

## Why Is India Shining?

### An Aristotelian Approach

*It is likely that India's accelerating growth and productivity is the result not of one but many efficient causes. Economic development is often overdetermined. A more promotional government stance, better infrastructure, previous investments in human capital and technology, trade and internal liberalisation and expansive fiscal policy may have all played some role in the acceleration.*

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The Indian economy, as a whole, has been doing well for the last several years. In the last national elections, BJP incumbents took as their slogan, 'India is shining' and most people agreed that it was. But opinions differ on how and why India is shining. Much of the controversy appears to be connected with the fact that people are talking about different levels and types of causation.

#### Causes and Causes

Aristotle says everything has four causes: a material cause (the stuff out of which it is made), a formal cause (the form in which it is clothed), an efficient cause (the impulse which is moving it), and a final cause (the goal toward which it is moving). In the context of our current discussion, the formal cause requires some explanation. To quote a handy source:

The formal cause (Greek 'Eidos') is the pattern or essence in conformity with which ... materials are assembled. Thus, the formal cause of [a] house would be the sort of thing that is represented by a blueprint of its design. ... The materials [for an economy – labour, technology, capital, natural resources, location and history] would be only a pile of rubble (or a different house) if they were not put together in this way (See <http://www.philosophypages.com/hy/2n.htm>).

The formal cause of the economy is its socio-economic system – both its structures and policies and the ideas upon which they are based. These ideas are its ideology in Karl Mannheim's sense. The ideology, in turn, is to some extent autonomous and

changes to reflect the spirit of the times, the 'zeitgeist'. If the zeitgeist of Indian economic policy of the 1950s was dirigiste and anti-business, that from the 1970s on was more liberal and pro-business. Of course, individual policy decisions (e.g., reducing tariffs, permitting new enterprises to start, reducing onerous procedural requirements) resulting from the new zeitgeist may themselves be considered 'efficient causes'. This means that any discussion of the 'formal' causation of economic change is likely to 'double count' a change in terms of 'efficient' causation.

Economic prosperity involves all four kinds of causes. Thus, India's 'shine' of the last two decades emerged from its natural and human resources and geographic circumstances (more or less a material cause), its policy and socio-economic system (more or less a formal cause), and entrepreneurial opportunities and opportunism that impel an economy forward (the efficient cause). We refrain from discussing here the question of national destiny (the final cause, 'telos' in Greek).

#### When and How Did India Start Shining?

The current debate of when and why the Indian economy started shining seems a particularly confused one. Several years long, this debate seems to have reached a fever pitch over the last year, especially after the displacement of the BJP government, which claimed credit for the shining. Now the Congress government is headed by a prime minister who claims to have started the shine when he was

finance minister in 1991. The debate has been reviewed several times in the *Economic and Political Weekly*, most notably in K B L Mathur's (2004) 'The Growth Rate Mystery'. One group claims that everything was shining before the current prime minister began forming economic policy. Mathur cites three authors but we focus here on only two. Arvind Panagariya's (2004) contribution in the June 26 issue of *Economic and Political Weekly*, for example, cites papers in an as-yet unpublished volume edited by Dani Rodrik.<sup>1</sup> The most comprehensive piece on the other side seems to be a working paper by Rodrik and Subramanian (2004). We also find two other papers in volumes edited by Rodrik. One apparently is the basis for the Rodrik and Subramanian article.<sup>2</sup> In the other, the secret of Indian poverty is reported to be a mysterious formal cause, a standard but informal 'employment contract' in which Indian factory employees agree to be inefficient [Clark and Wolcott 2003].

These are all concerned with economy-wide factors that might explain the increase in growth, but as we shall see there is another approach that starts at the bottom, with factors that explain sectoral growth.

#### Many Causes and Types of Causation

Some of the discussion of the causes of Indian growth can be clarified by analysing them in terms of Aristotle's causes. Human and capital resources had to be present in India to permit growth—given the country's low levels of immigration and foreign investment policy had to be permissive, de facto or de jure, and technologies had to be feasible. And specific dynamic impulses and policy changes had to come into play as well. Human and capital resources are a material cause, policy and technology are formal ones, and dynamic impulses and policy changes are efficient causes. Some of the causes of growth are undoubtedly India's volume and quality of technical manpower and its commercial institutions. Other factors may include the Indian diaspora and its networks in south-east Asia and the west Asia. A recent speech by the executive director of the US-India Business Council cites the strength of Indian public administration, the so-called 'iron frame,' as a key advantage.<sup>3</sup>

Some hypotheses about India's growth have to be deduced from explanations of India's lack of growth. These explanations often begin by examining why particular industrial sectors grow or lag. The McKinsey report, 'India: The Growth Imperative', explains India's status in the global economy by way of the effects of specific policies, some of them sectoral, on sectors. The report focuses on policies that affect retailing, electric power, telecommunications, and house construction:

India's gross domestic product is growing by an impressive 6 per cent a year...Three barriers are preventing [it] from growing even faster: myriad regulations governing products and markets, distortions in the market for land, and widespread government ownership of business (<http://www.mckinsey.com/knowledge/mgi/reports/CSProductivity/India.asp>).

All of these are formal causes but manifest themselves in specific efficient causes: "Thirteen policy measures could remove these barriers allowing the economy to grow by 10 per cent annually" (<http://www.mckinsey.com/knowledge/mgi/reports/CSProductivity/India.asp>). The relevant hypothesis is that growth in specific sectors (e.g. software, automobiles) results when specific barriers are removed in those sectors.

Once a sector was selected, McKinsey investigators went to the shop floor and determined the gaps between labour productivity in that sector and 'international best practice' and then recommended how the gaps could be closed. The particular recommendations may not be correct, however, because the link between the reported shortcomings and proposed remedies often seems loose. Gordon and Gupta (2003) apply a particularly sophisticated version of the McKinsey approach to the services sector drawing on classic Denisonian growth accounting. After accounting for income elasticity of demand, for 'splintering' (increased use of services by other sectors), and for exports, they propose that the unexplained residual in economic growth may be attributed to factors such as deregulation.

This is not the place to get into the broader argument but much of it is framed by the general argument about competitiveness, about what makes nations prosperous. Now that Michael Porter (2004) has defined competitiveness as productivity rather than market share, it sounds very much as if growth – or more specifically growth in income – can be the result of growth either in inputs or in productivity. Indian growth is mostly the latter.

The causes of India shining are various, multiple, and can be described through several paradigms at once. Just as the discussants deal with different kinds of causation in the Aristotelian sense, they deal with different paradigms about how those causes act. Some of the argument is syllogistic or tautological, some statistical, some systemic or metaphysical. Syllogistically, industrial capacity as it is more fully used will almost certainly increase production for given levels of investment; if foreign or domestic demand for products that Indian firms produce is strong, the firms can respond to that demand. Statistically, we can observe the correlation of public investment with increased production, perhaps controlling for some other variables, and say that the change in public investment explains some portion of the change in income. Simply observing the correlation is not sufficient, if we can 'identify' a plausible causal connection the statistics may help us explain it. Both of these are in the realm of efficient causation. Systemically or metaphysically, we can allege that the increase of external or internal liberalisation or 'pro-business orientation' explains the increase in production, moving into the realm of formal causation. Of course, if we identify these changes with specific changes in policy we may move them into the realm of efficient causation and even statistically 'verify' their explanatory power.

### Why Statistics May Not Decide

Most debaters would not dispute the following facts regarding what happened to growth and to productivity, or when changes in causes occurred.

### What Happened to Growth

After three decades of slow if perceptible progress (2 per cent GDP growth per year), India's growth rate accelerated to 5-6 per cent in the late 1970s, and has apparently stayed there – though the hopeful think it has leaped to 7-8 per cent. The detailed history is a bit more complex. The table shows periods of thrust and retreat, and reflects the uncertain nature of the weather (Keynes described the Indian economy as a 'wager on the monsoon'.) The 1951-56 period shows the impact of the Korean war boom, the later 1960s that of the 'green revolution'. Also perceptible are the crises connected with the bad harvests of the late 1950s, the financial crisis of 1991, and, less apparently, the

reallocation of resources from development to defence in the early 1960s, as part of the reaction to the 1962 war with China. Exactly where the break in trend comes is a technical question. Panagariya cites Jessica Wallach (2003), who plumps for 1980. Long argues for 'around 1985' [Long 2003:195].

### What Happened to Productivity

The increasing production was connected with "rising productivity, just as the previous period was connected with falling productivity as measured by ICORs (incremental capital output ratios)".<sup>4</sup> This is the case no matter what kind of measures of productivity are used and the points of inflection are roughly the same as that of production [Rodrik 2003:31].

Wallach's complaint that growth in the 1980s was due to "a changing composition of GDP, as resources moved away from slow-growing toward faster-growing areas of the economy, more than improvements in actual growth rates" is, of course, just what structural adjustment through liberalisation is intended to achieve [Wallach 2003:4312-15]. Though what she describes are only macro-shifts, with the statement that shifts between sub-areas of manufacturing, agriculture, and services were not observable in the 1980s. A more scholarly objection is that productivity increases in the post-1991 period are less than those in the decade before – but Long (2003) handles that with the theory of declining productivity of reforms as mentioned further.

### When Changes in Causes Occurred

Since the 1970s India has been steadily liberalising its economy. This is evidenced by greater freedom to invest; more liberal

**Table: Growth in Annual Percentage Terms in Constant Prices**

Year	National Income	Per Capita National Income	Agricultural Production	Industrial Production
1951-56	3.7	1.8	4.2	7.5
1956-61	4.1	2.1	4.3	6.6
1961-66	2.4	.2	-1.1	9.0
1966-69	3.7	1.5	6.3	1.6
1969-74	3.3	1.0	3.0	4.5
1974-79	5.0	2.7	4.3	5.9
1979-80	-6.0	-8.2	-15.5	1.1
1980-85	5.4	3.2	6.0	6.4
1985-90	5.7	3.6	4.2	8.5
1990-92	2.6	6	.1	4.4
1992-97	5.8	4.1	3.0	6.8
2002-03	4.2	2.4	-12.6	5.7

Source: Ray et al (eds) (2004).

access to foreign exchange; greater openness to foreign competition and investment, particularly after the financial crisis of 1991; and perhaps a greater willingness of the government to work with some private sector firms after the late 1970s (although the government worked with some business groups in the 1950s and 1960s.)

Like Rodrik and Subramanian (2004), Long (2003) asserts that Rajiv Gandhi's government in the early 1980s introduced a series of reforms that spurred growth, though not 'rapid structural reform' (p 197). He also asserts that 'growth theory' would have predicted an ebbing in growth if it had not been sustained by reforms that came later under Narasimha Rao, Manmohan Singh and the BJP. He concludes, however, that these later reforms had less powerful effects (pp 198-201). With impressive specificity he says that the effects of the reforms in the early 1990s were between two-thirds and five-sixths as strong, even though Gandhi's policy transformations seem much less radical. He does not venture a calculation of the BJP's impact, saying it is premature. Long does not state the obvious, but perhaps reform, like many other inputs, has decreasing returns.

Panagariya (2004) documents early changes in the direction of liberalisation in some detail, but grants that most of the changes he catalogues came after 1985. He connects these changes with an acceleration of the GDP growth rate in the 1988-91 period, stopped only by the 1991 crisis. In fact, GDP rates then were in the 7-8 per cent range, rates to which people now aspire and which will probably be achieved this year. Panagariya's opponents see this same acceleration as a result of changes in the climate for business that occurred in the late 1970s and early 1980s.

### **What This Tells Us about the Causes of India Shining**

A formal cause may not act as rapidly as an efficient cause. The effects of a systemic change such as 'liberalisation' or 'pro-business orientation' often take longer to manifest than the effects of a single policy measure. These formal causes can be evaluated only as they work themselves out over years and decades. Thus, no statistical test is likely to resolve the controversy. In both cases, we are dealing with both formal and efficient causes, intimately entangled with one another. To assess the effects of liberalisation or pro-business

orientation we have to look at decades. For a particular decision, such as that to license new capacity for televisions, we have only to wait until the licensed televisions can be manufactured.

In terms of impact on the structure of the Indian economy, the immediate change due to external liberalisation was limited. Here I draw on Panagariya's (2004) data. From 1970-90, non-petroleum exports grew from 3.3 to 5.5 per cent of GDP. They were above 5 per cent in the late 1970s, fell to 3.7 per cent in 1975-81 and recovered throughout the late 1980s. Non-petroleum imports climbed from 3.3 to 6 per cent; 1990 was a turning point. Total export as a percentage of GDP, doubled between 1990 and 2000 and imports rose from 9.9 to 16.6 per cent (pp 2591, 2587). Not surprisingly, the export climb really starts in 1990-91. These changes are probably a more meaningful indicator of the external liberalisation in the economy than the detailed listing of individual policy changes. However, as compared with China, India is still a closed economy [Ray et al 2004].<sup>5</sup>

The debate about the reasons for 'India shining' relate to what happened to growth, what happened to productivity, and when changes in causes occurred, as reviewed above. One side thinks that the primary thrust came from liberalisation without which growth could not have been sustained, especially after 1991 [Panagariya: 2581-94], the other that the general fostering attitude of government continues to be a major factor, and that liberalisation played only a supporting role.

Neither argument is very strong. Evidence suggests that liberalisation as a whole has a positive effect on growth but with great variance between countries. Many do not have the flexible economies and labour markets necessary to take advantage of liberalisation [McMillan 2003]. Whatever the world pattern, few countries are as large and complex as India. Even the arguments made against various competing hypotheses for why growth accelerated grant that they collectively may explain a great deal. Depending on the approach, the increase in productivity might be 1.5 to 3 per cent, but Rodrik and Subramanian (2004) concede that 1 per cent might be explained by the fall in idle capacity, 0.2 to 0.3 per cent by improved infrastructure. How much of the change is due to detailed shifts from less to more productive industries is an open question, especially because this shift may well be between segments of the same industry. In fact,

because of the overlapping effects of the causes India's shining – like many major economic phenomena – may be overdetermined.

Tip O'Neill, a prominent American politician, used to say that all politics is local, so perhaps all growth is sectoral. Why did India's sectors grow and do the reasons for that growth correlate with the macroeconomic factors cited by some commentators?

India's growth was, naturally, concentrated in certain sectors. Since the mid-1990s the information technology sector has experienced explosive growth; sales have increased twelvefold since 1995-96 [Ray et al:72]. This growth has had an impact, but IT accounts for less than 3 per cent of national income [Ray et al:1]. Thus it might explain 0.2-0.3 per cent of the annual growth. Growth in consumer durables consumption and production has been disproportionate [Ray et al:54, 56]. Automobile sales are up 12 times, scooters six times, and commercial vehicle sales have doubled since 1981. Even bicycle sales have more than doubled. Middle class housing has expanded significantly, though figures on the housing construction sector are not readily available. Interestingly, per capita availability of cotton cloth stagnated while the availability of man-made fibre doubled. The bulk of the growth has been in industries producing for the domestic market, though exports have remained buoyant. Nonetheless, logic tells us that if exports now account for four times as great a proportion of national income as previously, there has been a shift into exporting activities.

Expanding domestic consumption registers the arrival of the Indian middle class, and the decisions made in the 1970s and 1980s to permit production for them. The new capacity for autos and the accelerated provision of land for middle class housing, enabled by growing income for the private sector helped. Though the increase in 'organised sector' employment was late and limited, rises in income and wealth have obviously been adequate to fuel demand.

The causes for growth in each sector vary. IT growth is driven by US demand, responding to India's advantages in educated manpower. The increases in consumer durables partly reflect a policy decision to permit new capacity in industries serving the urban middle class. The increase in export industries, which seems broadly spread among traditional export categories at least at the most general

level, reflects a greater competitiveness of exporters.

### Many Causes

Though difficult to parse, it is likely that India's accelerating growth and productivity is the result not of one but of many efficient causes. Economic development is frequently over-determined. A more promotional governmental stance, manifest inter alia in the licences for consumer durable production, better infrastructure, previous investments in human capital and technology, trade liberalisation, internal liberalisation, and expansive fiscal policy may all play some role. It is likely as well that the 'dog that did not bark', the disasters that did not occur may be a factor. And crises that did occur were managed without a radical battenning down of the hatches, as in the late 1950s or late 1960s.

Note that we now have several efficient causes lined up, which more than several times explain India's productivity increase and its national income growth as follows: For growth in productivity, which has been increasing at a rate of 1.5-3 per cent a year depending on definition the following are relevant [Rodrik 2003, p 31, Table 1]:

(1) Rising capacity utilisation from increasing demand and financial pressure for efficiency. One paper estimates that this could account for 1 per cent of the increased productivity growth [Rodrik et al 2003].<sup>6</sup>

(2) Improved supporting infrastructure from public investment. The same authors estimate an impact of 0.2-0.3 per cent [Rodrik 2003:13].

(3) Either relaxation of government regulations or their administration in a more growth friendly manner. It is clear that relaxations in licensing restrictions are partially responsible for the increased production of consumer durables that has had a disproportionate role in growth. These relaxations began in the 1980s and were connected with a more permissive, even promotional, role for the public sector in allowing access to funds, etc. The ease with which the new production was taken up indicates repressed demand in the system. The disproportionate rise in agricultural prices may have helped with the farmers' part in this demand [Ray et al: 226].

(4) Especially since 1991, there has been liberalisation for external transactions. This would be expected to have some effect on efficiency, through competition, and greater flexibility in accessing need inputs.

It would be expected that some of these changes, and those listed below, would alter the types of activities engaged in and,

perhaps, favour activities with higher rather than lower productivity, though empirical work that demonstrates this is limited. Other factors that explain income growth and perhaps affect productivity are mentioned below.

(5) A particularly attractive development has been the growth of the IT sector, based on external US demand (the bulk of total sales.)

(6) Foreign transactions were not radically cut off in response to crises as had been the case previously (e.g., after the crop failures in the late 1950s or devaluation in 1966).

(7) Further considerations may affect the important gem and apparels sector, both of which involve, however, a much higher gross than net international flow.

### The Future

Assuming stable policies, how these macroeconomic and sectoral 'growth factors' will play out in the next few years is hard to say. Sustaining IT's growth rates will be hard, but as its proportion to GDP increases, smaller growth has greater impact. Absent a fiscal crisis, consumer demand should continue to fuel consumer durable and housing development. The end of the Multifibre Agreement – under which international textile and apparel trading has been governed for decades by country quotas – should cause some concern among garment exporters, but may ultimately have little positive effect on India.<sup>7</sup> A buoyant international economy will obviously help. How much further reform or 'de-reform' will occur and what its productive impact will be is hard to say as well – though the McKinsey report is certainly confident on that score. It promises us a 4 to 5 per cent jump in the rate of economic growth – or at least a one-time 8 per cent growth in labour productivity – if 13 easy reforms are adopted. They are confident that the new investment will occur and that other factors will not cause decreasing returns.<sup>8</sup> The ultimate challenge, not for forecasters of the future but for Indian entrepreneurs is to identify growth sectors of the next period – perhaps agriculture, biotechnology, more IT, tourism, or education and health. 

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### Notes

1 The Rodrik volume will be entitled *Modern Economic Growth: Analytical Country Studies*.

2 This clearly underlies Rodrik and Subramanian.

- 3 'India's institutional apparatus and focus on institutional development are almost unique in the developing and transition worlds, are vital to determining objectives, processes and outcomes – and are critical for any economic actors making judgments about prospects for policy change'.
- 4 There is dispute here. Pulapre Balakrishnan et al (2000) allege that there is no trend in productivity at all. But Rodrik and Subramanian (2004), pp 5-6, cite a Reserve Bank of India study from its *Annual Report on Currency and Finance, 2002-2003* using Balakrishnan's recommended methodology which shows total factor productivity growth of 3.9 per cent in the 1980s and 2.1 per cent in the 1990s. We could also refer to the various papers in the symposium published in *EPW*, June 31, 2004, which also raise questions about an increase in productivity.
- 5 For a particular year in which exports and imports both accounted for roughly 10-11 per cent of India's GDP, they accounted for 26 and 24 per cent respectively of China's.
- 6 Though the authors think this may be an overestimate.
- 7 What will happen is actually the subject of debate. It is clear that India with a sophisticated industry and cheap cotton textiles has some opportunities but it will have to meet strong Chinese competition. Two quick citations, the first more pessimistic and the latter more optimistic are <http://www.ieport.com/daily-news/20040507104841.html> and <http://www.indiaonline.com/bisc/post.html>.
- 8 The report asserts that the 13 reforms will lead to an increase in productivity in certain sectors of industry. All this works in comparative static terms, but with such an increase in productivity and production, presumably many other things in the economy will change dynamically for good or bad. A 10 per cent sustained rate of economic growth would certainly qualify as an unprecedented economic miracle.

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## Call for Papers

### The Indian Society for Ecological Economics (INSEE)

The Fourth Biennial Conference

3-4, June 2005

In collaboration with

**The Indira Gandhi Institute of Development Research,  
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The Fourth Biennial Conference of the Indian Society for Ecological Economics (INSEE) will be held in Mumbai, at the Indira Gandhi Institute of Development Research, during 3-4 June 2005. The main theme of the Conference will be "**Ecology and Human Well Being**". There will be Plenary Sessions, Concurrent Technical Sessions and Panel Discussions on topics around the main theme. Papers are invited on sub-themes as indicated below:

- 1 Ecological and Social Resilience.
- 2 Ecosystem Services and Quality of Life.
- 3 Policy Reforms for Sustainable Development: Governance and Institutions.
- 4 Valuation for Ecosystem Changes.
- 5 Communities and Collective Action

Papers should highlight issues and problems in India and other developing countries. Full and final paper of not more than 12,000 words and proposals for poster presentation should reach Shri Sushil Kumar Sen, Office Manager, INSEE, Institute of Economic Growth, University of Delhi Enclave, (North Campus), Delhi-110007 Fax: 011-27667410 email: [insee@ieg.ernet.in](mailto:insee@ieg.ernet.in), latest by 1st February, 2005. Authors selected will be informed by 15th March 2005. A limited amount of travel grant is available to support some of the participants whose papers would be accepted.

Dr. Pushpam Kumar  
Secretary, INSEE.