Table 1 shows unambiguousy that the agricultural sector grew very impressively under Nehru, recording the highest growth among all sectors and making a dramatic recovery from the colonial era. This can hardly be seen to result from negligence.[25] Indeed, the scale of this achievement and the role of political agency in the form of leadership is fully comprehended only when we study in some detail the state of Indian agriculture in 1947.

Though it is the deindustrialisation of India under colonial rule that has received most attention it is 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 in India with one particular famine in Bengal under the East India Company in the 18th century wiping out an estimated one-third of the population. These famines were directly related to the policies of extortionate taxation and forced commercialisation of agriculture pursued by the 7 Company. As historians have provided outstanding accounts and analyses of these events I go directly to summarise the findings of George Blyn on the trend in output in the first-half of the 20th century. Blyn had divided the period 1891-1947 into 10 overlapping 10-year slices which he termed "reference decades". He then estimated the average annual rate of growth and the change in the rate of growth across these reference decades for foodgrains and non-foodgrains separately. To help focus a little better on his findings I have collected in Table 3 the estimates for foodgrains. This 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. The output of rice, the grain consumed by the largest number in India then (and now), actually declines. His findings are summarised 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" [Blyn 1966:96]. The record of non-foodgrains is better with a far greater average growth rate in the aggregate. However, this reflects precisely the nature of the colonial project which was the exploitation of the natural resources and commandeering 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[26] force. Food supply for the native population faced collateral damage.

Table 3: Agricultural Growth in British India

Crop	Average Annual Growth over Ten Reference-Decades	Change in the Reference-Decade Rates of Growth
Aggregate	0.11	-0.17
Rice	-0.09	-0.03
Wheat	0.84	-0.09
Jowar	0.05	-0.12
Gram	0.26	-0.34
Bajra	0.72	-0.11
Barley	0.02	-0.55
Maize	0.51	-0.17
Ragi	-0.37	-0.23
Population	0.67	0.11

Source: Blyn (1966), p 96.

8 The performance of the economy in the Nehru era must be evaluated in light of the agricultural legacy of colonialism. To have brought about two accelerations[27] in the rate of growth of agriculture within two decades of the end of colonial rule is nothing short of spectacular, and places in perspective the lingering grievance that agriculture was ignored in comparison with the attention paid to industrialisation in the Nehru-Mahalanobis strategy. Indeed we need to recognise the reversal of the retardation of the agricultural sector in the first-half of the 20th century as one of the great achievements of independent India, and this was entirely achieved in the Nehru era. I submit this radically revised reading of the period.

4.2 The Public Sector Enterprise as a Black Hole

The second misperception of the policies of the Nehru era pertains to the idea of the public sector. In India today there is an unmistakeable frustration with the public sector. It is associated with a poor performance record, resented for its lack of innovation, disdained for its contempt of social responsibility and considered a draft on the public resources. On the last, an additional consideration from further left, beyond the left-wing parties often in power in some states, would be that it is financed disproportionately by the poor who are not among its principal beneficiaries. Much of this is not off the mark as a description of the true state of affairs. However, the belief, among most, that this outcome is intrinsic to the Nehruvian conception of the public sector is far from correct. In this section I undertake two tasks. 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 analyse the original idea of the public sector and its performance record during the Nehru period within the overall project of resource mobilisation. This would not be considered unusual, for the hallmark of any successful developmental effort is the mobilisation of resources. It is not necessary that the resources mobilised must be contained within the public sector. After all, private investment is an equally legitimate component of aggregate investment in an economy. However, in the context of Indian industrialisation, launched in the 1950s, a large part of this mobilisation would necessarily have had to be in the public sector as it was intended that the state would have the leading role here. For planning to be effective, there is required, if not a concentration in its hands, at least an adequate[28] fund base for the state. Where an economy is at a low income level the requirement is likely to be large, in turn requiring the productive surplus to come progressively into the public sector thus enabling it to maintain command over resources.[29] In this section, I first present views on resource mobilisation 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 mobilisation and the contribution of the public sector to it.

Resource Mobilisation

As the Second Five-Year Plan constituted the single largest instance of resource mobilisation during the Nehru era its documentation is likely to be the best source of the government's view on the question of interest to us here. In the section titled 'Financing' of the *Recommendation for the Second Five-Year Plan* by the Planning Commission (1956) we find, "Large financial resources would be required for the second plan. A small portion would dustry. This has generally gone unrecognised, and I shall return to consider at length both the approach to agriculture and the record of its performance in these years. But for now it is worth repeating Sivasubramonian's (2005) apposite assessment of the economic achievement of this period. He speaks of the economic recovery of the Nehru era as having been "swift, smooth and remarkable."[21]

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 value, the choice of the base year for prices is crucial. I have used Sivasubramonian's estimates of GDP as they provide data at constant prices for the entire 20th century. There are of course alternative estimates for the period 1900-47 and these give way to a very different insight into the period. For instance, Angus Maddison's estimates[22] of GDP growth in 1938-39 prices for this period show the average annual growth rate of per capita output during this period almost stagnant at 0.04 per cent per annum. This estimate would suggest a far more significant turnaround following the end of the colonial era.

Table 2: Economic Growth in India Compared

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

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

Growth Comparisons

I now turn to the second of the two standard comparators of the growth performance of an economy, 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. These were more or less on par with India in terms of per capita income in 1950. 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 Asian economies. 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 secondly, as stated, in terms of per capita income Korea and China had economies that were more or less on par with India in 1950. A noteworthy finding emerges. From the work of De Long (2004) we know that though 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 per cent higher than that of China. This is little known but is not entirely surprising. Actually, China was to pull ahead of India only a decade and a half beyond the Nehru era, in the late 1970s and following the reforms unleashed by Deng Xiao Ping. Possessed of this information we are led to speculate that admiration for Mao in India during his lifetime must have been based on grounds other than mere economic achievements. This is clear, for the revelations of the disastrous consequences of the Great Leap Forward – including an estimated 30 million deaths allegedly due to famine in the late 1950s – were received sanguinely here in India. While this may well be expected of the ideologically committed, one thing is clear from our comparison. In a comparison with China it now appears that Nehru had not left the Indian economy at any great disadvantage. The subsequent tearing away of China, and the falling behind of India in the growth-league tables, owe itself to causes other than his leadership.

Comparison with OECD Economies

No less revealing is a comparison of the growth in India during 1950-64 with long-term growth in the leading Organisation for Economic Cooperation and Development (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 [Krishna 1982] that independent India's record of growth till the late 1970s placed it lower than 100 economies 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 (Table 1) in the rate of growth of population. Now the measured rate of growth of per capita GDP is 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 [Maddison 1995] the rate of growth of per capita income of the 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 quite absurd as the growth of population is very likely endogenous with respect to the growth of income. This leads me to the observation itself. 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 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 [Bhat 2001]. Demographers (ibid) have put the rise in the rate of growth of population in the period that we are studying down to the increase in the fertility rate itself due to the decline in the incidence of malaria and widowhood, presumably due to improving public health outreach.

A methodological point needs to be made here that is 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 comparison in favour of the former, as it may appear, this actually tilts the balance in the direction of the latter. For we know that long-term growth of the industrialised economies has accelerated [Romer 1986] 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 transition in agriculture was to come within years of this speech made to India's chief ministers at the annual meeting of the National Development Council in December 1963, on which occasion Nehru had had the gall to also pronounce that, "... agriculture is more important by itself than any chief minister". An acceleration in the agricultural growth rate was to take place in the mid-1960s probably[17] even in 1964-65, the year of his death. Though he did not live to see its beneficial effects spread cross the Indian economy by stimulating other sectors, there can be very little doubt, as I demonstrate later, that this transition has much to do with the policies implemented by his government. At another level it would be difficult for a citizen in the 21st century to encounter a member of the political class as self-critical as we find Nehru in the passages that I have quoted from above. Across the world's democracies today, introspection would not be considered a virtue of political practice.

I now turn to economic growth in the India of the Nehru era.

Table 1: The Trend Growth Rate of GDP (in 1948-49 prices)

Sector	1900-01 to 1946-47	1947-48 to 1999-2000	1950-51 to 1964-65
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

The pre-1947 figure is for 'Undivided India' which includes the Indian princely states and Pakistan, but excludes Burma. Population growth is the compound growth rate.
Source: Sivasubramonian (2005).

3 A Record of Growth in the Nehru Era (1950-64)

We may use two sets of comparators to evaluate the growth performance of an economy. One is the record of preceding growth in that economy itself. The other is the contemporaneous growth of other economies similarly placed and the growth of leading economies at early stages of their own growth. We start therefore with a comparison of growth in the Nehru era with growth in the first half of the 20th 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 to see the economic performance of the Nehru era in century-wide perspective. In column 1 are the data for the years 1900-47. In column 2 are the data on the same indicators for the rest of the 20th century including the 17 years of Jawaharlal Nehru's prime ministership. In column 3 are presented the same indicators for the period 1950 to 1964, the year of Nehru's death. Read together the data convey two important points. First, not only does growth in the Nehru years amply exceed what was attained in the final half-century of colonial rule, but the quickening of the economy observed in the second half of the 20th century may be seen to have been *already* achieved[18] in the Nehru era. Secondly, 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 pathologically. In a poor economy with a low level of consumption of even the most basic goods, a faster growth of the commodity sectors is a desirable outcome.

Drawing Parallels: Industrial Revolution

The broad-based expansion of the economy during the Nehru era amounts to a transformation of the economy is, perhaps, more likely to readily recognised as such by economic historians. To stretch my argument a bit, I refer[19] to a debate among economic historians on the true significance of the industrial revolution agreed by them to have taken place in Europe in the middle of the 18th century. In this connection Joel Mokyr, a historian of technology, has observed that growth after the industrial revolution was not just higher but qualitatively different in at least three different respects from what had gone before. First, growth ceased to be a "niche phenomenon". Before 1750, it had been limited to relatively small areas or specific sectors. Second, while pre-1750 growth had seen "institutional change in the widest sense", technological change though not absent was far too slow and localised compared to the role it was to play afterwards. Third, "pre-modern" growth was vulnerable to setbacks and shocks both man-made and natural that made doubtful its sustainability. While it may not be entirely appropriate to transfer this description to the transformation of India during the Nehru era, as a certain amount of modern industry was in place by 1947, the parallels are there to see.

Though not all three of Mokyr's observations are evident from the data I have presented in Table 1, it would be agreed upon that the Nehru years witnessed widespread growth across the economy, a technological advance was fostered, and we now see that the growth in income has not only been sustained for over 50 years but the growth rate itself has actually been "hastening slowly".[20] However, two of Mokyr's comments on the significance of the industrial revolution appear to have been tailor-made for the period that we are studying here. First, in response to the observation that the growth achieved in the early stage of the revolution was not that much, he has responded that the change must not be seen as one of mere degree: "There is a qualitative difference between an economy in which GDP per capita grows at 1.5 per cent and one in which it grows at 0.2 per cent" [Mokyr 2005: 286]. While the parallel here between the data for the period Mokyr speaks of and India for our period is, as is evident from Table 1, close indeed, it is Mokyr's more general comment on the significance of the industrial revolution that is, in my view, of greater import. His evaluation is that, "It may have been slow, it may have been not all that industrial and even less revolutionary, it may not even have been wholly British, but it was the tap root of modern economic growth" [Ibid: 286].

To seek parallels between the growth following the industrial revolution in Britain and the growth of India during the Nehru era is a promising line of inquiry for a historian of the Indian economy. On the other hand, I shall now put to use Mokyr's characterisation of the industrial revolution not to draw a parallel but to highlight a difference between the two periods under comparison here. While growth in the Nehru era was distinctly Indian, in that it was not dependent on either foreign trade or foreign aid, it certainly was "not all that industrial". Indeed the greatest expansion of the economy in the Nehru years is not in industry at all. While the categories for which growth is recorded in Table 1 are somewhat broad, the data reveal that growth acceleration in the primary sector, largely comprising agriculture, had exceeded of the Nehru era. In the presence of increasing returns to scale the observed growth cannot be dismissed[23] merely as the arithmetic consequence of measuring a given increase against a "low base". That would at best be a statistical commentary. It misses that from an "economic" standpoint, "initiating" growth in the presence of increasing returns to scale, a low base is actually a serious impediment to growth, for the lower the scale of production the lower, proportionately, is the surplus available for investment.

Thus high growth on a low base is non-trivial; and the recognition as a substantial achievement its initiation in the 1950s – after half a century of stagnation – the compelling conclusion. 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 per cent in this plan, and 5 per cent 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 had been sharply appraised.

It is incontrovertible that the Nehru era witnessed resurgent growth. I have in a companion paper [Balakrishnan 2007] provided an account of the mechanism by which this had come about. Here I only state that this expansion was achieved mainly by a step-up in public investment within the guiding framework of the Nehru-Mahalanobis strategy described above.

4 Caricature of a Vision: Through a Glass, Darkly

In a final section I address some lingering misperceptions regarding the Nehru-Mahalanobis strategy and the outcome of the policies that had been adopted as a consequence. Though these are propagated by simplistic or, worse still, sentimental readings I consider it important to do so as the allegation that we continue to pay for a misguided road map is a serious one.

4.1 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 insufficient attention devoted to its problems. Negligence could also take the form of insufficient resources being devoted to the desired expansion of a sector. I have already suggested in the course of the discussion so far that agriculture had received direct attention and considerable resources during the Nehru era.

To widen the window I first present the view on the matter of two economists of the time, and then return to provide my own perspective. V K R V Rao, an early doyen of Indian economists, had had a ringside view of the Indian economy for over five decades starting about 1940. 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 crore, or 22.7 per cent, while economic infrastructure, like transport and communications, and power, accounted for Rs 5,737 crore or 37.7 per cent and social services for Rs 2,760 crore or 18.1 per cent. Industry accounted for only Rs 2,651 crore or 17.2 per cent of investment in the public sector during the 15 years covered by the three Plans [Rao 1971:72].

Raj Krishna was an economist in a very different mould from V K R V Rao. Chicago-trained and, in the political climate of the time, with a reputation for being somewhat of a right-winger, he was perhaps a more acute observer of the Indian economy than most of his peers. Overall, Raj Krishna suggests that there may have been mistakes only in the proportions in which investment had flowed into different channels rather than "...in the choice of the plural strategy which had always characterised Indian planning". On the specific issue that we are considering he has stated:

> ...Nehru, as indeed all planners, attached prime importance to agriculture. Nearly a fifth of the public sector plan outlay has been consistently allocated to agricultural development. In addition, heavy investments were made in industries producing agricultural inputs and processing agricultural outputs. There was a massive increase in the flow of credit to the agricultural sector from Rs 70 crore in 1950-51 to Rs 2,000 crore in 1975-76. Almost all agricultural inputs are subsidised; agricultural income is lightly taxed, and during the last 13 years minimum prices, covering the full cost of production have been guaranteed for all major crops. This set of policies can hardly be described as embodying the neglect of agriculture. But the fact still remains that the allocations for agriculture (particularly irrigation, extension and fertiliser production) and for rural infrastructure and social services could and should have been higher [Krishna 1982:60].

The facts of the case, at least with respect to the allocation of resources, as presented by Rao and Krishna must persuade all but the wilful disbeliever. Of course, it would be the case that in per capita terms the direct allocation to agriculture was certainly lower than that to industry as the rural population dwarfed every other cohort in the economy. But this would be a myopic approach to things. To state somewhat differently a point already made, planned industrialisation was hardly a rival to agricultural expansion as Mahalanobis had seen it. On the contrary, faster agricultural growth it was diagnosed needed more industrial inputs, whether fertiliser for nutrient replenishment, iron and steel for implements or cement for irrigation conduits. Moreover, agricultural production was relatively free from controls in the Nehru era while private industry was subject to stringent policy controls, notably licensing.

There is of course an entirely different approach to assessing the belief that agriculture was neglected. This is to account for intent by outcome rather than pronouncement. Now only the performance matters. We have already looked at the data on agricultural growth in the Nehru era though nested within the larger category of "primary sector". The data presented in