidly becoming the world's *lingua franca*. People who can process English-language information may well become one of the world's production bottlenecks over the next generation. India is very well-placed to take advantage of high demand for English-readers, -speakers, and -writers. Add to these the likely benefits of democracy in promoting accountability and focusing politicians' attention on their constituents' welfare, and a case can be made that India ought to have been one of the fastest growing economies of the world not just in the 1990s but in previous decades as well.

To my mind, all three of these ways of assessing Indian economic growth in the first post-independence generation are still live possibilities. I do not yet have the information to enable me to think that I can firmly establish that the weight of probability lies on any particular one of them.

III. The Past Two Decades

The Value of India's Example

The fact that India's growth performance seemed to *ordinary* in world context for the first three post-independence decades makes India's acceleration of economic growth since that much more exciting. With other countries that have experienced growth miracles, it is very difficult to imagine how to translate their experience into lessons for other developing countries. How is a country that seeks to emulate the Italian growth miracle to reproduce the close transport and trade links with the northwest European core? How is a country that seeks to repeat the growth miracle of Taiwan to attain the initial condition of an astonishingly equal distribution of land? How is a country that seeks to follow the Japanese model to assemble--more than one hundred years ago--the national elite consensus for structural transformation and economic development that developed among those who ruled in the name of the Emperor Meiji?

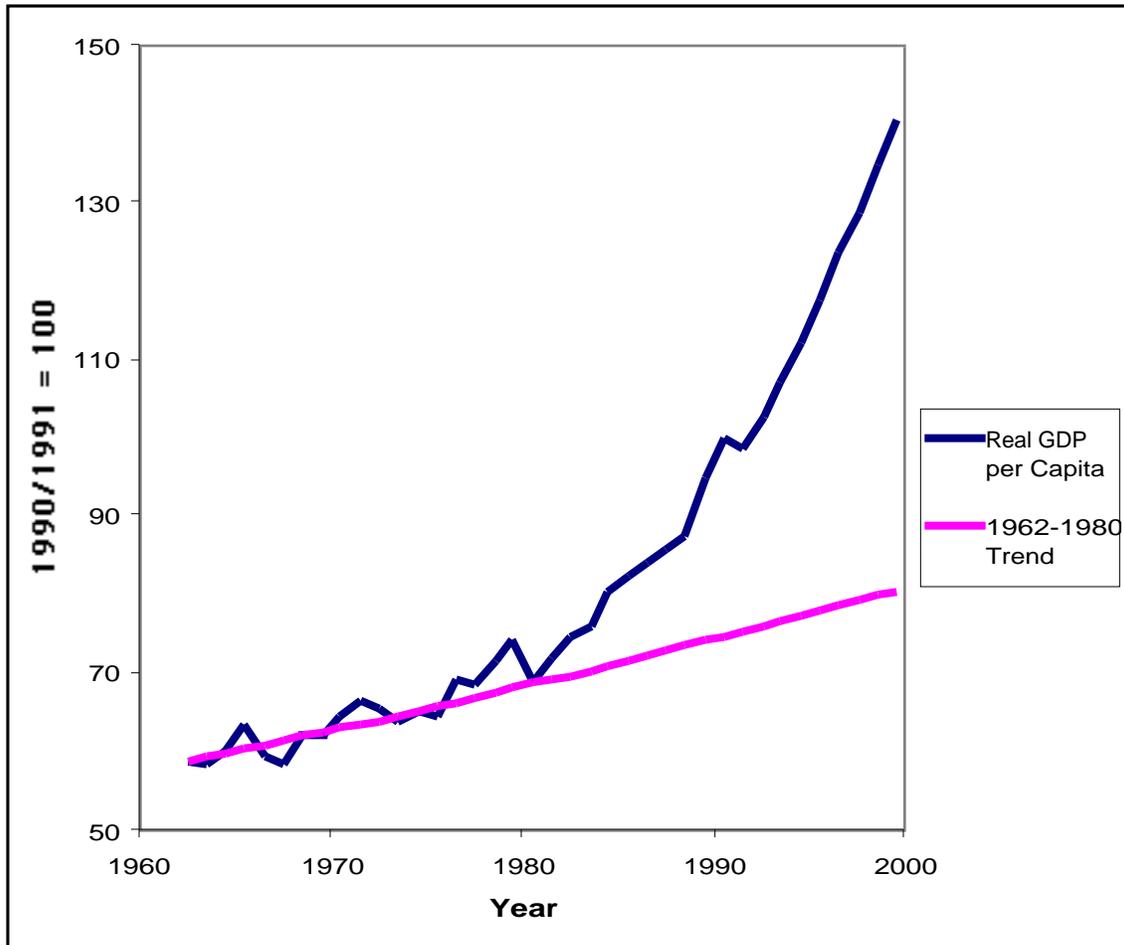
It cannot be done. That is why the Indian case is so interesting, because it shows an example of an economy that was relatively stagnant, and did suffer from mammoth growth blockages, but that managed to turn all that around, and to turn all that around in a short period of time.

Structural Breaks

To the extent that we trust aggregate national-level income accounts, it is clear that by 1985 Indian aggregate economic growth had undergone a structural break. Whether that means that we should look for key causes of India's growth acceleration in the years immediately before 1985 depends on how we conceptualize that structural break. Was it the result of a once-and-for-all change that put the economy on a new, different path? Or when we say "structural change" are we referring to an ongoing process of waves of reform, each of which requires that the political coalition behind reform be reassembled, each of which could fail, and the failure of any wave of reform could return Indian growth to its pre-1980 pace?

Depending on how you answer this question, you focus on one of two time periods. If you look for a single structural break, you look at the last years of Indira Gandhi's rule and at Rajiv Gandhi's administration, the years when economic reform and economic liberalization became ideologically respectable within the Indian government and policies that a development-seeking government ought to pursue to some degree. If you look for ongoing waves of reform, each of them debated and debatable, then you are more likely to focus on the early 1990s--when the exchange crisis served as a trigger for larger-scale reforms by the government of Narasimha Rao than had been previously contemplated--and today, when one key item on the table is reform of India's budget so that claims on social resources in excess of production do not lead to an inflation crisis.

Figure 3: Indian Real GDP per Capita Level and 1962-1980 Trend



Source: IMF.

The Last Nehru-Gandhi Government

Rajiv Gandhi's Congress party won 77 percent of the seats in the Lok Sabha in the election that followed his mother's assassination by her bodyguards. Party discipline was not overwhelmingly strong. But the magnitude of the majority--and the association of most members of parliament with Rajiv--meant that a relatively underdeveloped

apparatus for enforcing party discipline did not matter. During Rajiv Gandhi's administration India came as close to an elected dictatorship as it has ever been. And as the visible representative of a new Indian generation--uncorrupt, interested in reform, focused on applying modern managerial techniques--this last Nehru-Gandhi government ought to have had the power to carry out whatever plans of reform its leader could decide on.

Yet somehow paradoxically this proved not to be the case. Factions within the Congress Party seemed not to believe that their interests were bound up with the success of their leader and his policies. So the reform plans carried out under Rajiv Gandhi were hesitant, and less bold than one would have expected.

The economic reform program that Rajiv Gandhi's government decided upon focused on (a) encouraging capital imports and commodity exports, (b) a modest degree of industrial deregulation, and (c) a modest degree of tax system rationalization. In the government's first year it eliminated quantitative controls on imports of industrial machinery, and cut tariffs on imports of capital goods by 60%. (I know: it is hard to think of a reason for a country like India to have any tariffs or restrictions on imports of capital goods whatsoever. But you have to crawl before you can walk.) Taxes on profits from exports were halved as well.

The Rajiv Gandhi administration reduced the number of industries subject to government capacity licensing from 77 to 27 in 1988. And in its last days the government began to end price controls on industrial materials like cement and aluminum.

The consequence of this first wave of economic reform was an economic boom. Real GDP growth averaged 5.6 percent per year over the Rajiv Gandhi administration, while real rupee exports grew at 15 percent per year. The country's net capital import bill rose to three percent of GDP by the end of the 1980s. This growing foreign indebtedness--more than a quarter of exports were going to pay international debt service by the end of the 1980s--set the stage for the exchange crisis of 1991. Nevertheless, it is hard to argue that India would have been better off in the 1980s had it not borrowed from abroad. (It is easy to argue that it would have been better off had it followed a more realistic exchange rate policy in 1989 and 1990.) With limited exports, foreign borrowing is an extremely valuable way to finance capital goods imports. If Lee (1994) is correct in arguing that such capital goods imports are extraordinarily productive sources of technology transfer, then even extreme vulnerability to international financial crises as a result of foreign borrowing is a cost that weighs lightly in the balance relative to the benefits of one's firms being able to buy more foreign-made capital on the world market.

Narasimha Rao

Narasimha Rao's Congress Party won only 43% of the seats in the Lok Sabha in the 1991 election. For five years, however, he maintained his hold on the Prime Ministership and a narrow working majority.

Varshney (2000) points out that in some respects the failure of the Congress Party to achieve a majority in the Lok Sabha in 1991 is deceptive, and understates the strength of his government. By 1991 the Hindu nationalist BJP had come to prominence in Indian national politics (see Hansen (1999)). It was the second largest party in the Lok Sabha after the 1991 election. All of the other minor parties--the Janata Dal, the CPI(M), and so forth--had to reckon that upsetting the Rao government and the Congress Party might well lead to the coming to power of the BJP, which was not to any of their taste.

Challenging any of the decisions of the Rao government might bring it down. Hence, as Echeverri-Gent (1998) puts it, because it was so weak--because it was a minority government--the Rao government could be very strong.

Under the Rao government, tariffs were reduced from an average of 85 percent to 25 percent of import value. The rupee became convertible. By the mid-1990s total foreign trade--imports plus exports--amounted to more than 20 percent of GDP. Foreign direct investment was encouraged, and grew from effectively zero in the 1980s to \$5 billion a year by the mid-1990s. The government walked rapidly down the path of reform that Rajiv Gandhi's government had tiptoed cautiously onto.

And after the Rao government, reform had become politically popular--indeed, inescapable for governments that wanted to take their share of credit for India's relatively rapid economic growth.

IV. Conclusion

What comes next for India? The governments that followed the Rao government--first the United Front and now the BJP-led coalition--have continued reform and liberalization, albeit not as rapidly as one might have hoped given the pace of economic reform in the first half of the 1990s. But the governments of the second half of the 1990s have failed to make progress in bringing social claims on output into balance with productivity. The total deficits of the public sector--state and local governments, national government, and state-owned enterprises together--now amount to more than 10 percent of GDP. Unless this budget deficit is reduced and the rate of growth of the debt-to-GDP ratio brought under control, an inflation crisis at some point in the future seems likely once potential lenders to the Indian government decide that its debt-to-GDP ratio has risen too high for comfort.

Whether Indian real economic growth continues at the rapid pace of the past decade even if reform slows down and government budget deficits continue will tell us much about the resiliency of the growth process. If Indian real economic growth does continue to be rapid even in the face of erratic public-sector performance, that will suggest to us that the most important factor that changed in India over the 1980s had more to do with

entrepreneurial attitudes and a belief that the rules of the economic game had changed than with individual policy moves. If Indian real growth slows, that will suggest to us that the potential benefits in terms of higher growth from each act of policy liberalization are quickly taken up and exhausted, and that successful reform requires not just that reformers be strong at one moment but that they institutionalize the reform and liberalization process over generations.

In either case, the world's economists now have an example of an economy that did *not* have remarkably favorable initial conditions but that has sustained rapid economic growth over two decades. To those for whom the East Asian miracle seemed out of reach--for whom the advice to emulate South Korea seemed so unattainable as to lead to despair--advice to emulate India may well prove more useful.

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