

Indian Economy : 1950; 2000; 2020*

Y.V. REDDY

I have many reasons for being delighted to be participating in the Swarna Mahotsavam of Vivek Vardhini College. I must appreciate the persuasive skills of Principal Dr. Pushpavathi for bringing me here. Being a Hyderabadi, I have several distinguished colleagues and friends who are on faculty and *alumni* of Vivek Vardhini College. The founding fathers of Vivek Vardhini were real visionaries who were pioneers in projecting a genuine Indian slant to education; we must remember that Vivek Vardhini thrived merely on the strength of its excellence.

This college was the first to be affiliated to Osmania University, where I was subsequently a research scholar, and teacher. As one who studied in Telugu medium schools, there is a special affinity for me with the Vivek Vardhini Education Society. The Society was established in 1907, as a bold and visionary venture. The list of institutions of the Society range from primary school to post graduate college and also from tailoring to music with medium of instruction in Telugu, Marathi and of course, English. The sheer range of activities undertaken by the society conveys the mission of the society. The Swarna Mahotsavam, or the Golden Jubilee celebrations are, as the society mentions “not only a commemoration but also an occasion for the College to rededicate itself to the goal of Vidya Vyapthi, *i.e.*, spread of education with social commitment”. Perhaps, it is, therefore, appropriate to reflect this spirit in my address today by speaking of the past performance of our economy and explore prospects for the future.

The address will briefly touch upon how the economy performed in the pre-Independence era, to demonstrate the virtual stagnation and considerable fluctuations in the living conditions due to famines and epidemics. The post-Independence period, commencing from the inception of planning in 1950 to the onset of Gulf crisis in 1990 was characterised by a massive improvement over pre-Independence performance coupled with some avoidable inadequacies, particularly, in terms of incentives and institutional structures and punctuated with droughts, wars and oil-crisis. I will then also cover, somewhat briefly, the performance of our economy during the 'nineties which demonstrates rapid recovery from a deep crisis and a dramatic upward shift in expectations of levels of growth and greater resilience to withstand shocks. The daunting task of tackling poverty and misery remains a significant problem a whole half a century after Independence.

As we enter the new Millennium, we should frankly assess where we are *vis-a-vis* other countries in terms of various indicators, such as growth, stability and poverty. The major part of my address will, therefore, be on India in a global context, with reference to four sets of indicators *viz.*, economic, institutional, infrastructural and social. The concluding part would thus be derived from an understanding of what these indicators with all the known limitations signify for us. In a way, I am juxtaposing historical and cross-sectional perspective in the current context and, on this basis I hope to share with you, my perception of the performance and prospects before us as we move towards 2020. I believe that the advantage of this method of presentation is that, each of you can draw your own inferences and develop your own perceptions. The tabular data are appended to the text of this lecture. My purpose would be served if you are provoked into questioning and thinking about the future, which of course includes preeminently the future of each one of us.

Pre-Independence : 1900-47

It would serve the purpose of today's deliberations if one looks at a few facts brought out by Sivasubramonian (1998) on performance of Indian economy during the pre-Independence era of 20th century.

First, real Gross Domestic Product (GDP) which is broadly the national cake, or the total sum of all the final goods and services produced within the geographical boundary of our country, grew only by an average of 0.9 per cent per annum. But, the individual share of this national cake, *i.e.*, the real per capita GDP grew even lower at an average rate of 0.1 per cent. Real per capita GDP which stood at Rs. 224 in 1900-01 increased, if it can be called an increase, to only Rs. 233 on the eve of Independence.

Second, even this very low growth was associated with considerable fluctuations due to number of years of drought and famine and epidemics. Thus, aggregate GDP declined in 17 out of the 47 years and its per capita in 26 years.

Third, after 1920, epidemics however, were better controlled and some improvement was perceivable in health services. The infant mortality rate was on an average 205 out of 1000 in 1911 and, this also declined to 136 in 1946. Every Indian was expected to live for 23.8 years at the beginning of the century and by 1951 the life expectation increased only to 32.1 years.

Fourth, during the second decade of the century, on an average, 535 grams of food was available per Indian per day. The availability actually declined to 408 grams per day by 1950.

Fifth, in 1901, 94 out of every 100 Indians could neither read nor write. By 1941, this had gone down to a mere 85.

Sixth, no doubt the manufacturing sector had grown at 4.0 per cent per annum. Goods carried and passenger miles by Indian railways also increased by six times. Communications and government services also maintained moderate growth rates. But as the economy was primarily an agricultural economy, the progress in these areas could not make any worthwhile impact on the overall situation in the economy.

Post-Independence : 1950-1990

After Independence, the country embarked on an ambitious task of planned economic growth to move the country out of the critical stagnation in the pre-Independence era. The country had to also reckon with the after effects of the Second World War, and Partition, in addition to consolidating the nation and building an administrative and political apparatus. As these complex tasks were being tackled, the country had to face famines and wars during the 'sixties and the 'seventies – apart from the oil crisis of early 'seventies and early 'eighties. These factors should be kept in view while considering the facts that would be narrated now.

First, the real GDP growth rose from 0.9 per cent in pre-Independence era to an average annual rate of about 4.0 per cent. Significant acceleration of growth rate took place in the 'eighties. In fact, the growth during the 'eighties, at an annual average rate of 5.9 per cent bettered the world output growth of 3.3 per cent, that of developing countries at 4.3 per cent, and even that of Asia excluding China and India at 5.1 per cent.

Second, as compared with the pre-Independence era, the fluctuations were relatively less and the growth in GDP was steady in all the years disregarding four years characterised by crisis.

Third, while the growth was a remarkable improvement as compared to that of pre-Independence days, the surge in population growth to an annual average rate of over 2.0 per cent, could raise the per capita GDP by about 2.0 per cent per annum only, though this is twenty times the growth in pre-Independence era. In fact, the annual growth in per capita GDP in the 'eighties was over 3.5 per cent.

Fourth, despite the acceleration in population growth, food availability improved from 395 grams per day in 1951 to 510 grams per day in 1991.

Fifth, agriculture also experienced much higher growth of over 2.5 per cent, with post-green revolution showing even higher growth of over 3.0 per cent. Importantly, this sector became less dependent on the vagaries of the monsoon.

Sixth, industry grew at an annual average rate of over 5.5 per cent. Importantly, with the setting up of large-scale and heavy industries, the industrial base expanded rapidly thereby laying the base for sustained industrial growth. Services also grew by about 5.0 per cent and it was close to 6.0 per cent since the second half of the 'seventies. Sectoral composition of GDP gradually changed. Agriculture which contributed to more than half of GDP during the first three Five-Year Plans decreased its share to about one-third around the end of the 'eighties. On the other hand, services improved its share from about one-third to more than two-fifth. Industry's share also improved from about 15.0 per cent to about one-fourth.

Seventh, the post-Independence period witnessed a marked rise in the rate of saving (as proportion of GDP). It rose from an average of about 11.9 per cent during the first one and half decades to a little over 20.0 per cent during the 'eighties. Rate of investment also rose from 13.7 per cent to about 22.5 per cent during the corresponding period.

Eighth, in terms of inflation record, the price rise was low at 1.2 per cent during the first decade after Independence. This rose to 6.3 per cent during the 'sixties and further to 9.0 per cent during the 'seventies. During the 'eighties it was around 8.0 per cent.

While all the above indicators of growth are remarkable achievements, particularly over the pre-Independence days, many of our goals that we set out to achieve did not materialise. There are at least five areas where this can be noticed.

First, on the income front, the aim of doubling the average real per capita income by the end of the 'seventies was attained only at the end of the 'eighties.

Second, despite all the economic growth and the attempt to tackle the problem head-on, poverty, broadly defined as people unable to incur expenditure to meet the required minimum calorie intake per day of 2400 in rural areas and 2100 in urban areas, continued to remain unacceptably high.

Third, even by 1990 we could not make little less than half the population (48 per cent) either to read or to write. We had one primary school teacher for every 46 pupils in 1989-90.

Fourth, infant mortality rate declined, to 80 per 1000 in 1990 as compared with 136 per 1000 prior to Independence. On an average, life expectancy in 1990 was about 60 years. In 1989-90, a quarter of our people did not have any access to safe water and as much as 87 per cent did not have any sanitation facility. During the second half of the 'eighties, for every 2,520 Indians, there was only one doctor available, while only one nurse was available to 1,700 Indians.

Fifth, even though we set out to achieve self-reliance in the external sector, we faced considerable pressures on the balance of payments. Exports in US \$ terms grew below 5.0 per cent during the first two decades and the first half of the 'eighties while imports grew faster. Only during the 'seventies and the latter part of the 'eighties, particularly during the former period, was the export growth impressive by our own past records. But then, in the 'seventies also, imports outpaced exports. In the international context, we were marginalised as India's exports which were about 2.0 per cent of world exports at the beginning of the 'fifties went below 0.5 per cent by the end of the 'eighties.

In brief, although the performance of the economy was remarkable when compared with the earlier period, it was not adequate to meet the challenges, and more importantly, by the late 'eighties it was not conducive to continued accelerated growth.

The growth indicators show that the performance of the Indian economy during the post-Independence period up to 1990 was at its best during the 'eighties, but there were deep structural imbalances. These problems arose in the form of structural rigidities, lack of competition both at home and abroad, poor performance of public sector enterprises, lack of fiscal prudence and an incentive framework inconsistent with productivity gains. An important factor propelling the growth during this period was the rapid rise in government expenditure, reflecting in the fiscal deficit jumping from 4.0 per cent of GDP in the 'seventies to 8.33 per cent in the crisis year of 1991. The problem was not just the size of fiscal deficit, but the fact that there was also a revenue deficit, since the assets such as, public enterprises created out of borrowings did not yield adequate returns. The high fiscal deficit also got reflected in the emergence of a current account deficit during the 'eighties which peaked at 3.2 per cent of GDP in 1991. Recourse was taken to external debt, often on commercial terms, and a large amount with short maturity. In some ways, the high growth of 1980s was facilitated by growth in internal and external debt or borrowed money and borrowed time. Thus, triggered by the Gulf-crisis, a severe balance of payment crisis had to be faced in 1991 that made introduction of comprehensive programme of reforms inevitable.

Gulf-Crisis and Reform : 1990-2000

In the aftermath of the payment crisis of 1991, a number of measures were undertaken to remove the structural rigidities afflicting various sectors of the economy. For instance, industrial licensing has been done away with to improve the efficiency of markets; extensive reforms have been undertaken in the financial sector and a more effective system of regulation and supervision has been put in place; cautious liberalisation has been undertaken in the external sector; the way in which fiscal transactions have impinged on the financial sector has been altered so as to contain the monetisation of the deficit, thereby giving the Central Bank some elbow room to implement monetary policy. The prime aim of these measures was to bring about increased competition, both domestically and externally, and reduce rent seeking activities. All these measures have brought about some positive changes in the macro-economic scenario, though several concerns have been expressed.

First, we find that the annual rate of growth of GDP was around 6.1 per cent during the 'nineties. The post-reform growth *i.e.*, excluding the years of crisis and adjustment (1991-92 and 1992-93) with lower rates of growth, was placed at 6.8 per cent as against 5.9 per cent in the 'eighties.

Second, the fluctuations in GDP growth were minimal, and except in 1991-92, the rate of growth of GDP was above 5.0 per cent in all the years. The growth performance was maintained in the face of unprecedented domestic political uncertainties and external uncertainties like the sanctions imposed, border tensions, Asian crisis and steep increases in oil prices, though from a low base. Fluctuations in output of agriculture were also moderate.

Third, the per capita GDP increased at an annual average rate of about 4.25 per cent during the 'nineties.

We also find that gross domestic saving as percentage of GDP crossed 22.0 per cent in all the post-reform years as against only twice during the previous 40 years. In fact, the ratio was close to, or even crossed, 25.0 per cent in number of years. The gross domestic investment as a percentage of GDP also rose to 26.0 to 27.0 per cent in number of years as against over 24.0 per cent only twice during the preceding 40 years.

Inflation, on the other hand, rose at an annual average rate of 8.9 per cent during 1990-98 and was higher than the annual average rate of 8.0 per cent during the 'eighties. However, during 1998-99 and 1999-2000, the rate of price rise remained much more subdued.

In the external sector, external debt to GDP ratio came down from 41.0 per cent in 1991-92 to 23.5 per cent in 1998-99. The debt service payments as a ratio to current receipts continued to improve steadily from 30.2 per cent in 1991-92 to 18.0 per cent in 1998-99. The average annual rate of growth of exports of goods and services of 11.3 per cent during 1990-99 has been markedly above the average of 8.1 per cent in the 'eighties. The Current Account Deficit (CAD) remained on an average well below 2.0 per cent of GDP in all the years after the Gulf-crisis and in fact also fell to 1.0 per cent of GDP in 1998-99. It must be noted that this period witnessed liberalisation of imports, including that of gold and steep reduction in tariffs.

Thus, during the 'nineties, we accumulated over US \$ 30 billion of foreign currency assets, while reducing external debt and liberalising trade and maintaining consistently high rate of growth in GDP.

Though we have seen tangible improvement on the economic front, I must at this juncture also emphasise on the social dimension, which is a more important ingredient of economic development.

First, as per NSS surveys, over 1/3rd of the population in 1997 still could not have the required minimum daily calorie intake, same as on the eve of reforms.

Second, during 1990-96, 19 Indians out of every 100 did not have access to safe drinking water sources and 84 did not have any access to sanitation showing little improvement from that of 1990.

Third, infant mortality rate of 70 per 1000, life expectancy of 63 years and daily per capita supply of calories of 2496 in the late 'nineties have also not improved much from 1990.

Fourth, there is evidence that the acceleration in growth is concentrated among some regions while others continue to maintain relatively low levels of growth.

Finally, the savings of public sector as a whole *viz.*, government and public enterprises combined is close to zero. The size of borrowing as well as cost of borrowings by government is considerable. The fiscal situations, especially of some States are causing concern.

In brief, there was a significant improvement in terms of growth and stability as well as position in regard to external sector in the 'nineties while several concerns especially in regard to poverty and social welfare remained. Indeed, a growth rate of 5.0 per cent, which was considered an achievement till a decade ago is considered a sign of failure of policy now, and this reflects the phenomenon of rising expectations.

India in the Global Context

There have been several indices and ranking exercises undertaken by various international ranking or rating agencies. These indices have gained importance in the context of globalisation and countries are often ranked for purpose specific reasons on these indices. A cursory look at these indices will help us understand where India stands with respect to peers as well as developed countries. Greater details on the ranking, composition and methodology of index, etc., are given in the [Annexures](#). For this presentation, the indices are broadly classified under four major heads: a) economic indicators; b) institutional indicators; c) infrastructural indicators; and d) social indicators. Selection of indices was governed by the mere accident of availability and its relevance. Thus, they are tentative and illustrative, and certainly not conclusive. Nine countries are assumed to be fairly representative of geographical distribution of countries on the globe, differences in the level of income, sizes of the economy and of our neighbouring countries. Besides India, these countries are Singapore, China, Pakistan, Sri Lanka, South Africa, Mexico, USA and Japan.

Economic Indicators

Economic indicators include factors such as the level of income and its growth over a period, its capacity to grow as evidenced by savings and investment rate, the performance of the external sector, etc.

India is admittedly a large economy, and in terms of size, is ranked 11th or 4th in the world depending on the measure. In per capita terms, however, we are among the lowest in the world, irrespective of the measure. In 1999, India's Gross National Product (GNP), which is the sum total of all the factor incomes accruing to Indian citizen, stood at US \$ 442.2 billion and ranked 11th in the world. What each Indian on an average could get from this total, *i.e.*, the per capita GNP, was only US \$ 450 and ranked 162nd in the world which was the lowest among the 9 countries in our group. But this GNP is calculated on the basis of market exchange rate *i.e.*, the rate at which \$ exchange for Rupees in the market. Some analysts question this methodology on the count that there are differences in the prices of comparable goods, which are not traded amongst countries. Therefore, market exchange rate cannot value these goods properly. When these differences are adjusted, we get what is called as GNP measured in Purchasing Power Parity (PPP) terms. In this measure, India's GNP rises to US \$ 2144.1 billion and is behind only USA, China and Japan. The per capita GNP also rises to US \$ 2149. Even then, India was still ranked 153rd in the world, higher than only one country among these 9 countries.

It should be noted that as mentioned already, India's growth performance has been impressive, and in particular, annual average growth rate of GDP during the 'eighties and the 'nineties was rivaled by few like Singapore and China. In other words, despite the higher GDP growth during the last two decades, India continued to remain low in the league of per capita GNP. The culprits, well known of course, are the size and the rate of growth of population in our country, and the low base of income with which we started.

Savings and investment rates of 20.3 per cent and 23.9 per cent, respectively, during 1997-99, have been comparable or were even better than many developing and developed countries. But these rates were much lower than high growth countries like Singapore (savings rate of 51.4 per cent and investment rate of 34.5 per cent) and China (savings rate of 42.5 per cent and investment rate 38.8 per cent). Almost all the savings in India are from the household and the private corporate sectors. The savings in the public sector during 1993-94 to 1998-99 averaged just around 1.0 per cent only. It is noteworthy that the main reason for low savings in India lies in government savings being negative on account of revenue deficits.

It may also be noted that growth of exports of goods and services at an annual average rate of 11.3 per cent during the 'nineties was impressive and only lower than the high performers like China (13.0 per cent) and Mexico (14.3 per cent). The external debt to GDP ratio of 23.0 per cent in 1998 was also much lower than that of Pakistan, Sri Lanka and Mexico.

The flow of foreign direct investment (FDI) in India also increased during the 'nineties and reached US \$ 2.26 billion in 1998, which was among the 20 largest FDI recipients among the

developing countries. Yet, the level of inflow was still far lower than countries like Singapore (US \$ 7.22 billion), China (US \$ 45.5 billion) and Mexico (US \$ 10.24 billion).

To reflect dynamic elements of the economy, reference may also be made to several indices relating to country-risk, technology, economic creativity, competitiveness, globalisation, recessionary expectation, etc.

In the composite International Country Risk Guide (ICRG), risk rating, which is an overall index of investment risk in a country, as of March 2000, India with a rating of 64.3 was placed better than two of the nine countries in the group. The same is more or less true for the institutional investor credit rating, which indicates the probability of a country's default.

In the context of globalisation, technology is the propeller of growth. How active is the involvement of India in technological innovation and in the import of technology from abroad? And how conducive is the environment in India for business start-ups? World Economic Forum (WEF) captures the former by 'Technology Index' and the latter by 'Start-up Index'. When these two indices are combined, an index is derived, which is called 'Economic Creativity Index' that gets reflected in the growth performance of a country. Out of the 59 countries surveyed in 2000, India was ranked 38th in all the three indices and was placed higher than that of China (48th). Though business start-up environment in Mexico is worse than India and that of Japan marginally more favourable than that of India, their involvement in technological innovations is considerable and consequently, their creativity indices are superior to India.

WEF also prepares another index called 'Growth Competitiveness Index' (GCI) to measure the factors that contribute to future growth of per capita income of an economy in order to explain why some countries are improving faster than others. In 2000, out of 59 countries, India was placed low at 49th position. Countries like China, Mexico and South Africa were placed higher but their ranks were at 41st, 43rd and 33rd, respectively.

Besides the macro-economic factors, the microeconomic foundation *i.e.*, operating practices and strategies of firms and the environment in which these firms compete, are important for economic development. The 'Microeconomic Competitiveness Index' (MCI) for 1999 by WEF, which captures the above again places India low at 42nd position out of 58 countries surveyed. However, India is placed higher than China at 49th position. Mexico (34th) and South Africa (26th) are placed much higher.

What factors then underpin high current productivity and current economic performance of India? WEF captures these factors by its 'Current Competitiveness Index' (CCI). For 2000, India was at 37th position out of 58 countries, much higher than the GCI rank of 49th position. Interestingly, unlike GCI rank, our CCI rank was higher than China (44th) and Mexico (42nd), reflecting that factors determining our current growth are better than these countries though not the factors, which contribute to future growth. Nevertheless, we are still at the lower end of the ranking.

'Emerging Market Index' measures the market openness of a country. Our index at 46 in the year 2000 was higher than only China. With regard to integration with the rest of the world,

which is captured by 'Globalisation Index', our rate of integration during 1993-97 was at about 2.0 per cent per annum which was at the slower end. But in 'Recessionary Expectations Index' which indicates the extent of confidence that a country will not go into slump, our economy was placed quite high in 2000, higher than China, Mexico and even USA and Japan. The perception is clearly that ours is a stable economy.

Institutional Indicators

All economic transactions and social provisions are made under a set of given institutions. Evaluation of institutional factors is complex and methods are still in their infancy. Since much of the data are from opinion surveys, the views are subjective rather than definitive. In this presentation, reference will be made to an index of perception on corruption and to five selected indicators of governance.

Transparency International and Gottingen University brings out a ranking of countries based on the perception of business people on the transparency of the politicians and public officials of a country. The index is called 'Corruption Perception Index'. In its 1996 survey, of the 54 countries ranked by transparency, India was placed at the 46th position or as the 9th most corrupt country among these countries.

On governance, the World Bank in its publication *India - Reducing Poverty, Accelerating Development (2000)* has brought out 5 broad indicators. They are: a) government effectiveness and stability, which include institutional and government stability and general public's satisfaction with the government policies; b) role of law and business environment, which include corruption/kickbacks, law and order, legal rights, etc.; c) general public administration judged by quality of bureaucracy, its strength and exposure to political interference and accountability; d) public finance, which among others, includes quality of budget, efficiency and equity of expenditure and receipts and management of public finances; and e) outcomes, in which most of the social indicators like poverty, mortality, literacy, etc., are included. India's ranking on these indicators against 5 groups of countries in 1995 is available. The groups compared are : the developing countries; some selected large countries comprising - China, Mexico, South Africa, Brazil and Poland; South East Asia comprising- Indonesia and Thailand; South Asia excluding India; and industrial countries represented by the U.K. and the U.S.

In the effectiveness of government and its stability, India fares worse than all groups of countries.

With regard to the role of law and business environment, India is placed better than its neighbouring South Asian countries. But, in comparison to the group of selected large countries and the industrial countries, India is worse-off.

Except for the industrial countries, our general public administration is ranked higher than all other groups of countries.

Both the group of industrial countries and the selected large countries have better public finance than ours, but we are better than the rest of the other groups.

In the outcomes, however, which are primarily reflected in socio-economic indicators, India fares badly as compared to all the groups.

Infrastructural Indicators

Transport, power, telecommunications, water, sanitation, etc., are part of what we know as infrastructure which is essential for sustained economic development. These facilities enable smooth and efficient transaction of economic activities and also help in providing the basic necessities of life. Here, I would be primarily comparing India with our group of countries on the level of individual indicators.

Let me start with power. In 1997, the power consumption per capita in India was a mere 363 kwh. Though this compares favourably with Pakistan and Sri Lanka, it was far behind the other countries. China consumed almost double the level of India. Typical of South Asian countries, we also wasted lot of power on transmission and distribution, which was 18.0 per cent in 1997 while in China the waste was only 8.0 per cent.

The percentage of our roads in good condition or paved roads in 1998 was only 45.7 per cent. Pakistan (57.0 per cent) and Sri Lanka (95.0 per cent) have a much higher percentage of paved roads.

The railway network in India is fairly good. In 1998, for every million \$ of GDP (PPP), railway transported 137.1 thousand ton-km. This was larger than Japan (101.7). However, in comparison to China (304.8) and South Africa (283.3) with large land area, who also rely more on railways for transportation of goods, it was far less.

In 1997, 121 out of 1000 Indians had radios, and all barring one in the group are far ahead. The position in Sri Lanka (209) was about double of India. Only 68 Indians out of 1000 had TV sets, by far the lowest in the group.

With 22 telephone mainlines in 1998, we were only marginally better than one country in the group and China (70) was far ahead of us. And, on an average, the waiting time in India for a telephone connection was one year, which was better than only two countries, but stood nowhere in comparison to China where it was just one month.

There were 2.7 Personal Computers available to every 1000 Indians in 1998, behind all the countries in the group. In China it was 8.9, while others were far ahead. Similar was the picture for internet hosts per 10,000 which was 0.23 in India in 2000 compared to China (0.57), Pakistan (0.34) and Sri Lanka (0.63).

India is known for its vast pool of scientific personnel and engineers. There were 149 such people involved in Research and Development (R & D) per every million Indian during 1987-97. Barring one, even in this field, other countries were in a better position. The picture may not vary significantly even if we reckon the Indian engineers and scientists who have migrated. During

the same period, 5.0 per cent of manufacturing exports was technology related, which was behind all other countries, except the South Asian neighbouring countries.

Safe water sources and sanitation are also basic infrastructural needs to improve the health condition of the people. As we shall see in the social indicator, India has not done well on this front also.

Going by some of these infrastructural indicators above, it is not surprising to find that in the 1998 Global Competitiveness Report by WEF, India was rated 53rd out of the 53 countries surveyed in the context of infrastructure (World Bank , 2000).

Social Indicators

Social indicators would include not only access to food, shelter and clothing but also the knowledge and health of the people. A comparison of some of these indicators along with two indices *viz.*, 'Human Development Index' and 'Human Poverty Index' among our select group of countries would be revealing.

An important social indicator in any country is the literacy of its people. In 1998, the adult literacy rate in our country was 55.7 per cent only and better than Pakistan (44.0 per cent) but far below Sri Lanka (91.1) and China (82.8). The picture is the same with respect to youth literacy, which was 71.0 per cent as against 96.5 in Sri Lanka and 97.2 per cent in China. But, it is noteworthy that during 1995-97, public expenditure on education as percentage of GDP at 3.2 per cent was comparable to many countries. Also, during 1994-97, despite our higher illiteracy rate, within the education expenditure, we have spent a lower percentage of 66.0 per cent at the level of pre-primary, primary and secondary level. For example, Pakistan and Sri Lanka spent about 3/4th or more on this level of education.

Besides education, health is a basic necessity of life. Though 81.0 per cent of our people during 1990-96 had access to safe water sources, we were better off only in comparison to three other countries. And in sanitation, with just 16.0 per cent of the people having access to it, we were worse-off as compared to all these countries in the group.

70 infants out of every 1000 died in India in 1998. Similarly, in 1998, only one country had a lower life expectancy than India (63 years).

Out of every 1 lakh Indians, 118.3 suffered from tuberculosis in 1997, overshadowed by South Africa (242.7) only.

During 1990-97, 33.0 per cent of the infants were born underweight. Our record is worse than Pakistan and Sri Lanka where it was 25.0 per cent.

In 1997, two countries supplied fewer calories daily to each of their people than the supply of 2496 calorie by India. The daily per capita protein consumption of 59 grams in 1997 was also low. We also spent a much lower percentage of GDP (0.60 per cent) on health services in 1990-98 than other countries have spent.

During 1992-95, there were 48 doctors available to every lakh Indians, better than Sri Lanka only.

The World Bank prepares a composite index called 'Human Development Index' (HDI) to measure the average achievement in basic human development. The index comprises 'Per Capita GDP (PPP) Index', 'Education Index' and 'Life Expectancy Index' considered to be the three basic essentials of life. As one would expect, based on the discussion above, in 1998, only one country in our group was worse than our position in the first two sub-indices, and only one other in 1998 in the third index. Not surprisingly, India's HDI ranking out of 174 countries in 1998 was 128th.

The World Bank also prepares an index called 'Human Poverty Index' (HPI). As against HDI, this index measures the extent of deprivation, rather than development, in the three essential dimensions of human life reflected in HDI. In the ranking of this index as of 1998, for 85 developing countries, we were at the 58th position.

How We Progressed

One can see that in terms of rate of growth, we have done better in the latter half of the 20th century than during the first half, and far better in the final two decades. Over the period, fluctuations in growth of output have been reduced. The resilience to withstand shocks has progressively increased. External sector has become comfortable in the sense that there is no foreign currency constraint on growth now. Yet, we have pervading poverty, high illiteracy and poor condition of health and sanitation. There are islands of excellence like information technology experts amidst a sea of deprivation and misery. Clearly, economic policy, especially of 'nineties has removed several constraints on economic growth, which is in itself an achievement and a necessary condition for the rest of the goals of a civil society. But, there are lurking doubts on whether we are systematically building a system that would ensure continued high level of growth and, achievement of minimum social objectives associated with such growth. Perhaps, India's rank in the indicators that have been scanned will give a clue as to what we should do to dispel the doubts about the future.

How Are We Poised?

Economic indicators show that we are one of the fastest growing economies now, with high saving and investment ratios coupled with a respectable level of productivity as evidenced by capital output ratios. External sector is comfortable, though with relatively low level of capital inflows – a reflection as much of lack of interest of overseas investors as of ambivalent attitude domestically. Our position in 'Current Competitiveness Index' shows confidence in our growth performance in the short run. However, our position in 'Growth Competitiveness Index' indicates a less optimistic picture in the future growth of per capita income. The position in regard to other related indicators also gives rise to a feeling that factors contributing to current growth are relatively stronger than those contributing to future growth, unless strong policy actions are initiated soon. At the same time, there is impressive confidence that our economy will not go into a slump, *i.e.*, ours is a very stable economy.

Institutional indicators may provide some answer to this difference in perception between immediate and medium term to long-term prospects. The evidence is subjective and hence not very reliable, but the high rank in corruption is of concern. More disturbing is the perception that effectiveness of government is low. As regards the role of law and business environment, the picture is satisfactory but does not, as per current indications, appear to assure an environment for a high growth path. The government, law, and business environment are only means to an end, the end being socioeconomic well-being of the people. The critical part is in the outcomes as reflected in socioeconomic indicators where India appears to be lagging.

Yet another significant set of indicators relevant for medium term prospects relate to infrastructure. India seems to score rather poorly in regard to energy, say in terms of power-consumption or wastage of power. In spite of recent improvements, India is lagging in telecommunications, and is virtually the last in penetration of personal computers. Here is an example of islands of excellence in information technology, but the domestic penetration of information technology is very low. This position is confirmed by the fact that we are also low in regard to percentage of technology related exports in manufacturing exports. While assessing the future, we should note that, though we have a large pool of scientific personnel and engineers, in terms of their deployment in Research and Development, we are almost at the bottom. Our rank at 49 in the 'Growth Competitiveness Index' among the 59 countries surveyed in Global Competitiveness Report may be explained significantly by our position in these infrastructural indicators.

Finally, the end product of all economic policy is social well being, and admittedly the long term prospects for economic growth also depend crucially on the social well being. The social indicators in regard to our country do not give us too much of comfort. Literacy levels are low, though public expenditure as a percentage of GDP is comparable to many other countries. The picture in regard to health and sanitation is not encouraging, and it is unfortunate that we spent in this area a much lower proportion of GDP than others.

Overall, we rank rather low in human development and high in human deprivation. In spite of this, one notices relatively low levels of public expenditures in health, and in primary education though mere expenditures may not reflect actual delivery of services. I believe that there is a very disturbing insensitivity among many of us to human suffering and needs of the poor, relative to say costs of subsidies and welfare of employees in organised sector. The policy makers and more importantly opinion makers including academics perhaps need to consider issue of the mending of mindset in favour of the poor. For now suffice it to say, apart from the issue of social conscience, in assessing long term prospects for growth in cold economic terms, acceptable levels of social development and consequent appropriate role of government appear critical for an assured prosperous future for our country.

What are the Inferences for Future?

The inferences from the above analysis of past performance and current status in the global context are mainly five-fold.

First, performance since our plan-era has been mixed in terms of our needs and capacities, reasonable on a global-scale, and is getting progressively better especially in the recent years. We have lagged behind in the social dimension of growth. The current mood of confidence needs to be tempered with realisation of actions overdue in these areas, to sustain the momentum in the medium term.

Second, the immediate prospects for growth with stability are good and are mainly a result of removing the structural bottlenecks to growth especially in terms of deregulation and liberalisation. Obviously, that is not enough to continue with high growth in the medium term. For the medium term, immediate attention to institutional and infrastructural issues appear to be urgent, and the tasks are complex.

Third, the long term prospects are even more contingent on immediate actions in the areas covered by social indicators. In the context of growing awareness of people and inevitable global competition, mere meeting of minimum health needs and imparting literacy would certainly be inadequate. Healthy population with potential for rapid skill-upgradation is absolutely essential for us to survive as a nation with dignity and respect.

Fourth, both the medium term challenge, relating to institutions and infrastructure as well as the longer term one relating to social development, demand a more focused government and a government that efficiently delivers the essential services that it is supposed to deliver, as an overarching priority. What we need is not less government and not even more market, but better government and genuine market. I humbly submit that it is on this basis that the debate on State *versus* market or government *versus* market should now be resolved in our country. So far, perhaps the reality in our country was often State and market *versus* poor people but effort should now be to aim for State and market for the people, or better government and genuine market *for* the people.

Finally, the refocused role of government demands both professional skills and personal integrity among all leading participants. Tomorrow's problems cannot be solved with yesterday's strategies, and cannot even be understood with day before yesterday's knowledge.

That is why we need more, much more of Vivek Vardhini and Vivek Vyapthi.

*** Golden Jubilee Commemoration lecture delivered by Dr. Y.V. Reddy, Deputy Governor, Reserve Bank of India, on the occasion of Swarna Mahotsavam of Vivek Vardhini College, Hyderabad on October 30, 2000. The assistance by Shri Jeevan Khundrakpam, Assistant Adviser, Department of Economic Analysis and Policy is gratefully acknowledged.**

Annexures

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Annexure - 1: Comparison of Economic Performance Among Select Countries

Indices	India	Singapore	China	Pakistan	Sri Lanka	South Africa	Mexico	USA	Japan
1. GNP (World Bank Atlas method)									
a. per capita 1999 (in \$)	450	29,610	780	470	820	3,160	4,400	30,600	32,230
b. ranking of countries	162	9	140	160	137	86	71	8	6
2. GNP (PPP)									
a. per capita 1999 (in \$)	2,149	27,024	3,291	1,757	3,056	8,318	7,719	30,600	24,041
b. ranking of countries	153	7	128	159	136	69	75	4	14
3. GDP annual growth rate in %									
a) 1980-90	5.8	6.7	10.1	6.3	4.0	1.0	1.1	3.0	4.0
b) 1990-99	6.1	8.0	10.7	4.0	5.3	1.9	2.7	3.4	1.4
4. Average annual rate of Inflation 1990-98 (in %)	8.9	2.1	9.7	11.1	9.7	10.6	19.5	1.9	0.2
5. Gross domestic investment (GDI) as % of GDP (1997-1999)	23.9	34.5	38.8	15.7	24.8	15.9	24.8	18.5	29.2
6. Average annual growth of GDI (1990-99)	7.4	8.5	12.8	2.1	6.2	3.0	3.9	7.0	1.1
7. Gross domestic savings as % of GDP (1997-1999)	20.3	51.4	42.5	11.2	18.3	17.3	23.8	16.7	30.0
8. Average annual growth of exports of goods & services (1990-99)	11.3	-	13.0	2.7	8.4	5.3	14.3	9.3	5.1
9. External debt as % of GNP (1998)	23.0	-	16.4	52.8	54.9	18.9	42.0	-	-
10. Gross reserves (in US \$ billion)									
a) in 1990	5.64	27.75	34.48	1.05	0.45	2.58	10.22	173.1	87.83
b) in 1999	32.7	76.84	157.73	1.51	1.64	6.35	31.78	60.5	286.92
11. Net foreign direct investment (in US\$ billion)									
a) annual average 1987-1992	0.06	3.67	4.65	0.23	0.06	0.024	4.31	46.21	0.91
b) 1998	2.26	7.22	45.5	0.5	0.35	0.37	10.24	193.4	3.19
12. Composite ICRG risk rating (March 2000)	64.3	89.0	72.3	54.3	60.3	70.5	70.5	80.0	82.0
13. Institutional investor credit Rating (March 2000)	45.3	80.4	56.6	18.8	35.4	45.2	49.8	92.9	86.9
14. Stock market capitalisation (in US\$ billion) in 1999	184.6	198.4	330.7	6.97	1.58	262.5	154.0	16635	4547
15. Stock market capitalisation as % of GDP in 1997	33.7	110.4	22.9	17.8	13.9	179.8	38.9	144.4	52.9
16. Subsidies & other current transfers as % of total expenditure in 1997	40	8	-	8	20	49	51	60	-
17. Education Profile									
a) Public education expenditure as % of GNP (1995-97)	3.2	3.0	2.3	2.7	3.4	8.0	4.9	5.4	3.6
b) Public education expenditure as % of Govt. Expenditure (1995-97)	11.6	23.4	12.2	7.1	8.9	23.9	23.0	14.4	9.9
c) Share of pre-primary, primary	66.0	60.3	69.6	79.8	74.8	73.1	82.8	74.8	81.2

(% of GDP)									
a) 1990	-7.5	10.8	-1.9	-5.4	-7.8	-4.1	-2.5	-3.9	-1.6
b) 1998	-5.2	11.8	-1.5	-6.3	-8.0	-2.9	-1.1	0.9	-
24. Capital Expenditure of Central Government(% of GDP)									
a) 1990	1.8	5.1	-	2.6	6.1	3.1	2.5	1.8	2.0
b) 1998	1.6	5.1	-	2.5	5.3	1.2	1.9	0.6	-

Note: The data for making country comparisons are primarily culled out from World Development Reports and Human Development Reports, World Bank. For the performances of Indian economy during the post-Independence period, they are mostly drawn from Economic Surveys, Government of India, World Development Reports, World Bank and RBI Occasional Papers Vol. 18 Nos. 2 and 3.

Annexure – 2 : Socio-Economic Indices and Their Interpretation

Type of Index	What does the Index Attempt to Gauge and its estimation
1. Technology Index	Based on observed data and survey results, the index measures the level of technology in a country. It takes into account of countries' involvement in innovation and import of technology from abroad.
2. Start-up Index	This index is also based on observed data and survey results. It measures the condition favouring business start-ups.
3. Economic Creativity Index	This index combines the above two indices in order to gauge a country's involvement in economically effective innovation or transfer of technology('technology index') and the condition favouring business start-ups ('start-up index'). The most creative countries are also among the fastest-growing over the past decade. America has pace setting innovation and the best start-up environment. Though Singapore is not a great innovator, its economic creativity is very high through rapid import of technology.
4. Growth Competitiveness Index	It aims to measure the factors that contribute to future growth of an economy, measured as the rate of change of GDP per person, in order to explain why some countries are improving their prosperity faster than others. Variables that contribute to levels of productivity, high rates of accumulation and innovation and improvements in productivity and statistically significantly are taken into account in constructing the index. The indices are 'economic creativity index', as explained above, 'finance index' and 'international index' all of which are assigned equal weights of one-third. 'Finance index' measures the efficiency of financial system which is conducive to high rates of saving and investment and the 'international index' measures the degree of economic

integration with the rest of the world.

5. Microeconomic Competitiveness Index

It attempts to measure the microeconomic foundations of economic development, rooted in firms' operating practices and strategies as well as in the business inputs, infrastructure, institutions and policies that constitute the environment in which a nation's firms compete. Bivariate relationships between these microeconomic variables and GDP per capita are estimated. And weighting all the variables, common factor analysis is employed to provide a single composite picture of relative microeconomic competitiveness. The factor score of the dominant factor which captures the variance among the variables is interpreted as the index.
6. Current Competitiveness Index

This index is built upon the microeconomic competitiveness index. The index aims to identify the factors that underpin high current productivity and hence current economic performance, measured by the level of GDP per person. The index takes into account of a nation's firms' operating practices and strategies and the quality of the nation's business environment. A variety of measures reflecting the sophistication of company operations and strategies are statistically related to GDP per capita and are combined into a sub-index of the sophistication of company operations. Next, a variety of measures reflecting the quality of business environment *viz.*, quality of inputs, availability and sophistication of local suppliers of components, machinery, etc., sophistication of local demand and rules governing vitality of competition and the incentives for productive modes of rivalry are statistically related to GDP per capita and combined into another sub-index of the quality of the business environment. The two sub-indices are then combined to obtain the current competitiveness index.
7. Human Development Index

It measures average achievement in basic human development in one simple composite index. It is based on 3 indicators: a) longevity, as measured by life expectancy at birth; b) educational attainment, as measured by a combination of the adult literacy rate (two-third weight) and the combined gross primary, secondary and tertiary enrolment ratio (one-third weight), and c) standard of living, as measured by GDP per capita income in PPP US\$. The index for each of these indicators are obtained as ratio of the difference of the actual value from the minimum value to the difference of maximum value from the minimum value. HDI is then obtained as the simple average of these three indices.
8. Human Poverty Index

For the developing countries (HPI-1), it concentrates on the deprivation in the three essential dimensions of human life already

reflected in HDI. First deprivation is represented by % of people not expected to survive age 40 (P1). Second deprivation is represented by % of illiterate adult (P2). The third deprivation is represented by the simple average of % of people without access to safe water and without access to health services and % underweight children under five(P3). The index is obtained as cubic root of the simple average of cube of all the three variables. For the industrialised countries (HPI-2), there are four deprivation: a) % of people not expected to survive age 60; b) functionally illiterate; c) % of people below income poverty line, set at 50% of median disposable household income, and d) rate of long-term unemployment. The index is obtained as cubic root of the simple average of cube of all the four variables.

9. Transparency or Corruption Perception Index
It attempts to assess the level at which corruption among the politicians and public officials is perceived by people working for multinational firms and institutions as impacting on commercial and social life. The index is poll of polls prepared by using 10 different surveys and at least 4 surveys are required to include a country in the list. The score for overall integrity of a country as perceived in the surveys are placed between 0 to 10, with higher score indicating cleaner country. The divergence of views among surveys are recorded by variance.
10. Emerging Market Access Index
It measures the market openness based on 16 indicators which include average tariff levels, import quotas, rules on intellectual property rights, export subsidies, government procurement policies and investment barriers.
11. Recessionary Expectations
It is based on the survey of executive opinion on the likeliness of a country going to slump in the next year. The scores are placed from 0 to 7, with higher score reflecting less likeliness of being in recession.
12. Globalisation Index
It ranks countries by variables such as openness to trade and investment, creditworthiness and the importance of tourism and transfers from foreign workers.

Annexure - 3: Ranking of Select Countries Based on Various Socio-Economic Indices

Indices	India	Sing- apore	China	Pakistan	Sri Lanka	South Africa	Mexico	USA	Japan	Total No. of countries surveyed
1. Economic creativity	38	3	48	-	-	26	35	1	21	59

Index (2000)										
a. Technology Index (2000)	38	3	47	-	-	32	11	1	6	59
b. Start-up Index (2000)	38	7	46	-	-	19	51	1	37	59
2. Growth competitiveness Index (2000)	49	2	41	-	-	33	43	1	21	59
3. Current competitiveness Index (2000)	37	9	44	-	-	25	42	2	14	58
4. Microeconomic competitiveness Index (1999)	42	12	49	-	-	26	34	1	14	58
5. Environmental regulatory regime index (2000)	43	-	40	-	-	27	30	9	12	53
6. Financial market sophistication (1999)	39	9	50	-	-	14	35	1	26	59
7. Corruption perception Index (1996) \$	46	7	50	53	-	23	38	15	17	54
8. Human Development Index (1998)	128	24	99	135	84	103	55	3	9	174
a. GDP (ppp) index	0.51	0.92	0.57	0.47	0.57	0.74	0.73	0.95	0.91	174
b. Education index	0.55	0.86	0.79	0.44	0.83	0.88	0.84	0.97	0.94	174
b. Life expectancy index	0.63	0.87	0.75	0.66	0.81	0.47	0.79	0.86	0.92	174
9. Human Poverty Index (1998)*	58	-	30	68	35	33	12	18	9	
10. Recessionary expectations (January 2000) (on score between 0 to 7) #	6.0	6.2	5.4	-	-	6.3	5.2	5.7	4.6	
11. Globalisation Index annual average % change, 1993-97	2.0	6.0	7.0	-	-	4.0	-4.5	5.0	0.5	
12. Emerging market access Index (2000)	46	86	37	-	-	72	68	-	-	

* for 85 developing countries and 18 industrialised countries(in which USA and Japan belong) separately. \$ – higher the rank greater is the degree of perceived corruption or lack of transparency. # – higher the value less is the recessionary expectations.

Annexure-4 : Source of Information of Various Socio-Economic Indices

Source of Information	Type of Index/Ranking
a. Primary Sources	
World Economic Forum	1. Growth Competitiveness Ranking (composite)

2. Current Competitiveness Ranking
3. Microeconomic Competitiveness
4. Economic Creativity Index
5. Technology Index
6. Start-up Index
7. Environment Regulatory Regime
8. Level of Sophistication of Financial Markets

**Transparency International
& Gottingen University**

Corruption Perception Index

World Bank

1. Human Development Index
2. Human Poverty Index
3. Purchasing Power Parity Real GDP per capita
4. Data on Infrastructure
5. Data on Information
6. On Macro-economic Variables
7. On Socio-economic Indicators

b. Secondary Sources

The Economist

1. Recessionary Expectations
2. Change in Globalisation Index
3. Emerging Market Access Index
4. Emerging Market Listings

c. Other Sources

**S. Sivasubramonian (1998)
“Twentieth Century Economic
Performance of India”**

Information on pre-Independence days

**World Bank (2000) “India Reducing
Poverty, Accelerating Development**

1. Governance Ranking
2. National Sample Surveys (NSS) on Poverty

**Reserve Bank of India (1997)
Occasional Papers Vol.18 Nos. 2 & 3**

Information on Indian Economy during 1950 to 1990

**Government of India, Economic
Survey (1999-2000)**

Information on Indian Economy during 1950 to 1990