ANKUR

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DEPARTMENT OF ECONOMICS
STELLA MARIS COLLEGE
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CONTENTS

Editorial

The seedling 'Ankur' which was planted twelve years ago, has now grown into a sturdy plant. We, the Editors have great pleasure in placing before you, yet another issue of Ankur, the magazine of the Department of Economics.

The world is ever-changing; all around us, various events of great significance are taking place, which kindle the interest of an enquiring mind. Our students are keenly interested in the happenings in the country and the world. The wide variety of articles you will read in Ankur bears testimony to this. Articles dealing with the environment, the global scenario and the national scene are featured in this issue.

We do hope that you will find this issue, interesting, enjoyable and informative.

Mrs. Lakshmi
&
Mrs. Vasanthi
Editors

Mrs. Premila Ethiraj — A Tribute

Mrs. Premila Ethiraj has been with the college for thirty-three years. Her identification with the college is total. It is impossible to think of the institution and the Department of Economics, in particular, without her. Her dedication to work is to be emulated by all of us in the teaching profession.

After completing B.A.(Hons). in Presidency College (1957) and Diploma in Social Service in Stella Maris College (1958), she joined service in June 1959. Since then her involvement in each and every activity of the Department deserves to be acknowledged with thanks. In the midst of her busy family life and a demanding work schedule at college she acquired her M.A., and M.Phil degrees. Her friendliness, frankness and simplicity have won a special place for her both among the staff (teaching and non-teaching) and students.

Mrs. Premila's compassionate and generous reaching out to the needy is something which I have personally witnessed. Besides several instances have been quoted by those who know her intimately. The spontaneity with which she offers help is remarkable. Her generosity is "silent" with no publicity what so ever. She has the knack of knowing all about a person and maintains a wonderful Communication network. Her way of dealing with students is unique and her "motherly qualities" won their love and affection.

This tribute to her will not be complete if I do not make a mention of her special talents. Her love for music, embroidery and knitting is known only to those who are close to her. She places immense trust in God and is deeply religious. The vacuum caused by her retirement can never be filled in the real sense of the term.

We all will miss her. My colleagues in the Department and I wish her and her family good health, peace and happiness.

S. Ramani

Economic Incentives & Environmental Quality

The industrial revelation has brought with it, a growing demand for power and raw material such as the world has never seen. The fantastic rate of expansion, continue through the last decade, has established that in the first two decades of the twentieth century, mankind consumed more energy than it had used in total over all the previous centuries of its existence.

Many, if not most, of the resources, suffering abuse from industrial activity are properties that belong wholly or in part to the entire community.

Thus there is an urgent need to control usage and wastage of scarce natural resources and to protect and preserve the environment; since, that which is owned by all is often the most abused or misused.

Several Governments have tried to do their mite by introducing various measures - incentives, punishments, legislation, rules, taxation, tariffs, bans and subsidies. They have had their effect in one way or the other or have proved to be another futile attempt by the bureaucracy, which has always had too little time for these matters in the past.

The pricing system allocates scarce resources among different time periods and rations their usage among competing alternatives, at each point in time. Higher prospective prices will discourage immediate consumption and thus strike a balance between current and future utilisation. This is based on a simple demand-supply nexus.

But it has its limitations :

1. Investments in the future will benefit the community, not so much the investors themselves and hence may not be preferred.
2. Inappropriate government control may actually destroy the ecology and finally raise the price of the resources.
3. Fixation of the price of a resource may lead to faster depletion as it remains cheaper in the long run.

There are several alternative strategies using various economic incentives that are designed to encourage private economic behaviour condunsive to improved environment quality. The choices between them involves complex consideration.

One has to consider firstly, the relative allocation efficiency especially when the source is scarce and the end uses are many. The ratio of social benefits to social costs must also be considered. The effects of income distribution must also be taken into account. Lastly, relative political acceptability is also important and one will face problems with regard to enforcement of rules or ideas.

The important fiscal tools among the many are:

A. **Government Tax** : If correctly set, it could internalise the full external cost of production and induce the firm to reduce output. The adjustment is made in response to economic or profit considerations and hence does not require extensive government supervision. Any tax acts as an economic penalty and is a deterrent to related activities as well. **Effluent charges** are a particular form of tax having the most direct application to the problems of environmental quality. But the price of environmental quality is paid by the consumer.

B) **Subsidy** : Subsidies act as a bribe, not to discharge waste. With this, the property rights of discharging wastes into the environment, implicitly accrue to the polluter. The Government, in effect, offers the polluter a payment, not to exercise this right. The polluter attempts to maximise profit by giving up (or selling) his right to discharge wastes.

C) **Individual Quotas** : In some cases it would be better to assign separate quotas to each waste source. This individual waste quota would be able to correct the inefficiency implicit when waste reduction costs are different between sources, because depending upon the individual cost functions of the various firms they will be assigned waste quotas, so that each incurs only the minimum cost of reduction of the amount of waste. But strident critics point out that any efficiency gains, may be effected by enormous increases in the uniform cost associated with formulating and implementing this individual regulatory policy.

Distributional considerations may also modify a policy based solely on the efficiency criteria. Prices of the final product would rise and consumers would be worse off. Firms with more efficient treatment facilities could reduce waste more economically and force others out of business. This equity consideration may be important in assessing the desirability of implementing the various tools.

D) **Bubble concept** : Here an imaginary bubble is placed over the industrial plant - i.e it is allowed to choose how to reduce its total emission to meet its reduction target. Only the total reduction target is set. As each firm finds the cheapest way to reduce emission, it has proved significantly efficient.

E) **Offset Policy** :A firm seeking a raise its emission elsewhere in its operation, must reduce emission some where, to accommodate the new or increased emission from expansion.

F) **Prohibition** : A final possibility; it is considered drastic as it forecloses all alternative sources of action. It may be grossly inefficient, socially undesirable, and politically and physically impossible to implement.

Thus a number of policy statements are possible to achieve environment quality. Some rely on the profit maximising behaviours of firms to obtain the desired level of environmental quality. Some others offer to purchase the right to pollute but it is felt that these are a license to pollute. If a firm is willing to pay an extra cost, it can pollute the environment.

But the roots of opposition to all are distributional results of effluent charges. These result in lower output, high prices, loss of property rights and a potential decline in profits.

In the real world, administrative problems accompany policies. The efficiency and equity advantages of the fiscal tools, represent only part of the basis upon which to choose policy.

Thus the complex task of administration, information, monitoring and enforcement, must weigh on the selection of appropriate environmental policies.

Madhunika. R. 92/EC/119
I MA (Economics)

Impact of Pesticides on Environment

The debate over pesticides use in India has been framed in a false dichotomy- prevention of human and environment pesticide poisoning versus increased foodgrain production and control of insect borne diseases. However, analysis of the effects of pesticides reveal that increasing pesticide use does not boost foodgrain production over the long run but, instead, has led to a resurgence of both target and secondary pests.

In 1962, Rachel Carson published the classic, "Silient Sprint" which shocked the Western world into cons ciousness and led to the banning of DDT as well as enactment of pesticides regulation on many countries. In 1977, Rolling Stone editor David Weir provoked another public outcry by disclosing that US and European corporations were selling drugs, pesticides and other chemicals which were banned in their home countries, to the developing countries. In 1975, Ciba Geigy used Indian as human guinea pigs to test the effects of pesticides and sprayed 38 Indians, aged 13 to 57, with the organo phasphate Navacron 40.

India still slumbers in a "Kumbakarni" sleep: only one of the world's most hazardous pesticides, known as the "dirty dozen" is banned in India. The "dirty dozen" include DDT, BHC (benzene hexacholoride), alderin, EDB (ethylene dibromide), Chlordane / heptachlon, methyl parathion pa raquat, DBCP (dibromo chloropropane), Chlormideform, 2,4,5-T, roxophene and PCP (pentachlorophenol). These pesticides are deadly. Nevertheless, only 2,4,5-T has been disapproved for registration in India. All of the "dirty dozen" are banned or severely restricted in industralised countries.

All pesticides used on Indian farms are banned or severely restricted in western countries and identified by the WHO as extremely toxic or hazardous. Even greater percentage of pesticides banned in west are used in Indian public programmes, for example, DDT has been banned in 24 countries. India consumed 15,826 metric tons in public health programmes in 1984-85. Similarly, although BHC, twice as toxic as DDT, has been banned in five countries and severely restricted in 15 countries including the US, 25,000 tons were used in India in 1986.

India is the largest consumer and manufacturer of pesticides among south Asian and African countries and use of pesticides in India has multiplied 20 times between 1960 to 1980. The introduction of HYV seeds during the green revolution increased pesticide consumption as the new varieties are less resistant to pests than traditional breeds.

The risks of increased use of hazardous pesticides are magnified in India as in tropical conditions, it is very difficult to use protective clothing, facemasks, gloves and boots while spraying. Furthermore, illiteracy and lack of information among farmer contribute to pesticide misuse. India accounts for over 1/3 rd of the 5,00,000 acute pesticides poisoning which the WHO estimates over every year in the developing countries.

Indians faces much higher risk of death and disability caused by acute and cumulative exposure to pesticides as they carry more pesticide residues in their bodies than people anywhere else in the world. Indians ingest 40 times as much

DDT and BHC as their American and English counterparts.

In addition to the castrophic effects on health, pesticides have also polluted water, soil and air as they do not degrade easily and can persist in the environment for as long as 20 years. Furthermore as pesticides are not selective biotic killers they also kill many non-target species as well as the targeted pest.

In addition to destroying natural enemies pesticides result in the emergence of resistant insect species. Resistance develops according to the Darwinian concepts of natural selection. According to a 1980 study by the FAO 432 species of Arthopods are resistant to several insecticides. As a result cotton farmers in Gujarat spray their fields 20 to 30 times more often than before. Furthermore, malarial mosquitoes have also developed resistance to pesticides as DDT.

Recognising the ineffectiveness and tremendous hazards created by pesticides, many western countries have shifted towards use of Integrated Pest Management (IPM). IPM is a combination of techniques which include biological controls such as releasing natural enemies of the target pest in the area where the pest is located, developing host resistance by selective breeding of resistant crop varieties; autocidal controls that is, tactics which cause the pest to contribute to the reduction of its own population and cultural controls, techniques which make the environment less favourable to pest reproduction and survival.

Experimental IPM programme in India has successively reduced use of pesticides on cotton by 1/2 and have increased yields. Biological controls have been proved successful in controlling vegetable crop pests in India. And biological controls have been successfully used instead of DDT to control malarial mosquito's.

Experimental evidence shows that IPM is a far more sustainable agricultural practice than pesticides spraying as it selectively controls pests without either creating an outbreak of newly resistant species on contaminating the entire eco system with toxic chemicals.

S. Delma
I.M.A.

An 'ECONOMICS' Quiz

1. Who coined the term 'Permit, License and Quota Raj'?
2. Which is the greenest city in the World?
3. Which famous book is subtitled, "A study of Economics as if people mattered"
4. According to Fortune 500, who is the 47th richest man in the world?
5. What would you know the first Baron of Tilton better as ?
6. Who was the first Millionaire in America?
7. Whose written works include "Indian Painting", which he co-authored with Mohinder Singh Randhawa?
8. Who is the youngest ever MD of a public sector company in India?
9. This famous humorist was also the head of the department of Economics at a Canadian University. Identify him ?
10. Which is the most populous island in the world?

Niranjana. S.
90/EC/21

(Answers on Page 37)

Evolution and Future of Exchange Rate Mechanism (ERM)

The depression of the 1930's led to disruptive beggar my neighbour policies such as the competitive devaluations. This provided the context for the establishment of the Bretton Woods system of fixed parities of IMF member's currencies with reference to the U.S. dollar. This system provided a stable payments mechanism for international trade, facilitated liberalisation and rehabilitated wartorn industrial economies for over two decades.

With the passage of time however inter economy differentials in productivity, competitiveness and inflation resulting in trade imbalances exposed the weakness of this system. This trend was heightened due to the growing weakness of the U.S. dollar, Besides the lack of co-ordination among the member nations with regard to their economic policies further worsened the situation.

Recognising the rigidity of this system following the devaluation of the dollar in the 70's the Bretton Woods agreement replaced it with what was popularly known as the floating rate regime. It was believed that this system would provide an inbuilt flexible corrective mechanism to inter-currency misalignments and discourage speculative currency movements. In practice however this system could not serve the above mentioned purposes but instead increased the volatility of exchange rates.

It was then that the European exchange rate mechanism (ERM) was established. It provided for fixed parities with specified fluctuation ranges and also allowed for readjustment of parities when necessary. The Deutsche Mark was to provide a strong anchor for the successful pursuance of policies aimed at economic and monetary conveyance. This served as a basis for the setting up the Economic and Monetary Union (EMU). During the 13 years of its functioning it developed considerable stability in currencies with only one technical change ie. when the Italian lira moved to a narrow fluctuation range.

RECENT DEVELOPMENTS

However on September 13, 1992 the Italian lira was devalued by 7% with reference to other currencies in the ERM. Few days later, considerable selling pressure on the pound sterling and the lira in the foreign exchange market forced them to move out of the ERM despite the intervention of the Central Banks. The French franc however did not succumb to this pressure of a penalty change due to the support of the Bundes bank. Then followed a chain of devaluations sparling from the Spanish Peseta which was devalued by 5% and later by 6% on November 22. The Portuguese escudo was devalued by 6% around this time. Fearing the dangers of market speculation, Denmark, Ireland, Spain and Portugal raised their short term money market rates. Earlier outside the European Community Sweden and Finland which had linked their currencies to the European currency unit with the view of joining the EC also allowed their currencies to float. This action of theirs was followed by Norway. Thus ERM which used to be a hallmark of stability now looks frayed.

The whole problem is traceable to Germany's unificaiton which has severely strained its fiscal position resulting in deficits. Inflationary pressures (4%) have forced the Bundes bank to tighten monetary policy by raising short term interest rates to 9% thereby putting pressure on the interest rates of other ERM members with a better monchary performance. But high interest rates are difficult to sustain in a necessionary environment. The soft currency countries ie. Italy, U.K. Spain, Greece and Portugal have substantial trade with the hard currency countries of EC namely Germany, France, Netherlands, Belgium and Denmark. The depreciation of most EC soft currencies has put the hard currency countries at a disadvantage poring the way for more competitive devaluations. The future of ERM probably lies in Germany's hands. Will it drop its interest rates to relieve pressures on other currencies and hence facilitate output growth of EC or is to going to be entangled in its own economic problems?

Teresa Paul, III.B.A.

The Limits to Growth

The two great watersheds of human history have been the agricultural revolution (which began 10,000 years ago), and the Industrial Revolution, which began about 200 years ago in Holland and England. The Industrial Revolution has been spreading and causing a permanent change in the quality of human life. But, instead of lasting 10,000 years, this second diffusion process is likely to be completed within a total span of 400 years, ie by the end of the 22nd century.

There are basically 2 perspectives of looking at growth, namely the "neo-Malthusian" and "Technology - and - growth" positions. The former refers to a modern version of Malthus theory that population would grow faster than food supply. The second is that, in the next 100 years material needs can be met so easily in the currently developed world that more advanced nations will develop super-industrial economies, and that the rest of the world will follow. However, a consensus is emerging among many scholars that a turning point has been reached in world history. It is argued that contemporary trends rule out any realistic possibility of continued world-wide economic development.

This view was echoed, and indeed, first formulated formally, in April 1968, when a group of 30 people from different countries, belonging to different professions gathered in Rome under the instigation of Dr. Aurelio Peccei, to discuss the present and future of mankind. Out of this meeting grew the Club of Rome.

The objectives of the Club were "to foster understanding of the varied components - economic, political, natural, social-that make up the global system, and in this way promote new policy initiatives and actions." The Club initiated a project called "The Project on the Predicament of Mankind", to examine issues such as poverty in the midst of plenty, alienation of youth, environmental degradation - problems which occur to some degree in all societies. The first phase of the project was a study at M.I.T. under the direction of Prof. Dennis Meadows. The team examined the five basic factors that determine, and therefore limit growth on the planet population, food production, capital, industrial production and pollution.

None of the 5 factors is independent. Population cannot grow without food, food production is increased by growth of capital, more capital requires more resources, discarded resources become pollution and pollution interferes with the growth of both population and food.

Not only does growth have limits, but it also has costs. An obvious one is external diseconomies. For eg. a factory emitting polluting smoke harms the whole environment. Besides the obvious costs (such as the cost of extra laundering due to the smoke), the long term effects of the omission on people's health has to be considered. After a certain point of time, the costs of growth for society outweigh the benefits which accrue to society and the producer. Generally, the gap grows with increase in size.

The second major cost of growth is the dereliction of the city. The growth of large cities during this century has been phenomenal and the result of this is the desperate lack of housing, the shortage of basic civic necessities like water and electricity, and increasing urban crime.

In many cases, unlimited growth has led to social conflict. In India, for eg. a growing population is pressing on limited natural resources and so, the incomes of property owners has risen, while, in general, the incomes of people all over have settled near bare subsistence.

The question now arises as the world grows toward its ultimate limits, what will be its most likely behaviour mode? It has been found that, under the assumption of no major change in the present system, growth stops before the year 2,100. But over the past 300 years, mankind has compiled an impressive record of pushing back the apparent limits to population and economic growth by a series of spectacular technological advances. For example, the technology of controlled nuclear fission has already lifted the impending limit of fossil fuel resources. Also, a world society with readily available nuclear power would be able to control industrial pollution generation by technological means. The green revolution has led to increased food production.

Intensive agricultural practices however, will cause soil erosion and ultimately lead to food shortages. Population control will not stop growth entirely, as it prevents only the birth of unwanted children. Often, the social side effects of technology are devastating. The green revolution for example, caused widening inequalities. The large farmers adopted the new technologies first, leading to the use of labour - displacing machinery and the purchase of still more land. The ultimate effect is agricultural unemployment and increased migration to the city.

Numerous problems today such as noise, pollution, crime, drug addiction, poverty tension, the nuclear arms race etc. have no technical solutions.

Two basic questions can be posed. Is it better to try to live within a natural limit by accepting a self imposed restriction on growth? Or is it preferable to go on growing until some other natural limit arises, in the hope that at that time another technological leap will allow growth to continue still longer? For the last several 100 years, humans have followed the second course so successfully that the 1st choice has been forgotten. By following the 2nd option, the basic behaviour mode of the world system has been shown to be the exponential growth of population and capital, followed by collapse.

What is required is a world system that is sustainable without sudden collapse, and capable of satisfying the basic material requirements of all its people. What would a world of non-growth be like?

The idea of an equilibrium state has been proposed for centuries from philosophers ranging from Plato and Aristotle to Mill and Malthus. The requirements for such an equilibrium are that capital and population are constant in size, that all input and output rates (birth, death, investment, depreciation) are kept to a minimum, and that the levels of capital and population are set in accordance with the values of society. Thus, this would be a dynamic equilibrium, where a society could adjust to changing internal or external factors by manipulating capital and population in a controlled fashion. In the equilibrium state, technological advances in fields such as methods to decrease pollution, techniques and recycling, harnessing solar energy, medical advances etc. would be welcome.

The important issue of the stationary state will be distribution, not production, as the problem of relative shares can no longer be avoided by appeals for growth.

The greatest impediment to more equal distribution of the world's resources is population growth. An equilibrium state would lead to greater equality.

Limits to growth, thus, are not only essential, but also inevitable. Today, with more and more people questioning the direction the world is taking, growth is no longer seen as the panacea for all evils. While in an LDC like India, growth in certain fields is necessary, in the long run, India too will move towards a stationary state. This state however, will not be imposed, but be welcomed. As J.S. Mill puts it, "It is scarcely necessary to remark that a stationary condition of capital and population implies no stationary state of human improvement. There would be as much scope as ever for all kinds of mental culture, and moral and social progress; as much room for improving the Art of Living and much more likelihood of its being improved."

Niranjana. S.
III B.A.

Human Development Index

The United Nations Development Programme (UNDP), has been bringing out the Human Development Report since 1990 to measure the pace of human development.

The main attraction of the report is a simple but ingenious Human - Development Index (HDI) designed to measure the relative progress of nations. This goes a step further than the annual ranking of GNP per head that is compiled by the World Bank. The HDI is composed by measuring, for all countries, the life expectancy, educational level and purchasing power of the people.

Thus taking the above criteria into account, Canada appears more developed than the US, its neighbour, due to longer life expectancy. Also because of low educational levels, the Arab nations of the Gulf are pushed down the table, even though they are ranked high in terms of wealth.

The UNDP team is led by the Pakistani economist Mahbub-ul-Haq. The index is getting more and more sensitive every year. The economists are trying to get valid unexaggerated data from the former communist countries, and also statistics on ethnic composition.

The UNDP team is also aspiring to measure freedom in some quantifiable terms. They are using figures compiled in the mid 80s. These were compiled on the basis of various human rights conventions, treaties etc. The UNDP is trying to measure and work out whether freedom and prosperity go together.

The UNDP figures are meant to be used by governments to frame policies. The index has shown that a nation's wealth cannot be translated into welfare,. In the same way, large government spending does not mean, that the government effectively promotes welfare among the masses.

South Korea, for example, uses a small public budget but a high expenditure on the people who need it. Comparatively Argentina, with a large public budget, spends little on social needs. Thus we see that this can be avoided by cutting the overall budget and making improvements in public services.

The main sufferers as shown in the HDI are women. The UNDP has shown how in 30 countries, women affect their countries standing in the index. The female development index, for industrialised countries was just 20% below the men. However for Kenya, the development of women is 50% that of men, which is bad.

The most shocking aspect, as brought out by the index is the mortality rates of women while giving birth. In most rich western countries, just under 10 out of every 1,00,000 mothers die while giving birth (however in Japan the figure is as high as 16). In India 40 mothers die per 1,00,000 births, in Pakistan the figure is 500. In Bhutan, Congo, Gambia and Ghana the death rate is 1000 ie. for every 100 births one mother dies.

Armies are the biggest wasters of poor countries already scarcé resources. Thus for some countries, the high military spending correlates with low spending on health and education. In contrast, rich countries spend almost the same amount of money on teaching as well as the armed services. Thus in countries where there are tensions with neighbours like Ethiopia, Iran, Iraq Gulf States, Soldiers out number teachers many times.

It is in the formulation of such indices that are more realistic, that economists and social scientists have to get together.

Shobha Rangarajan,III.B.A.

Gary Becker's views on Human Capital

Economics is increasingly seen as an antonomous and rigorous discipline to be practised by highly trained professionals.

This year's Nobel prize winner in Economics is Prof. GARY BECKER for his outstanding work in the subject of "Human Capital" done during his tenure at Columbia University. Ten years ago economists, made no apoligies for talking about aggregate production function and international factor endowments in terms of homogenecous units of labour and salaries in their studies of the operation of a labour market. Today, it has been realised that improvement in the quality of the labour cadre can have dramatic effects on economic growth. In short, in the 1960's the concept of Human capital, has emerged as a full blown discipline in its own right.

HUMAN CAPITAL refers to the stock of skills and productive knowledge that a population has acquired. Investment in human capital can be of two forms.

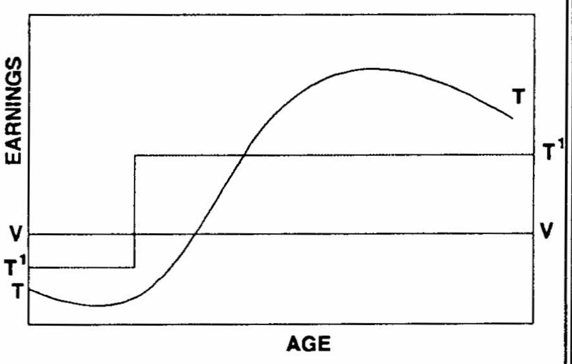
a) Education

b) On-the job training.

Education is one form of investment. The effect of education on earning and consumption depends on the size of returns, and nature of relation between investment and return. Yet, all these investments generally improve skills, knowledge or health and raise money and psychic incomes. There is evidence to show that more highly educated and skilled persons always tend to earn more than others. This is the case in both developed and less developed countries.

On-the -job training is dealt with more elaborately as it clearly illustrates the effect of human capital on earnings, employment and other economic variables. Many workers increase their productivity by learning new skills while on the job and this is done at a "cost" which includes the efforts of the trainees, equipment and other material used. Training can be of two types a) General and b) Specific.

Training usually increased the future marginal productivity of workers in the firm that provides it, but, general training increases the marginal product in many other forms as well. since in a competitive labour market the wage rate paid by particular firm is determined by marginal productivity in other forms, future wage rates as well as marginal products would increase in terms that provide general training. Thus wage rates would rise by exactly the same amount as the marginal product.



The above figure implies the effect of training on the relation between earning and age. VV is the earnings of a person who is untrained and it remains stagnant over a period of time. On the other hand T T is the earning of a trained person, though initially the earning is lower than that of the untrained person it rises much higher after a point of time, which in this case would be the training period.

Training which increases productivity more in firms providing it, will be called specific training. If all training were specific then wages that could be received elsewhere will be independent of training that a person secures. Wages in this case will be greater than actual Marginal product if some productivity is forgone as part of training period. And even if wages equal marginal product initially, they will be less in future.

One way to invest in human capital is to improve emotional and physical health. Emotional health is increasingly considered to be an important determinant of earning. The productivity of employees depends not only on their ability and the amount invested in them both, but also on their motivation which in turn partly depends on earnings because of the effect of an increase in earnings in moral and aspiration.

Thus Prof. Becker's writings exhibit a tremendous amount of technical virtuosity, though, he has been criticised for looking at society through a narrow prism. But which leading economist is free from criticisms?

As Prof. Ambirajan put it" Prof Becker the invader and imperialist surely deserves the highest honour".

Guddi Bajaj, III B.A.

Manpower Planning and Human Resources Development in India

INTRODUCTION

"A nation's most important asset is the skills and learning of its workforce," says Rebert B. Reich, Professor of Public Policy at Harward University.

The key to strong economic growth, healthy corporate profits and higher living standards is productivity and that means investing in people and improving their social welfare.

Man participates in economic society both as a factor of production, a producer of goods and services in the economic process, and also as a consumer and recipient of the burdens and benefits generated by the production process.

The efficient development and utilisation of manpower in an economic system facilitates the attainment of goals and values established by a society.

Manpower is a basic economic resource. It is an indispensable means of converting other resources for the benefit of mankind. The proper development of human resources through creative and effective utilisation of skills of people, should therefore form a part of any modern development strategy.

We observe that in planned or unplanned economies, shortages and surpluses of different types of manpower tend to persist side by side. Such imbalances are undesirable from the point of view of individuals, since they suffer losses not only in earnings, but also in morale, status, wealth and so on. These imbalances are also undesirable from the point of view of society since the growth of the economy may be restricted by shortages of particular kinds of manpower. Thus, the attempt to eliminate such imbalances by deliberate manpower planning can make a contribution both to individuals and to social welfare.

Why do imbalances occur?

Rigidities may exist in the labour market for a large number of reasons.

Cultural factors and habits often limit the mobility of manpower between areas or between jobs.

Similarly, poor labour market information about earnings, employment vacancies and manpower availabilities may substantially lengthen the time taken for the participants in the process to react to signals.

Institutional controls - for example the restriction of manpower in certain professions - and monopoly practices by employers may also hinder the functioning of the labour market.

Finally, the training periods of some types of manpower- particularly highly specialised - are so long that supply may never be able to catch up with demand and hence, labour markets may be in a continuous state of disequilibrium.

Rigidities in the production process govern the ease with which one type of manpower can be substituted for another and these may be more critical than rigidities in the labour market.

So, How do we overcome the simultaneous co-existence of shortages and surpluses?

This problem calls for the re-allocation of manpower from some uses to others. This could be brought about by -

1) Identifying the existing stock and estimating the probable requirements according to leading sectors in the economy.

2) Forecasting of Manpower Requirements - This is not easy for it means forecasting of the categories of skills required to meet the output targets of individual sectors of the economy. This can be done in several ways, the simplest method is to make direct enquiries from the employers about their future needs. But the employer's forecasts are generally based on short term considerations. Thus, their forecasts are more valid for the present situation rather than to the future needs. Another method can be to draw projections on the basis of the past trends. This method, too does not appear to be satisfactory and reliable because firstly, data may not be available and secondly, planners may not like the past trends to continue. The method adopted for the Organisation for Economic Co-operation and Development (OECD) Mediterranean Regional Project has been claimed to be the most satisfactory. This can be divided into 2 parts :

   i) The future requirements of manpower are assessed on the basis of output forecasts for each sector on the assumption of trends of productivity, employment per sector and the total employment that will be created.

   ii) Human resources are divided into categories according to skills or occupations for each sector. The manpower requirements of all sectors are then totalled up.

This method is advantageous because it can help in comparing the manpower forecasts with targets and operations embodied in the economic plan.

3) Balancing of shortages and surpluses

In the field of manpower planning, balancing means the adjustment of the supply of manpower resources to its demand. The demand for manpower can be assessed after the analysis of the existing situation as well as on the basis of the future development needs. The supply of manpower has 2 aspects - the existing supply of manpower and the expected output of the training and educational system.

The imbalances thus, detected could be dealt with in four possible ways.

a) the scarce skilled manpower can be utilised more efficiently if the labour market is organised properly enabling manpower to migrate to sectors where it may be more gainfully and usefully employed.

b) another way of matching jobs and workforce abilities is through education. since one of the functions of the educational system in a society is to provide its work force with the abilities required for productive activity, it follows that the system must be reasonably well geared to the production requirments of the economy. Moreover, it is the future pattern of manpower requirements that must guide today's educational decisions. It would be vital to change the traditional education rather than general education.

Besides formal education, development of manpower resources also involves imparting skills and knowledge and broader opportunity for unutilised or under-utilised manpower.

c) Continuous upgrading of skills in order to help people and companies pursue new opportunities is no longer a luxury but a necessity. Encouraging learning builds innovation and entrepreneurship. Learning is an essential motivational tool, which requires people who easily learn not people who are easily taught.

Some companies worry about the consequences of lavish training. What if we invest in people and then they leave? Singapore solves this problem by bonding. But such legal handcuffs may not be necessary. The data available suggests that most employees stay with companies that provide training as not employees and the company become valuable to one another.

d) Technical know-how imported from abroad should not be on a permanent basis.

Thus, while planning for progress we observe that one can not afford to ignore the importance of population. It is for the people that plans are drawn up. Trouble starts when the population outpaces the pace of development. This is happening in all developing countries and our country is no exception. Hence manpower planning is more urgent in developing countries, for without the provision of manpower inputs of adequate magnitude, right quality and their timely application, the process of economic growth does not get the right start.

The need to develop and utilise human resources rationally in India was recognised even before independence. Accordingly a large number of expert committees and panels were set up - Health survey and Development Committee, Institute of applied Manpower Research, Directorage General of Employment and Training and so on.

In India, the approach to manpower planning can be called essentially 'pragmatic', based entirely on the 'requirement' and that too in respect of selected educational categories - engineering, medical, teaching and so on. An important aspect of manpower planning that has been overlooked in our country is the problem of creating employment for the sizeable proportion of educated manpower which comprises of degree holders and matriculates.

Real-life planning depends on the availability of data. Employment and education are state responsibilities. Data on past utilisation of manpower, has to be obtained from the states and this arrangement naturally has to accept certain built in delays at the central level.

Actual forecasts made in India differ for different committees.

An example -

(a) In 1955 an estimate by the Planning Commission of the total stock of engineers was 71,900 (b) an estimate based on the out turn of qualified engineers from institutions in previous years was 74,500.

(c) another estimate was 90,000 engineers

(d) a fourth estimate was 79,200.

There are different sources of data also - Census Surveys, Directorate General of Employment and Training Surveys and Institutional out turn figures. These show discrepancies. All this emphasizes the difficulty of evaluating the forecasts. Therefore macro level forecasting should be backed by regional, organisational and micro level planning.

A peculiar feature of our human resources situation is that despite the presence of highly educated professional personnel such as Scientists, engineers, doctors, the vast rural country side is not able to utilise their services. The [problem is accentuated by the reluctance of the trained persons to accept a job below their self conceived status and their unwillingness to work in rural areas. Steps must be taken to ensure that there is no lopsided spread of education. (i.e) there should be schemes to improve the level of skills of rural youth, increase their employability and purchasing power.

In India a vast majority of people are wedded to their land for atleast 2 reasons : first for survival and secondly, there is little scope for alternative employment.

Thus, we find that in order to overcome these limitations we can take a look into Japan's experience. The real secret behind the extraordinary dynamism of the Japanese economy is the belief that its workforce is the most important asset and workers are therefore to be valued and nurtured. A well run Japanese economy is of! by and for its people. Indeed, Japan's experience shows that channeling resources into ensuring broad access to good health care and effective education carries a big economic payoff.

However, policies that work abroad cannot simply be imported here like a V.C.R. or Car. It should reflect a country's culture and political history.

CONCLUSION : The future is uncertain and the point of making a forecast whether of manpower or anything else is to reduce the margin of uncertainty of future outcomes. We cannot expect any forecast to reduce the margin of uncertainty to zero; perfect accuracy is a utopian ideal.

To conclude, development is a multivariate phenomena and population policy one of its variables. Proper manpower planning would definitely make the available human capital more productive and would help to reduce its pressure on future growth. Manpower planning properly linked with strategies for modernisation and industrialisation will open this vast potential growth resource available to developing countries like India.

The message that is presently going out in the world today is instead of treating workers as spillovers of Nehruvian socialism - treat them as assets. Learn to manage them, motivate them and increase both productivity and the bottomline. Or else live in the dark ages.

Shireen Prabhu, II.M.A.
Economics.

JRY - An Unfulfilled Dream

Human Resources are both the instrument and goal of economic development and India's resources in men and material are abudant. Efforts have been made to employ these resources productively with the help of employment programmes and schemes. But how far have these schemes helped? This is a question reviewed every year.

The Jawahar Rozgar Yojana is a scheme introduced on 26th April 1989 - an employment programme under the regime of Prime Minister Rajiv Gandhi. This dream scheme has gone awry. It has failed to improve the employment prospects of the rural poor; studies revealed that the people of Uttar Pradesh and other states were totally unaware of the programme. Jawahar Rozgar Yojana schemes are prepared in Government offices in the cities whereas the beneficiaries are in remote areas. The villagers who are illiterate and ignorant of governmental schemes, lack the power to voice their opinions and demand their rights.

Apart from the above problem, the labourers employed under the scheme are paid less wages i.e Rs.5 / - rather than Rs.20 per day as stipulated by the Government. It was rightly said by the late Prime Minister Shri Rajiv Gandhi that out of a Rupee, nearly 85 paise has been pocketed by the Government Officials.

There are nearly 25 schemes implemented under this scheme and 90% of the villagers have no knowledge of these schemes. Very few of other employment programmes are executed successfully, except for a few. In Hyderabad and Secundarabad an employment programme "SETWIN" has successfully catered to hundreds of skilled and unskilled people. It provides a variety of training and self-employment programmes where people are paid on a monthly basis for eg. tailoring making of agarbathis, thread making, basket making, weaving etc.

If these simple schemes could be implemented successfully, then what about the government implemented schemes. For effective streamlining of these programmes there should be a mass contact programme, dedicated volunteers must brief the people about these schemes. The officials involved in the implementation of these schemes should have perfect knowledge of the scheme. In a survey, the residents complained that the officials seldom visit the villages.

Rural Development activities have to be implemented at the grass root level by the people themselves. This is where the role of independent organisations comes into play. A cadre of personnel should be recruited and trained for this specialised task. These schemes await nation wide adoption what is required is a growth strategy to improve the productivity and the return of small holdings and to increase job opportunities for those sectors of the rural community who are unemployed.

By Leontheen
&
Jacqueline
III B.A. (Economics)

Mushroom Cultivation — A Boon to Farmers

In India agriculture is the most important sector from the standpoint of relative share in national income. It contributes about 40% of national income. More than three fourth of the total population lives in the rural areas. Importance of agriculture also arises from the role it plays in India's trade. Export of raw materials and manufactured goods like jute, cloth, sugar etc. contribute about 70% of India's exports. The volume as well as the value of India's exports has been steadily increasing in recent years. Agriculture supplies essential raw materials used in production. Indirectly it provides employment to a large number of persons in the trade and transport.

Despite the above contributions made by agriculture the rural scene still remains miserable. There is yet a large number of people who are desperately poor. Statistics show that in the year 1989-90 more than 28.2% of rural population live below the poverty line.

The causes for rural poverty are overcrowding and pressure of population on land leading to subdivision and fragmentation of holdings and dealing in the area of land per capita. As a consequence more people are apparently engaged in agriculture than is warranted by the size of the land holdings. This reduces their marginal productivity to zero and they form the ranks of disguised unemployed. Seasonal unemployment is a common form of unemployment in rural areas. Agriculture in India is said to be a gamble in monsoon as it is specially dominated by rainfall. Nature plays havoc on agricultural production either by insufficient rain or unwanted rain.

Agricultural production in India is said to be among the lowest in the world. the major causes for this are the use of primitive techniques of production and inadequate irrigation facilities. Due to all these problems, poverty spreads faster in rural areas. These rural folk lack the minimum income to procure the minimum nutritional level of food. the remedy to this problem is to raise the income of the people by engaging them in rural works like building of houses, dams, laying of roads etc. But such activities can be carried on only if sufficient finance is available which we lack very much in India. such works cannot be carried on during the rainy season also.

In time of off season in agriculture and when there is no alternative work available, the surplus labour can be utilised for productive activities which can be carried out without much investment. An activity like Mushroom cultivation for example, can augment their per capital income to a higher level and raise their standard of living.

Mushrooms provide our village folk, especially children with nutritive food. It has a high protein, vitamin and mineral context which can be obtained at less cost and these contents are not destroyed by cooking, canning, drying and freezing.

By incurring an expenditure of Rs.6,100/- in the production of a kind of mushroom known as Agaricus bisporous is an area of 200 sq. meter we can get a total yield of about 1600 kg. that would fetch a minimum of Rs.16,000/-; with a net return of Rs.9,900/- just within a short period of two to three months. The only expense incurred will be on trays or polythene bags, pesticides and the mushroom seeds known as spawn. The main advantage in mushroom cultivation is that it can be grown during the off season when farmers do not have any work on fields. This helps to reduce seasonal employment to a greater extent. Disguised unemployment can also be wiped away as such members in the farming families can cultivate mushroom in any one room in the house itself and with the resources like straw and manure already available with them. If mushroom cultivation is carried out systematically and successfully it is sure to be a boon to the suffering agriculturists.

Apart from the view of the rural sector, it is also a self employment scheme implemented all over India. Mushroom institutes have been set up with special research cells to co-ordinate their activities with other such institutes. Young educated unemployed youth frustrated after vain search for jobs have found a new field and today there are many such youngsters who have successfully set up mushroom centres. This now, unexplored source has attracted even the old to start their own business.

The youth in rural areas, have been very successful in this field due to the fact that they market their products to Madras as the demand is growing day by day. Women have also taken up this as a part time job and are very successfully running it. They outbeat men in the field of marketing their products. Thus, mushroom cultivation can be a lucrative business and an answer to the problems of unemployment and poverty.

Leontheen Roberts & Cyrilla Fernandez
III B.A. Eco.

Consumer Behaviour in Decision Making

Economics being a subject of how man aims at satisfying his unlimited wants (or ends) with limited means, which have alternate uses, 'CHOICE' becomes its crux! It is at this juncture that a consumer's decision gains importance.

The economists assume that a consumer is rational, and it is on this that they build their towering edifice. The universal laws of demand and supply, which have affected the world probably even more than Newton's law of gravity, rest on this edifice - the behaviour of the rational consumer. What will happen to the theories of marginal utility and indifference curves, if man cannot be rational or if he cannot evaluate alternatives objectively! Hence it is the question of a strong foundation and not just yet another concept in Economics. Without rationality, Economics will be like Chemistry without chemicals.

Whatever might be the decision a consumer makes, it depends to a great extent on the 'model' to which he belongs. A 'model' refers to a prototype of a consumer which explains, as to how (and why) individuals behave as they do. There are basically four models of consumer behaviour - Economic, Passive, Cognitive and Emotional.

An economic or a rational consumer is found only in a situation of perfect competition. The basic assumption in this model, is that of perfect awareness of all available product alternatives, and identifying the one best alternative. The rationality of an economic man manifests itself in indifference curves. The constraint comes in the form of a budget line and the choice is made at that point (or combination) in which the budget line is tangential to the indifference curve.

A passive consumer is one who succumbs to, the self-servicing interests and promotional efforts of marketers. Such a consumer can be best understood from the following description. "The prototype is the dissatisfied restless house wife, who after her husband and child have left for the day, visits the department store, lets herself be titillated by the exhibited goods and spontaneously without clear cut wants and purpose, succumbs to the lure of salesmanship and buys something she does not realy need and will later regret having bought". A passive consumer is hence characteristic of an impulsive, irrational purchase yielding to the arms and aims of marketers.

A cognitive man is a problem solver. He is one who is receptive to or actively seeking out products and services that fulfil his needs and enrich life. He focuses on a process by which, a consumer seeks and evaluates information about selected brands and retail outlets. Choice is an inherent factor of consumer behaviour which leads to risk a component of cognitive behaviour. In order to confront these risks, consumers adopt different strategies like collecting information about alternatives, patronizing specific retailers, brand loyalty etc. Infact it is this feature of strategy formation which reflects the congnitive nature of a consumer who moves forward step by step - absolutely cautious like an army. Although he does not make perfect decisions, he seeks information and makes satisfactory decisions.

An emotional consumer is greatly influenced by deep feelings or emotions of any kind - fun, fear, love, hope, sexiness, fantasy etc. This model is typical of Mr. X who searches two days, for his favourite and lucky pen which he has lost and on not finding it plunges into depression having six other pens in hand! Rather than carefully searching, deliberating and evaluating alternatives, it is 'impulsive consumption on a 'whim' or the 'fun' or 'thrill' of consumption pleasure that comes into product use. Less emphasis is laid on pre purchase information in contrast to the importance given to the 'mood' and the 'go for it' drive at the time of purchase. The purchase of designer clothing is not because one will look better in it but rather because he will feel better. In today's world, advertisement has indeed evolved into emotional or feeling oriented advertisement.

A study was conducted in South Madras to examined the rationality of the consumer in choosing a particular departmental shop. The study was concentrated in areas where there were a cluster of departmental shops two or three shops, situated within a furlong. The study examines the rationality of the consumer on three lines.

1) Shop loyalty of the consumer
2) Consumer's thirst for knowledge (market) and
3) Importance given to various economic and non-economic criteria in decision making process.

The findings of the study were as follows :

Does Shop Loyalty Obscure Rationality ?

The consumers are found to be loyal to their department stores. It has been observed in the analysis that a minimum of 80% of the consumers buy commodities from one or at the most two shops (to enjoy a combination - for example - one shop offering good services and another offering at low prices). This shop loyalty is further proved by the fact that the average number of years a consumer has been buying from one shop is an high as 10.6 years, 6.4 years and 8.4 years in Alwarpet, Besant Nagar and Mylapore respectively. However, this high degree of shop loyalty does not obscure the rationality of today's consumer. It was clearly suggested in the interviews, that, the consumer remained loyal to a particular shop, only as long as the existing satisfactory situation continued, or, as long as better alternatives are not found.

The Present Day Consumer's Thirst for Knowledge.

It was interesting to note that the consumer always looked out for the 'latest arrival' in the market. It is true that if a consumer was not happy with his present choice, he looks out for an alternative. However it was observed that even when a consumer was satisfied with his present choice the majority of them looked out for more attractive alternatives. In the process they always kept their eyes and ears open to new entrants and updated their knowledge of the market. Hence the analysis suggested that although the consumer was not all knowing, he knew enough - atleast as far as what was relevant for him. What was more important is that his thirst for information (relevant to his decision making process) never seemed to get quenched.

Rationality Encroaching into Non-Economic Factors.

With 19.5% and 16.3%, importance in the consumer's decision making process being given to quality and price, today's consumer seems to possess the two most important characteristics of a rational individual. Influencing the decision to an extent of 9.08%, discounts is a pure economic criteria which exhibits the rationality of the consumer, acting along with price.

Non-economic factors like, service, home delivery, stock etc. influenced the decision making process by as much as 54.12%. Yet, we consider the consumer to be rational. This is because the intense competition extends the meaning of rationality which crosses economic boundaries and encroaches into non-economic factors. The competition informally establishes a standard as far as economic factors are concerned. For eg., amongst a cluster of private departmental stores, no single store will be bold enough to increase the price because, in the case, they will lose their customers. Hence, a standard price will be informally established. Hence, in today's world, we find the definition of rationality encompassing both economic and non-economic factors.

Thus, we see that the rational consumer is very much alive in our midst. The shop loyalty of consumer fades away when he is dissatisfied with respect to other criteria. Moreover he remains always thirsty for relevant information regarding new entrants and changes in the market. It is just that the meaning of rationality has encroached into non-economic factors since the mad competition in this world levels economic factors. We can hence, rest assured, that, if a particular consumer decision does not appear rational, today's consumer will not undertake it. No marketing strategy can take today's consumers for ride on the basis of irrationality. He cannot be fooled especially - fooled for ever.

Deepa Ramanathan, III B.A.

Quality — Global Player

Consumers constitute the largest unorganised public body in the country and protection of their interests and rights is of vital importance. This calls for establishment of well regulated and independent mechanism to provide quality goods, services and utilities to the satisfaction of consumers.

The consumer has every right to demand quality goods and services. Standarisation of products is essential for promoting the following six rights of the common consumer.

a. Right to be protected against the marketing of goods which are hazardous to life and property - The standards for products, which may have potential for creating danger to life and property during use or otherwise, prescribe built-in mechanisms for safety, domestic electrical applicanes are common examples.

b. Right to be informed about the quality, quantity, potency purity, standard and price of goods so as to protect the consumer against unfair trade practices.

c. Right to be assured, whenever possible, of a access to a variety of goods at competitive prices - The endeavour here is to provide the consumer with not only quality products, but also a choice of quality products.

d. Right to be heard and to be assured the consumers interests will receive due consideration at appropriate forums - of the three distinct interests (manufacturer, technologist and consumer) the consumer interest is provided dominant representation in technical committees.

e. Right to seek redressal against unfair trade practices or unscrupulous exploitation of consumers.

f. Right to consumer education.

It can be established through the following example, that standardisation is essential to achieve consumer satisfaction. For instance, the international Civil Aviation Organisation (ICAO) is a specialised agency of the United Nations formed as a part of the Chicago convention signed on 7th December 1944 for the regulation of international Air Services. The objectives of the ICAO are inter alai, to ensure safe and orderly growth of civil aviation throughout the world, encourage development of airways, air navigation facilities, meet the needs of the people of safe, regular, efficient and economical air transport, prevent economic waste, protect rights of states, provide fair opportunity to operate international aeronautics, and this holds good, even today. In this broad spectrum, we can summarize its major functions; to promote international civil aviation and ensure safe, economic and efficient civil air transport among member countries.

This process of international law making is unique in as much as air law is kept in conformity with the global needs. The air navigation commission looks after technical needs of world aviation and their regulation. For regulation of international air services, the ICAO has a world-wide network of flight information regions

(FIRs) into which global air is divided. It is a remarkable tribute to the ICAO to have created such a uniform regime and standared for orderly and uniform flow of traffic across national frontiers.

In an age when one billion passengers are carried by scheduled services, the need to standardise air traffic is evident, since the service is essential and almost indispensable. An obligation is imposed on the provider of this service to make to available to the public in a fair and non-discriminatory manner. This is a typical example of quality control of the global level.

Japan is said to be a world leader as far as quality of goods and services is concerned. However, a case study on Japan was presented during the consumer protection in the Free market workshop at the 13th IOCU World Congress. Japanese consumer groups voiced deep concern that safety standards are falling drastically in their country. This problem has very real links to the recent developments in trade agreements which have greatly reduced protection against pesticides and have also overturned beans on food additives. Some existing regulations such as those relating to radioactive waste have been weakened by overseas pollution. All though there is currently a semi-official labelling system in Japan, there are no laws with regard to discovery, disclosure or product liability.

In order to ensure that standards do not drop, certain measures have to be taken. There are differences between what used to be, and sometimes still is known as inspection and quality control. Often it is assumed that there is no significant difference on the reasoning that "a rose, by any other name, would smell as sweet". The differences do exist and they are important.

The quality control process seeks to bring about a situation where deviations from the required standards are detected as they develop rather than after they have occured. Corrective action can be taken by production staff before the article stands being produced outside the limits of acceptability. In order to ensure that quality goods and services along are available in the market, the firm has to check quality control in three stages, namely incoming materials work in progress and outgoing finished products.

At this point, we can confidently say that one of the major road blocks in the implementation of quality control is bureaucracy. Due to the interference of both the government and the executives of a firm, it is difficult to lay down standards and maintain them. In India, for example, the policy of liberalisation that is in force now, is enabling Indian products to compete in the foreign markets. All doors are opening, and setting up export firms is encouraged. Competition among products is greater and this itself is a method of maintaining quality goods and services, as along as the competition remains healthy. In order that export goods compete at the global level, common international standards should be followed, as in the case of the World Health Organisations request to standardise all products in the pharmaceuticals industry. Again taking the example of India we find that export goods are of superior quality to goods sold in the local market. This is the case in a number of third world countries, and is certainly a road block to the implementation of a global standard.

However, even if international standards, were laid down, and had to be adhered to strictly, it is argued that third world countries would indirectly be penalised. This is because, with their limited resources and less technical development, along with the lower purchasing power of the people, the international standards for products would not be feasible to attain. On the other hand, lowering international standards to suit the needs of everyone is also not feasible. Hence the trend right now, is moving in favour of setting up international standards in the hope that less developed countries will catch up. In the meantime however, a considerable difference in the quality of products is witnessed.

Inspite of the various road blocks mentioned, it is necessary to stress the importance of quality universally. Unless and until there is some uniformity of products in the entire economy, there will always be product differentiation and in less developed economies, the need to import foreign goods will always be felt. Therefore, quality most definitely secures the status of a global player.

Samantha Alberts.
III B.A. (Economics)

Globalisation of Indian Industry

In the last years far reaching economic changes have overtaken the world. Crumbling of the command economy in USSR and Eastern Europe, opening up of Southern carriers of China to market economy are some of the more significant changes.

With the formation of trade blocks such as ASEAN, NAFTA and EEC, it becomes imperative for multinational companies and developing countries to gain to hold in various trade blocks. Japanese Auto makers setting up plants in US or Taiwanese businessmen opening up facilities in China are the early indications of globalisation. The future will dictate sourcing from cheapest nations, assembling in another part of the world marketing in yet another part. Globalisation of companies will become the norm of successful companies in the next decade.

India's economy has essentially been inward looking, with exports almost never moving above 7% of gross domestic product since Independence. This fact shows up in the declining share of Indian exports in the world market, from 0.6% in 1970 to 0.48% in 1990-91. So how is India to remain a major contender in the international market? We have only one real solution, to raise exports. Not by a crawl, but a gallop.

Indian exports have shown a shift away from low value-added items to those with a higher value-added content. Exports of agriculture and allied products as a percentage of total exports fell from 45% in 1960-61 to 17% in 1991-92, while commodities like textile, yarn and garments increased their share in exports from 21% to over 40%. The most spectacular growth was witnessed by the engineering goods and computer software sectors.

The key to raise exports is to become more competitive. In the global market, Indian products are considered to be competitively priced, but rank low on critical factors like quality, creativity and technology. Indian brand names are not recognised and the image of Indian after-sales services is extremely low.

There are some products where India's presence in the world market is well-established. They are basmati rice and spices. There are other products where the supply base justifies a sustained push. They are drugs and pharmaceuticals, dyes and dye intermediates, textiles and garments and gold jewellery. There is a third group where export growth requires a concerted strategy auto components, aquaculture, bicycles, cut flowers, fruits, vehicles, internal combustion engines and software.

Who is the world's largest exporter of diamonds by volume? Where is the world's largest maker of bicyles based? Who is the world No.1 in the production and export of mangoes? Which country does the second largest maker of moulded luggage belong to? Which country has the world's largest market for motorised two-wheelers? The answer to all these questions is India.

It is undersiable that India has a long way to go towards creating an export culture strong enough to withstand the gate-force winds of Global competition in the long-term. But given the support of the Government for creating favourable infrastructure and the will to go global combined with entrepreneurial spirit of individual businessmen, the task of integrating the Indian economy with the Global economy should not be considered to be daunting in the long run.

Arundathi Krishnan
II B.A. (Economics)

Liberalisation and Structural reforms in India — An Approach from the Industrial Sector

'The time has come,' the Walrus said,
To talk of many things:
Of shoes - ships - and sealing wax -
Of cabbages - and kings -
And why the sea is boiling hot -
And whether pigs have wings.'

Lewis Carrol.

THE QUESTION OF LIBERALISATION.

"If the only tool you have is a hammer, everything begins to look like a nail". This quotation can be used to describe the tendency of economic liberalisers to approach all economic policy issues with the same simplistic perception.

'Liberalisaiton' - which essentially implies a withdrawal of the state from as many aspects of economic activity as possible, or a move to lassie -faire - is seen to be critical in achieving both more 'outward orientation' and thus greater 'openness'. This is based on the belief that 'free markets' are the best way of achieving socio-economic goals and that market failures are less pernicious than failures of government intervention.

However, there are several alternatives, and possibly more creative routes to adjustment and stabilistion which may be better suited to the requirement of particular economies in particular periods. These should be acutely considered when crisis situations call for rectifying measures.

There is no clear evidence of a positive relation between liberalisation and economic growth, either from cross-section compressions of countries, or from time-series analyses within a country. Indeed, most cases of liberalisation have also been associated with deteriorating rates of growth. This is only to be expected because they usually accompany adjustment measures which involve reduction of external deficits through deflationary measures to lower aggregate income.

It is often argued that after an initial period of deceleration or stagnation, this package of measures would ultimately lead to a higher sustained growth path but even this is not confirmed by evidence. Rather, the period of transition traumatic than predicted in terms of falling income and employment, while the promised improvement remains far on the horizon in most cases.

Liberalisation stemming from structural reform which in turn was goaded into being by conditionalities, may thus not produce the desired results.

'TINA' (There Is No Alternative) FACTOR.

When India faced a crisis situation in mid-'91, there 'seemed' no recourse other than an aid-cum-conditionality package, offered by the leading lending Institutions. Without deviating into the 'I.M.F. - last-resort-or-not' argument, this article seeks to highling the relative merits and demerits of the Industrial Policy as suggested by the New Economic Policy.

The new Industrial policy as proposed by the minority congress Government in July 1991 seeks to radically transform the industrial sector with provisions designed to remove or reduce to a great extent the constraints which hither to hand stripped the industrial sector of much of its dynamism.

The Industrial Policy's four major aspects were :

(1) Delicensing and deregulation
(2) Attracting foreign investment.
(3) Privatisation and
(4) A new labour policy.

AN APPRAISAL OF THE INDUSTRIAL POLICY OF 1991.

(1) NO DIRECTION

Recently Mr.. C. Subramanian, one of India's elder statesmen said, "India is a caged tiger, and the Indian Government has opened the cage. Alas the tiger has become so used to the cage that it is refusing to go out." Business decisions taken, in response to the policy changes are critical to the success of liberalisation.

In many fundamental ways, liberalisation changes the rules of the game. Therefore, it is no longer possible for enterprises to function on the basis of business as usual. While retaining their essential character, businesses must start responding to the new situation.

Private sector businesses function by responding to the signals they receive from the economic system. In a controlled economy, they receive a wide variety of non-market signals along with distorted market signals which devices their profitability from efficient use of resources.

Liberalisation of the economy changes all this. It eliminates non-market signals as well as distortions in market signals from the system. Increasingly, therefore, undistorted market signals that are in line with those prevailing in the global economy will become the critical signals to which businesses must respond.

As a result of the desultory manner in which the reforms are being pursued, firms still lack clear signals which can enable them to get down to purposive restructuring. Of the industries which have particularly suffered automobile, steel, electronics, paper and petro-chemicals, stand out.

(2) OVER-DEPENDENCE ON FOREIGN INVESTMENT

Foreign investment, it seems, is the government's chosen instrument for economic salvation. The government depends on it for coping with the massive external debt, modernising industry and upgrading technology. In the 90's foreign investment has been assigned a catalytic role, just as public investment was in the late 50's.

Foreign investment flows in 2 streams :

a) Aliens invest in corporate shares and debentures - this portfolio investment boosts foreign exchange reserves and the government releases the Rupee counterpart to the respective industry.
b) Corporates also float capital and debt issues abroad and can retain the foreign exchange thus earned.

Important questions to be asked here are :

- What are the industrial priorities governing the use of rupees and Foreign Exchange by corporates?
- What should be the predominant objectives of their investment?
- What should the multinational produce?
- Will its production flow substantially into the export market?
- When multinationals establish manufacturing facilities in this

country, what will be the contribution of Indian industry to their production?

Every industrial investment, must result in exports in excess of the imports of the enterprise)to tackle the external debt problem effectively). Therefore the policy must impart direction to the required pattern of industrial investment. For example Japan prioritised investment and took care to develop synergies. At each stage it decided what area to invest, what technology to develop and what to import and what supportive economic policies to put in place. This is what an industrial policy is all about.

As of now, the domestic market being offered on a platter. Foreign investment is thus being used to take advantage of existing resource endowments - and not to develop new ones.

(3) IMPORT OF FOREIGN TECHNOLOGY

The policy makers seek the dominant presence of advanced foreign sectors but have not produced a parallel technology policy which will take advantage of the same. The liberalised foreign investment policy needs to be pondered upon especially on the following points :

a) Import of technology has to be considered on the basis of the country's priorities. For example, not for potato chips, chocolates or soft drinks but for the production of items fundamental to industrial growth.

b) Dependence on foreign technology would increase. As a result, indigenous R & D would suffer.

c) What is the guarantee that allowing private industry to freely negotiate the terms will ensure that the best technologies come in at favourable terms and subsequently absorbed indigenously. It might well lead to multiple technological imports from the same supplier by different Indian manufacturers as has happened in telecommunication, electronics and automotive sector in the recent past.

d) Indian entrepreneurs who are negotiating from a position of weakness, may be fleeced for want of a protective cover.

(4) PUBLIC AND PRIVATE SECTOR

Privatisation of government-owned companies is being propagated by the I.M.F. As a panacea for all the economic ills, which in turn has become the mantra being adopted in India. This is inspite of the fact that there are innumerable examples in the developed countries of the Government-run commercial enterprises doing extremely well in competition with the private sector per se.

It is a historical irony that many of today's sick public sector units were earlier sick private sector companies and got nationalised subsequently.

What is 'Privatisation' is again not fully spelt out. It is not as though an entire company is being sold to the private sector. What is being done now is to divest between 20 and 30 per cent of the shares to the public. One can understand if an entire sick company is sold to the private sector. But whether this partial privatisation is the answer to the malady in the public sector is questionable.

The NIP is also silent on reforms which need to be undertaken with respect to the profit making public sector undertakings conveying the tacit assumption of the policy makers that all is well with them. Here we encounter a CATCH-22 situation. If shares of public sector units are to be sold, they have to profitable ones. However if they are profit making units, there is no need to disinvest in the first place!

(5) DELICENSING AND DEREGULATION

The policy speaks of encouraging all categories of industries to grow and improve on their past performance without fear, favour or delay. While the policy has several positive aspects, it is quite shaky on some others.

On the question of monopolies, by eliminating the requirement of MRTP clearance for mergers, amalgamations and take-overs, it is virtually providing unrestrained scope for formation of cartels and trusts. There is no major capitalist industrial economy in the world, which gives its corporation such freedom.

Even though the restrictive trade practices clauses is still intact and likely to be strengthened, the body is still not sufficiently equipped to handle such issues. The legal processes are cumbersome and time-taking which defects the purpose of correctives.

By allowing the MRTP companies to freely invest in whichever area they like except for the licensed areas, the government has the raison d'etre for the MRTP Act. Curbing the growth of industries is not desirable, But the question of equity has also got to be considered.

(6) LABOUR

The real question the government has evaded is - what is the social security mechanism that it intends to create to mitigate the hardship of workers which are likely to be retrenched? The NIP statement only intends to refer these cases to the BIFR. In doing so, it only sidetracks issues and has generated a fear in the minds of the workers that the government is not sincere in protecting the interest of the workers.

The EXIT policy so vehemently desired by the businessmen should also consider the following point. While it is all very well, apparently, to retrench workers with due compensation in the event of an unit turning 'sick', a parallel provision should be created by which the management is also penalized for its poor management. There has been no instance when lending financial institutions or trustees of debenture holders have taken over the company from the management so that the security provided to them in the form of assets can be sold and the money due to them realised. Creditors and lender wait for years as the matter is referred to the court even though they are eligible to take over and redeem their due. Even though this is common practice in many capitalist countries, it has never been done in India.

Thus India needs a safety net provision to take care of the genuine interests of labour. The National Renewal Fund must statutorily get contributions from all employers and employees to ensure that it can fund anybody retrenched, and leave this to cash-strapped companies which lack the money.

CONCLUSION

All said and done, the NIP is a step in the right direction. However a lot of caution is necessary especially regarding the relaxation of foreign investment norms, and the reforms have to be phased and prioritised. Most of the reforms now being implemented are long overdue.

"You cannot make an omlette without breaking an egg" - the reform mechanism has been set in motion and is irreversible. Instead of deliberately attempting to derail them, criticisms and suggestions should be forthcoming on how to improve the various measures. What should be discussed ideally are the intentions behind and the execution of these measures so that they may bring about the results they are supposed to.

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The New Industrial Policy and Labour Unions

The New Industrial Policy (NIP) announced in July 1991 is intended to give a dynamic thrust to industrial advance in the country so as to meet the challenges thrown up by the emerging global industrial scheme. The main aspects of this policy are liberalisation, privatisation, closing down of sick units and opening the economy to foreign investment and technology. These have provoked protests from the labour and bound to generate a crisis in industrial relations.

The labour unions fear that with the freedom to expand capacity under the NIP the big industries will drive the small ones out of the market. And, given the nature of the technology they use, there will be unemployment. Another fear, that the labour unions express is that of privatisation of public sector units and closing down of unviable units, which causes unemployment.

These are some of the reasons which led to the opposition of the NIP by the labour unions. But in order to achieve a rapid rate of economic growth, the 1st pre-requisite is to sharpen the competitive edge of Indian Industries in the world market. In order to do so, technological upgradation is necessary. To enable the industries to reap economics of scale and to achieve cost reduction, capacity expansion is necessary. The small scale industries can serve as ancillarises to the big industries. Secondly, in the short run, technology creates unemployment but in the long run technology generates employment for it causes a fall in the unit cost of production and prices; This will increase the demand for goods and thus the demand for labour.

The NIP envisages the privatisation of public sector units and the closing down or unviable units. At present many public sector units face the problem of over staffing, inefficiency and indiscipline on the part of labourers which results in a lost to the firm. Privatising these units will improve their competitive efficiency and reduce the cost of production and prices. Closing down of unviable units is equally necessary. But the fear of unemployment is inevitable. This problem will not be inseparable, if Government adopts measures like training and retraining of unemployed labourers. Such schemes should be launched on a massive scale where the cost of the scheme is shared by the Government and the industry.

If the NIP is to succeed the Government cannot afford to adopt an attitude of challenge and confrontation with the Labour Unions.

Sharmeen. D'Soura, III B.A.

Of Bulls and Bears

Most of us would have, in all probability, read avidly about the great stock scam of 1992 in all the leading newspapers, journals and magazines. At the same time, many of us would have been in quite a spin, trying to understand what the whole problem was all about.

The stock Market, or in general the capital market has always been an area of convoluted arrangements, coded language (bulls, bears havala, badla! etc) and seem to have its own rhythm, peace and dynamism.

What exactly is a stock exchange? In simple language, it is a market place where purchases and sale of shares and securities take place on behalf of the investing public, through members of the stock exchange.

A share broker is a person who helps to bring the buyer and seller together in respect of a transaction for a particular share. He is a member of the Stock Exchange.

If you visit the Trading Floor of any stock Exchange, you will find people, who are members of the Exchange or their authorised assistants, shouting prices and names of companies. What they do is called a DUAL ACTION. Sellers of a particular share have to compete with others to make the best or lowest offer. Similarly buyers of shares have to compete with one another. The fair price is determined between the lowest seller and the highest buyer. All transactions are reported immediately and appear in the official list of the exchange and leading newspapers.

Perhaps it would also be relevant to explain the nature of the business of the stock markets. Investing in the stock market is not mindless speculation as many surmise. It is an art with its roots in science, making it predictable and accurate.

Basically, to invest, an investor must make two kinds of analysis in the Stock Market - fundamental analysis and technical analysis.

Fundamental analysis involves a Micro level and Macro level study of the environment. After having studied the trend of the economy, the fundamental analyst must then pick up the industry that is doing well, given the entire scenario. From this the investor must pick that firm(s) that is doing well given the macro level prospects.

The investor is thus able to invest in companies which have a good future. Here again, a detailed study of the company's balance sheet, prospectus etc. will give the investor an idea about the profitability and thus the returns that he can expect on his investment in that company.

There is also another kind of investor - Technical analyst, he studies the daily price quotations of select shares. Using sophisticated statistical tools, Based on his charts, bar diagram and other technical indicators he is able to predict with a great deal of accuracy, *when to buy* and *when to sell.* All his analysis is based only on the price of shares.

The price of a share can be defined as the sum total of the fears, hopes, expectations and beliefs of millions of investors all over the country. It is based on the demand supply nexus and contains a wealth of information hidden in it. Every price change is significant and has greet value for the technical analyst, because "the price reflects unknown fundamentals"

The price discounts the market(ie) the price will indicate days in advance the effect of some news regarding the shares, as yet unknown. Eg. just before a company announces a Bonus or Rights issue, prices will dip. The announcements always come, after the market has already reacted! This gives the technical analyst a lead over other investors.

Thus as can be seen, market behaviour is quite predictable and this can be done with amazing accuracy. The concept of technical analysis is relatively new in India and has only now begun to gain momentum.

Thus one hopes that the impression of stock exchange being gamblers dens stand corrected. If the investor is wise and educated and has the ability to hold his own in the market; keeps in touch constantly through newspapers and deals with an honest and reliable broker, there is no reason for him to take an uncalculated risk and lose his money. He must always remember that while fortune favours the brave, a fool and his money are soon parted ! A sure fire receipe for success !

Madhunika. R., I M.A.

How Your Money is Spent

With the passage of time and the increasing scope of state activity. Public expenditure has come to play an important role. Adam Smith's concept of lassies faire meant that the role of the state was merely restricted to defence, administration of justice and erection of public works. The modern concept of the state, on the other hand, has meant that the state not only provides defence etc., but also looks into education, health, social security and so on. Thus public expenditure is a vital facet of public finance, although it has not attracted as much attention as public revenue.

In the following an analysis has been made of the trends in public expenditure in India in the recent years. For this purpose, expenditure over 80-81 to 90-91 has been separated under two heads - developmental and non-developmental. Stated simply developmental expenditure refers to expenditure that results in the creation of national income whereas non-developmental expenditure does not. Thus the former is productive expenditure while the latter is unproductive. Developmental expenditure includes expenditure on social and community such as education, scientific services, medical and family welfare, public health etc.; economic services such as agriculture and allied services; foreign trade and export promotion etc.; and grants-in-aid and loans to states and union territories for developmental purposes. Examples of non-developmental expenditure are expenditure on defence, fiscal services such as collection of taxes and duties etc. interest payments, administrative services and so on.

Developmental and Non Developmental Expenditure and their percentage to GDP

In absolute amounts developmental expenditure has increased from Rs.22,672 crores in 80-81 to Rs.60,257 crores in 90-91. As a percentage to GDP, however, the share has fallen from 17.8% to 11.4% over the same period. Upto 87-88 the percentage to GDP showed an increasing trend but since then developmental expenditure has been falling.

Non developmental expenditure increased from Rs.12,707 Crores in 80-81 to Rs.49,128 Crores in 90-91. As a percentage to GDP, it has fallen slightly from 10% in 80-81 to 9.3% in 90-91 though in the intervening years upto 88-89 it increased upto 14.5%

Proportion to Total Expenditure

Developmental expenditure as a proportion to total expenditure has fallen fairly steadily from 64.08% in 80-81 to 55.09% in 90-91. Corresponding to this the share of non-developmental expenditure has risen from 35.92% to 44.91% over the same period.

Growth Rates of Expenditures

Growth rates have been calculated using geometric mean over 2 periods - 80-81 to 84-85 (5 years) and 85-86 to 90-91 (6 years), In the first half, the growth rates were high - total expenditure grew at 13.5%, developmental expenditure at 13.1% and non-developmental expenditure at 14.2%. In the second half, the growth rates fell to 6.2%, 4.7% and 8.1% respectively. Thus, we see that the fall has been greater in the case of developmental expenditure and non-developmental grew at a rate nearly double that of developmental expenditure in the second half.

Income Elasticity of Expenditures

As in the case of growth rates, the income elasticity was calculated over two periods - 80-81 to 84-85 and 85-86 to 90-91.

Also, the income elasticity was found out for the entire 11 year period. The elasticity of public expenditure over 80-81 to 90-91 was found to be 0.66 implying that it was relatively inelastic (ie) its proportionate change was less than the proportionate change in GDP. However, over the two halves the story is different in the initial period it was relatively elastic at 1.3 while in the second half it was inelastic (0.37)

A similar pattern emerges for both developmental expenditure and non-developmental expenditure. The former showed elasticities of 1.24 and 0.27 over the two periods whereas the latter had elasticities of 1.4 and 0.5. Over the entire 11 year period, developmental expenditure was nearly unitarily elastic (.91) thus Musgrave's proposition that public expenditure is income elastic has been disproved in India in the period 85-86 to 90-91.

From the above analysis i is clear that although in absolute terms developmental expenditure has been higher than non-developmental expenditure, in relative terms the latter has increased to a larger extent as evinced by the higher growth rate and greater elasticity. Therefore, government expenditure in India has not been moving in the desired direction.

Non-developmental expenditure has increased due to two main factors. One is that defence expenditure cannot be cut substantially because defence preparedness is necessary to counter regional tensions in the sub-continent. The second, and more important, reason is that there has been a tremendous increase in interest payments which form the single largest component of non-developmental expenditure. For the current fiscal years (1992-93), the government had estimated that interest payments would amount to Rs.32,000 Crores. But now it is felt that this amount may rise by another Rs.6,000 Crores. Since interest payments cannot be avoided or postponed, the government of India has been examining the prospects of cutting expenditure on subsidies, grants and loans to states and Union Territories, administrative expenditure on government staff etc. With the present government being committed to reducing fiscal deficits, it seems likely that we will see cuts in non-developmental expenditure in the near future.

Suchismita Satpathy, III B.A.

ANSWERS TO QUIZ

1. Rajaji
2. Gandhinagar
3. Schumacher's 'Small is Beautiful'
4. Ross Perot
5. George Washington
6. John Maynard Keynes
7. J.K. Galbraith
8. Harsh Vardhan
9. Stephen Leacock
10. Honshu (Japan)

Trends in Indian Fiscal Policy

The growth of any economy depends to a large extent on the policy pursued by its Government. In this context, a major tool used by the government is fiscal policy, which can be manipulated to achieve pre-determine targets.

In understanding the fiscal policy trends of any country, it is important to look at three major fiscal indicators, ie. public expenditure, taxation and public debt. A study of these indicators not only explains changes in the level of economic activity but also gives us a general idea of the direction in which the economy is moving.

Taxation in India:

Year	Total Tax Revenue	Direct Tax	Indirect Tax
86 - 87	24,362	4,066	20,296
89 - 90	38,403	6,080	32,323
91 - 92	52,580	9,328	43,252

Source: Public Finance Statistics Published by Govt. of India.

In India indirect taxes constitute the lion's share of total tax revenue. This is contradictory to the experience of other developing countries, where a growth in GDP has led to a declining share of indirect taxes in total tax revenue. Since indirect taxes are essentially regressive in nature, such a heavy reliance of this component is an unhealthy sign. Customs and excise duties form the major part of indirect taxes.

In India, these are levied advalorem, and, especially in the case of excise duties, a substantial part of the revenue is derived from a limited number of commodities. Although revenue generated by customs and excise duties has increased absolutely over the years, the liberalization process has slowed the rate of growth of these two components. In this year's Union Budget, excise and import duties have been drastically cut leading to the relief being called "a give-away of Rs.4500 crores". If this trend continues in the future we could see the share of indirect taxes in total tax revenue declining.

As for direct taxes, they account for only 18% of tax revenue, the major components being income tax and corporate tax. Although this year's budget has not brought any major changes in direct taxes, it is expected that a phased covering of corporate tax will be brought about over the next few years, in tune with the Chellaih Committee Report. Such a reduction will boost industry and provide an incentive for reploughing of projects

Overall, we can clearly see th following trends in taxation.

1. Decreasing reliance on indirect taxes.
2. Efforts made towards marking the structure broadbased.
3. Simplification of tax system.
4. Emphasis on taxing 'non productive assets' rather than 'wealth'.

Public Expenditure in India :

Year	Total Expendi-ture	Developmental Expendi-ment	Non-development Expenditure
86 - 87	76,415	45,724	30,691
89- 90	1,02,805	53,505	49,300
91 - 92	1,09,385	60,657	49,128

Source : Public Finance Statistics published by Govt. of India

Looking at expenditure, we find that the rate of growth as well as GDP elasticity on non-developmental expenditure is very high. Even in absolute terms, more is being spend on non-developmental projects than on developmental ones. This can be explained by the rising cost of public administration, increased defense spending and the heavy burden of subsidies to unproductive sectors. The World Bank has pressurised the government into hiking monoplane outlay by 32% in this year's budget. The increased spending will go towards health care, education and infrastructure. The 2 major trends in Indian public expenditure are :

1. The government is trying to cut down on non-productive expenditure and spend more on creating infrastructure.

2. A discouraging sign for the Indian economy is that public expenditure is increasingly going towards settlement of debt and interest payments.

PUBLIC DEBT IN INDIA :

Year	Internal Debt	External Debt	Total Debt
86 - 87	1,46,247	20,299	1,66,546
89 - 90	2,39,849	28,343	2,68,192
91 - 92	3,17,679	35,501	5,53,180

Source : Public finance Statistics published by Govt. of India.

India's debt position has considerably worsened with time, Low export competiveness of Indian goods in the international market coupled with an over reliance on imports have contributed to the situation. However, one encouraging sign is that the growth of external debt has been slower than the growth of internal debt. This is good for the economy in three ways.

1. On repaying foreign loans, a part of our GDP is transferred abroad but repayment of internal loans merely signifies a redistribution of income.

2. External loans have to be paid in foreign exchange.

3. Concessional aid to India has been drying up and we are being forced to pay hard rates on our external borrowings.

To sum up, it can be said that over the past few years, fiscal policy has been moving in the right direction. This is reflected in the latest fiscal deficit in a decade (down to 5% of GDP from 9% in 86 - 87). Tax rates have been liberalized - but tax revenue as a whole has increased due to efficient collection and elimination of structural loopholes. We also find that if the present trend of reducing customs, excise and corporate tax rates continues, the bane of financing the government will fall increasingly on income tax.

In the case of expenditure, efforts are being made to channel funds into productive projects. Further pressure from the world bank will probably see the subsidy system more or less abolished. The government may also try and cut down cost of financial administration at the insistence of the Bank.

Debt still remains the problem area for the Indian economy, and the only answer to this is a favourable balance of payments situation. It is hoped that the various measures announced by the government will indeed decrease the reliance on imports and make Indian exports internationally competitive. If this happens, the process of liberalization will have served its purpose.

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