

# Stagnated Indian economy crying out for an overhaul

by Ramtanu Maitra and Susan Maitra

A series of reforms which began with a two-staged devaluation of the Indian currency, the rupee, in early July, has somewhat overshadowed the weak performance of the Indian economy during 1990-91 for the second year in a row. The devaluation was quickly followed by a new industrial policy, new fiscal measures enumerated through the fiscal year 1991-92 budget, and a trade reform. The hope of a more effective economic system has largely diverted the critics' attention from what particularly went wrong in these past two years; instead, analysts are preoccupied with a raging debate as to what the future holds. But before reviewing the government's reform package and the political furor it has unleashed, which we will do in a future article, it is useful to look at the actual state of India's economy.

As the *Economic Survey 1990-91*, a government of India publication, acknowledges at the outset, the Indian economy faced uncertainties. These, according to the publication, were due to "the effects of the political situation at home, and the persistent fiscal imbalances were accentuated by the Gulf crisis which intensified strains on an already weak balance of payments position." India's acute balance of payments situation has been a subject of discussion throughout the last two years.

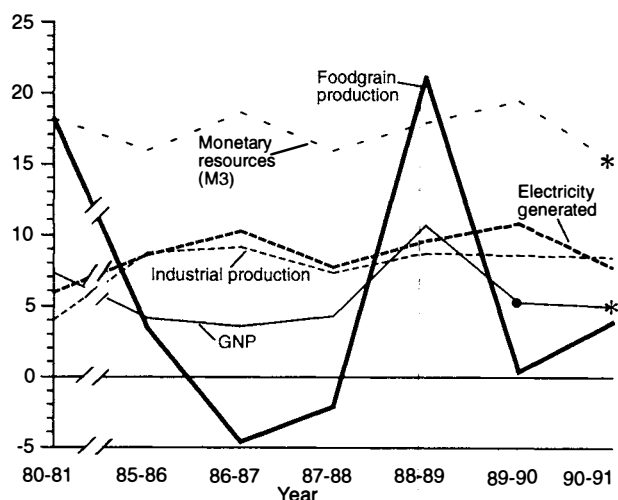
Nonetheless, despite these constraints, India's Gross National Product in real terms grew during fiscal year 1990-91 at a rate of about 5%—comparable to the previous year's growth rate but less than half of the 1988-89 figure. Among the major sectors, industrial production did the best, showing a growth rate of 8.4%, followed by electricity generation (7.7%), and agricultural production (4%). Most of the growth, however, was buoyed by large monetary expansions (19.4% in 1989-90 and 15.1% in 1990-91). In fact, India's monetary expansion throughout the previous decade has been significantly higher than the real growth in the economy, fueling inflation that is reflected in a steep rise in the wholesale price index (**Figure 1**).

In addition to these problems, India's balance of payments situation has worsened further during FY 1990-91 and for the first time since 1985-86, the growth of imports has outpaced the growth of exports, putting further pressure on the balance of payments situation (**Table 1**).

It is evident, though, that even while facing a large foreign debt (about \$70 billion) and with a meager \$2.5 billion in foreign currency reserves at the end of FY 1990-91 (**Figure 2**), India has developed a certain measure of resilience in its physical economy. Foodgrain production, for example, grew at a 3.9% rate to produce a record harvest expected to exceed the 1989-90 bumper harvest of 170.6 million tons. In the process, the rice production target of 73.7 million tons might have been exceeded, and the wheat production target of 54.5 million tons has likely been met.

The industrial production sector, hampered by the Gulf crisis and severe restrictions on imports of petroleum and petroleum products, could not keep up with the 8.6% growth rate of 1989-90 (**Figure 3**), but has done significantly better

**FIGURE 1**  
**Monetary expansion has outpaced real growth**  
% change over previous year



● Provisional \* Anticipated  
Selected economic indicators (% change over previous year).  
Based on 1980-81 prices.

Source: (Economic Survey) 1990-91 Government of India.

TABLE 1

**For the first time since 1985-86, growth of imports is outpacing the growth of exports**

Balance of payments (millions U.S. dollars)

Item	1985-86	1986-87	1987-88	1988-89
Import	-17297.7	-17740.3	-19815.6	-23617.6
Export	+ 9462.7	+10420.1	+12645.9	+14257.1
Net monetary gold movement	+ 23.3	—	—	—
Invisibles (net)	+ 2967.1	+ 2757.7	+ 2316.5	+ 2172.1
Capital transactions (net)	+ 1924.3	+ 2056.0	+ 2247.6	+ 2582.9
Government misc. (net)	+ 1093.1	+ 2602.9	+ 2823.7	+ 4069.8
Amortization payments (gross)	- 1197.6	- 2378.9	- 2785.0	- 2709.8
Repurchases from IMF	- 206.8	- 526.1	- 932.5	- 1068.4
Banking capital (net)	+ 152.1	- 54.9	+ 57.7	- 183.1
Errors and omissions	+ 474.1	- 101.2	- 730.9	+ 140.5
Total deficit	- 2605.4	- 2964.7	- 4172.6	- 4356.5

Source: *Economic Survey 1990-91*, Government of India.

than expected. The manufacturing sector, which accounts for three-fourths of the total weight in the index for industrial production, did better than the previous year's 8.6% growth and recorded a growth of 9.2%. According to the *Economic Survey*, a use-based classification of industrial growth during the first 11 months of the FY 1990-91 shows that the durables and capital goods sectors grew at an accelerating rate, while the growth of consumer non-durables and basic industries either shrank or declined significantly.

**Weaknesses in agriculture remain**

The overall performance of the agricultural and industrial sectors, however, indicate that neither sector has moved forward in any distinct way. The agricultural sector, helped by an excellent monsoon, has met the target but did little else. Foodgrain production, and particularly the non-foodgrain agricultural production in India, continues to have a low yield (Table 2). Large tracts of land, as much as 40% of total cultivated land, will probably never have irrigation cover and will remain vulnerable to rainfall patterns. In particular, oil seeds, pulses, and coarse grains have shown very little improvement in yield during the last decade. In addition, more than 75% of Indian farmers are tilling plots which are smaller than two hectares. Farmland is becoming further fragmented every year, creating more marginal farmers with less and less land.

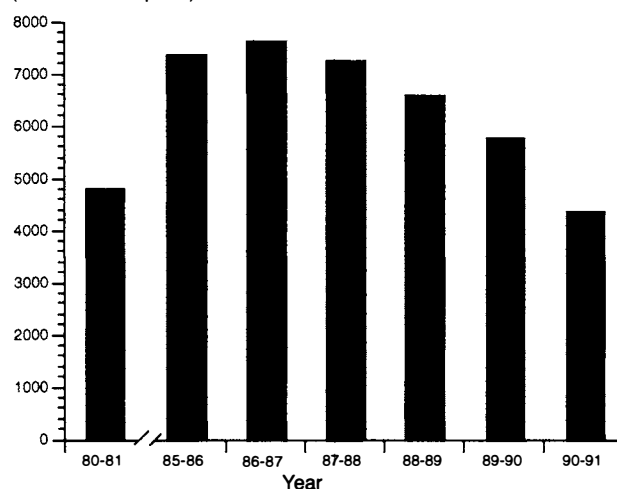
It is obvious that the government cannot ignore this deplorable situation in the farmland, which has kept agricultural productivity low and degraded cultivable land. However, government policies indicate nothing new to overcome this basic weakness of the Indian agricultural sector. It is certain that increasing subsidies, even if it reached the poor farmers, is no solution to the problem, but the government has little else.

In FY 1990-91, India's troubled infrastructural sector has done badly again. Electricity generation, production of

FIGURE 2

**Foreign currency reserves**

(in 10 million rupees)

Source: (*Economic Survey: 1990-91*) Government of India

crude oil, and refinery throughput showed evidence of slowing down and even decline. Coal production, which showed a 5.4% growth over the previous year in absolute terms, was hampered significantly because of failure to dispatch the mined coal. Pithead stocks showed a 14.5% increase.

**Looming power crisis**

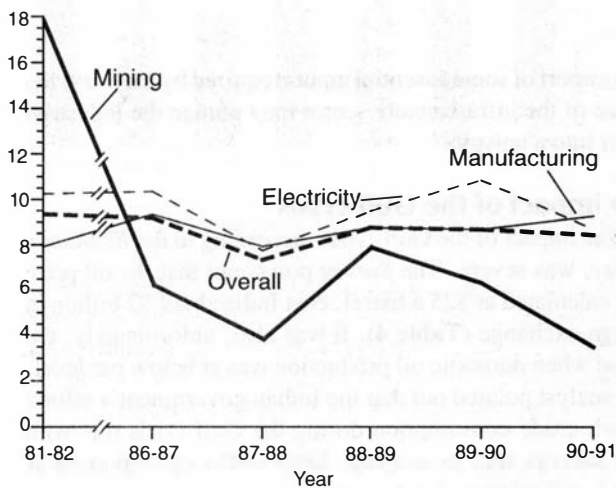
In the power generation sector, while hydroelectric, again helped by a good monsoon, showed a respectable growth rate of 15.1%, thermal power generation, which accounts for about 70% of the total, consisting of coal-burning processes and nuclear, showed an abysmal 5.1% growth compared to the 12.1% growth it had achieved in FY 1989-



*Major improvements and investment must especially be made in India's infrastructure, energy, and agricultural sectors to overcome economic stagnation.*

**FIGURE 3**  
**Industrial sector showing signs of stagnation overall**

% of industrial sector



%	Mining (11.46)	Manufacturing (77.11)	Electricity (11.43)	Overall (100.0)
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Annual growth rates in major sectors of industry (base 1980-81)  
 Source: (Economic survey 1990-91) Government of India

90 (Table 3). The poor performance of the power sector has provided impetus to the proposal to privatize the power sector. The government-run State Electricity Boards (SEBs), which generate most of India's power and distribute all of it, are bankrupt. The coal industry has issued orders that the SEBs will henceforth have to pay cash in order to move the coal required for power plants.

At the same time, the SEBs have been virtually immobilized by excessive political interference and arbitrary appointments caused by the changing of political parties and leaders at the state level. As a result, they are inordinately overstaffed, which has led to the destruction of teamwork, morale, and discipline. In addition, excessive tariff subsidies given to the agricultural sector has resulted in massive wastage of electrical power. The wastage shows in the use of archaic and highly inefficient pumpsets and overuse of electrical power. In some places, like western Uttar Pradesh, SEB officials find it impossible to collect tariffs from militant farmers who are firmly backed by political leaders, some of them of national stature.

There is every indication that power shortages in India will rise sharply in the coming two to three years. Unless the Eighth Five Year Plan, which is now being finalized, allocates large amounts in the power sector and sees to it that the investment increases productivity of the thermal power sector, the power situation will become a major deterrent to India's economic growth during this decade.

Crude oil production showed a sharp decline in FY 1990-91. Onshore oil production showed a negative growth of 3.1%, mainly due to the secessionist movements in Assam, the main source of India's onshore crude. In addition, off-

TABLE 2

**Wheat and rice are just meeting targets, while other crops show little improvement**

(million tons)

Crop	1980-81	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91
Rice	53.6	63.8	60.6	56.8	70.5	74.1	N.A.
Wheat	36.3	47.1	44.3	46.2	54.1	49.7	N.A.
Pulses	10.6	13.4	11.7	11.0	13.8	12.6	N.A.
Coarse grains	29.0	26.2	26.8	26.4	31.5	34.3	N.A.
All food grains	129.6	150.4	143.4	140.4	169.9	170.6	N.A.

Source: *Economic Survey 1990-91*, Government of India.

TABLE 3

**Infrastructure failure will affect industry soon**

Item	Unit	1987-88	1988-89	1989-90	1990-91	Percentage change		
						1988-89 1987-88	1989-90 1988-89	1990-91 1989-90
<b>Coal</b>								
Production	mn tons	179.72	194.60	200.89	211.73	8.3	3.2	5.4
Dispatches	mn tons	170.82	184.02	191.93	200.89	7.7	4.3	4.4
<b>Electricity generated</b>								
Hydroelectric	bn Kwh	202.1	221.4	245.4	264.2	9.5	10.8	7.7
Thermal (coal, nuclear)	bn Kwh	47.5	57.9	62.1	71.5	21.9	7.3	15.1
<b>Petroleum</b>								
Crude production	mn tons	30.36	32.40	34.09	33.03	5.5	6.4	- 3.1
Refinery throughput	mn tons	47.75	48.8	51.94	51.77	2.2	6.4	- 0.3
<b>Railway</b>								
Cargo	mn tons	290.21	302.05	309.97	318.02	4.1	2.6	2.6
<b>Ports</b>								
Cargo handled	mn tons	133.69	146.43	148.14	152.55	9.5	1.2	3.0
<b>Telecommunications</b>								
Telephones added	thousands	313.08	374.94	416.22	482.65	19.8	11.0	16.0

Source: *Economic Survey 1990-91*, Government of India.

shore oil production, India's major source for domestic crude, also showed a drop from 21.7 million tons production in FY 1989-90. The stagnation in offshore crude production which began to show up in 1985-86 forced India to import about 50% more crude in 1990-91 than it was importing in 1984-85. The stagnation is caused by the inability of the Oil and Natural Gas Commission (ONGC), a government of India undertaking, to open up new productive oil fields, and the steady depletion of existing oil-producing fields in the Bombay High. As a result, the import constituent of India's crude consumption, which was the lowest in 1984-85 at about 32%, has now reached about 40%. There is little hope that India will be able to reduce its foreign currency expenditure in the near future on account of crude imports.

As the *Economic Survey* points out, the continued failure of the infrastructure sector is sure to affect the industrial sector soon. Despite years of warning, the infrastructure sector has remained neglected and highly unproductive. At this time, particularly when the foreign exchange crisis is sure to

curb import of some essential inputs required by industry, the failure of the infrastructure sector may plunge the industrial sector into a tailspin.

**The impact of the Gulf crisis**

The impact of the Gulf crisis, according to the *Economic Survey*, was severe. The *Survey* points out that the oil price rise, calculated at \$25 a barrel, cost India about \$2 billion in foreign exchange (Table 4). It was also, unfortunately, the period when domestic oil production was at below par level. One analyst pointed out that the Indian government's efforts to curb crude consumption during the Gulf crisis met with little success and, as a result, India ended up importing at least 2 million tons of extra crude.

During the Gulf crisis, India also suffered losses in foreign exchange earnings due to the shortfall of remittances from migrant workers of Indian origin from Kuwait and Iraq. The *Economic Survey* claims that the Gulf crisis might have been responsible for a loss of about \$500 million in deposits

TABLE 4

**Impact of Gulf war on balance of payments**

	<b>Economic Survey 1990-91 \$ million</b>	<b>Finance Ministry estimates (Oct. 90-Sept. 91) \$ million</b>
Net petroleum import bill	2,020	2,360
Export loss to West Asia	280	200
Loss in remittances	273	0
Emergency repatriation costs	200	200
Loss in NRI Deposit	500	0

Source: Alam Srinivas, *The Times of India*, July 23, 1991

under the two types of Non-Resident Indian (NRI) accounts with India-based banks.

There is, however, some dispute over how much India really did lose due to the crisis that led to the Gulf war. According to the *Economic Survey*, the total loss is close to \$3.3 billion. Finance Ministry estimates for the period October 1990 to September 1991 show that the loss was close to \$2.8 billion. However, some independent analysts claim that both figures are conservative and do not take into account the export losses incurred by India due to reduced exports to industrialized countries during this period. According to them, the loss figure should be much higher.

Whatever the actual foreign exchange lost due to the Gulf crisis, it only added to India's balance of payments woes. According to the *Economic Survey*, foreign debt during 1990-91 grew from about \$47 billion at the end of 1989-90 to about \$58 billion excluding the NRI deposits, and about \$70 billion including the NRI deposits.

**The foreign debt crunch**

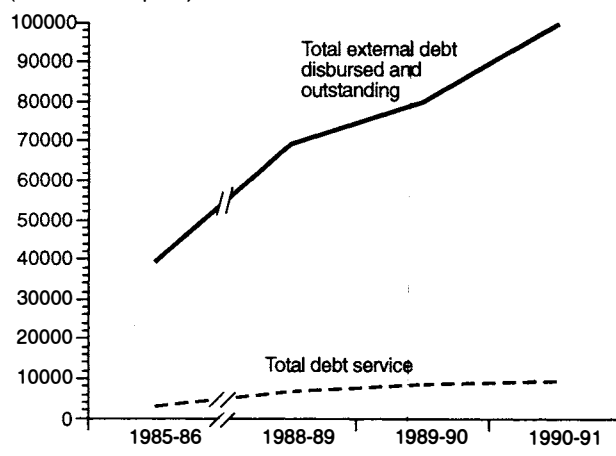
Besides the rapid rise of foreign debt itself (Figure 4), the composition of India's debt has changed significantly. At the beginning of the Sixth Plan period (1980-81 to 1984-85), external debt stock consisted mainly of external assistance which constituted as much as 90% of the total. Since then, the share of external assistance in debt stock has declined. In 1989-90, some 70% of India's foreign debt was due to external assistance. External commercial borrowing has registered a fast growth, accounting for 27% of the debt stock in 1989-90 (Figure 5).

With such a steep rise in external commercial borrowing, and a significant amount of short-term borrowing extracting much higher interest rates, India's debt service ratio, defined as the proportion of amortization and interest payments to export and gross invisibles (non-goods income, such as insurance), has shot up during the last decade. The debt service ratio

FIGURE 4

**External debt and debt service growing rapidly**

(in 10 million rupees)

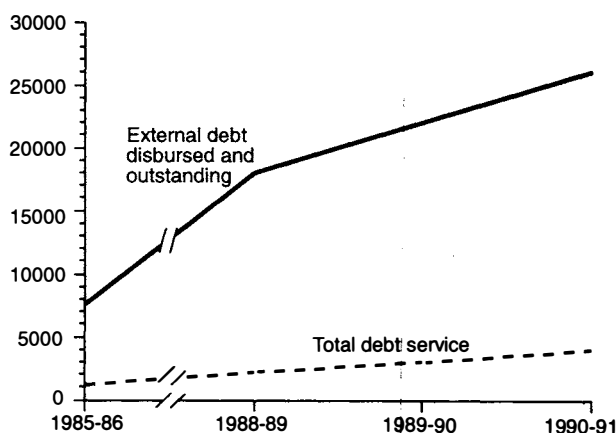


Source: (Economic Survey: 1990-91) Government of India

FIGURE 5

**External commercial borrowing zooms**

(in 10 million rupees)



Source: (Economic Survey: 1990-91) Government of India

rose from 9.4% of exports of goods and services in 1980-81 to a peak of 23.3% in 1987-88. This ratio is estimated to have declined to about 21% in 1990-91, principally due to the reduction of liabilities to the International Monetary Fund (IMF) with repayment of the Extended Fund Facility (EFF) loan of the early 1980s and significant growth in export earnings. The ratio could be higher if interest on NRI deposits and service of short-term debt are taken into account.

Large foreign debt and a deteriorating balance of payments situation has significantly curbed India's options to borrow commercially. India's credit rating has been downgraded from BBB- (long-term) and A2 (short-term) to BB+ (long-term) and B (short-term) by Standard & Poors; from A2 (long-term) and P1 (short-term) to Ba2 (long-term) and non-prime (short-term) by Moody's; and from A+ (long-term) to BBB (long-term) by the Japanese Bond Research Institute during FY 1990-91 and FY 1991-92. While the credit-rating downgrading can in part be attributed to the unstable political situation in India during this period, there is little doubt that the negative impact on the foreign exchange earnings of the Gulf crisis and the uneasiness over the Indian situation as expressed by the NRIs through withdrawal of vast sums of deposits have been major factors in enhancing India's risk status. It is also clear that the three Indian governments that were in power during the 1989-91 period failed to alleviate the fears of foreign lenders because of their unwillingness to deal with the growing balance of payments problems.

The new government—a minority government led by the Congress Party that came to power following its success in the 1991 general elections—was left with little choice when it took over the reins last June but to seek loans from the IMF and garner as much bilateral assistance as possible to tide over the difficult foreign exchange problems. In order to enhance confidence among lenders, the new government has announced a major reform program with the purpose of getting the Indian economy out of the rut it is now in.

India's foreign exchange crisis is not going to affect the developmental programs in a direct way (India's Seventh Five Year Plan has 6.2% financial input from abroad.) But the Indian economy requires crucial state-of-the-art technological inputs in the form of high-technology components and capital goods. This is most explicit in the inputs required for capital goods manufacturing and the defense industry. Due to the foreign exchange crunch, these crucial inputs have been affected at least temporarily.

On the other hand, India's large domestic debt has seriously imbalanced India's budgets over the years. In the process, resources earlier earmarked for development have been increasingly channeled to meet interest payment obligations on current expenses. To offset this imbalance, India has taken recourse to large monetary expansions, which, however, due to the inadequate infrastructure sector, have proven to be double-edged at best. Because of the poor performance of the industrial sector, particularly the public sector units, and a growing overhead in the form of huge bureaucracy to oversee regulations and myriads of laws and by-laws, the "pump-priming" has failed to provide the expected boost. As a result, India is now experiencing double-digit inflation which, if allowed to continue for long, will scuttle the hopes generated by the government's new reform measures. Indian Finance Minister Dr. Manmohan Singh recently assured the country that inflation will be brought down to a single-digit rate before the year is over.

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## Space Technology

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# ESA releases first Earth radar images

by Philippe Jamet

When it comes to new technologies, especially experimenting with new types of instrumentation, the European Space Agency (ESA) has reached a high point, with its remote sensing and environmental research satellite ERS-1. The satellite was launched in the night of July 16-17 and placed into a Sun synchronous orbit.

In distinction from the "classical" remote sensing satellites such as Spot or Landsat, which use instruments that make their observations in the visible wavelengths, ERS-1 uses a whole battery of radar instruments and transmitters which use ultra-shortwaves (1,000-30,000 MHz) and microwaves. We especially want to underline the two components of what is called AMI (Active Microwave Instrument), that is, the Synthetic Aperture Radar (SAR) and SCATT radar, developed by the Franco-British company Matra Marconi Space. Thanks to SAR—which operates outside the optical wavelength range and therefore "laughs at both the day and the night"—ERS-1 is able, by means of waves which are transmitted and received after being echoed from the "object" under study, to supply extremely precise information 24 hours a day. ERS-1 could very well be considered as the first real radar satellite worthy of the name: It goes far beyond its American precursor Seasat which functioned for about three months in 1978.

### The first images

ERS-1 is in fact a veritable union of sophisticated new technologies, whose aims include studying the topography of the ocean floor, which is revealed by surface irregularities on the oceans themselves; the analysis of interactions between warm and cold currents; icebergs; and more generally, the ocean-atmosphere interactions which may allow more reliable and coherent models of climatic change and evolution. It will be, for example, possible to detect, in advance, cataclysmic processes in formation, which would apparently make it easier to understand their causes and take preventive measures.

Every radar-photo from ERS-1, whether of land or ocean, in itself practically flawlessly reveals a stage in the processes