Central Economic Planning and India's Economic Performance (1950-65):
A Re-examination

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Abstract: The GDP growth rates recorded for the first fifteen years of Indian planning are far higher than those recorded during the colonial era. The prevalent view amongst economists, therefore, is that the introduction of central economic planning caused a significant improvement in India’s economic performance. This paper attempts a critique of this view. It argues that despite rather impressive GDP growth rates, the living standards of the masses stagnated during this period and thus the masses were not better off in this period than they were under the colonial government. It also points out that, given the inherent economic irrationality of central planning, this period witnessed a massive misallocation of resources.

Key Words: Economic development, central planning, economic calculation.

JEL Codes: O12, O14, O21, O43.

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I. INTRODUCTION

While under colonial rule during the first forty seven years of the twentieth century, India’s national income grew at the low rate of 1.3 per cent per annum. During the first fourteen years of this period, i.e., 1900-1914, the national income growth rate was 1.45 per cent, while per capita income grew 1 per cent per annum. Economic performance worsened between 1914 and 1947. The national income grew 1.08 per cent while per capita income was stagnant, recording a growth rate of 0.06 per cent per annum (Roy 2006, p.78). In stark contrast, the GDP growth rates recorded for independent India during the first fifteen years of central planning, i.e., during the years 1950/51-1964/65, were much higher and were consistently in the 3-4% range. The per capita rates during the same period averaged 2%, impressive when compared to the colonial days. Writing in 1965, K.N.Raj succinctly summarized the above contrast in the recorded growth rates when he said:

“The rate of economic growth that has been achieved in India since 1950-51 is 2 to 3 times as high as the rate recorded earlier under British administration. As a result, the percentage increase in national income in the last thirteen years has been higher than the percentage increase realized in India over the entire preceding half a century.” (Raj 1965, p 2)

A number of economists, after observing the above record of GDP and per capita GDP growth, have concluded that the introduction of economic planning caused a significant improvement in India’s economic performance. One should not be surprised that this list includes planning enthusiasts such as Raj, V.K.R.V.Rao, Sukhamoy Chakravarthy and Max Millikan. After all, for those who defend India's economic policies in the planning era, this boost given to India's GDP growth rate is the biggest achievement of Indian planning.

What is surprising, however, is that the same view is also held by Jagdish Bhagwati, a vigorous

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1 Given that taxes as a per cent of national income were a low 5-7 per cent, and given that net factor income from abroad was not sizeable, national income figures for pre-independence India serve as a good proxy for GDP figures.

supporter of the post-1991 market reforms and an eminent critic of India's experiment with planning. Over the years (Bhagwati and Desai 1970, Bhagwati and Srinivasan 1975, Bhagwati 1993), Professor Bhagwati has argued that India’s planning apparatus instituted an inefficient policy framework that stifled productivity and innovation. He has trenchantly stated that the “maze of Kafkaesque controls” that was imposed on India’s private sector during the planning years had “no rationale in economic or social logic.” (Bhagwati 1993, p.50) At the same time, he has on more than one occasion (Bhagwati 1993, Bhagwati and Srinivasan 1994) praised the pro-market reforms. Writing in 1994, when the reform process had just begun, he claimed that

“Prime Minister Nehru’s vision of a strong, independent India, with a sound economy generating rapid growth...is within our grasp if only the economic reforms are sustained and intensified.”

(Bhagwati and Srinivasan 1994)

Nevertheless, and seemingly at odds with his economic weltanschauung, Bhagwati had the following to say about India's economic performance during the years 1951-65:

“The overall performance, in terms of absolute and per capita incomes, of the three Plans is on the whole quite respectable....Furthermore, this performance represents a distinct improvement over the performance in any historical period for which information is systematically available; it certainly represents an acceleration of the growth we recorded...for the preceding five decades of India's modern history.”

(Bhagwati and Desai 1970, p. 64)

And writing more than two decades later, he does not seem to have changed his mind. Instead, he agrees with those who argue that “compared to the pre-independence period under British rule, the Indian growth rate (post-independence) has been remarkable.” (Bhagwati 1993, p.24).

It is quite surprising that an author so critical of planning in India should hold this view regarding India's economic performance under the first three Five Year Plans. Although Professor Bhagwati often finds fault with the GDP growth rate during this period for being lower than what it should have been and for being lower than the growth rates recorded in other developing countries such as the East Asian
economies, his opposition to planning seems rather weak.\footnote{Arvind Panagariya is another economist who holds views similar to Bhagwati. He too is a vocal critic of planning in India and is a supporter of the market reforms, and also believes that the first fifteen years of planning witnessed an improvement in economic performance. He attempts to escape the contradictions involved by arguing that the period 1950-65 was not one of extensive government controls over business but instead was a relatively liberal period in India’s economic development. (see Panagariya 2008). A critique of his views is, however, beyond the scope of this paper.} For if the institution of central planning did boost India's GDP growth rate and if this is interpreted as an indicator of a significant improvement in India's economic performance, why then the opposition to economic planning? One could argue that the poor growth rates of the late 1960s and 1970s were caused, not by the failures of central planning per se, but instead by planning gone astray and not done well. In other words, one could argue that there is nothing fundamentally or essentially wrong with the policy of centralized planning. Thus, instead of embracing market forces maybe the solution to India’s economic ills, come the decade of the 1990s, lay in a reform of the planning process to make it work right, the way it did under the first three five year plans.

This paper challenges the view that the introduction of planning led to a marked improvement in India's economic performance. I argue that, under the first three five year plans, India witnessed both stagnation in the living standards of the masses and massive mal-investment of resources despite the measured GDP growth. In doing so, I draw upon the works of the father-daughter combine of B.R. and Sudha Shenoy (B.R.Shenoy 1963, 1968); S.Shenoy 1971), whose analysis of the economic development of India during this period has heretofore largely been ignored. I also draw upon a broader literature (Lavoie 1985, Powell 2005, Higgs 2009) that critiques the policy of forced industrialization and busts the myth of “wartime economic prosperity” by applying the theoretical insight, first advanced by L.V.Mises (Mises 1920) and then elaborated upon by F.A.Hayek (Hayek 1935), that economic calculation is impossible in a centrally-planned command economy.

The following section describes the planning apparatus and the ideology underlying planning in
India. The third section provides evidence to show that there was a stagnation of living standards in India during this period. The fourth section argues that the massive amounts of resources devoted to the industrial sector constituted mal-investments and wasted resources. The final section concludes.

II. THE INDIAN ECONOMY UNDER ECONOMIC PLANNING (1950-65)

a. The Planning Apparatus

Central economic planning in India began in the midst of World War II. As noted by B.R.Tomlinson, in an effort to channel resources as per the requirements of war,

“...all mill production of wool textiles, all factory production of leather and footwear, all organized production of timber, nearly three-fourths of steel and cement production, over two-fifths of paper production, about one-sixth of cotton textile production and the whole of the normal quota of 600 million yards of cotton yarn had been directed away (by the colonial government) from the civilian economy to serve military requirements.” (Tomlinson 1992, p.277)

The huge reduction in the supply of consumer goods coupled with a whopping 700% increase in the money supply during the war years caused a savage rise in the prices of consumer goods. The response of the government was to impose a slew of price controls, distribution controls and rationing schemes for a host of commodities. The rationing and procurement apparatus for food-grains was particularly harsh and all-pervasive. As noted by the unofficial American Famine Commission,

“No country in the world, with perhaps the exception of Russia, has gone so far in controlling basic food distribution – not even Germany under the Hitler dictatorship...” (Quoted in Tomlinson 1992, p.279)

Furthermore, a system of import controls, capital issues controls and a rudimentary system of industrial licensing were introduced, all in the name of controlling inflation and conserving scarce foreign exchange.

Most of these controls outlived the war and were not dismantled at its climax. Instead, the
infatuation with economic control and planning spread to the Imperial government as well. Towards the end of the war, in 1944, it set up a Department of Planning and Development which, in the following year, issued “a Statement of Industrial Policy which foreshadowed in many ways the Industrial Policy Resolutions of 1948 and 1956.” (Shenoy 1971, p.21)

Upon gaining independence, the newly empowered Indian government continued to add to this apparatus of planning and enshrined many of the inherited regulations and powers of control in legislative diktat. The Planning Commission was instituted in 1950, and with Prime Minister Nehru at its helm, had the responsibility of drafting the document that was the cornerstone of the entire planning system, namely, the Five Year Plan (FYP). Each Plan was supposed to spell out the exact size of the investments to be made by the public and private sectors and how that investment was to be allocated across sectors. Furthermore, it would also include a list of targets to be achieved by various industries, thereby setting out specific production targets for the next five years.

The Industrial Policy Resolutions (IPRs) of 1948 and 1956 divided the industries in the economy into three broad categories. The first category included industries in which the state would either have a total monopoly or in which only the state could undertake any new investment. Existing private firms in these industries could continue to operate and expand but no new private firms could enter. The second category included industries in which the state would gradually establish new units while allowing new private firms to enter as well. And the third category contained those industries which would be the responsibility of the private sector. The state, however, could enter these industries if it wished to do so. In the IPR of 1956, for example:

“Seventeen industries, including heavy electrical plant, heavy castings, and forgings of iron and steel, were grouped into one category where the state would either have total monopoly or have exclusive right to establish new industrial establishments. Twelve other industries...were specified as the sector where the state would progressively establish
new units...The remaining industries were left largely to the initiative of the private sector, although naturally the state retained the option to enter.” (Bhagwati and Desai, 1970, p. 142-43)

While in practice the rigid categorizations of the IPRs were not always adhered to, it is quite clear that the government planned to build a sizeable public sector while simultaneously freezing the private sector out of a sizable chunk of the economy.

Having chosen not to nationalize the industries and to allow the private producer to exist, the Indian state armed itself to the teeth with a vast set of controls over the private sector. The Industries (Development and Regulation) Act of 1951 instituted the highly restrictive industrial licensing regime, the most important control over private industry in the entire planning apparatus. Under the Act, all private industrial undertakings had to register with the central government. No new industrial undertaking could be set up and no existing undertaking could be expanded without obtaining a license from the Government of India. Furthermore, the IDRA also “empowered the central government to assume direct management or control of industrial undertakings under certain circumstances” and it also “empowered the central government to control the prices and distribution of specified scheduled industries or undertakings.” (Panagariya 2008, p. 35)

The Essential Commodities Act of 1955 gave the central government the authority to “regulate or prohibit the production and control the supply, distribution, and price of certain enumerated commodities and of any other commodities which, by order may be declared 'essential’” (Hanson 1966, p. 494). The Companies Act of 1956 which in the opinion of A.H.Hanson constituted “one of the most detailed and stringent codes of business legislation to be found anywhere in the world” (Hanson 1966, p. 486), “laid down detailed regulations governing the establishment and management of companies, including the appointment of agents, the remuneration of directors, the manner of conducting board meetings, the manner of payment of dividends, etc.” (Shenoy 1971, p.23). Furthermore, The Capital
Issue Control Act of 1956 gave the government the power to control the issue of capital by joint stock companies.

Last but not least, there also existed the vast apparatus of import and export controls that were a carry over from the pre-independence days. These controls, tweaked and changed in some ways post-independence, consisted of an overvalued exchange rate and quantitative restrictions on the amounts of imports and exports of various commodities. Describing these controls as they existed between 1956-66, Bhagwati and Desai note:

“The import and exchange policy regime, throughout this period, aimed at comprehensive, direct control over foreign exchange utilization. Thus administrative decisions had to be made over the allocation of foreign exchange for practically all uses in the economy...Reliance on the direct allocative mechanism was thus almost complete during this period.” (Bhagwati and Desai 1970, p.283)

The controls described above were not mere ad hoc and unconnected interventions by the Indian state into the private sector. Instead, these controls fit snugly into the entire central planning apparatus. They were a means to an end, used by the Indian state to make private production and investment conform to the plan priorities. Private sector investment was to be “directed by the state, by physical controls operated primarily through an exhaustive licensing system combined with a detailed setting of 'targets' by the Planning Commission.” (Bhagwati and Desai 1970, p.231). Furthermore, as spelled out in the First Five Year Plan, the entire price system was to be subordinated to the needs and requirements of planning. Prices would no longer be set by the voluntary interactions of buyers and sellers on the marketplace. Instead, prices were to become mere parameters, tools in the hands of the state. In the words of the planners,

“...the maintenance of a structure of prices which brings about an allocation of resources in conformity with the targets defined in the Plan must be the consistent aim of economic policy.” (First Five Year Plan, Ch.2)
Along with the price system, fiscal policy, monetary policy and the entire banking system would be designed so as to enable the achievement of plan targets. Regarding the operation of the banking system under planning, the First FYP had the following to say,

“The proper discharge of its functions by the banking system will necessitate its operation more and more in the light of the priorities for development indicated in the Plan and less and less in terms of returns on capital. The banking system – and in fact the whole mechanism of finance including insurance, the stock exchanges and other institutions concerned with investment – will thus have to be fitted increasingly into the scheme of development visualized for the economy as a whole...”
(First Five Year Plan, Ch.2)

Thus, post-independence, a command economy was to be instituted in India. The planning apparatus was designed to ensure that it would be the state that decided how much would be saved and invested, how that investment would be allocated across different sectors and therefore what products should be produced. In order to make its plans come to fruition, the state had at its disposal a raft of controls to hassle and harry the private sector to do its bidding. Private enterprise, therefore, was to cease to exist. In fact, the characteristic function of private entrepreneurs, namely, the decision of what to produce and how much of a given commodity to produce were no longer to be made by them. The private sector was to be “private” in a legal sense only. From an economic standpoint, the private sector was to be a wing of the government, robbed of its crucial role of making any production decisions.

b. The Goal of Planning in India

Beginning in the second half of the nineteenth century, major changes began to ripple through the Indian economy, largely as a result of the economy being opened up to “the influences emanating from the rapidly growing areas centering on the North Atlantic.” (Shenoy 1971, p.13). There was growth in the division of labor, greater commercialization and more production for the market. The
second half of the 19th century and the first half of the 20th witnessed “the extension of commercial
crop cultivation (e.g. of cotton, jute, tobacco and oilseeds) for domestic and international markets.”
(Shenoy 1971, p.14). Cotton and jute industries as well as tea plantations emerged. In fact, at the time
of independence, India could boast of the world’s largest jute textile industry, the world’s sixth largest
cotton textile industry and of producing nearly half of the world’s total tea exports.

Despite these modernizing and industrializing influences, however, come 1947 and
independence from the British, India's economy was still highly agrarian, with agriculture contributing
more than 50% to the national income. The corresponding contribution of the manufacturing industry
was a low 12.27%. Furthermore, more than half of this manufacturing output originated in the
unorganized, small-scale sector. Thus, modern, large-scale manufacturing contributed just about 6% to
the country’s national income. (Sivasubramonian 2000). In terms of shares of employment, close to
75% of the total labor force was occupied in the agricultural sector, while less than 3% of the
workforce found any sort of employment in factory enterprises and mining. (Malenbaum 1971, p.23).

Production in the industrial sector was heavily biased towards consumer goods. Consumer goods
industries such as cotton textiles, jute textiles and the vegetable oil industries contributed 62% to total
industrial output, while the contribution of the iron and steel and engineering industries was a meager
11.5%. (Tomlinson 1979, p.33) In fact, circa 1947 India could hardly claim to possess a capital goods
industry at all and the country was heavily dependent on imports for the supply of machinery, transport
and electrical equipment, heavy and fine chemicals and other such basic industrial inputs. (M.D.Morris,
CEHI 2, p.642)

Given the production structure described above, it should come as no surprise that India was
primarily an exporter of agricultural commodities such as raw cotton, raw jute, food grains and oilseeds
and of light manufactured consumer goods such as tea, cotton textiles and jute textiles. India’s imports, on the other hand, largely consisted of capital goods, industrial inputs and manufactured consumer goods. (Roy 2006; Chaudhuri 1983)

The existing production structure of the nation irked the displeasure of the planners. They disapproved of the fact that India hardly produced any capital goods and only a few industrial intermediate goods at home. They believed that large-scale domestic production of these goods, which constituted the so-called “heavy and basic industries”, was the sine qua non of achieving economic growth. Increasing the domestic capital stock was considered essential for the increased production of consumer goods in the future. As expressed in the first FYP,

“…the key to higher productivity and expanding levels of income and employment lies really in stepping up the rate of capital formation. The level of production and material well-being a community can attain depends, in the main on the stock of capital at its disposal, i.e., on the amount of land per capita and of productive equipment in the shape of machinery, buildings, tools and implements, factories, locomotives, engines…” (First Five Year Plan, Ch.1)

The planners believed, in fact, that the nation’s dependence on imports for its meeting its capital goods requirements was the biggest obstacle in the path of its economic progress. Consider, for instance, the following passage from P.C.Mahalanobis,

“Why do we then import machinery? Because we have not started factories to fabricate heavy machinery needed for the production of steel, cement, etc...once we do this, and establish a heavy machine building industry in we shall be able to use our own iron ore and with our own hands produce steel; and then use the steel to produce more machinery...our dependence on foreign supplies will be greatly reduced. The main obstacle to rapid industrialization thus removed, we shall be able to increase production and employment quickly.” (Mahalanobis 1961, p. 48, emphasis mine)

The immediate goal of planning, therefore, was to diversify India’s production base and to rapidly industrialize the nation; “to build up our country industrially and bring about in fact that long
deferred industrial revolution in this country.” (Nehru, quoted in Nayyar 1972). The planners envisioned India not as a “poor, relatively static, primarily agricultural and traditional economy”, but as an economy that was “richer, dynamic, industrial and modern.” (Malenbaum 1973)

But what of the agricultural and consumer goods sectors? Here too the desire was for an across the board “Indianization”. After all, what was the point of stepping up the domestic production of capital goods if they could not be used in the domestic production of agricultural and consumer goods? Consumer goods that were earlier being imported must now be produced at home; and exports of the agricultural commodities and consumer goods that were already being produced in India would be discouraged. Instead, the supply of these goods was to be reserved for the home market.

Thus, inspired by the ideology of economic nationalism, the overarching goal of planning in India was to achieve economic growth and an improvement in living standards through the pursuit of economic self-sufficiency. This entailed a radical upheaval of the existing production structure, with an increased emphasis on the “commanding heights” of the economy, which was to be achieved by utilizing the various powers of control provided by the planning apparatus. Public sector investment would focus on heavy and basic industries like engineering goods, machine tools, machinery and heavy chemicals. Private sector investment would be forced into these sectors via the industrial licensing system. These investments would be made profitable with the use of price controls, an overvalued exchange rate and controls over existing imports of capital goods and industrial intermediate goods. And controls would be placed on the export of domestically produced agricultural and consumer goods, increasing their supplies in the home market, while imports of the consumer goods being imported would be restricted.
III. FORCED INDUSTRIALIZATION IN PRACTICE: A STAGNATION OF LIVING STANDARDS

During the fifteen years under consideration, total investment in the economy witnessed a 3.4 fold increase, with government investment expenditure increasing 4.4 times and private investment expenditure increasing 2.4 times. The annual level of investment in the economy rose by 232 per cent, from Rs. 7540 million to Rs. 17550 million (current rupees) (S. Shenoy 1971, p.30, 55). The lion’s share of these resources flowed into the industrial sector. Total public sector investment in industry increased from Rs. 550 million during the First Plan years to Rs. 15200 million during the Third Plan (current rupees), while the corresponding figures for private sector investment in industry were Rs. 2330 million and Rs. 10500 million respectively (current rupees) (Draft Fourth FYP, p.11).

The majority of the resources channeled into the power and transport sectors must also be included in total industrial investment, given that the bulk of the investment under these two heads went towards fulfilling the requirement of industry. The industrial sector accounted for 65 per cent of electricity consumption during this period while domestic consumption accounted for a meager 7.5 per cent (S. Shenoy 1971, p.47). With respect to investment in the transportation sector, the Second Five Year Plan frankly admitted that “since the second world war the transport system has been increasingly oriented to serve the needs of industrial development” and that the Plan itself aimed to “carry this process much further” (Second FYP, Ch.21). This industry-bias is also reflected in the fact that the railways, which accounted for 63 per cent of total transport investment during this period, generated only a 44 per cent increase in total passenger kilometers, while the increase in freight carried was a much higher 120 per cent (Fourth FYP, p.68). Total investment expenditure under these three heads, i.e., industry, power and transport, accounted for roughly 59 per cent of total public sector expenditure and nearly 50 per cent of total investment expenditure (private and public) during the Second and Third Plans (S. Shenoy 1971, p.49-50).
In keeping with the ideology and aims of the planners, the focus within the industrial sector was on the basic and heavy industries. Over the course of the Second and Third Plans, the metal, machinery and chemical industries together accounted for as much as 70 to 80 per cent of the total planned expenditures in industry (Bhagwati and Desai 1970, p.85). The Draft Outline of the Fourth Five Year Plan also observed that,

“A special feature of industrial development, especially after the commencement of the Second Plan in 1956-57 has been the growth of capacities in steel, aluminum, engineering, chemicals, fertilizers, and petroleum products. Apart from these large investments have been made in industries producing heavy electrical equipment, heavy foundry forge, heavy engineering machinery, heavy plates and vessels, etc...” (Quoted in Bhagwati and Desai 1970, p.85)

The consumer goods industries, on the other hand, were neglected; accounting for roughly a quarter of total investment in industry undertaken during the decade 1956-66. A host of controls were placed over these industries in order to deliberately limit their output and their total demand for investible resources. The modern cotton textile industry, the biggest and most prominent of the mass consumer goods industries, was singled out for especially rough treatment. Raw cotton could only be imported “on license from government against the ‘availability of exchange’ and official permission was required for mills to buy and sell this raw cotton. “The setting up new units and the addition of spindles or looms in existing units [were] controlled by government” and the Textile Commissioner’s Office decided what range of textiles a mill could produce (S.Shenoy, 1971, p.24). Furthermore, while the industry’s output was in these ways restricted, the output of the higher cost, less productive small-scale cottage textile industry was favored and subsidized (Malenbaum 1971, p. 72).

The fortunes of the agricultural sector during this period stand in stark contrast to those of the industrial sector. As Joshi and Little correctly point out, the attitude of the planners towards the agricultural sector was one of “misplaced optimism that agricultural output could be increased at low
cost by institutional changes, such as cooperative farming” coupled with an “inadequate recognition that the input base of this sector was weak and needed radical improvement” (Joshi and Little 1998, p.48). This attitude is reflected in the public sector investments in agriculture, with the sector accounting for a meager 13 per cent of actual public sector investments between the years 1951 and 1969. Furthermore, a sizeable chunk of this (25-35 per cent) was spent on funding the above mentioned institutional changes, i.e., on programs such as community development and the co-operative movement; programs which were run inefficiently and which were, at best auxiliary and peripheral to agricultural production (S.Shenoy 1971, p.53). Over and above this direct public sector investment into agriculture, a considerable sum of money (roughly Rs. 11000 million in current rupees) was spent on creating irrigation capacity, of which nearly 50 per cent went unused during the first plan years and nearly 23 per cent still remained unused in 1966. The expenditure on irrigation also did not succeed in increasing the total area irrigated as a proportion of total cultivated area, with this figure remaining at a constant 17.5 per cent through the period (S.Shenoy 1971, p.53).

The relative neglect of the agricultural sector vis-à-vis the allocations of public sector investment during this period went hand in hand with a decline in private capital per head in the rural areas. According to one estimate, that of Tara Shukla, gross private capital formation in land, livestock, implements and private irrigation witnessed a 17 per cent increase between 1950-51 and 1960-61. Given that the population grew 22 per cent during this period, this amounted to a fall in private capital formation per capita (S.Shenoy 1971, p.54). The estimates of the Reserve Bank of India, on the other hand, are more pessimistic. According to them the decade spanning the years 1951-52 to 1961-62 witnessed a significant 46 per cent reduction in private gross rural fixed capital formation from Rs.6500 million to Rs.31600 million in constant prices, the net result being a rather drastic fall in per capita private capital invested in agriculture (S.Shenoy, 1971, p.54-55).
The vast amount of resources channeled into heavy industry translated into a significant increase in output. Output in the modern industrial sector increased by 191 per cent over the course of the first three Plans, with the output of the basic or intermediate good industries growing by 203 per cent and that of the heavy or capital good industries growing by a huge 292 per cent during the Second and Third Plans (Malenbaum 1973, p.135; S. Shenoy 1971, p.40). Disaggregating further, among the mechanical engineering industries, the ten year period from 1955/56 to 1965/66 witnessed a 3525 per cent growth in machine tool output, a 440 per cent rise in the output of cotton textile machinery, a 3750 per cent increase that of sugar mill machinery and a 1466 per cent increase in the output of diesel engines. In the electrical engineering industries, the fifteen year span from 1950-51 to 1965-66 witnessed a 635 per cent increase in electric motor output, while in the chemical industries sulfuric acid registered a 555 per cent increase in output and soda ash a 635 per cent increase. Among the intermediate goods industries, steel output registered a 344 per cent increase and aluminum output a 1450 per cent increase during the same period. 4

The increase in output recorded by the consumer goods industries, in keeping with the low level of investible resources devoted to them, was a far less impressive 61 per cent. Furthermore, within the consumer goods sector, growth in the output of urban luxury goods consumed by a narrow urban elite far outstripped the growth in the consumer goods that featured in the consumption pattern of the broad masses, especially the rural masses. The distinction between these two types of consumer goods is especially relevant in a country as poor and rural as India was during this period, with nearly 82 per cent of its total population living in the villages.

Thus, between 1950/51 to 1965/66 the output of automobiles grew by 318 per cent, that of

4 All data regarding output growth in this paragraph is taken from GOI Economic Survey 1968-69, table 1.14.
sewing machines grew by 1200 per cent and the output of electric fans by 582 per cent. On the other hand, when one turns to the output performance of the one industrial consumer good that entered the consumption basket of the broad masses, namely, cotton textiles, a far bleaker picture emerges. Total output of cotton cloth grew by 76 per cent during this period, from 4215 million meters to 7440 million meters, with an annual rate of growth of 3.8 per cent, roughly in line with the recorded GDP growth rate. However, the bulk of this increase consisted of output growth in high cost, subsidized handloom cloth, with this sector recording a compound annual growth rate of roughly 9 per cent. Output in the low cost, factory-based cotton textile sector grew at a far lower rate of 1.7 per cent, a rate significantly lower than the recorded GDP growth rate for this period.

Per capita availability of cotton cloth rose from 11.0 meters per head per year to 14.6 meters per head per year over the fifteen year period 1950-51 to 1965-66. Nearly all of this increase took place during the First Plan, i.e., in the five years from 1950-51 to 1955-56, when the per capita availability grew from 11.0 meters to 14.4 meters per head per year at an annual compound rate of 1.8 per cent. The bulk of this increase, however, represented a recovery to existing pre-independence production capacity after the dislocations and drop in output caused by the Second World War and the ravages of partition. Thereafter, per capita cotton cloth availability virtually stagnated over the following decade. Given that in 1938-39 per capita cotton cloth availability in India was already 13.1 meters per head per year, the recorded annual growth rate of per capita cotton cloth availability during the first three Plans over pre-independence levels was barely 0.8 per cent, far lower than the rate of growth of per capita GDP. Furthermore, as pointed out above, the bulk of even this meager increase consisted of increased per capita availability of higher cost cloth from the traditional sector.

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5 All data regarding consumer goods output in this paragraph is taken from GOI Economic Survey 1968-69, table 1.14.  
6 Above data is from GOI Economic Survey 1968-69, table 1.11.
Food grain (cereals and pulses) output in 1964/65 was 62 per cent higher than the corresponding figure in 1950/51, increasing from 55 million tons to 89 million tons. However, if we also take the drought year of 1965-66 into consideration, the growth of food grain output was a far lower 31 per cent; an annual growth rate of 2.2 per cent over the period as a whole. The bulk of this increase came in the first five years, with food grain output growing a mere 0.04 per cent per annum during the decade 1955-56 to 1965-66. In fact, total food grain production in 1965-66 stood at 72 million tons, a full 17 million tons lower than that of 1964-65, and a bare 3 million tons more than the food grain output in 1955-56. This massive fall in output caused by drought is probably the best indicator that the vast sums of money spent on irrigation were rather wasted and produced barely any result, with agriculture as monsoon-dependent in 1965 as it was in 1950.

The level of per capita food grain availability per day rose from a level of 13.9 ounces per head per day in 1950/51 and rose to 16.7 ounces in 1964/65. The per capita availability in the following year of 1965-66 was a much lower 14.2 ounces. Here too more than half of the increase was recorded in the first five years, i.e., from 1950-51 to 1955-56, when the level of availability rose from 13.9 ounces to 15.2 ounces per head per day. Thereafter, per capita food grain availability levels remained more or less stagnant or declined.

The situation actually looks far bleaker if one takes into consideration the per capita availability of domestically produced food grains, which remained stagnant at 14.9 ounces per head per day through the period 1955-56 to 1964-65. This level of availability was really low, and below the nutritional minimum prescribed by the government of India in its jail and army rations. (Shenoy 1971, p. 68) It follows, therefore, that per capita food grain availability during this period only rose because food grain imports rose, from 1.4 million tons in 1955-56 to 7.5 million tons in 1964-65. In fact, food

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7 All data regarding agricultural output in this paragraph is drawn from GOI Economic Survey 1968-69, table 1.7.
grain imports showed a secular increase throughout the fifteen year period under consideration, from an annual average of 1.7 million tons (2.7 per cent of domestic production) during the First Plan years to an annual average of 6.4 million tons (7.9 per cent of domestic production) during the Third Plan.\(^8\) This further underscores the sorry state of India agriculture given that this period actually witnessed a *rise* in the share of the agricultural sector in total employment from a high 68.4 per cent of total employment in 1950-51 to an even higher 72.2 per cent in 1960-61 (S. Shenoy 1971, p. 36). We thus had the strange and ironic situation wherein the world’s largest agricultural nation, with nearly three-fourths of its vast population employed in the agricultural sector, actually had to rely on food grain imports to raise its level of per capita food grain availability to attain minimal nutritional levels!

Thus, we see that the highest output growth rates were recorded in goods far removed from mass consumption, namely, in the heavy and basic industries and in the elite, luxury consumer goods. On the other hand, the lowest rates of growth were recorded in the output of goods that really mattered to the broad masses – food grains and cotton cloth. And this growth performance was largely in keeping with the allocation pattern of investible resource during this period. As pointed out earlier, the rate of growth of cotton cloth and food grain output during the Second and Third Plans was far below the recorded GDP growth rates. The growth rate of output in the low cost, factory based cotton textile sector was far lower than the GDP growth rate for the entire period stretching over the three Plans. The amount of cotton cloth per capita and the amount of food grain available per capita did not fare much better. The growth rate of both was significantly below the growth rate of per capita GDP and both barely increased over their pre-independence levels. As a result we can conclude that while GDP growth rates of 4% and a per capita GDP growth rate of 2% might have been far higher than any corresponding figures recorded pre-independence, they definitely did not signify any significant improvement in the standard of living of the broad masses; and thus the fifteen years in question not a period of significant

\(^8\) Data from GOI Economic Survey 1968-69, table 1.9.
economic progress.

**IV. INVESTMENTS IN INDUSTRY – WASTED RESOURCES**

In the previous section we noted that a rather impressive GDP growth rate during the period 1950-65 went hand-in-hand with a stagnant or barely improving standard of living for the masses. One could try and argue, however, that this period merely witnessed a shift along the production possibilities frontier for the Indian economy. Yes, the per capita availability of essential commodities like food-grain and cloth did not increase significantly or remained stagnant, but that is because the majority of the savings in the economy were channeled into the heavy and basic industries. Consumption was reduced, but only at the expense of increased investment and capital formation; and while this may not result in a rise in living standards in the short run, it was necessary for raising living standards in the long run.

A number of criticisms can be brought forward against the above argument. To begin with, it fails to note that at the time of independence India had a comparative disadvantage in the production of capital goods and that the bulk of the industrial expansion during this period took place “in defiance of the doctrine of comparative costs” (B.R.Shenoy 1963, p.27). It was precisely because India’s costs of production were “uneconomic over a wide range of industries, relatively to the costs abroad” that the planners had to envelop the economy in a mesh of controls and had to “force the establishment of industries – by banning or restricting imports and by offering inducements to domestic manufacturers” (B.R.Shenoy 1963, p.5). This also explains why the pre-independence Indian economy did not boast of a capital goods sector despite the existence of a robust domestic demand for capital goods, with the large cotton and jute textile industries providing a huge and ready market for textile machinery, machine tools, and the chemical industries. In fact, Indian entrepreneurs made numerous attempts to kick-start the heavy and basic industries at home, all of which ended in failure because they were
unable to compete against more efficient competition from abroad.  

It seems, therefore, that the goals of rapid industrialization and economic self-sufficiency were uneconomic, with the costs involved outweighing the benefits. Resources would have been more efficiently allocated if they had been devoted to lines of production in which India seemed to have a comparative advantage, namely, the production of agricultural commodities and consumer goods such as cotton textiles. After all, India had competed successfully in the world market in the production of these goods throughout the pre-independence era. It follows, therefore, that one could expect the marginal productivity of investment in these lines of production to be higher than the corresponding marginal productivity of investment in the heavy and basic industries. And this is precisely what is borne out by the empirical evidence at hand. According to Sudha Shenoy, during this period it was estimated that 10 million rupees invested in agriculture would have added Rs. 5.7-6.9 million worth of output. The same amount invested in the mill textile industry was estimated to yield about Rs. 3.6 million in output, but only about Rs. 1.8-1.9 million when invested in the heavy industries (S. Shenoy 1971, p.70). B.R. Shenoy, in turn, states that in the heavy industries the “additions to the national product from the additions to investments are estimated at under 20 per cent of the invested resources”, while in agriculture and the consumer goods industries the corresponding figure was a much higher 70 per cent (B.R. Shenoy 1963, p.4). Yet, ironically, it was precisely the agricultural and the consumer goods sectors that were neglected during the first fifteen years of planning; and it was precisely these sectors which were starved of capital, whose exports were controlled and whose output was constrained from expanding.

It should not be surprising, therefore, that the bulk of the capital goods and industrial

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9 For a detailed analysis of the many aborted attempts at establishing capital goods industries in pre-independence India, see Ray (1979).
intermediate goods that were produced domestically were unable to compete on the world market and in fact turned out to be more or less unexportable. Thus in 1966-67, despite a full decade of export promotion measures, these goods formed just 11.6 per cent of India’s total exports (by value). On the other hand, India’s “traditional” exports, goods which the country had been exporting prior to independence, continued to account for nearly 90 per cent of exports, despite the number of export controls had been placed on these commodities. (Shenoy, S. 1971, p. 44).

The Indian planners, however, were in no mood to be bogged down by mundane considerations of relative costs and benefits. From the arguments they advanced to justify their policies, it is evident that they treated rapid industrialization and “Indianization” of production as axiomatic, i.e., as ends to be pursued regardless of the costs involved. In fact, in a speech delivered by Nehru at a meeting of the National Development Council he says precisely this when he states,

“We must give up the idea of continually getting machines from abroad. We must build them here. Anything that comes from abroad is more expensive than the one produced by Indian labor, even though it may cost ten times as much...we must aim at producing the machines and all the basic things here.” (Nehru 1957, p. 18, emphasis mine)

However, not only were the planners keen on pursuing ends that were clearly uneconomic. They also could not help but pursue them in a fog of economic irrationality. As the Austrian economist Ludwig von Mises (1920, 1949) pointed out, the free exchange of factors of production in a centrally planned economy is impossible given that a single entity owns all the means of production. Such an economy is characterized by the absence of factor markets and therefore by the absence of factor prices that reflect opportunity costs. Thus the central planner, unable to compare prices and cost, to weigh revenue against expenditure, and therefore robbed of the profit-loss mechanism, cannot solve the fundamental economic problem, namely, the employment of “the available means in such a way that no want more urgently felt should remain unsatisfied because the means suitable for its attainment were
employed – wasted – for the attainment of a want less urgently felt” (Mises 1949, p.208). And this argument holds true regardless of what the planner’s ends are, i.e., regardless of whether the planner’s aim is to satisfy the wants of consumers or whether his aim is to satisfy ends that he arbitrarily considers important. In other words, central economic planning necessarily involves economic irrationality.

Furthermore, as Hayek (1935) argued, in the absence of meaningful factor prices planners can never have the knowledge required to efficiently allocate scarce resources. Don Lavoie summarized Hayek’s core thesis when he says,

“The knowledge problem is the contention that a central planning board, even if very well intentioned, would lack the knowledge to combine resources in a manner that is economic enough to sustain modern technology. The choices concerning which methods of production should be used – out of a virtually unlimited number of possible methods – could not be made intelligently enough by a comprehensive planning apparatus, and so must be left to emerge as an unplanned outcome of competition among separate owners.”

(Lavoie 1985, p. 52-53)

Proponents of central planning might object to the above argument. They might claim that the planner’s problem is purely technological in nature and is in no way connected to human valuations. The problem that the planner faces is not one of ensuring that the scarce factors of production are allocated towards satisfying the most highly valued ends but instead is an engineering problem, one of making sure that maximum output is derived from a given quantity of inputs. However, as Mises (1949, p.207-08) pointed out, the economic problem would only disappear in a world where all the factors of production are either purely specific or purely non-specific. In such a world there would be no problem of factor allocation since each factor could be employed in only one, unique line of production (the purely specific case) or there would be only one factor of production (the purely non-specific case). Only in such a world would the planner’s problem be technological in nature, one of ensuring the
production of maximum output from a given set of inputs. The real world, however, is characterized by factors of production that are neither purely specific nor purely non-specific. As a result, Mises notes that

“The facts that there are different classes of means, that most of the means are better suited for the realization of some ends, less suited for the attainment of some other ends and absolutely useless for the production of a third group of ends, and that therefore the various means allow for various uses, set man the tasks of allocating them to those employments in which they can render the best service.’ (Mises 1949, p.208)

In a market-based economy, it is the multitude of private entrepreneurs who solve the economic problem; who in the process of deciding how to allocate capital among the different lines of production, simultaneously decide what commodities are to be produced and how much of each commodity is to be produced. These numerous private entrepreneurs, desirous of using the factors of production for the production of various goods, bid for them in the factor markets. The factor prices that emerge from this bidding process reflect the opportunity costs of employing the factors. Thus, if an entrepreneur employs certain factors of production in a line of production and emerges with a profit, it means that he has used the factors in a socially beneficial manner. It implies that the consumers are willing to pay a price higher than the costs he has incurred, thereby indicating that the factors have been used to produce a good that the consumers value highly enough. On the other hand, if the entrepreneur earns a loss, it implies that the factors have been misallocated and could have been used to satisfy some more highly valued end.

The situation is altogether different in a centrally planned economy. Here there exist no private entrepreneurs. Instead, there exists only one over-riding decision maker – the state. The state is the supreme and sole allocator of capital and thus singlehandedly decides how resources are to be allocated. This is the case both in an economy wherein the state has nationalized all industry (as in the
erstwhile Soviet Union) and in an economy like India’s during the period in question, where there exists a private sector but minimal private entrepreneurship; where the state has assumed powers of control over the private sector and directs nearly all private sector investments. In such a command economy, factor prices do not reflect opportunity costs because the essential pre-condition to ensure that they do, namely, the existence of multiple allocators of capital, is absent. Instead they are mere parameters used by the planner to allocate resources as he deems fit. As a result, the system of profit and loss breaks down and therefore the economic problem cannot be solved. Benjamin Powell, in a paper that advances a similar argument against state development planning in East Asia, succinctly summarizes what has been said above when he states that

“The decision makers in the government planning bureau have no method to evaluate the opportunity cost of another industry’s potential use of resources. The opportunity cost is the subjective loss suffered by the person who would have received resources if the government had not interfered with the market process. Since the planning bureau has no way of evaluating this loss, it cannot determine if the loss in output from other industries caused by promoting one industry is greater or less than the benefit produced. The planning agency has no way of knowing if it is promoting development or retarding it.”
(Powell 2005, p. 308)

Or as Lavoie trenchantly puts it,

“…any attempt by a single agency to steer an economy constitutes a case of the blind leading the sighted.”
(Lavoie 1985, p.4)

Thus the central planner, faced with a plethora of production possibilities, has no economically rational way of deciding which ones to undertake and which ones not to. Consider, for instance, the predicament of the Indian planners. They knew their overall goals – to produce capital goods and industrial intermediate goods domestically and to gradually “Indianize” the production of all goods. But how much of each capital good should they produce? What production target for textile machinery should be set in the Five Year Plan? What should be the target for machine tool production? What
goods should they produce less of to facilitate this increase in machinery and machine tool output? Should they choose the more labor intensive or the more capital intensive method to produce machinery? Should they choose the longer process of production or the shorter process of production for the production of machine tools? The Indian planners had no way to make these choices based on economic criteria.

Bhagwati and Desai (1970) repeatedly criticize the Indian planning authorities for lacking “well-ordered priorities” and for not making choices based on “explicit economic criteria” (Bhagwati and Desai 1970, p. 254-55); and for making “choices about the magnitude of investment in heavy industry as also the pattern of such investments…without reference to notions of economic calculus.” (Bhagwati and Desai 1970, p.239) They go on to note that,

“The licensing authority and the departments which service it are loaded at any one time with hundreds or thousands of proposals, without clear and definite criteria to appraise their worth in terms of relative costs…” (Bhagwati and Desai 1970, p.255)

And they repeatedly decry the fact that “there has been a tendency to rely upon various ad hoc criteria” when it comes to deciding how scarce resources must be invested (Bhagwati and Desai 1970, p.254).

What such critics of the Indian planning process fail to note is that, given the impossibility of economic calculation in a centrally planned economy, the Indian planners could not possibly have made choices on the basis of relative costs and by using the economic calculus. They instead had to make use of various ad hoc criteria in their resource allocations.

It should, therefore, come as no surprise that one finds the Indian economy during this period riddled with economic irrationalities. To begin with, there was the emergence of significant “imbalances” in the Indian economy by 1965. Far more capital goods had been produced than were demanded and thus many of the heavy and basic industries were burdened with excess, unutilized
Ahluwalia (1985) reports that by 1965 the capacity utilization in the capital goods industries was only around 65% and that it remained close to this number or lower for the next ten or twelve years. She also goes on to note that this “decline in capacity utilization of the capital goods industries…reflected some deep-seated problems, including the incompatibility of the structure of capacities with the evolving structure of demand” and that “in a multi-product industry such as steel, production targets were set in terms of physical tonnage with little regard for product-specific demands”, thereby implying that the emergence of excess, unutilized capacity was the result of the problems inherent in central planning. (Ahluwalia 1985, p.110-11). Frankena (1971) paints a bleaker picture; pointing out that capacity utilization in some of the capital goods industries were much lower. For example, only 27 per cent of the available capacity in the heavy electrical equipment industry was utilized, while the corresponding figure for mining machinery stood at an even lower 16 per cent.

Furthermore, most of the capital goods that were produced in India, as Frankena (1974) points out, “were manufactured to designs which were technologically obsolete or economically inefficient” (Frankena 1974, p.249). He goes on to note that the designs chosen were not only inefficient and obsolete from the point of view of the advanced economies, but were so even when compared to those chosen in other developing economies. He lays much of the blame for such irrationality on the economically arbitrary criteria on the basis of which the government handed out industrial and foreign exchange licenses (Frankena 1974, p.258).

Last but not least, the growth rate of the mass consumer goods industries, which had been low throughout the period under consideration, continued to be disappointing throughout the next fifteen years, i.e., through the second half of the 1960s and through the 1970s. As Isher Ahluwalia notes, throughout the latter period the consumer goods industries did not witness any boost in output and “the
two most important consumer oriented industries, i.e., food manufacturing and textiles, were among the slowest growing industry groups.” (Ahluwalia 1985, p. 15). Shetty (1994) states that the decade 1966-67 to 1976-77 witnessed a “steady decline in the per capita domestic availabilities of key wage goods [food grain and cotton cloth]” as a result of “a deceleration in growth rate of agricultural output” and a very low growth rate of per capita cotton textile output (Shetty 1994, p.138-39). Thus, the vast amount of resources invested in the heavy and basic industries failed to achieve their primary purpose, namely, an increase in the future domestic production of consumer goods and an improvement in the future living standards of the masses.

IV. CONCLUSION

In our introduction we delineated the prevalent view held by most economists, i.e., that the institution of planning in India caused a boost in the GDP growth rates and therefore led to a marked improvement in economic performance. It follows from our discussion in section III, however, that despite the rather impressive GDP and per capita GDP growth rates recorded for this period, these fifteen years under planning witnessed stagnation in the output of the two consumer goods that entered the consumption basket of the broad masses – cotton cloth and food grain. The growth in per capita availability of both these goods was far lower than the recorded per capita GDP growth rate for this period. It follows, therefore, that there was no significant improvement in the living standards of the masses during this period.

Section IV showed that the vast amount of resources invested in the heavy and basic industries constituted mal-invested resources. A lot of capital was invested in producing capital goods and industrial intermediate goods at home which could have been procured at much lower cost from abroad. Not surprisingly, the bulk of these proved to be uncompetitive on the world market. Furthermore, as predicted by the argument of the impossibility of economic calculation under central
planning, this forced industrialization was characterized by a number of economic irrationalities – phenomena which would have never occurred in a market based system with an operational profit-loss mechanism. Thus, a significant chunk of the capital goods produced were either in excess of domestic requirements or could not be utilized because of the lack of adequate supplies of complementary factors of production and sported designs that were inefficient and obsolete, even by developing country standards. Most significantly, all this investment in the “commanding heights” of the economy failed in its primary purpose – that of increasing the future output of consumer goods and agricultural commodities.

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