

MIND, MATTER AND WEALTH

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The goal of economic research and economic policies is the eradication of poverty. This may be achieved by producing what is generally called «wealth», i.e. commodities and services of such a nature as to meet man's ever-growing needs. Therefore, a study of the nature of wealth and its constituent elements can be considered as the basic subject of economics.

At the present time, when under-developed countries are striving to rid themselves of poverty and misery, their success depends on their careful study of the nature of wealth as well as the conditions of its production and distribution. This study will enable them to avoid committing errors and taking unsound decisions and policies, and to refrain from implementing impoverishing plans and programs and the extravagant use of natural resources and manpower.

Economic doctrines and schools of thought are the outcome of different views expressed by scholars regarding the nature of wealth. This difference in views has brought about the present international situation and division of the world into two antagonistic camps of capitalism and socialism. Hence, the analysis of wealth is of basic importance for grasping the present international problems.

In elementary textbooks on economics, it is usually written and taught that wealth is made up of a combination of the following three factors: land, labour and capital. Capital, in itself, is not an independent factor but comprises labour and natural resources. It is to be noted that «labour» too, as a factor of production, is formed of the two elements: energy and thought. Energy consists of calories produced by combustion of nutritive substances in the body. This part of human power, which is an exclusively physical phenomenon consisting of the production and consumption of calories,

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can be considered as matter. Hence, wealth can ultimately be regarded as a combination of matter and mind. The concept of «matter» here includes all the natural factors and forces. The quantity of matter (one of the two constituents of wealth) is confined to what has originally been created, and man can neither increase nor decrease it.

Mankind has no alternative but to make use of his mind in creating wealth by combining and mixing natural resources in a suitable and appropriate way. Therefore, in the last analysis, mind should be considered as the sole origin of wealth. The faculty of thought discovers the properties of various substances for meeting human requirements, finds out their utility and creates demand for them. It finds out the modes of production, the methods of distribution of commodities and of services and establishes appropriate institutions for their marketing. Since man is not able to increase the quantity of matter or natural resources, it is only by better and more efficient thinking that he can secure greater wealth and lead a more comfortable life.

Obviously no wealth exists in the animal world, for wealth is the product of mental power, a characteristic exclusive to man.

With the development of social life and man's mental maturity, the contribution of thought to the production of wealth has been gradually increasing. Human thought has succeeded in employing the colossal forces of nature and in harnessing the unruly elements by devising the necessary methods and by inventing machinery and tools. The industrial revolution ultimately shows the increased share of human thought in production of wealth and the deployment of material resources.

Throughout history until the time of the Industrial Revolution, i. e. about two centuries ago, the human body played a major part in producing wealth, and man was mainly used as a machine for generating power. For this reason, before modern industry raised human productivity to the present unprecedented level, man's strenuous efforts produced only a negligible amount of wealth. Hence, the idea of equality, although cherished since the beginning of history by philosophers and the toiling masses - in practice lacked a material basis and real foundation for its manifestation.

However, neither the European Industrial Revolution of two centuries

ago, nor the invention and general utilization of machines was an incidental or spontaneous phenomenon. This great historical process was the result of the combination of many factors, the most important being the part played by human thought and knowledge in raising the level of work output and productivity. The fact that prior to the Industrial Revolution, knowledge and education had spread extensively - despite the then limitations - makes it clear that the preceding mental growth and the increasing share of scientific thought in social affairs played the most important part in opening the era of technology and modern methods of production. Had there been no such background, social and industrial organisations favourable to modern technological changes would not have emerged so quickly. And no such astonishing division of labour would have taken place. The increase in productivity which is both the greatest factor in progress and, at the same time, its supreme result, can be summarized as adapting human labour to scientific discoveries. The principal role played by the human mind in this evolutionary process is quite evident. For scientific discoveries are the outcome of man's inquisitive mind, while technical inventions are the fruits of his creative faculties.

On the other hand, it is only mental power that can, with the help of experience and trial and error, apply scientific discoveries and technical inventions to human labour and vice versa. For this reason, we believe that creative thinking and scientific research must be regarded as the major factor in producing wealth.

In the last 250 years the western nations have taken long strides along the path of technical progress, but this path had been paved over the centuries by scientists and scholars like Pythagoras, Archimedes, Galileo, Pascal and Newton. The principal foundation of the increase in production of wealth has been technical progress, and this in turn has been based on mental progress.

Indeed, technical progress and increased production of wealth are merely the crystallization of human knowledge and creative thinking into tangible material realities. In the under-developed countries of today, the real meaning of and the requisite conditions for technical progress and economic development are often forgotten or are not at all taken into consideration. It is

usually thought that economic development depends primarily on providing modern machinery and technical tools and instruments. And, thus forgetting the pre - requisites, those in charge of affairs in such countries think that by purchasing and installing a number of factories, they can change the appearance of their country. This resembles the state of mind of a backward farmer who thinks that he can avail himself of the advantages of modern agriculture simply by buying a tractor. This false concept, whether on the part of the responsible authorities or of the public in under-developed countries, results from their failure to take into consideration and to comprehend the essential conditions for economic progress and the factors affecting the foundations of such progress. They fondly suppose that machines can do all and everything, whereas if machinery as a means of increasing productivity is not used in conjunction with the more basic factor of a scientific and searching mind, either they will fail to achieve the desired goal or the results will be much limited. The greatest factor in making progress, and the principal condition for economic development and creation of new wealth, is the establishment of a scientific outlook and the recognition of the cause-and-effect relationship of factors and phenomena in nature, society and in modern techniques.

Let us consider a commodity such as an automobile: this has been manufactured from materials like iron, wood, leather and rubber in the automobile factories. At first glance this commodity seems to be a combination of materials, machinery and workers' labour; whereas what has actually brought the automobile into existence is a series of scientific relations between the combustion of gasoline, the movement of the pistons and the transmission of this movement to the wheels, electric current, etc.

Now, let us consider a television set, made of iron, wires, glass, etc. It is not merely the use of these substances in the set that has made it a commodity to meet human requirements, but a series of scientific relations between electricity and the magnetic force of the earth, dealing with the propagation of waves and similar complicated problems. It is the combination of these factors which makes television work as a commodity for human use. Let us now consider an agricultural raw material like wheat, compare it with an industrial product like an automobile or television set, and find

the differences between the two. Such a comparison reveals that thought plays a smaller part in agricultural raw materials, and this « wealth » is rather the product of natural factors, although the methods of sowing and harvesting the crop are the result of thinking. As already stated, no wealth can be brought into existence without the admixture of thought and matter, but in the case of the automobile the scientific relations form the very basis.

Thus, the cruder an article or wealth, the less is the share of thought in its production; and the more industrial, the greater the share of thought. In those non-industrial countries which are today striving to become industrialized, as already stated, industrialization means the creation of huge and costly iron foundries and refineries; it is thought that by purchasing these plants and installing them the industrialization program can be implemented. Thus, without considering the economic consequences, an important part of the national income is spent on the purchase and maintenance of these costly installations; whereas the true distinguishing-mark of industrial products is not the constituent substances but rather the part played by thought in their production.

For example, Danish butter is an agricultural product and finds buyers all over the world, while there is no demand for that of Iran, Turkey and Iraq. The reason is that Danish butter is not simply a product of the soil and climate of that country, but it is rather a product of the research conducted by Danish specialists on pastures, breeding, feeding methods and hygiene in the dairy industry. With a combination of intelligence and materials, they have succeeded in producing a commodity of greater value and higher quality, and offer the same for sale in world markets.

Danish butter is the product of a series of scientific relations between the chemical properties of soil, water and air as well as the feeding of cows and type of milk. Likewise, the flower bulbs and saplings of the agricultural institutions of Holland, which compared with the under-developed countries, have many difficulties from the standpoint of land and water, are exported to all countries of the world—even to the agricultural ones. This is because intelligence, as well as agricultural research and scientific relations arising from observation and research, is used in their production.

Wheat or cotton, which are originally agricultural products and raw materials, can be converted into industrial products. This is when the characteristics of the land under cultivation are determined in laboratories; the types of fertilizers needed for obtaining the best crop are specified; the temperature and humidity of the region during the year, as well as their relationship with the growth and quality of wheat and other cereals in that climate are ascertained; and the results obtained from the laboratory observations duly studied. The various methods of sowing, irrigation etc. should also be studied, deliberated on and experimented with. The wheat thus obtained will certainly be of a higher quality and lower cost and the crop will be more abundant as well as more saleable in world markets as far as price and quality are concerned. The other method is dry cultivation; i.e. the untested seeds are spread on desert lands of unknown soil and climatic conditions and the result left to the mercy of nature. In this case the crop is sometimes good, and at other times poor or even non-existent. The type of wheat and the properties of the flour and bread of such cultivation can not be pre-determined. Obviously, there is nowadays little demand for such produce which is mostly the result of natural processes and not of human thought and decisions. Thus all agricultural products can be produced either by advanced and industrial methods or the old procedures. Furthermore, the product obtained by new methods closely resembles industrial products made of iron or steel; for, as noted above, substance has little share in the production of industrial goods and what really counts is the thought which goes into them. If a country has no iron mines, it cannot be said that industrialization is beyond its reach, for it may produce milk, butter, meat, apples and oranges by exploiting industrial methods.

On the other hand, it sometimes happens that a country possesses the best oil fields and the richest mines of iron ore or coal, and has installed the greatest iron foundry and operates the most advanced industrial organization, while its people, scholars and experts play no part in the creation of the basic elements of wealth. In this case the products it offers to world markets are actually the result of other people's thought, and the country which only provides the site of all these modern installations cannot be considered as industrial. The creation of huge oil refineries in Kuwait, Arabia and Iraq is no reason for anyone to consider as industrial countries those which are still not

acquainted with the methods of producing wheat, cotton and apples, while exporting aircraft and jet fuel to industrial countries.

There is no doubt that a country which possesses iron, coal, oil or gas reserves, must set up iron mills, factories for distillation of coal, oil refineries, petro-chemical and other huge and complex installations for utilizing these resources. However, the guiding principle in the decision of such a country should be its economic interests. It should, with accurate calculations, ascertain whether it would be more profitable to invest the country's money in such industries or in the production of cotton, livestock breeding and other such activities. In other words, it should not be thought that the setting up of the above industrial installations is either an indication of, or the sole way to the industrialization of a nation. No one seeing the Abadan oil refinery, as well as the huge generators of the Dez and Sepid-Rood dams or the petro-chemical factory of Shiraz, and witnessing the work and economic activities in the cities and regions around these industrial installations, will in any way consider them as representing the level of Iran's industrial progress. They show, rather, the level of industrial progress reached by Europe and America, the makers of oil refining plants, generators etc.; and the visitor in question will admire the work of European designers, engineers and experts who have made and installed the machinery in Iran.

Sometimes the creation of such installations yield economic profits and raises the income of a community as well as the standard of its industrial knowledge; and technical «know - how»; but experience has shown that such installations have little effect on the mental development of the majority of the inhabitants. The said industrial centers remain as «industrial oases» without being deeply related to the conditions and circumstances prevailing around them. The mental «iron curtain» built so firmly over several centuries separates this «industrial oasis» from the outside, since the spread of industries and techniques in any society, raises problems which can be solved only by the thought and research of local scientists. Until then, huge installations in under-developed countries are merely branches of a great tree which has grown outside the under-developed country in a suitable mental and social atmosphere, and whose roots are watered in the same ground. The above situation is not confined to the production of goods

only. It also exists in the creation of services. The services of teachers, physicians, engineers, judges, office employees, managers of institutions, lawyers and ministers, as compared with the services of individuals of the same rank in industrial communities, are prone to the same condition. Lack of collective political leadership; weakness of economic organizations and industrial and commercial management; poor administration; inefficiency of justice; inadequate results of educational institutions; unreliability of the results of technical, medical, and social tests; these are all the fruits of the said frame of mind and form of thinking. The political, administrative, economic and social organizations set up in under-developed countries and modelled upon those in industrial regions, with apparently the same structure and administrative regulations and formalities, cannot render the same services as similar organizations in industrial countries, because the manner of thinking (or mental processes) in the latter countries plays a major part in the value of such organizations. Just as the external appearance of climate and soil in an industrial country may be identical to those of an under-developed region while the value of their products may differ, in the same way the external appearance of similar political, cultural or economic organizations in both industrial and under-developed countries may be the same, while their usefulness and value display a sharp contrast. United States Agency for International Development (AID) has spent considerable sums in under-developed countries teaching modern administrative methods, but the results, as far as the betterment of administrative services is concerned, are quite negligible. Because, if magnificent high buildings equipped with the most modern air-conditioning, communication systems, electronic machines and trained personnel in various posts are not backed by scientific and creative minds bent on achieving the best results out of minimum facilities; administrative services and heavy expenses of government institutions cannot, in themselves, yield the desired results.

Fortunately, the ruling classes and governments in all the poor countries have realized the increasing seriousness of their economic plight. This apprehension or awareness has been confirmed by the discussions of the ECAFE conference, in which the developing countries took part. The need of the people of the world for industrial products; i.e., those in which

thought has played a greater part and which are more suitable for human requirements, is daily growing. The value of these products is also steadily rising, while there is a fall in the value of raw materials, in which natural factors play a great part, with only a negligible amount of thought. Should this state of affairs continue, the income of poor countries will steadily decrease.

Every day new machines or equipment created by scientific centres, laboratories or research institutions of the industrial countries, are offered for sale on world markets; a new method is employed for producing higher quality at a lower cost; drugs of greater healing power are discovered; better means of communication are developed; reflective and penetrating minds are constantly discovering greater and more dazzling wonders of nature, propounding higher meditations and more intricate theories. We are in need of all these products, facilities and ideas. Besides, with the increase in population, our need for foodstuffs and clothing increases, and outmoded production methods are no longer adequate to ensure these requirements. We are compelled to import from industrial countries not only automobiles, aircraft, radio and television sets, telephones and agricultural machinery, but also wheat, meat, cheese and fruit, which represent an increasing proportion of the country's imports.

Although the attention paid to this critical condition by the ruling classes in poor countries calls for some optimism, the ways and means suggested to remedy the situation are so discouraging and alarming as to offset this optimism. Many articles are being written with regard to the ways and methods of economic expansion and the factors used to accelerate economic growth. Most of these writings deal with matters such as the comparative importance of agriculture and industry, heavy and light industries, the structure of foreign trade, the contribution of foreign aid to economic growth, or the relationship between investment and the rhythm of economic growth. However, less attention is paid to the basic problem and the principal criterion of the arrangements to be made for changing the mode of thought.

Some countries have started birth control by means of publicity and even by providing the public with drugs. The reduction in the number of

births and the lengthening of the life span through modern medicine cause an increase in the proportion of the old to the young, active segment of the population. This, in turn, causes a decrease in the level of per capita income. To make up for this decrease, further impetus is given to birth control. We thus see that the present situation, with its inter-relating population factors, pulls the communities down into poverty, and thence into decrepitude and gradual annihilation.

The governments of some poor and non-industrial countries are trying to induce industrial countries to grant them aid in order to improve their condition. For this purpose, and in order to get greater assistance, they appeal to the latter's humanitarian feelings, or resort to threats and take advantage of the rivalry existing between them. Even if such a course yielded some results, it would have only a temporary, tranquillizing effect and could not be considered as a proper remedy.

The governments and the leaders of under-developed countries, especially their thinkers, should try to discover how and why industrial countries have managed to reach such a high degree of industrialization and prosperity and what course they have followed, or what means they have employed, to reach such a high level of affluence. They too should in turn try, by means of scientific thinking and research, to find a way for the advancement of their community, and guide their nations in achieving this end.

The object of what has just been said is to determine the course which, in my opinion, must be adopted by the governments and ruling classes of under-developed countries in guiding their people: I refer to the scientific way of thinking. As already stated, the value of industrial products lies in the combination of enlightened scientific thought with the substances used. It is this combination which has made it possible to produce such commodities as automobiles, aircraft, television sets, pharmaceutical products and other necessities of present-day life.

Natural resources for producing such wealth, as well as the required manpower, do exist in abundance in vast under-developed and densely populated countries. But what they really need is a greater mental effort on the part of the people, especially the intellectual class, to enable them to utilize these resources for producing industrial commodities.

It is, therefore, the basic duty of the ruling class in under-developed countries to lead their people to better and more scientific mental activity. The only way in which these communities can achieve welfare and prosperity is to create appropriate institutions for developing and training the mind.

A brief study of the history of European civilization and its industrial communities fully establishes the fact that the creation of opportunities for mental development and freedom of thought and action for thinkers, has been the main factor in separating these communities from the present under-developed and poor regions, and putting them into motion with ever-increasing momentum along the road of progress and prosperity.

It would be appropriate for all under-developed countries to teach, in their secondary schools and universities, the process of scientific thought, so that the governments of such communities might fathom the significance of the above evolution of human civilization. The necessity for such a measure is demonstrated by the fact that despite the efforts made throughout the under-developed countries to create factories, steel mills and so on, coupled with an extensive publicity campaign, their condition continually deteriorates and they grow increasingly dependent upon industrial countries. According to the U.N. report on under-developed countries, the term « developing » will only be truly applicable to them in the future, for at present the rate of the population growth in most of these countries is higher than that of their economic growth.

At the ECAFE meeting and at the Geneva Conference on Trade and Development it was pointed out by Mr. Prebisch that the present nine billion-dollar annual deficit in the balance of trade between the industrial and non-industrial countries would reach twenty billion within the next five years.

This proves that attempts to check the population growth; efforts to secure money and arms from industrial countries; buying large industrial installations for propaganda purposes; imitating the mode of life of West European or North American nations; laying down legislations and institutions similar to those of industrial countries, and at the same time setting up dictatorial regimes, are not the proper way to achieve socio-economic advancement. What the governments of under-developed countries should do, however, is to create a suitable environment for mental growth and the

flourishing of thought within their society. They should realize that national income is the product of the qualitative and quantitative value of the community's mental effort, and that it is scientific thinking and genuine research, in an atmosphere where freedom of thought and action prevails, that can bring about technological progress and turn this into a motive force for general economic and social upheaval. A society enjoying freedom of thought and action can, in the long run, attain its progressive goals and provide the mass of the public with spiritual contentment as well as material welfare.



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