

**THE JAPANESE ECONOMIC  
MIRACLE**

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**FORUM OF FREE ENTERPRISE**

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# The Japanese Economic Miracle\*

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The economic progress of Japan during the past decade has been described as a miracle by several authorities from many countries. Considering the tremendous progress of Japan in doubling her Gross National Product (GNP) every five years and reaching a phenomenal figure of nearly \$ 200-billion in 1970, it is worthwhile to have a look into this economic miracle of Japan for such guidance as we can get for improving and revitalising our own economy. It is the great success story among nations and a story of achievement of objectives clearly laid down and dutifully executed.

Briefly stated, the tremendous progress of Japan between 1959 and 1969 is reflected by the following figures:—

Details	Japan		India	
	1959	1969	1960-61	1969-70
GNP Japan real Terms (in Billion US\$)	49.900	145.30	18.705 (at 60-61 prices)	25.640
GNP <i>per capita</i> (in US\$)	408	1697	40.8	45.2
Index of Industrial prodn.	100	401.5	109.2 (base year 1960—100)	180.3
Exports (in billion US\$)	3.456	15.990	.891	1.871

\* Based on a public lecture delivered under the auspices of the Forum of Free Enterprise in Bombay on 22nd October, 1971. The author is a past President of the Indian Merchants' Chamber, Bombay.

"Free Enterprise was born with man and shall survive as long as man survives."

—A. D. Shroff  
(1899-1965)

Founder-President  
Forum of Free Enterprise.

Details	Japan		India	
	1959	1968	1960-61	1969-70
Imports (In billion US\$)	3.599	15.029	1.329	2.110
Gold & foreign exchange reserves (in billion US\$)	1.322	* 3.496	.637	.976
Wholesale price index	100	110	100	181
Consumer price index	100	170	100	184
Labour produc- tivity index	100	291	Comparable data not available	
Wage increase	100	295	100	300 (approx)

It should be noted that the most remarkable feature is the more-or-less stable wholesale price index throughout this period and the advance of labour productivity in line with, if not ahead of, wage increases. Growth of exports has gone ahead of imports and both have been ahead of industrial production. With these achievements, Japan has a big trade surplus and has accumulated nearly \$ 7,000-million in foreign exchange reserves as at end of 1970, in spite of her having to import practically all major raw materials for industrial production. With the recent rush for yen, this reserve is estimated to have gone much higher to \$ 12,500 million as at end of August 1971.

How Japan has achieved this miracle is indeed a thought-provoking exercise, whether for economists, sociologists or industrialists. Ms. Kewal Varma, Special Correspondent of "Financial Express", recently covered Japanese Economy in a series of articles and concluded that the difference between Japan's success and India's comparative failure may lie in the Japan's adoption of a road to private enterprise and

\* After the international monetary crisis, Japan Central Bank started buying dollars and hence this figure went up by US \$ 4,587 millions in a single month at the end of August 1971, reaching a figure of U.S. \$12,514 millions.

that of India's road towards socialism. Many foreign observers come to the conclusion that the Japanese have behaved as the most apt "economic animal". Even though this term may be considered somewhat derogatory, it adequately reflects the basic reason for the success of Japan as an economic power today.

Numerous factors—Historical, Geographical, Social, Political & Economic—which have been responsible for Japan's economic progress have been highlighted, both in Government and non-official sources. They are dealt with one by one.

### Capital & Financing

Japan has been able to achieve a remarkable rate of investment of the order of 20 to 40% of her GNP as against a conventional 3-4% elsewhere. This is largely due to the very high savings rate. High rate of savings promotes high rate of growth and this in turn maintains the high rate of growth as a beneficial cycle. The savings from personal disposable income have remained at between 20 and 30%, because as a class Japanese are thrifty, hard-working and lead an austere life and have recognised the need to save for the country's economic recovery. India's savings are estimated to be below 10% having steadily gone down from a figure of 22.7% in 1951. There are no significant old-age pension schemes or welfare schemes so that the tendency towards providing for the future is in-built. It is said that many Japanese Companies pay a large portion of the annual wages as a lumpsum bonus, which in turn promotes savings and investment. The savings are invariably deposited in the Banks and the Banks in turn have gone all out to support industrial development. Thus the momentum of investment on average of \$ 28 bill. a year has been kept up.

In financing, the Banks have played a crucial role in Japan. The equity investment in most Japanese companies is very low in relation to total assets and a large part of the finance comes from bank loans. In many cases the advances are as high as 90% and a large portion of the risk capital is also directly provided by the banks. Diversification

of interests may be a way of reducing risks in such financing by the banks. The banks thus play a crucial role in development and these commercial banks are suitably protected by Government agencies. Japan is one country where such expansionary monetary policy did not create inflation, although this is now taking place after her reaching the high level of industrial production. Preferential interest rates also are made applicable to appropriate, selected sectors of industry or commerce, either to promote production or trade as the case may be. Banks are at the centre of every large business house and in addition institutions like the Japan Development Bank back them. These Banks invariably seem to be very well informed on industrial developments and progress of investments and thus serve as a fountain-head for forward planning.

### Technical Collaboration

Japan has proceeded to build up her post-war industrial production on the basis of know-how and technology secured from abroad. Her policy has been to purchase what can be readily obtained from abroad instead of wasting time and money on research. This has helped her to leap forward in technology in a short span of time. As a consequence, the Chemical Industry Bureau of MITI reports that "the Technical innovation capacity of Japanese Chemical Industry is weak as compared with those of big enterprises in USA and Europe."

It is estimated that nearly \$ 1000 million have been paid by Japan between 1949 and 1956 to get a start in industrial production. Between 1960 and 1966 over 5,000 collaboration agreements have been approved by Government, involving a payment of \$ 784-million. Against this, the receipts from Japanese technology licensed to other countries was only \$ 36 million. By contrast, India had entered into about 2,200 agreements between 1951 and 1964 making an estimated payment of \$ 229 million from 1956-65. In terms of number and average payments per agreement, we are way down and this probably reflects the lack of a bold programme of industrialisation. On the other hand, India has

permitted foreign investment more liberally than Japan and remittances as dividends were as much as Rs. 220 million in 1966-67, a rise of 100% over 1960-61.

Of late, there is much improvement and in 1969 a sum of \$ 350-million was spent on technology import and about \$50-million received for Japanese technology exports. A substantial part of the payments made were on old agreements. The technical collaboration has been classified into Class 'A' where payments extend beyond one year and Class 'B' where the payments are completed within less than a year. Japan has accepted collaborations with restrictive features on exports and minimum royalty payments and also royalties generally of the order of 5% and above with period of 10 years, depending upon the complexity of technology. In most of these cases, the licensing of patents has been included and also cross licensing of improvements from both sides. In many cases, repetitive imports of technology have been allowed for the same item. It is said that of the recent agreements 36% cover payments of royalties below 3%, 42% between 3 and 5% and 22% go higher than 5%. In the case of these agreements 42% involve payment for 5 years while 34% envisage payment upto 10 years.

This massive import of technology from abroad has been made full use of by Japan because of her original industrial base and the right kind of people and the right kind of approach.

### Agricultural development

Japan's success on the economic front is a composite of developments both in the agricultural and industrial fields. As against an employment level of nearly 40% of the work force in agriculture, 15 years ago, the present level is less than 20%. It has been her aim to increase the production of agricultural products with the lowest possible additional investment on mechanical equipment. The mechanisation of agriculture has proceeded systematically without any debate on the necessity for tractors or the size and type of tractors to be used. Japan has more or less standardised

on sizes of multi-purpose tractors and associated machinery, suitable and consistent with her scale of agricultural operations by individual farmers. However, the prices of farm products have been constantly going up because the costs of mechanisation have not been fully matched by improved yields or productivity. Price support at high levels is a measure which Japanese Government had adopted without hesitation to ensure adequate agricultural output and prevent low agricultural production being a drag on her economy. Japan's agricultural products sell at nearly double the international levels. However, this has been a small price to pay for rapid industrialisation. The farmers have also recently been encouraged to take up side lines of business activities to further improve their economic position. The growth in the production and use of fertilisers and pesticides have also been phenomenal.

### Labour

The most important contribution towards development is the role of labour in Japan. Mr. G. Gregory, Special correspondent of "Far Eastern Economic Review", has described Japan's economic growth as a national sport in Japan in which every Japanese was a player. This described the complete team spirit, love of work, dedication and discipline which are the basic features of Japanese labour. It also reflects the mass-based nature of growth with the contribution of finance from savings and of personal hard work by almost everybody. Apart from having available a ready supply of skilled technicians, Japanese industry has greatly benefited by the dedicated approach of its labour force who considered themselves as a vital part of the organisation.

In Japan employment is more or less on permanent basis but this permanence and security has not bred inefficiency as in other countries, but promoted a spirit of identity with the organisation and a sense of belonging. In Japan discipline is in-born and this has been greatly reinforced by the team spirit displayed by the labour force of industrial units. Awards are for achievements of a group and rarely for individuals — thus promoting the team spirit.

The unions are organised unit-wise for the industries and disputes are settled between unions and management without any intervention of political affiliates from outside. Japan has developed and exploited a joint consultation system in respect of labour. Consequently, the productivity of labour has always moved ahead of wage increases and thus helped to maintain the competitiveness of Japanese production. The loss due to strikes is reckoned in man-hours and not mandays lost. The wage levels are also such that there is disparity and the ratio of payments between the lowest and the highest paid employees is not more than 5 times. This has further helped the development of a middle-class society which functions as an integrated unit without any class problems or social and economic tensions.

### Small Industries

Japan has mobilised the small scale industries in a very big way. She is reported to have nearly 4 million small scale enterprises employing 25 million workers or roughly 70% of the labour force. Generally, an unit with an investment of below the equivalent of Rs. 1.1 million and the labour force of below 200 is considered a small scale operation. These have developed as an integrated part of a whole programme complementing large scale enterprises. Special financial assistance with interest as low as 2.7% has helped to build up such enterprises. Similarly, the small scale industry has not suffered from any statutory fixed minimum wage and wages in the small scale sector have, during the last decade, been substantially below the wage levels of bigger enterprises. However, it is now realised that such a situation cannot continue because the productivity increase has not been adequate. There is a move towards wage equalisation between the small and large sectors, but this is being compensated by better organisation and diverting the small-scale enterprises towards greater innovation and specialisation for survival. Many such units are now being organised with common infrastructural facilities. They have fully benefited by the centralised trading systems, and a large part of production is for export. The pressure on labour due to labour

shortage is now gradually promoting a more rational utilization of labour productivity in sophisticated industries and such trends are being encouraged by Government with suitable compensation where required. In short, the assistance by Government to the small-scale industry has invariably been towards promoting better efficiency and innovation all along the line.

### **Management**

During the past decade, Japan has moved towards professional management with all its modern techniques. An indirect but most beneficial result of such professional management is the tendency to restrict dividends and divert as much of the profits as possible towards improvement and expansion. The professional managers as a class have less interest in high dividends but more in expanding their activities. It is a remarkable feature that in spite of high profits during the last decade, dividends have invariably been kept at a level rarely exceeding 10%, with continuous diversion of funds towards expansion. This has happened without any kind of Government control or statutory regulations. The management, particularly of Japanese trading houses, has been a very effective instrument in providing adequate intelligence information on foreign trade and diverting activities on correct lines from time to time.

### **Trade**

Japan depends upon imports for most of the important raw materials like iron ore, coal, petroleum, salt, non-ferrous metals, etc., but in spite of such heavy dependence on imports she has been able to build up an export surplus largely due to imaginative forward trading plans. While Japanese exports before 1955 were largely composed of natural textiles like silk and steel, to-day Japanese exports have been diversified into a wide variety of manufactured products and the bulk of the exports are of steel, ships, automobiles, textiles, radio and electronic equipments, optical instruments including cameras and many other sophisticated items.

It is in this field that the Japanese trading firms have greatly helped. They are a unique institution of Japan in that they have links with many diverse companies and numerous products and also world-wide outlets, in most countries, big and small. This has enabled them to collect the best information on trade trends and alert manufacturing units in Japan to these trends so that production is maintained in accordance with the changing demands of such export trade. Similarly, these trading houses with Government assistance have been able to line up long-term contracts for imports of her vital raw materials. Financing imports of iron ores from India and Australia, copper ores from South Africa, wood-pulp from Alaska, oil from the Middle East, salt from Mexico and all such articles of import from foreign countries have been lined up on long-term contracts so that Japanese industry is not handicapped by violent price variations or scarcities. The combined efforts of Governmental agencies and the industrial and commercial undertakings has helped in insulating export prices from pressures of internal cost inflation, and the result is that any inflationary trends have not led to a set-back in balance of payments.

### **American Aid & Defence**

Japan has greatly benefited from the extensive aid given to her by U.S.A. soon after the war. This has enabled her to rehabilitate her industrial production and, what is more important, to build anew with modern technology and equipment. Apart from such direct aid for rehabilitation, Japan has greatly benefited by U.S. expenditure first on the Korean war and later on the Viet Nam War. Apart from the fact that Japan did not have much choice in supporting U.S. militarism in Asian countries, it appears that Japan also did not burden herself with any conscientious objection. This has enabled her to expand very rapidly, due to the large and lucrative contracts for supplies to the U.S. Army. The effect was particularly large during the Korean War and although the subsequent scale of operations is lower in the case of the Viet Nam war, it has been of substantially long duration.

As a corollary of the American aid, one of the most important advantages which Japan had was the very meagre expenditure on defence. This has been less than 1% of her GNP as against 8% in U.S.A. and 5% in U.K. and equally large amounts in most other advanced countries. The controversial clause 9 04 the Japanese Constitution, which was imposed by the U.S. Military authorities immediately after the war, forbids Japan from going to war, and U.S. has played the role of defender of Japan for all these years. Naturally, this has provided substantial additional funds for investment.

### **Government's Role**

The case of Japan proves that a definite guidance and policy from the State is a prerequisite for rapid economic development. Although very capitalistic in nature, Japanese industry or agriculture do not operate on a *laissez faire* basis. Japanese industry has been subjected to general approvals and guidance from several efficient and perceptive State agencies such as the EPA (Economic Planning Agency), MITI (Ministry of Internal Trade and Industry) and JETRO (Japanese External Trade Organisation). These Government organisations have been the king-pins of development activities, providing the basic information, plans and guidelines. They also maintain sufficient flexibility in planning to take into account world trends and products with long-term growth potential. Invariably, industry has meticulously acted upon the specific guidelines of Government. Between Government and industry, there has been a complete identity of views and approach. There is no large State Capitalism but the State plays a catalytic role in the development of industry and agriculture.

Unlike India, the Japanese Government agencies have been able to attract the best talent and there seems to be a good exchange of high level personnel between industry and Government agencies, so that proper co-ordination is secured. The lack of disparity between salary levels in Go-

vernment and in industry has helped greatly in keeping up the best intellectual level in Government organisations and most observers agree on another great merit in the Japanese bureaucracy—complete absence of nepotism.

### **Research & Development**

Japan has built up her industrial development on borrowed technology. Even to-day, research and development is very small and it is estimated that such expenditure is below 1% of sales by the industrial units. Most of the research is centred in the private industrial units themselves and there is not any large expenditure by Government as such. However, it must be said that while Japan has avoided any large initial expenditure on research so as to get a foothold in modern industries, she has at the same time elaborated a programme on limited research in certain specific fields which are most complimentary to Japanese technology. Mention may be made of special efforts in the fields of nuclear energy, desalination, desulfurisation of oils, cracking of crude oil to ethylene, etc. most of which are now on the verge of large-scale exploitation. Japan's approach has been to concentrate on specific problems for research and development so that her effort is not dissipated in innumerable small problems of less vital importance. Similarly, Japan's industry in particular has been concentrating on application research on her products. This has been of particular benefit in developing new lines of application in the plastics industry and thus help in promoting her trade and exports of the products of that industry. The same situation applies to the development of items like cameras, transistors, tape-recorders and television equipment where Japan has concentrated on new innovation and modifications and thus secured trade advantages. What one must note here is that it is not the amounts spent in terms of GNP or other yardstick which is important. More significant is specified objectives of R & D and the way they are tackled. Industry's efforts have been also directed to improve on imported technology and this has also paid net dividends.

## Other factors

Japan does not have any social security system, and medical care or other health benefits are also only rudimentary. The amount which is thus not spent on welfare activities or what is called "Social Overhead Capital" is also diverted towards the stimulation of economic activities.

Japan's educational system is also somewhat peculiar in that the State does not play any major role in University education. This again provides some additional funds towards industrialisation. The reduced number of graduates has not prevented Japan from making rapid industrial progress. The production of graduate engineers and other trained personnel has, however, been maintained at an adequate level and it is said that Japan has no "brain drain" problem thus conserving all available talents for activities within the country.

The Japanese economy has been extremely protectionist and the industry has greatly benefited from such protection from overseas imports. However, Japanese Government has been wise enough to maintain adequate internal competition so that production efficiency is developed and maintained without any rigid regulations such as industrial controls. The foreign capital participation has also been severely restricted until very recently. Although foreign investment is fairly sizeable, a very large part of it is as loans and actual investment in equity has been greatly restricted. Further, Japan has equally restricted any participation in management, as a corollary of the very low level of participation in the equity.

A notable additional feature of Japanese development is her adoption of what is called "reverse engineering". This is the technique of completely taking to pieces imported items and re-building them to see how they are made and how they work, so as to imitate and produce a very similar product for local consumption or for exports.

## New Problems

After this miraculous growth of the last decade, Japan has now reached a point where some distortions have

emerged. She has to face serious problems such as continued supply of raw materials on an ever-increasing scale, lack of new sites for industrial development, pollution of air and water sources, labour shortage and a rapidly rising inflation. It is estimated that machinery prices have moved up rapidly during the last year and consumer price index advanced 7% in one year. Added to these problems is the increasing tendency towards internationalisation of the economy, need for increased aid to developing countries and the recent financial turmoil due to the action on the Dollar in U.S.A. Meanwhile, Japanese experts feel that production and export of high added-value products is relatively low in Japan and also Japanese capacity for innovation in fields like chemical industry is rather low. Japanese economy appears to have very little invisible income because of low investments in foreign countries so far. Japanese also feel that their industrial units are comparatively smaller than in USA or European giants in many fields like chemicals, electronics, automobiles, etc. and hence not fully equipped to face competition, exports or imports. Labour intensive products are subjected to severe competition from neighbouring countries like Hong Kong, South Korea and Taiwan. The Japanese economy which was planned to meet "excess manpower and foreign exchange shortages has moved towards excess foreign exchange and manpower shortage", in the words of a noted economist, Prof. Shinohara.

There are also other danger signals arising from Japan's Industrial growth. Her enormous production of synthetic rubber is a growing threat to the markets for Malaysia's natural rubber and there is some serious resentment. Her success with desalination may enable her to cut off import of salt and pose problems to salt exporting countries. In such situations, Japan may have to give some serious thought to the pace at which her industries develop.

To meet these new problems, Japan is taking new steps. Japan has recently moved towards liberalisation of capital investment by foreigners in Japan, even though this may not be of much significance at this late stage, because it applies normally to new investments and not to acquisitions of in-



terests in running concerns. Top experts of Japanese industry and commerce are increasingly inched towards a national diversion of labour engaged in the manufacture of commodities to more sophisticated technology and meet the deficit in commodities by investing in a substantial way in foreign countries where the resources are complimentary to Japan's industrial requirements. She is moving away from import of raw materials to a programme of investment in the development of raw materials and some kind of processing of such raw materials in the originating countries before their import into Japan. Dr. Nagano, Chairman, Nippon Steel Co. Ltd., talks in terms of tapping the labour resources of emerging nations. Others like Mr. Kobayashi, of Nippon Electric Co., talks of giving the emerging nations the know-how they want. The Japanese Federation talks of increasing and liberalising economic aid and strengthening this foreign economic cooperative programme. The Federation has also urged Japanese Government to promote private investments abroad by loans, risk insurance systems and by creating a system whereby loans borrowed for development will be repaid if the projects succeed.

How quickly such steps would proceed, it would be difficult to predict. Japanese Government is equally alive to these changes and problems. For promotion of such efforts the Japanese Government has recently constituted the Japan Overseas Development Corporation with Mr. Nagano as the General Manager to promote the development and import of materials from underdeveloped countries. All Government agencies actively encourage such overseas agencies and very probably such investments will be fully covered for unknown risks in the overseas countries. Similarly, efforts are being made to purchase and hold large stocks of essential materials through a giant Government Corporation under the aegis of MITI; such a corporation will hold large stocks of critical raw materials to meet emergency shortages and also to avoid any tendency towards inflation of prices and to strengthen the bargaining power with the exporting countries. Japan is also moving towards cartels in respect of different indus-

tries or producers who manufacture similar products and particularly to avoid any self-defeating competition in the export trade. Mergers of weaker organisations with larger ones is being encouraged and they are not worried about monopolies. In fact, Japan is ever alive to the scale of operations whether of a manufacturing firm or of a business house. The Japanese Export Committee which advises Government has been converted into a supreme Trade Committee divided into 4 fields of export, import, overseas investment and cooperation.

This wave of economic internationalism is in the air. Tariff preferences for products from developing countries is being given effect to. The U.S. is tightening up imports and Yen is being revalued substantially. Meanwhile there is a spirit of nostalgia with being an "economic animal" and more people are inclined to question the "quality of life" and need to have more worthwhile indices like "Gross National Welfare" instead of GNP. It is indeed an achievement that Japanese economy has attained the No. 2 position in the free world before the new problems have cropped up. It is expected that Japan at the forefront of Asian nations will extend her assistance to all her neighbouring countries to progress together. For India the main lesson to learn is to imbibe the Japanese spirit of discipline and dedication to work and to create a sense of belonging in everybody so that for some years we can build up our agriculture and industry in a supreme national endeavour.

In this connection, it may be interesting to note what Mr. H. Takahashi, Gen. Manager, Mitsubishi Corporation, Bombay Branch, said recently at a conference: "Our objective in Japan is not only to remove poverty but to create wealth, increase our gross national product and develop our national economy and play our legitimate role in the international community."

In conclusion, I would also like to quote, Mr. Minoo R. Shroff from his article "Japan's growth and strategy for exports", "Thus the climate of trust and harmony which has engendered Japan's growth and has kept its wheels so

well greased does not exist (in India). This being so even with vast natural resources and exceptionally competent manpower in various fields, our immense potential for doing larger business and exports has remained relatively unexplored. And yet this is not an external constraint but well within our genius to resolve. Despite the basic differences we have a lot to learn from this remarkable nation if only we approach issues with our eyes wide open and our minds free from prejudice."

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*The views expressed in this booklet are not necessarily the views of the Forum of Free Enterprise.*

"People must come to accept private enterprise not as a necessary evil, but as an affirmative good."

—Eugene Black

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