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Nehru and the Economy: A 21st century view*

Pulapre Balakrishnan

The whole philosophy … is to take advantage of every possible way of growth and not to do something which suits some doctrinaire theory or imagine we have grown because we have satisfied some text-book maxim of a hundred years ago.

Jawaharlal Nehru:
Initiating the debate on the Second Five-Year Plan
in the Lok Sabha, 23 May, 1956

Abstract

Into the 21st century we are better placed to assess the significance of the brief Nehru era in the long haul of India's economic history. This is owed to three developments. First, advances in economic theory enable us to grasp the empirical reality in terms of formal models of growth and development. Secondly, we now have statistical procedures that allow us to extract information from the data by means that are immune to the researchers' priors. And, finally, considerable evidence has accrued on the history of economic progress in the rest of Asia, currently the world's most dynamic region, making for a comparative perspective. Hence, we have strong reason to believe that the mechanism of economic growth in India that has prevailed for close to half a century by now was set-off via the co-ordinated public-policy interventions of the Nehru era. Further, it is yet to be demonstrated that this could have been enabled by some other known strategy. However, the failure in that moment to initiate a programme of investing widely in human capital has meant that growth here has been neither as fast nor as widespread as it has been to our east.

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Introduction

Why should economists of today find the economy in the Nehru era interesting at all? With the practitioners of a discipline that has by now more or less expunged history from its discourse, the argument that historical enquiry is of value as it enhances our understanding of the present is unlikely to cut much ice. But a reasoning based on a more practical consideration may be found to work for them. This is, that much of the political support for the economic reforms launched in 1991 was based on the argument that they were necessary to retrieve the economy from the all-too-wrong policies introduced in early post-Independence India. The economy's strong, though not necessarily superior, performance over the nineties only fortified the belief that the Nehru era was a wasted period when neither growth nor equity was achieved. Then came the high-growth phase of about five years since 2003, and it was taken for granted by India's new elites that double-digit growth was waiting in the wings, and India's economic past was finally a foreign country. But it appears that the cunning of history is not to be underestimated and a reversal of fortunes is better not ruled out of our destinies. The global financial crisis and the subsequent slowing of the world economy has shaken the hubris that the market is not just benign but can on its own ensure sustained economic progress. At a different level, the West, battered by cheap imports, is by now ruing the championing of globalization that it had adopted in the immediate aftermath of the collapse of the Berlin Wall. On its part, India's economic policy establishment has retreated into the foxhole only to emerge occasionally with the exhortation that what is needed is "more reforms". By the latter they appear to mean greater deregulation. There is a lack of imagination here as deregulation in the form of the unleashing of finance in the western hemisphere is part of the cause of our current discontents. Globally, and to an extent in India there is a churning in the realm of ideas with respect to what constitutes the right public policy for the economy. It is this that draws me to a study of the economy under Nehru, a time when a radical vision of economic progress and the strategy to achieve it had been publicly articulated. Two factors aid the economist embarking on such an exercise today. First, if there was a phase of India's recent history when the approach to the economy was markedly different from what have been adopted since 1991 it was the Nehru era. A methodological basis for comparison is thus on offer. Second, fresh scholarship on India's economy over the 20th century provides the information needed to compare the progress made in the Nehru era with the performance of the economy before and after. The importance of such a database for a serious historical study cannot be exaggerated. Indeed, as we shall see as we go along, many claims about India's recent economic history are made without any reference to the actual experience. The fact that some of these actually gain currency can only be explained by the nexus between power and knowledge identified by Michel Foucault.

Focusing on the economy in the Nehru era also serves a function other than that of devising better ways to grow the economy. It compensates for a glaring *lacunae* in the extant political studies of Nehru. These have tended to ignore the economy. An egregious example is the highly regarded three-volume biography by Sarvepalli Gopal. Gopal had chosen to present Nehru's engagement with India's economy under the heading 'Towards Co-operative Farming'. Surely this is odd? Though Nehru did think of co-operative farming as a necessary *via media* between an inefficient landlordism and uneconomic peasant farming it was hardly central to his vision for the economy. The main draw for biographers has been Nehru's foreign policy and his striving for democratic practice internally.[1] These were no doubt important to Nehru, but as even a cursory glance at the 'Speeches of Jawaharlal Nehru' brought out by the Publications Division of the Ministry of Information and Broadcasting in his lifetime reveals to us that so in at least equal measure was the economy. However, even as I point out this

[1] The sociologist Satish Deshpande (2003) has been an exception. He has argued that for Nehru the nation itself was an imagined economy.

lacunae I must emphasize that the early biographers of Nehru had nothing like the advantages that we have at our command today, both in terms of a theoretical understanding of how economies work and factual information on the Indian economy in the 20th century. Viewing India over half a century after the ending of the Nehru era, we are allowed a wider angle and endowed with a more powerful lens. The width of the angle is afforded us by the historical distance and the clarity of the vision is enabled by the accumulated knowledge on how an economy works. The role of both these factors will be apparent as I proceed.

Imagining economic growth: The Nehru–Mahalanobis strategy and its critics

Though narrowly identified as the basis for the Second Five-Year Plan, nothing is more emblematic of the economics of the Nehru era as a whole, and representative of the means adopted to pursue its goals, than what is referred to as the Mahalanobis Model. The best known version of the eponymous model had first appeared in a professional article on growth by Mahalanobis[2]. This model was intended to provide the analytical foundation for the project of raising the level of income via industrialization, an idea already deliberated upon by the late 1930s in the National Planning Committee of the Indian National Congress which was chaired by Nehru at the request of Subhas Chandra Bose in his capacity as the Party President. For this reason, the larger vision that had encompassed the Model has been referred to as the Nehru–Mahalanobis Strategy[3]. Its objective was to raise the level of income through rapid growth, the means chosen to eliminate widespread poverty.

Mahalanobis had conceived of an economy with two sectors, producing capital and consumer goods, respectively. It would be

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[2] Mahalanobis (1955a). Mahalanobis's non-technical papers on planning and economic development have been collected in Mahalanobis (1961). These taken together convey an idea of the evolution of his thinking, particularly on the topic of a growth model for India.

[3] Chakravarty (1987).

recognized that being a model of a closed economy without government their outputs would sum-up to the gross national product. Within the model the capital good enters into the production of the consumer good and of itself, while the consumer good is not an input into production—being a consumer good. In an interesting departure from the economic theory of the time capital was not subject to diminishing returns. This implies that a greater allocation of investment to the production of capital goods would leave the economy with a continuously rising stock of capital. With the capital good being the physical counterpart of investment, a higher allocation to capital goods production enables higher investment in the future. Assuming that all thus feasible investment is undertaken, a higher level of investment is actualized. Now future-dated output is higher compared to the case where the share of capital goods in a given investment outlay is lower. The outcome in the model follows from the feature that the capital good is required in both lines of production while the consumer good is not. So, a larger share of capital goods in investment yields a higher rate of growth of the economy. Now the planner's problem is to arrive at the share of investment to be allocated to the capital goods sector given the target level of income. There is reason to believe that Mahalanobis and Nehru had chosen the share of approximately one third on the basis of a judgment of the degree of privation that it was reasonable to expect the people to bear.

I have in the above provided only a bare-bones description of the model and its logic.[4] However, it is important when trying to understand the economic policy of the fifties to recognize that, even for its architect, the model was meant only as a guide to the strategy to be adopted for industrialization. Therefore, it is equally important to an understanding of what was attempted to take in the practical aspects of the strategy as manifested in what in the language of the day was referred to as 'the plan frame'. Here I shall follow a different route. I shall quote Nehru himself:

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[4] For authoritative and contrasting accounts, as they approach the Nehru–Mahalanobis Strategy from different angles see Chakravarty (1987) and Srinivasan (1996).

> Planning has of course been done in other countries; but not through democratic processes. Other countries which are democratic have not accepted planning. But the combination of these two concepts is rather unique. …The first thing we realized was that it was no good copying America or Russia or any other country. The problems of India are her own. We can learn from America or Russia, as certainly we should. But the economic problems of India are different. We learn from them, of course, as they have acquired great experience. We always realized that the fundamental factor was growth in agricultural production. Agriculture is basic to us because however much importance we attach to industry unless we have surplus from agriculture, we cannot progress in our economy. We cannot live on doles from other countries. We have always to choose between benefits accruing today, or tomorrow, or the day after. From the country's point of view, if we spend the money we now have for some petty immediate benefits, there will not be any permanent benefit. One has to find a healthy balance between the immediate benefits of today and the long-range benefits of tomorrow. All the money we have put in heavy industries is for tomorrow's benefit, though it brings in some benefit today also. It will take some years before this investment yields fruits. … So, our strategy of economic development is essentially modernization of agriculture and training of our rural masses in the use of new tools and new methods. At the same time, it seeks to lay the foundations of an industrial structure by building the basic or heavy industries, above all by producing electric power. Middle and small scale industries will inevitably come in their train.[5]

A clearer articulation of the central issue in investment planning, namely, the choice of the long-run output-maximizing allocation of investment across activities would perhaps be hard to find.

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[5] Response to the 'No Confidence' motion against the Government, Lok Sabha, 22 August 1963, reprinted "Our Policies Justified", *Jawaharlal Nehru's Speeches*, Vol. 5, Publications Division, Ministry of Information and Broadcasting, Government of India.

The Nehru–Mahalanobis Strategy, and planning in particular, has been castigated for having been based on an ideological predilection.[6] Even though I have just quoted from Nehru in order to expressly convey the idea that the leadership of the time was consciously carving out a path independent of the great powers of the day, I shall devote some time to this aspect. The criticism itself begins to make sense only when one is informed of the source of the grievance, that the Mahalanobis Model had been inspired by the model of Feld'man from the Soviet planning literature. Actually, its author has stated[7] that he was not aware of the work of Feld'man at the time of formulation of his own model. Presumably then, the criticism justifies itself by identifying any policy orientation influenced positively by the Soviet experience as ideological. However, in the light of the quite spectacular expansion demonstrated by the former Soviet Union such a criticism can in turn be termed ideological, even though by the end of the twentieth century we were to have the hindsight to deduce that whatever was happening there was not sustainable. In the fifties, however, newly independent countries with ambition could hardly have been faulted for aspiring to what the Soviets had achieved, namely, rapid industrialization and the consequent increase in income within a remarkably quick time.[8] It is not as if the entirely compromised politics of the Stalin regime, with its

[6] For example, see Price (1967), and also the interchange between Vasudevan (1968) and Price (1968) that had followed.

[7] Chakravarty (1987). Interestingly, Mahalanobis had also stated (1955a), p. 24 that while the earliest version of his model of growth is similar to that by Harrod and Domar he was not aware of them when he had formulated his own. We find that the Anglo-American lineage of the Mahalanobis Model tend to get overlooked in favour of the Soviet, presumably because recognizing the former would take the edge out of the criticism of its foreign origins. More recently it has been suggested by Ray (1998), p. 55 that Soviet planning was "deeply influenced" by the Harrod–Domar model. With this we come full circle!

[8] At that time, admiration for the Soviet Union was present in some unexpected circles globally. Thus, we find the following reference to its achievements in *The World Economic Survey, 1931–32* of the League of Nations at Geneva quoted approvingly by M. Visveswaraya the visionary engineer from Mysore who, being a practical man, very likely had little time for philosophical introspection. Visveswaraya (1936), p. 71 had had the following to say at the

gulags and the genocide, were overlooked. Only that Nehru was convinced that India would avoid them by adhering to the democratic process even if it meant ending up with a lower rate of growth. It was clear that neither the forced collectivization as a route to raising the rate of growth of agriculture nor the suspension of democracy as a way of quelling dissent on the chosen strategy were conceivable to the Indian leadership. I have alluded to this when discussing the basis of the choice of the allocation to be made for the production of capital goods which entails the temporary restriction of consumption. So a relevant criticism of the strategy would only be of its economic logic and what it leaves out rather than of its alleged provenance. Here the comment by Desai (2007) that Mahalanobis' model has in it no unemployment, inflation, or balance of payments is far more to the point. But once again, it is important to separate out the model from the strategy, and each of these issues had been explicitly addressed by Mahalanobis in the drafting of the Second Five-Year Plan.[9] I now turn to the record of economic growth in the India of the Nehru era.

Economic Growth in the Nehru era

We may use two sets of comparators to evaluate the growth performance of an economy. One is the prior record of growth in the economy itself. The other is the contemporaneous growth of other economies similarly placed and the growth of leading economies over the long haul of their histories. I start therefore with a comparison of growth in the Nehru era with growth in the first half of the twentieth century, more precisely the period 1900–47 which marks the second half of the British Raj in India.

In Table 1 are arrayed growth rates over time of the three main sectors of the Indian economy. The layout of the table enables us

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time: "Russia is one of the chief prodigies of the time. From extreme backwardness it has advanced at a stride to the forefront of mechanical development."

[9] Mahalanobis (1955b). It is significant that Mahalanobis had also addressed health and education, though, arguably only in passing.

to see the economic performance of the Nehru era in century-wide perspective. In the first column are the data for the years 1900–47. In the second are the data on the same indicators for the rest of the twentieth century including the 17 years of Jawaharlal Nehru's prime ministership. Finally, in the third column are presented the data for the period 1950 to 1964, the year of Nehru's death. Read as one big picture the data convey two important points. First, not only does growth in the Nehru era amply exceed what was attained in the final half-century of colonial rule, but the quickening of the economy observed over

Table 1: Income and Population Growth in 20th Century India

Sector	1900–1 to 1946–7	1947–8 to 1999–2000	1950–1 to 1964–5
Primary	0.4	2.5	2.6
Secondary	1.5	5.5	6.8
Tertiary	1.7	5.0	4.5
GDP	0.9	4.1	4.0
GDP per capita	0.1	1.9	1.9
Population	0.8	2.0	2.0

Source: Sivasubramonian (2000).

the second half of the twentieth century may be seen to have been *already* achieved[10] in the Nehru era. Second, not only is there an acceleration of growth across all sectors but also the ranking of sectors by growth is reversed early with the commodity-producing sectors now growing faster than services which had been the fastest growing segment of the colonial economy. Following Kuznets's work on economic growth, high services growth in a low-income economy would be treated as a pathology. In a poor economy with a low level of consumption of even the most basic goods, a faster growth of the commodity-producing sectors would

[10] Finer partitioning of the period 1950–2000 would yield a higher rate of growth of the economy from the late seventies. However, from the same graph we find that the degree of acceleration attained during the Nehru era outweighs by far the ones that were to follow. See Balakrishnan (2010).

be considered desirable. The broad-based expansion of the economy during the Nehru era amounts to a transformation of the economy that is, perhaps, more likely to be readily recognized as such by economic historians. Thus, note Sivasubramonian's apposite assessment of the economic progress made during this period. He speaks of the economic recovery of the Nehru era as having been "swift, smooth and remarkable."[11] Before moving on, I might raise a point crucial to the comparison of growth over time. As the comparison has to be made at constant prices to be of any use, the choice of the base year for prices is crucial. I have used Sivasubramonian's estimates of GDP as they provide data at constant, i.e., 1948–9, prices for the entire twentieth century. There are alternative estimates of national income for the period 1900–47, and these re-inforce my point. For instance, Angus Maddison's estimates[12] of GDP growth in 1938–9 prices for this period show the average annual growth rate of per capita output virtually stagnating at 0.04 percent per annum. This would suggest a far more significant turnaround following the end of the colonial era in India.

I now turn to the second of the two standard comparators of the growth performance of an economy already alluded to, namely, the performance of other economies. Two sets of economies have been chosen here for comparison with India during the Nehru era. The first is a set of Asian economies more or less at par with India in 1950 in terms of per capita income. The second is a set of the world's best-performing economies of all time. In Table 2 are presented growth rates attained by these two groups of countries. Of the two sets of economies for which data are presented a comparison of India's performance with that of the Asian economies is of greater interest for two reasons. First, the data are for the same period and second, as stated, in terms

[11] Sivasubramonian (2000), p. 563. This assessment is noticeably at odds with the customary assessment of the economic record of the Nehru era by economists. Historians, it appears, bring a greater objectivity to the study of the economy than economists, very likely because they privilege economic theory less.
[12] Reported by Sivasubramonian (2000), Table 6.3.

Table 2: Economic growth in the Nehru era compared

Countries	1950–64	1820–1992
India	4.1	–
China	2.9	–
Korea	6.1	–
United States	–	3.6
United Kingdom	–	1.9
Japan	–	2.8

Notes: Data are average annual growth rates.
Source: Maddison (1995).

of per-capita income Korea and China were more or less at par with India in 1950. A noteworthy finding emerges. From the work of DeLong[13] we know that while India has grown faster than most of Africa during the last five decades it has performed worse than East Asia. If Korea is taken as synonymous with East Asia this feature holds also for the period 1950–64. Korea's growth rate is 50 per cent higher than India's for this period. However, we find that India's growth rate is 25 percent higher than that of China. Actually, China was to pull ahead of India only a decade and a half after the Nehru era, in the late seventies, following the reforms launched by Deng Xiao Ping. Possessed of this information we would be led to believe that admiration for Mao Zedong's China in certain circles in India during his lifetime must have been based more on the canon of ideological zeal than on the early economic achievements of China.[14] This is clear, for the revelations of the disastrous consequences of the Great Leap Forward–including an estimated thirty million deaths allegedly due to famine in the late fifties–were received sanguinely here. While this may well be expected of those ideologically committed to the Chinese path, one thing is clear from our comparison. In a comparison with China it now appears that at least in terms of growth Nehru had not left the Indian economy behind. The subsequent tearing away of China, reflected in the falling behind

[13] DeLong (2004).

[14] Dhar (2003) and Guha (2007) for accounts of the reception of Mao in India during the Nehru era.

of India in the world's growth league-tables, must by implication owe itself to causes other than his leadership.

No less revealing is a comparison of the growth in India during 1950–64 with long-term growth in the leading OECD economies. We find from Table 2 that the former had exceeded the latter, often substantially. It is now possible to place in perspective Raj Krishna's lament[15] that independent India's record of growth over 1960 to 1977 placed it lower than 90 countries world-wide. Krishna had used *per capita* GDP as his measure. This succeeds in masking the degree of progress made in the Nehru era.

An altogether unexpected consequence of the transformation of the economy had been a very significant rise[16] in the rate of growth of population. Now the measured rate of growth of per capita GDP is, naturally, lowered. Two observations are in order here. From Table 1 we can see that were the rate of growth of population to remain at the colonial rate the rate of growth of per capita income during 1950–64 would have exceeded 3 per cent. This is more than twice[17] the rate of growth of per capita income of US and UK during 1820–1992 and exceeds that attained by Japan during the same period. Before I move on to my second observation I might remark that, actually, the counterfactual considered is not entirely meaningful as the growth of population is very likely endogenous with respect to the growth of income. This leads me to my second observation. The rise in the rate of growth of population *per se* serves as an indicator far more vivid of the extent and nature of the economic transformation achieved than any estimated rise in the rate of growth. Life expectancy at birth rose from 32 years in the 1940s to 37 years in the 1950s and to 43 years in the 1960s.[18] Demographers[19] have put the rise in the rate of growth of population in the period that we are studying down to the increase

[15] Krishna (1980), p. 28.
[16] Table 1.
[17] Maddison (1995).
[18] Bhat (2001).
[19] Ibid.

in the fertility rate, itself due to the decline in the incidence of malaria and widowhood, presumably due to widening public health outreach. The fertility rate itself may be seen as an index of a population's perception of the future of its economy. Instances in world history that encourage such an interpretation range from the decline in fertility observed during the uncertain transition to a market economy in Russia in the 1990s to its rise in post-war United States, a time of high optimism of America's future as a society. The 1950s in India was the duration of the highest increase in the fertility rate among all the decades since 1947.[20]

A methodological point needs to be made here, one that will serve as more than a mere justification for the method that I have pursued. Note that in Table 2 I have compared growth in India during the Nehru years with very long term growth of the advanced OECD economies. Far from loading the outcome of the comparison in favour of the former, as may be assumed, this actually tilts the balance in the direction of the latter economies. For we know that long-term growth rate of the industrialized economies has accelerated[21] over the last couple of centuries. Therefore, the longer the time period we consider the greater the likelihood of observing a higher growth rate for these economies when compared with a shorter series commencing from a time when their per capita income was the same as that of India's in, say, 1950. This observation has, in addition, the virtue of placing in perspective the achievement of the Nehru era. In the presence of increasing returns to scale the observed growth cannot be dismissed as merely the arithmetic outcome of measuring a given increase against a "low base".[22] At best a statistical commentary,

[20] Dyson (2008).

[21] Romer (1986).

[22] An instance of this tendency may also be found in the reported comments on economic growth in India by Alan Greenspan. Having first castigated Nehru's "Fabian socialism", Greenspan acknowledges the higher growth in recent years, but plays down this acceleration as having been from "off a low base". See "Give up socialism: Greenspan", *Times of India*, New Delhi, 2007. Apart from its oracular nature the observation displays an empirical oversight in that India had already grown at over 5 per cent per annum in the 1980s which was the highest rate of growth in the world, outside of East Asia, by then.

such a verdict misses the implication from an *economic* standpoint a low base is actually a serious impediment to initiating growth in the presence of increasing returns to scale.[23] At the level of the firm, increasing returns to scale can arise from a variety of sources, the simplest to comprehend being large fixed costs due to the lumpiness of investment. This retards the entry of potential producers. Thus the early initiation of sustained growth in the India of the 1950s after half a century of stagnation is non-trivial. Indeed it was a historic achievement. Interestingly, at the time, Nehru himself had demonstrated a clear idea of the magnitudes involved in the task of raising the rate of growth: "We have aimed at 5 percent in this Plan, and five percent is going to be a hard job. We shall have to work very hard, because we have started at such low levels, with such low surpluses. India is almost at the lowest rung of the income ladder. Even China, I believe, is a little higher. So was Russia at the time of the Revolution."[24] The challenge that India was faced with as it aimed at faster growth in the 1950s had been sharply appraised.

What quickened a moribund economy

Though a topic of great interest I shall be brief on the significant question of what quickened the moribund economy bequeathed to India in 1947, having dealt with it at great length in my book *Economic Growth in India: History and Prospect*. Here I shall only state that the strategy followed is akin to the 'Big Push' proposed for Europe by Rosenstein-Rodan (1943) whereby a progressive economic force is brought to bear upon several interlinked sectors of an economy. The conclusion that the expansion of the Indian economy in the post-colonial era may be seen as due to a state-directed drive is properly verified by reference to the data on public investment; data on saving and

[23] For a broader—historian's—account of the burden of the colonial legacy in India see Chandra (1992).

[24] Speech initiating the debate on the Second Five-Year Plan in the Lok Sabha on 23 March, 1956, reprinted as "The Second Five-Year Plan", in *Jawaharlal Nehru's Speeches 1953–57*, Publications Division, Ministry of Information and Broadcasting, Government of India.

investment by the public and private sectors, respectively. Several points may be noted. First and foremost there is a very substantial expansion of public investment as a share of GDP. Note that such an expansion exceeding two and a half times the original figure by the end of the Nehru era, has remained unmatched in India for the next quarter century. Though not apparent from the highly aggregative data presented here it is not only the magnitude of the expansion of public investment that is significant, but also its direction. As in the Big Push, it was inherent in the Nehru–Mahalanobis Strategy that investment would flow in several directions simultaneously. This is evident in the pattern of allocation of public spending proposed in the Second Five-Year Plan. Contrast this with the limited public spending outside of 'Administration' and the railways by the colonial government. Interestingly, there is an almost identical degree of expansion of the private corporate sector during this period. This too is unmatched for the next twenty five years. Some comments would be appropriate here. The first is purely academic, and concerns causality. Even though their expansion is contemporaneous, going by economic theory we would imagine that it was the expansion of the public sector that contributed to the expansion of private investment. This it may be expected to have done by expanding the market for the latter's goods and at the same time supplying at a lower price the capital goods the private sector needs. Forces making for greater public investment following from private investment are more difficult to imagine, and it is this that is reflected in the standard assumption of *autonomous* public

Table 3: Saving and Investment (% of GDP)

Year	Private corporate sector			Public sector		
	S	I	(S-I)	S	I	(S-I)
1950–55	1.0	1.4	-0.4	1.7	3.1	-1.4
1960–65	1.7	3.6	-1.9	3.0	7.5	- 4.4
1989–90	2.1	3.9	-1.8	1.7	10.7	-9.0

Source: National Accounts Statistics, New Delhi: Central Statistical Organisation.

spending in macroeconomic theory. Secondly, and this is of more than just academic interest, the degree of expansion of the private sector in the Nehru era is perhaps little known and seldom recognized. However, this evidence makes it difficult to sustain the argument that the policy regime was relentlessly hostile to the private sector. Added to the fact of its considerable expansion is also the consideration that this was financed by the other sectors within the economy. Note that the saving–investment gap for the private corporate sector widened very substantially during this period. This implies that corporate investment was financed by the household sector, the external sector, and possibly even by the public sector[25] itself. Therefore, it is not as if, even in the era of "high planning", the private corporate sector had had to pull itself up by its bootstraps. Of course, this could have neutralized none of the heavy-handedness of the bureaucracy in the implementation of the strategy, a feature that could well have stifled the growth of some firms and retarded private-sector development to an extent.[26] However, judging by the expansion in investment, it would not be inappropriate to conclude that the private corporate sector as a whole appears not to have done too badly in the Nehru era .[27]

The role of the State in quickening the economy in the second half of the twentieth century is unmistakable. It was of course in keeping with the plan of the Indian State. However, the government's calculations had in the process, gone awry on one count. This pertains to the role of external assistance in financing plan outlay in the public sector. The proposed budget for the Second Five-Year Plan had anticipated for foreign assistance a share of only 5 per cent. The outcome turned out to be far different. The figure recorded for the Second Plan exceeded by

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[25] "… investment in industry in the private sector (was) largely assisted by financing institutions in the public sector, and by fiscal concessions and tax incentives provided by Government.", Rao (1971), p. 72.

[26] It is equally significant but inadequately recognized that the bureaucratic approach is likely also to have lowered the productivity of public investment.

[27] For a qualitative assessment of the gains to the private sector during the Nehru era see Zachariah (2004).

far the intended 5 per cent. More significantly, the share of foreign assistance had risen steadily after the commencement of planning. The role of foreign assistance in financing the public expenditure, which in turn had stepped up the rate of growth in India, cannot be overlooked. Indeed, by the end of the Third Plan, at close to 30 per cent it was a significant input. This is mostly glossed over. Of course, more than any particular strength of India's the availability of external funding for her economic plan in the 1950s had much to do with the international politics of the time. The Nehru era had coincided with the Cold War and as a non-aligned country India had been sought after by the protagonists on both sides. While Soviet aid had come early and without strings, aid from the west and the multilateral loans under the *aegis* of this grouping predominated over loans from the Eastern Block though these came at a higher rate of interest.[28] There is little reason to believe that Indian economic policy had been influenced by excessive dependence on borrowing from any particular quarter. On the contrary, Kalecki[29] must surely have had India in mind when he compared the developing countries with "intermediate regimes" to "the proverbial clever calves that suck two cows"!

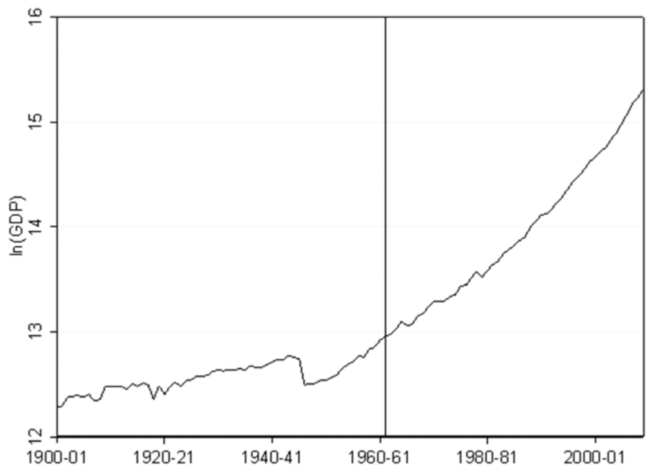
Finally, I have here argued that India's economy had been set on the path of growth through a mechanism envisaged by the Polish–American economist Rosenstein-Rodan. If this is correct, and I believe that it is substantially so, the argument that India ought to have relied less in state intervention and more on private enterprise is irrelevant. The point of the Rosenstein-Rodan conceptualization is that central planning alone can release an economy stuck in a low-level equilibrium trap.

In conclusion of this section which has been on the record of growth in the Nehru era I undertake a somewhat technical but illuminating exercise. There exist statistical techniques that allow us to partition a historical span according to the pace of growth

[28] Bhagwati and Desai (1970), Tables 10.1, 10.2, and 10.5.
[29] Kalecki (1976), p. 35.

of the national income. This technique may be used to identify the year that divides the 20th century in two according to the rate of growth achieved. The result of this exercise, presented graphically in Figure 1 below, is striking. The year that divides the 20th century in two according to the rate of growth is 1961–2. The interpretation of this is that the acceleration in growth achieved in the Nehru era was not superceded in the 20th century, not even in 1991. Methodologically, it is interesting to note that this does no more than confirm what is already evident in the less formal empirical study of Sivasubramonian, summarized in Table 1. Substantively, it conclusively establishes the significance of the Nehru era in terms of economic growth.

Figure 1
The growth acceleration in the Nehru era dominates the twentieth century



Caricature of a vision: Through a glass, darkly

I shall now address some lingering perceptions regarding the Nehru–Mahalanobis Strategy and the outcome of the policies that had been adopted as part of its implementation. Though these are often propagated by simplistic or, worse still, sentimental readings, I consider it important to address them as the allegation that we continue to pay for a misguided road map adopted in the fifties is a serious one.

The neglect of agriculture

There are two ways in which a sector can be neglected. First, it could be ignored in the policy discourse itself, with not enough attention devoted to it. Negligence could also take the form of insufficient resources being devoted to the desired expansion of a sector. I have already suggested that agriculture had received direct attention but am yet to provide an indication of the resources made available to it under the public policy of the time. To widen the window, I first present the view on the matter of two economists of the time, and then return to provide a perspective of my own. V.K.R.V. Rao, a doyen among Indian economists, had had a ringside view of the Indian economy for about five decades starting with the 1940s. He has had the following to say:

> It has been alleged that the priorities assigned … in India's planned development have been based on a mistaken imitation of Soviet planning and that higher priority should have been given to agriculture and consumer industries instead of to capital goods industries. … The emphasis placed on capital goods industries was the result of an understandable desire to furnish the country with domestic supplies of the crucial inputs of economic growth so that the rate of growth could be much faster than if the country had to rely essentially on foreign aid for its requirements of capital and intermediate goods. Apart from this it is not correct to suggest that planning under Nehru did not give sufficient priority to agriculture. In fact, of the total investment undertaken during the first three Five-Year Plans … agriculture, including irrigation, accounted for Rs. 3,446 crores, or 22.7 per cent, while economic infrastructure, such as transport and communications, and power accounted for Rs. 5, 737 crores or 37.7 per cent and social services for Rs. 2, 760 crores or 18.1 per cent. Industry accounted for only Rs. 2, 651 crores or 17.2 per cent of investment in the public sector during the fifteen years covered by the three Plans.[30]

[30] Rao (1971), p. 72.

There is of course a different approach to assessing the belief that agriculture was neglected. This is to account for intent by outcome rather than pronouncement. Now, only performance should count. We have already looked at the growth of agriculture in the Nehru era though the information had been nested within the larger category of 'Primary Sector'. The data presented in Table 1 unambiguousy show that the agricultural sector grew very impressively in this period, recording the highest growth acceleration among all sectors in making a dramatic recovery from the colonial era. This can hardly be seen to result from neglect, either benign or malign.[31] Indeed, the scale of this achievement and the role of political agency in the form of a determined and capable leadership is fully comprehended only when we study in some detail the state of Indian agriculture in 1947.

Though it is de-industrialization of India under colonial rule that has received most attention from historians it is the decimation of the countryside that is perhaps the leitmotif of the British Raj. For a century and a half, ending with the Bengal Famine of 1943 there had been some devastating famines with one particular famine in Bengal under the administration of the East India Company in the eighteenth century believed to have wiped out a third of the population of Bengal. These famines were directly related to the policies of extortionate taxation and forced commercialization of agriculture pursued by the Company. While historians have provided outstanding accounts and analyses of these events I go directly to summarize the findings of George Blyn on the trend in output in the first half of the twentieth century. Blyn's data presents us with an unedifying picture of Indian agriculture under the Raj. First, the rate of growth of foodgrains as a whole is far lower than the rate of growth of population, implying declining availability per capita. The output of rice, the grain consumed by the largest number in India then (and very likely even now), actually declined. His findings have

[31] For a rejection as "simplistic" of the claim of a neglect of agriculture under planning see Srinivasan (1996).

been summarized thus by Blyn: "In the most general measure of the change in rates over time, the trend in reference decade rates, all eight foodgrains showed retardation".[32] The record of non-foodgrains is better, with a far greater average growth rate in the aggregate. However, this reflects accurately the raison d'etre of the colonial project in India, which was the exploitation of the natural resources and the commandeering of the market of the colony for the benefit of metropolitan industry. Indeed, the glacial progress of foodgrains production is directly related to this strategy, implemented partly through price incentives and partly by brute force.[33] It cannot come as a surprise that food supply for the native population experienced collateral damage.

The performance of the economy in the Nehru era must also be evaluated in light of the agricultural legacy of colonialism. To have contributed to two accelerations in the rate of growth of agriculture[34] within two decades of the end of colonial rule comes

[32] Blyn (1966), p. 96.

[33] "Not a chest of indigo reached England without being stained with human blood.", British colonial civil servant quoted by Winchester and Winchester (2004), p. 56.

[34] As raised already, even if the second acceleration is established to have occurred immediately after the death of Nehru, the Green Revolution ought not to be seen as episodic but the result of some years of preparation of the seed bed, so to speak, in terms of the spread of irrigation, the diffusion of best practices via an extension service, and preparatory measures such as field trials under the auspices of in the public agricultural research system ICAR, some of them commencing as early as the First Five-Year Plan itself. The comment by 'AM', popularly believed to be the mercurial Ashok Mitra, in a special issue of *The Economic Weekly* in July 1964 devoted to an assessment of the Nehru era: "Despite all the gains of the last seventeen years, in many respects we have to make up for the lost time of these very years, during which all of us have grown a little less romantic and during which our per capita availability of food has not gone up by a single grain.", is appropriately hortatory but wrong in its claim regarding the progress made in agriculture. The per capita net availability of grain had grown slowly but steadily over the Nehru era, despite the significant rise in the population growth rate. Of course, that the performance could have been better is unexceptionable, but two caveats are in order here. First, subsequent growth in availability of foodgrains in India has barely matched the record of this period. See *Economic*

close to being spectacular, and places in perspective the grievance that agriculture was ignored in comparison with the attention paid to industry within the Nehru–Mahalanobis Strategy. Indeed we need to recognize the reversal of the decay of agriculture in the first half of the twentieth century as one of the great achievements of independent India, and this was largely achieved in the Nehru era.[35] I submit this radically revised reading of the period.

The black hole of public enterprise

I now address the second perception of the policy of the Nehru era—the idea of a public sector. In India today there is an unmistakable frustration with the public sector. It is associated with a poor performance record, marked for its lack of innovation, disdained for its shirking of social responsibility and perceived as parasitic on the public finances. On the last, an additional consideration from further left, beyond the political parties intermittently in power in some states, would be that it is financed disproportionately by the poor who are not even among its

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Survey 2006–2007, Table 1.17. Secondly, in the Nehru era the relative price of agriculture having first declined remained depressed for most of the time [see Appendix Table 4.4 in Misra (2004)] while agricultural growth quickened. Apart from the fact that this would be considered the pre-eminent marker of a successful development strategy, it is the best imaginable evidence that the Nehru–Mahalanobis Strategy had, in practice at least, *encompassed* the Vakil-Brahmananda Plan which had predicated a wage-goods constraint binding Indian economic growth.

[35] The agricultural turnaround achieved in the Nehru era, even when acknowledged in India, mostly receives the back-handed compliment that it was merely "extensive growth", achieved via extension of the cultivable land frontier. This view is mistaken. Recent research on the Indian sub-continent originating in Japan shows that the 1950s in India witnessed the reversal of a trend decline in land *yields* during the first half of the 20th century, the latter being known to us since the work of Blyn (1966). Further, among the decades of the 20th century, the average annual growth of yield achieved in the 1950s is exceeded only in the 1980s. See: "It is important to note that the reversal of land productivity occurred before the *breakthrough* of the 'Green Revolution." in Kurosaki (2007), p. 18; italics and quotation marks as in the original. Clearly, the author had had in mind the 'growth' of "land productivity".

principal beneficiaries. Much of this is not off the mark as a description of the state of affairs. However, the belief among many that this outcome is intrinsic to the Nehruvian conception of the public sector is far from correct. To show this I follow two leads. I first establish the rationale for the setting up of a public sector in India. I then consider one indicator of its performance during the Nehru era.

I choose to retrieve the original idea of the public sector and its performance record during the Nehru period within the overall project of resource mobilization. This would not be considered unusual, I presume, for the hallmark of any successful developmental effort is the mobilization of resources. It is not necessary that the resources mobilized must be confined to the public sector. After all, private investment is an equally legitimate component of aggregate investment in an economy. However, in the context of Indian industrialization launched in the 1950s, a large part of this mobilization would necessarily have had to be in the public sector as it was intended that the state would play the leading role here. For planning to be effective, there is required, if not a concentration of resources in its hands, a substantial financial capacity with the state.[36] Where an economy is at a low income level this requirement is likely to be large, in turn requiring the productive surplus to come progressively into the public sector thus enabling it to maintain a command over resources.[37] In this section, I first present views on resource mobilization and the role of the public sector enterprises within that overall objective of both the government and of independent economists then active. Subsequently, I study the evidence on both resource mobilization and the contribution of the public sector to it.

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[36] Even when this is not acknowledged as such by professional economists, it is widely recognised within civil society. See the report on a debate in Kerala today in the Malayalam daily *Mathrubhoomi* (2007).
[37] A strong public-sector revenue base is required also in high-income economies with substantial welfare interventions, for instance, the economies of Western Europe.

As the Second Five-Year Plan constituted the single largest instance of resource mobilization during the Nehru era the official documentation related to it is the best source of the government's view on the question of interest to us here. There, in the section on 'financing' in the Recommendations for the Plan we find: "Large financial resources would be required for the Second Plan. A small portion would come from sterling balances or foreign loans and aid; and the bulk of the resources must be found from within the economy. The tax system would be directed to collect an increasing part of the growing national income in order to permit greater capital formation in the public sector and to finance an expansion of social services. The public sector would be extended to industrial and commercial activities where necessary for raising resources for public purposes".[38] This is echoed in the Industrial Policy Resolution of 1956, which states that the public sector was expected to "… augment the revenues of the state and provide resources for further development in fresh fields".[39] We find that the original idea of the public sector was not welfarist. In particular, the objective of having a public sector at all was to raise resources for the public purpose. Of course, this is not inconsistent with a strong welfare orientation. The issue here, however, is only the role envisaged for the public sector when planning for economic development was launched in India.

The need for a very significant resource mobilization and the role of the public sector in relation to that task was also recognized by the independent economists of the day. Emphasizing that " ... the effort involved in this increase is considerable, and will strain the economy a very great deal ...", the economists empanelled by the Planning Commission to scrutinize the proposals for the Second Plan had spoken of

> … the great difficulty of increasing tax proceeds unless a fundamental revision in current concepts that underlie the tax system is accepted. One of these concepts relates to the

[38] Mahalanobis (1955b), p. 73.
[39] Cited in Krishna (1988), p. 9.

> exemption of essentials from the scope of an important part of commodity taxation. When so large a measure of effort is necessary to increase the proportion of tax revenues to national income, which has remained so obstinately static, one cannot escape the logic of the fact that the mass of consumption is by the mass of the people. Unless this bears a somewhat higher burden of taxation, no perceptible change in the stubborn ratio of public revenues to national income can be achieved. We wish to endorse in particular, the Recommendation of the Taxation Enquiry Commission to the effect that Article 286(3) of the Constitution may be amended to remove the present exemption of articles essential to the life of the community from the scope of state sales taxation. Simultaneously, measures to secure a practical ceiling on incomes through a steepening of taxes on income and wealth, including estate duties, becomes an imperative necessity. *A revision of the price policy of important public enterprises with a view to obtaining a larger surplus as a contribution to the resources for economic development is similarly required.* Besides the general increase in rates of direct and indirect taxation that will be involved in the considerable stepping up of tax effort will be part of the challenge to administrative efficiency that the big development effort for putting through the next Plan entails.[40]

Apart from the replication of the views of the government on the role of the public sector quoted earlier, two points may be noted. First, the independent economists had recognized the serious resource mobilization effort entailed in the project of industrialization. Secondly, note the complete absence of populism in the recommendation that in the short–run even the convention of excluding essentials from taxation may have to be put in abeyance. The unstated expectation from the public sector is also reflected in the proposed government budget for the Second Five-Year Plan. There, as I have pointed out already, the profits from state enterprises along with 'additional taxes and loans' exceed the amount of foreign assistance allowed for, and

[40] Planning Commission (1955), p. 115. Emphasis mine.

when combined with the contribution from the railways amounts to close to one eighth of the total outlay.[41] Finally, it is illuminating in the context to read Mahalanobis:

> In the highly developed countries of the West, taxes on commodities are usually looked upon as 'regressive', as being a burden on the poor. Public enterprises are also expected to be run on a no-loss-no-profit basis. Fortunately, our outlook is changing and it is being realized that in an underdeveloped country like India excise and customs duties, purchase tax on commodities or a levy on services would be convenient and adaptable methods to raise resources. It is also agreed in principle that public enterprises should earn and contribute increasing returns for purposes of national development.[42]

One thing is clear from these records of the time. Unlike today, fiscal populism was not considered a credible stance by the architects of public policy in early independent India.

While we have by now a reasonable sense of the original conception of the role of the public sector in India, we are yet to have a picture of its performance. First, it may be repeated that a surge in public investment had been achieved in the Nehru era, a fifteen-year record of expansion that has not been surpassed. Secondly, the share of public savings in total savings had risen[43] by the end of the period. Though the extent of this increase is not much greater than that of the private corporate sector it is still noteworthy that the expansion of investment was accompanied by an expansion of public saving. We have in this an indication of the role envisaged for the public sector in resource mobilization. Of course, this is not an argument regarding the sufficiency of that mobilization. While yet on the topic, I present evidence on the behaviour of public sector savings

[41] Mahalanobis (1955b), Table (8).
[42] Mahalanobis (1961), pp. 96–97.
[43] Rao and Sen (1995).

during the period that we are looking at here. In Table 4 are presented data on savings of the public and private sectors. The public sector has been classified further into the 'public authorities', comprising government administration and departmental commercial enterprises, and the 'non-departmental enterprises', comprising government companies and statutory corporations. Note from the data in Table 4 that while the expansion of savings in the public sector as a whole is, as it is faster than the expansion in savings of the private corporate sector, within the former the non-departmental enterprises turn in a vastly superior performance compared to all the other categories. Though the savings of the non-departmental enterprises continued to improve steadily for the next twenty years or so, no other phase matched the quite spectacular savings growth of the 1950–64 period[44]. Three caveats need be introduced, however. First, the rise in aggregate profits is not incompatible with instances of loss-making by individual units. Secondly, the data cannot serve as a measure of profitability, for which purpose we would need to factor in the volume of capital invested. And finally, this is not to be taken as a mark of the economic efficiency of the public sector, as we are very likely dealing with monopolies here. Nevertheless, the information itself is of significance to the assessment of economic policy in the Nehru era.

Table 4: Public and Private (Corporate) Savings
(rupees crore at current prices)

Year	Public Sector	Public Authorities	Non-dept. Enterprises	Private Corporate
1950–51	168	159	9	89
1951–52	252	243	9	132
1952–53	145	129	16	60
1953–54	127	107	20	86
1954–55	151	126	25	114
1955–56	172	145	27	130

[44] Table 3 in Rao and Sen (1995).

Table 4 cont.

Year	Public Sector	Public Authorities	Non-dept. Enterprises	Private Corporate
1956–57	231	193	38	151
1957–58	245	195	50	117
1958–59	227	170	57	136
1959–60	236	176	60	180
1960–61	425	362	63	276
1961–62	494	426	68	315
1962–63	566	480	86	338
1963–64	709	586	123	387
1964–65	817	679	138	381

Source: Adapted from *National Accounts Statistics 1950–51 to 1987–88,* New Delhi: CSO.

This is a view that emerged of the public sector held by the political leadership in the Nehru era that is entirely at odds with what is perceived by latter-day academic commentators. Equally, among the next generation of India's political class it has not been sufficiently well recognized that the public sector was originally conceived of as an active agent of resource mobilization for development. This led to its re-incarnation as a flaccid employment-granting welfarist agency after the exit of Nehru from the political scene. For that very reason while we might today view with shock and awe the extraordinary record of public sector savings highlighted in Table 4 it was very likely seen as *comme il faut* by Nehru himself! For instance, consider the following extract from a speech made on the occasion of the inauguration of the second Hindustan Machine Tools Factory at Bangalore in 1961:

> There is a certain uniqueness about this function and the factory. The uniqueness lies in the fact that this factory has been made out of the profits or the surplus of the older Hindustan Machine Tools factory and, rightly, therefore, it is called a gift to the nation by those who have been working in the old factory. This should be a matter of great

> satisfaction to all those who are concerned with the HMT factory.[45]

However, though the record of the public enterprises during the time may have been seen as entirely appropriate, the data presented here must challenge the accounts of some economists of today. Thus, referring to "the losses made by public enterprises", Bhagwati has stated: "Capital-intensive white elephants in the public sector were supported on the basis of models that deduced that this choice of techniques would yield a higher savings rate and hence higher growth: a conclusion that would now sound laughable, had its consequences not been so tragic."[46] Presumably Professor Bhagwati had had in mind the performance of the public sector at some juncture well beyond the end of the Nehru era. Nevertheless, in the face of so strident a commentary it is worth repeating that during the Nehru era at least the savings of the public enterprises actually grew faster than that of the private corporate sector.

Neither the official approach to them nor the actual record of the public enterprises during these years suggests that the public sector was one of the wasteful legacies of the Nehru era. Their drift in that direction owes more to the political culture of a later period when the public sector was turned into a vast machine for dispensing patronage and buying out vested interests. The evidence presented here also allows us to evaluate the assertion that *dirigisme* is recipe for a fiscal crisis of the state[47]. The growth of the central government's tax revenues, as share of GDP, in the

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[45] Reprinted as "A gift to the Nation" in *Jawaharlal Nehru's Speeches 1957–1963*, Publications Division, Ministry of Information and Broadcasting, Government of India. Interestingly, Nehru was not squeamish about acknowledging assistance from the West when he felt it appropriate to do so. For in his speech he had continued: "May I also refer to those who originally set up the plant here, the well-known Swiss firm of Oerlikons who laid the foundations? They built the first HMT plant and helped in training our people in the early stages, and their work has yielded this fine result."

[46] Bhagwati (1998), pp. 6–7.

[47] 'Introduction' in Lal (1999).

fifteen years since 1950 had not been exceeded[48] since, even by the year 2000. However, my aim here has been to argue that in its original *avatar* the public sector was a strategic intervention in the cause of growth, and that during the Nehru era at least it had delivered to an extent far greater than usually acknowledged.

Critique of a Strategy: The missing counterfactual

While my narrative thus far may have served to dispel the misperception that public policy in the Nehru era had neglected the crucial role of agriculture or the savings potential of the public-sector enterprises and that it was based on an economic model that stood no chance of success, there is one area that appears to have been neglected then. And this is primary education. Rare were the interventions in the 1950s by Indian economists on the relevance of primary education, but there was a particularly insightful one by Krishnamurti,[49] an economist then with the Bombay School. In 1955, within months of the publication of the *Recommendation for the Second Five-Year Plan* by the Planning Commission, Krishnamurti had written "… how absurdly low are the sums allotted for education in the Mahalanobis Plan", speaking of it as being lop-sided, with little importance given to education and other social services, and calling for a re-allocation to expenditure on this account from the outlay on heavy industries. More important are Krishnamurti's argument for greater expenditure on education and his explanation for why it was so low in the Plan. "A concerted effort to educate the mass of the population, specially in the rural areas, would undoubtedly have far-reaching benefits of a cumulative expansionist character. This would greatly lighten the task of the government in bringing about rapid economic development."

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[48] *Public Finance Statistics 2004–2005*, Ministry of Finance, New Delhi: Government of India.

[49] Entry under 'Krishnamurti' in Balasubramanyan (2001). I am indebted to Ramachandra Guha for bringing this little known critique to my attention. It is of some value to the economics profession in India, not only due to its perspicacity but also as some kind of record that not all our members had pulled their punches during the great debates of their times!

Pointing to the government's lack of even-handedness in dealing with education in comparison with "heavy industries or river valley projects" for which it was willing to adopt deficit financing, he speculates whether this has to do with the fact that "being brought up in the traditions of mid-Victorian finance" it continues to "apply the calculus of the private grocery merchant to a matter like education".[50]

Interestingly, in all the counterfactual scenarios that are sketched for India it is openness to trade that tends to get emphasized, the implicit suggestion being that the possibilities of trade were neglected. There may well be a point to this observation, at least surely for the period starting the mid-60s. However, the absence of primary education from these exercises of counterfactual analysis applied to the Nehru era is striking. In all likelihood the rate of growth of output via human-capital accumulation may have been higher, not to mention that the very face of India would have been vastly different had more attention been paid to primary education at the very outset. As this study is also an evaluation of the contribution of Nehru to the growth and transformation of India, I am reminded of the comment made by a civil servant in Bangalore that the man whose birthday is celebrated as Children's Day in India had actually managed to do very little for her very young. Cruel as it may sound, and appearing odd given Nehru's publicized[51] empathy with the child, the verdict is close indeed for it would be difficult to ignore that primary education ended up being severely neglected in the Nehru era. It is of course technically true that, given the constitutional distribution of powers in India, Education–being a 'State Subject'–was, at that time, at least partially a responsibility of the states, but this does not absolve the policymaker of the Nehru era of a grave error of judgement regarding the factors that drive

[50] All quotations are from 'Krishnamurti' in Balasubramanyan (2001).
[51] Crocker (2008). Nehru's defenders, however, are quick to point out that he had little to do with the institutionalization of his birthday as Children's Day, not to mention "the phoney appellation" *Chacha*! See Sharada Prasad (1979), p. 8.

growth, leave alone development.[52] Of course, both policymakers and most economists continued to neglect the continuing neglect of primary education in India till into the twenty-first century, when suddenly India's disparity with the rest of the world on this count could no longer be ignored.

In our effort to try and understand where the Indian economic strategy may have foot-faulted it is instructive to read Korean economists on that country's developmental history. Thus we have Kim (1995): " … what distinguishes Korea from other developing countries is the way it has invested in human resources even before launching a drive to develop its economy. Had it not been for the formation of trained human resources in advance, Korea's economic development in the 1960s and 1970s would have been much retarded. The Korean government's failure in developing highly trained human resources is now a major bottleneck in taking on the challenge of high technology industries in the 1990s. What this implies is that investment in human resource development should precede industrialization, as human resources cannot be trained overnight when needed".[53] Contrast Korea's

[52] A historian's account of how this came to be despite Nehru's own intentions to the contrary is to be found in Spear (1967). Spear proposes that it was the very body that was given the responsibility of implementing the plan, namely, the functionaries in government, who sabotaged it, as they were hostile to the project of social upliftment. Interestingly, a twenty-first-century parallel has been suggested with regard to the implementation of the National Rural Employment Guarantee Scheme by Dreze (2009). For a perspective on the state of educational provision in India beyond the Nehru era we may turn to Romila Thapar (2009): "(M)any of us feel that the foundation of primary and secondary schools has still to be established and nurtured. I suspect that nothing is done about the foundation because political parties fear an educated electorate that can ask questions. It would then not be swayed by mass meetings and would make vote-banks irrelevant. The moment people ask questions and relate the present to the past and have a project for the future, it becomes a different electorate. I don't think it is just an oversight that governments and politicians pay so little attention to education." Clearly, even Nehru's influence on matters that could not be settled in Delhi was limited. This was the age of the satraps, who called the shots in the states.

[53] Kim (1995), p. 286. For an econometric investigation that confirms the role of schooling in the long-run development of Japan, see Self and Grabowski (2003).

educational preparedness with India's at the beginning of its industrialization programme. The distribution of public expenditure on education, by the Centre and states combined and decomposed by level, is presented in Table 5.

Table 5: Distribution of Public Expenditure on Education, 1951–1966

Sector	First Plan (1951–56)	Second Plan (1956–61)	Third Plan (1961–66)
Elementary	58	35	34
Secondary	5	19	18
Higher	8	18	15
Technical	14	18	21
Others	15	10	12
Total	100	100	100

Note: Includes expenditure by the states and union territories.
Source: *India 2009: A Reference Annual*, Publications Division, Ministry of Information and Broadcasting, New Delhi, 2009.

While an awareness of the relevance of technical education for industrialization is reflected in the rising share allotted to this segment, the share of elementary education declines very sharply. So much so, the relative expenditure on schooling declines by the end of the Nehru era despite a rising share of total expenditure going to secondary education. At the same time, the share of higher education other than technical education had almost doubled. Note also the negligible expenditure on adult literacy programmes given the stock of illiterates in the country in 1947. Altogether, it is difficult to avoid the conclusion that during the Nehru era higher and technical education came to be privileged over mass literacy and primary schooling.

So do we blame Nehru and the planners for this outcome or should we aim to be self critical and turn our gaze inward on the social scientists of India? At the level of a history of ideas it is difficult to square the neglect of the role of education among

India's economists at a time when it was emerging as a part of the mainstream of their discipline. The idea that industrialization would require training the peasantry, and that the private sector is unlikely to be sufficiently interested in this task, was already present in the work of Rosenstein Rodan (1943), Schultz's essay on investment in man–which had contained the idea of 'capabilities'–had appeared in 1961, and by the mid-60s academic studies of country experiences with education had begun to appear.[54] This appears not to have made much of an impact on the cohort of India's economists otherwise much attuned to the progress of Anglo-American economics. We may compare this with the state of the interest in education within the economics profession in late nineteenth century Russia as recorded by Kahan (1965): "Finance Minister Vyshnegradskii's concern with the level of skill and education of the Russian industrial labor force in the 1880s both expressed and stimulated a concern for education as an economic investment of the society. His pronouncement was reflected in a large number of studies, both empirical and normative, or policy oriented. An early and probably representative example of the latter is an interesting collection of essays published in 1896 under the general title of *Economic Evaluation of Popular Education.* It contains contributions of I.I. Yanzhul', A.I. Chuprov and I.N. Yanzhul'. That by I.I. Yanzhul' (which is still of considerable historical interest) is based upon the assumption that various "external" stimuli of economic growth (tariffs, subsidies, government regulations) are less effective than education and training. He invokes the authority of J.S. Mill, Thomas Brassey, and Alfred Marshall, and provides empirical data from American experience to argue that the level of productivity of labour in various countries is positively correlated with per capita expenditures on education and with rates of literacy. The general conclusion of the essays is summarized by the authors as follows: "There are, of course, many factors impeding the development of the Russian economy, but the foremost among them is the general illiteracy which distinguishes our country from all other civilized countries … an

[54] See, in particular, Anderson and Bowman (1965).

increase of labor productivity is the only means to erase poverty in Russia and the best policy to achieve it is through the spread of education and knowledge."[55] Note the reference to the importance, when it comes to growth, of education relative to that of "tariffs, subsidies and government regulations" the stuff of so much of the mainstream discourse on growth in India over the past 2 decades. On the other hand, no comparable discourse on the role of education in economic development had taken place in India during the era of high planning, or since for that matter. Much of the energy of India's professional economists, it seems, got dissipated in skirmishes over the mathematical properties of the plan models.[56]

The puzzle, however, is not so much how India's planners could have ignored the theoretical literature on the role of education in economic development or the political debates in pre-Revolution Russia. It is that they appear to have been ignorant of Gandhi's emphasis on its importance. In the early forties he had observed: "Basic education links the children, whether of the cities or the villages, to all that is best and lasting in India. It develops both the body and the mind, and keeps the child rooted to the soil with a glorious vision of the future in the realization of which he or she begins to take his or her share from the very commencement of his or her career in school".[57] It is difficult to imagine a sharper insight into the contribution of education to human agency, which must after all underpin all economic change.

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[55] Kahan (1965), p. 5.

[56] That the importance of education had not escaped the attention of the country's philosophers, however, is evident from the following: "The President, Dr. S.Radhakrishnan, while laying the foundation–stone of the National Institute of Education in New Delhi…said that education must be given 'the highest priority' in any plan for national development. He said that India had enormous man-power, abundant natural resources and all that was needed to make the nation prosperous and great. What she lacked was 'proper education'." *The Hindu*, Madras, 31 August, 1962.

[57] Gandhi (1941).

Conclusion

There is an influential narrative on growth in India that goes like this: " … India's post-World War II economic history begins with a disastrous wrong turn by India's first prime minister, Jawaharlal Nehru, towards Fabian socialism, central planning, and an unbelievable quantity of bureaucratic red tape. This 'licence raj' strangled the private sector … As a result, India stagnated until bold neo-liberal economic reforms triggered by the currency crisis of 1991".[58] I would hope that my account, presented in this essay, of growth in early independent India restores some perspective on the recent economic history of this country. I have argued that actually, contrary to the conventional wisdom as stated above, the very origins of growth in twentieth-century India can be traced to the early 1950s. The Nehru era witnessed the revival of a moribund economy and the igniting of a growth process that has remained undimmed for over five decades, during which time the rate of growth economy has hastened slowly. The repeated acceleration of the growth rate implies that the penchant for drawing a likeness between the policies of the Nehru era and the Former Soviet Union is misplaced, as growth in India has been sustained in a way that it was not in the former. Actually, a quickening of the rate of growth via external economies as the scale of activity rises was explicitly recognized by Mahalanobis. India's growth rate has accelerated repeatedly and it may be observed that this feature is not incompatible with the Nehru-Mahalanobis Strategy.[59] Within the recovery engineered, I have flagged two specific achievements of the Nehru era that had a bearing on growth, namely, the quite spectacular transformation of agriculture as reflected in the acceleration of growth and the unprecedented mobilization of resources by the Indian state which enabled a permanent hike in public investment. There have been

[58] Delong (2004), p. 184; the author does not himself subscribe to this view, however.

[59] Mahalanobis had visualized rising productivity of investment as indivisibilities would be overcome with the expanding scale of activity. There is every reason to believe this may have taken place in the provision of producer services.

errors of commission, such as the spawning of an increasingly unregulated economic bureaucracy, and of omission, such as the gross neglect of schooling. But there have been four decades at least in which to correct these. To hold that this is due to a "lock-in"[60] effect of the Nehruvian strategy and suggest that nothing could have been done to alter the situation is only to confirm that we have not understood the lessons of even our recent past.

Though I have not focused on the particular role of Jawaharlal Nehru in the formulation and implementation of the economic policy of his time, I have, however, provided a window on his views on the economy including, to an extent, of their evolution. Arguably, no Indian leader at the helm of this country since has been as central to the navigation of its economy. The economic record of this time therefore serves as one indicator of the effectiveness of his role as India's first prime minister, a topic of perennial interest to so argumentative a people as us. Under Jawaharlal Nehru the Indian economy had been transformed from a colonial enclave to one with at least some of the prerequisites for sustained long-term growth while at the same time maintaining an autonomy from the superpowers vying for influence on a newly independent sub-continent. The acceleration of the rate of growth of the economy achieved in the Nehru era may be considered as a marker of this transformation. I have here provided both historical and comparative perspective on this acceleration, and argued that the achievement was indeed quite remarkable in the context. Further, the framework within which it had been achieved has a bearing on today's thinking on the ideal economic architecture for growth. Central to latter is the construct of economic freedom defined as absence of external control. Actually proffered as 'economics' since the implosion of the Soviet Union, this view is contradicted by the recent history of China where freedom, economic or political, is not a prominent feature of the landscape of a heaving economy[61]. While the situation in the Nehru era was a far cry from contemporary China

[60] Chibber (2003).

[61] Huang (2008).

both in terms of economic and political freedoms, India's growth performance of that period, engineered by the state, is a serious challenge to the thinking on how best to design public policy for economic growth that had attained prominence after the collapse of the Former Soviet Union.[62]

The historic role of the economic policies of the Nehru era need to be better understood. For sheer prescience it would be difficult to best the contemporary evaluation by Nehru's *alter ego* in the charting of a uniquely Indian economic journey. For a statistician, likely to have been ever tempted to resort to the calculus of probability, Mahalanobis's forecast made in the late fifties is markedly free of confidence intervals! He had averred: "One thing can be said with complete certainty. Jawaharlal Nehru has carried India into a new epoch. Whether there is a smooth transition or whether India has to pass through storms on her way to progress, it will be impossible to go back to a stagnant economy."[63] This prediction has acquitted itself. It must encourage us to view the recovery achieved by the policies pursued in the 1950s as a bridgehead to the higher growth rates that have followed. But a quickened economy *per se* is unlikely to have satisfied Nehru, much as it was a pre-condition for his aspiration, namely, the prosperity for his people. Even without critics such as Ram Manohar Lohia, Nehru could not but have seen that this was slow in coming. Some of this was revealed in the lines "Miles to go before I sleep ..." scribbled on a note found beside his deathbed. This refrain, extracted from the work of the American poet Robert Frost, is suggestive of how he had evaluated the progress made under his own leadership. Five decades later we are able to account for the outcome better. Nehru had resolutely, and almost single-handedly, started his country on a path to prosperity. However, it could hasten only slowly as the majority of his compatriots were yet to receive a reasonable education.

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[62] Rodrik (2006).

[63] Mahalanobis (1960), p. 563.

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