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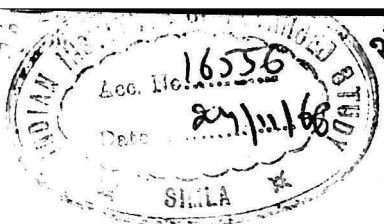
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THE INDUSTRIALIZATION OF CHINA

By DR. GEORGE K. C. YEH

Being the report of a meeting of the Royal Central Asian Society on September 26, 1945, Sir John Pratt, K.B.E., C.M.G., in the Chair.

The CHAIRMAN said: It is my great pleasure and honour to introduce to-day a very distinguished lecturer. We are very fortunate indeed that Dr. George Yeh has come to talk to us about an extraordinarily interesting subject, the industrialization of China. It is an extraordinarily interesting subject because in the industrialization of China is involved the whole future of the Far East. The whole problem of China is, how is she going to adapt her ancient civilization to the modern world into which she emerged not so very long ago, and what methods will she adopt for her industrialization? She is going to find a solution for that problem, and in the solution she finds I have no doubt she will have many lessons for us to learn; just as in her ancient culture she has many lessons which we can learn if we elect to profit by them. Dr. Yeh is a little late; he has been attending the meeting of Foreign Ministers, and anybody who comes out of that meeting even alive is so far fortunate.

DR. YEH: Mr. Chairman, Ladies and Gentlemen,—I must say that I am just as much alive as when I went into the conference-room this morning. Also I am cheered by this opportunity which you have so kindly given me to-day to discuss a subject which is of the greatest urgency to China, and which, because of its latitude and its far-reaching influence, should, I think, also interest people in other lands. Nearly twelve months ago I was back again in Chungking and visited many other parts of China. Apart from the current interest in the war, I found that many people were already turning their attention to the question of post-war industrialization. The war was then still on. The discussion of the question of industrialization was, therefore, still more or less a matter of speculation. To-day, although the war seems to have ended much too abruptly for many of us, and particularly for national plans of reconstruction to reach the stage of final consideration; we are happily more certain of the prospects when we talk of the industrialization of China. In this connection, I am happy to be able to say that the recently concluded Treaty of Friendship and Alliance between China and the U.S.S.R., and the progress which has so far been made in the negotiations between the Chinese Government and the Communist leaders, have increased greatly the possibility of China's embarking fairly soon upon her industrialization schemes. I say this for obvious reasons: industrialization means, firstly, capital; secondly, capital goods; thirdly, raw materials and technicians; and, fourthly, political and monetary stability. If China cannot promise the world political and monetary stability, she can hardly expect any foreign investment in her industries. In other words, no government will risk co-operation with China if the investment is not assured of reasonable economic returns. The Chinese themselves are sane enough to realize this, so they are no less anxious to bring about the existence of conditions favourable to official and unofficial economic co-operation with the other United Nations on a large scale.

It is not my intention here to discuss politics, but it is necessary for us to understand that conditions in China to-day are much more realistic than they were, for instance, six months ago, in so far as the question of industrialization is concerned.

Before I come to the more technical aspects of industrialization in China, I would like to deal with certain questions which have often been asked of me as to what would happen if China were completely industrialized. All these questions seem to contain an element of fear, which I propose to examine before we come to the more positive part of my discussion. It is important that we do so, because if these lurking fears are found to be justified, China's plan for industrialization may yet remain on paper.

A common fear is that China may become so thoroughly industrialized that in due course she will abandon her age-old agricultural foundation. This is a fear entertained not only by you and myself, but also by many of my countrymen. I want to assure you at once that those exponents in China of the wholesale industrialization of China are now less and less heard. For those in the audience who understand my language I would say that we have a special term. We call it "ch'uan pan hsi hua"; this term is rather humorous because it puts industrialism on an extremely commercial basis. It would be regrettable if all the Chinese should, in the course of the next twenty or thirty years, move into the big cities and towns and gradually abandon their agricultural pursuits altogether. This would mean, first, that the world would have to produce millions of tons of rice and food to feed the Chinese, who constitute roughly one-fifth of the world's population, especially at a time when the prospects of food production are by no means cheerful. It would also mean, even if food could be procured from other parts of the world, that there would be an even greater concentration of population in certain areas, bringing in its wake even worse social and economic consequences than those which attended the quick and unplanned industrialization of Western Europe throughout the nineteenth century. At its worst it might even make China another Japan in thirty or forty years. The Chinese themselves certainly do not want that.

Another fear which I share with some of you is that with the enormous man-power at China's disposal and the return to cheap labour from its present inflationary level, China will be able to produce articles of daily necessity at such cheap prices that she will gradually undercut her Western competitors, at least in the Far Eastern markets. This assumes that (a) China wants to become industrialized in order to compete with the Western democracies by flooding world markets with cheap goods as Japan did, or (b) the other possibility, that when China becomes sufficiently industrialized she will develop a momentum which it will be difficult for her to check, and the result will be that she will have to go on producing for export markets. Both these assumptions are reasonable, but I venture to think they are not likely to obtain in the case of China. The Chinese find themselves in a position at present in which, in order to raise the standard of living of the people, they must industrialize. Industrialization for China means primarily raising the economic level of the

masses of the people, not the enriching of a few individuals or companies, nor cut-throat competition in foreign markets. As her economy getting, in due course, out of control, this is not likely, as we are going studiously to adopt a general plan under which free enterprises will be coordinated with certain state industries and the needs of the people. In adopting this synthetic plan we are guided by the experiences of Great Britain and America as well as of Soviet Russia in their industrial development.

There is another fear which is felt by friends of China who admire certain positive qualities of Chinese civilization. These people are afraid, as indeed I am myself, that a rapid industrialization might change the Chinese character altogether, for an industrial life would necessarily affect the family system, the admirable virtue of "li," and those qualities of dignity and modesty which form the basis of the Confucian code. This is a point which calls for more deliberation than I would be justified in giving it here. There is a likelihood, of course, that with the growth of industrial life certain features of Chinese society will inevitably suffer, such as the unity of the family, the sense of proportion which is deep-rooted in Chinese education, that beautiful elevation of friendship to an almost religious plane, and many other things which those who love things Chinese have come to associate so intimately with that people.

I have no doubt that the tradition of the large family in China, which has been steadily breaking down during the past fifty years, will gradually disappear, but that cannot be helped. I also have no doubt that with the disappearance of the large family the very close ties that exist between cousins, uncles and nephews and other members within the family group will have less and less significance in China. This also cannot be helped. But I am sure that Chinese culture in the main will continue. So long as the Chinese language continues the classics will be taught in schools, and China's long history and culture will continue to form the dominant and basic factor in shaping Chinese character. The position of this language in relation to Chinese civilization is far more integral and vital than that of any Western language. I have no time to go into this very technical question to-day, but it is sufficient to say that Chinese painting and poetry, and in fact all the fine arts in China, are so related to calligraphy and the written word, that if you took away the Chinese language or changed its characters, there would not be much Chinese civilization left as such.

So, ladies and gentlemen, I do not think that one need fear the decline of Chinese culture as China becomes gradually industrialized.

It is obvious that foreign manufactures might suffer when China is able to provide her own consumer goods. But you will see when we come to China's plans for industrialization that China will not be able to supply her own needs for consumer goods for some years to come. In the next ten or fifteen years, attention will be paid chiefly to heavy and defence industries and not to consumer goods. You will soon see how vast are China's needs and how little she is able to supply them herself.

It would be well if we now turn our attention to what China has been, and is, economically. Here again I must say that time will not

permit me to deal with the points exhaustively, and I can at best deal only with the salient features of China's economy as it has been in the past few hundred years.

The first thing that deserves our attention is the fact that China has always been a predominantly agricultural country with a simple rural economy. The extent to which she is agricultural is difficult to assess. In 1930, according to figures quoted by Professor R. H. Tawney, of a total Chinese population of 450 millions, no fewer than 80 per cent. lived in agricultural communities, though other recent estimates give a figure as high as 87 per cent. In this respect China is comparable to Russia before the launching of the Five Year Plans, when Russia's rural population amounted to 78 per cent. of the total. The Russian figures, however, had by 1937 been successfully reduced to 61 per cent. Of the non-rural population of China—which amounts to some 20 per cent. of the total—by far the majority were engaged in native handicraft, industries and transportation. Due mainly to its primitive nature, transportation in China absorbed a disproportionately large number of the population.

Apart from native industries and transportation, the number of men working in modern factories is, according to Professor H. D. Fong, no more than 2 million. If we take Professor L. Buck's estimate that the Chinese family averages 6.66 persons, then the total number of persons dependent upon modern factories for their living cannot exceed 13 millions, or a mere 3 per cent. of the total population. Factory workers in twenty-nine cities throughout China were, in 1930, distributed as follows:

| | <i>Per Cent.</i> |
|---------------------------------|---|
| Textiles | 47.2 |
| Preparation of food and tobacco | 14.7 |
| Clothing | 6.6 |
| Building | 6.5 |
| Chemicals | 5.9 |
| Machinery | 5.4 |
| Educational supplies | 4.9 |
| Furniture | 3.3 |
| Art products | 0.8 |
| Public utilities | 0.4 |
| Construction of vehicles | 0.1 (<i>i.e.</i> , $\frac{1}{10}$ of 1%) |
| Unclassified | 4.2 |

Studies of the Chinese national income confirm, by and large, the general figures I have just given. According to an estimate made by Mr. Colin Clark, out of a total national income of £4,315,000,000 in pre-war years, some £63,000,000, or 1.35 per cent., were contributed by large-scale industries; £852,000,000 or 19.8 per cent., by handicrafts, transportation and other employment; and no less than £3,400,000,000, or some 79 per cent. of the total, represented the income of the rural population.

According to statistics compiled by the Research Department of the Bank of China published in 1938, at the peak of China's industrial activity in 1937 before the Japanese attack, there were only 3,000 factories in the whole of China, including those owned by foreigners. This meant that

there was only one factory in every 13,000 square miles to provide for the 105,000 people. Textiles, the most successful and flourishing industry in China, had in 1937 only 5,000,000 spindles.

I do not propose to burden you further with statistics, but it is important to remember how little industrialization there has been in China.

It would be wrong to attribute China's poverty to the lack of industries alone. There are many other factors—such as civil wars, famines, the disuse or destruction of old irrigation systems in certain regions, etc. But we are quite certain that China could not possibly remain solely an agricultural country, however well her land may be developed, and still hope to raise the living standard of her people. Although China is vast in area, very little of her land is arable. Various investigations have given us varying figures of the arability of China's land, but 20 to 25 per cent. would be a safe estimate, and of this 25 per cent. a very large percentage has been under cultivation for many years. As no machine has yet been invented to work in the watered paddy fields, mechanization in connection with rice production is still very limited in possibility. Although the people in the north live also on wheat, barley and millet, it is safe to assume that over 65 per cent. of the Chinese population live on rice, when they can get it.

I have just referred to China's poverty. Some twenty years ago it was the fashion in China to attribute China's poverty to her impact with Western industrial civilization. Even fairly competent economists adhered to this theory. Not being an economist myself, and trained more in the humanities, I was not, even at the moment, impressed by a theory which was built on mere statistical facts of a limited range. In recent years, however, economists and sociologists are beginning to delve more into China's long past. It is now generally agreed that ever since the Chou Dynasty (1122-258 B.C.) there have been periodical famines and periods of extreme poverty in China. China's own writers—before the returned students brought back from the West the theory of the Malthusian cycle—had always advanced the theory that periods of extreme poverty were due to the growth of population unaccompanied by the necessary increase in food, and also by the influx of alien races which were absorbed into the empire. It was only in recent years that Western-educated economists rediscovered how right those classical writers were, although those writers possessed no degrees from any European university and were mostly scholar-officials, not experts. In fact, at about the time of Malthus, or perhaps a little earlier, Hung Liang-chi (1746-1809) developed a theory of population resembling in many respects that of Malthus. Later, writing towards the end of the Taiping Rebellion period (1851-1864), Wang Shih-toh attributed the uprising mainly to over-population and bad government by the Manchus. As a remedy he advocated, among other things, birth control. Later, in 1906, Hsia Tseng-yu, in the Preface to his *Ancient History*, which has now become a classic, said: "After great upheavals, with reductions in the size of the population, the products of nature will become more than sufficient to maintain those who remain. Meanwhile, men of outstanding ability who dared to rise against the existing régime have most of them already perished in the

turmoil. The survivors are war-wearied; they entertain no other ambition than to live and let live. Herein is to be found the secret of peace which is closely related to the output of the soil and has little to do with the personality of this or that great emperor or prime minister."

Hsia's theory was not only true in the light of the fall and rise of dynasties in China, but also expressive of an outlook which, for lack of a better term, we might characterize as essentially democratic. The output and income *per capita* depend principally upon the amount of capital equipment which one has at his disposal. In a predominantly agricultural country such as China, by far the greatest part of the national capital consists in land. As the supply of land is more or less fixed in quantity, it follows that the average capital per head, hence the average output per head, falls with every increase in the population. In due course a point will be reached at which the aggregate production of the earth becomes hardly sufficient to provide a bare living for the whole of the population. As wealth and income are not distributed equally, a part of the people will have to go without. Some of these are forced to turn bandits and some live on charity organizations, while many others starve and die. The result is, first, social unrest and then great upheavals. When, through slaughter, hunger and disease, the number of the population is reduced, a reverse process to that described above will set in. The quality of the land remains the same, but the number of persons sharing it becomes fewer. Thus, ironically enough, a new period of temporary prosperity and seeming opulence appears. China will continue to repeat this Malthusian cycle of poverty unless she finds a permanent way of providing her vast population with a means of variable output. The only way that seems to be open to her is a controlled industrialization. Many of us dislike industrial life and all that it may bring to us. But it is a question of the welfare of a very large number of people.

Now I must come to another reason why China wants to become industrialized. It is that China would like to contribute to the security of the East and of the world by developing certain defence industries. This may at first seem strange to you, but you will perhaps agree with me that China has provided, for almost half a century, one of the tilt-yards of economic rivalry. I am very frank on this point, but it is important. A strong, united China, able to defend herself when necessary, is an indispensable factor in the stability of the Pacific. China does not want to become a prize for economic and political exploiters. The world will also want to see China strong so that she will never be a prey for conflicting imperialistic ambitions. Apart from this, China, I think, has her own justification for wanting to develop her defence industries. She has been the victim of brutal aggression for almost fourteen years. Her very existence has been at stake. Her casualties have been heavy. These bitter experiences and unforgettable sacrifices have brought home to the Chinese that unless their country can defend herself in the event of an attack, her millions may yet again find their land invaded and their homes shattered. I am not suggesting that China will go militaristic—that would go against the grain, I am afraid—I am only trying to picture to you the feelings of the Chinese people on the necessity of a defence industry. And you

cannot have a defence industry without first developing certain heavy industries.

The industrialization of China is therefore intended to serve three main purposes: first, to raise the standard of living of the people; second, to break the Malthusian cycle; and, third, to strengthen the defensive power of the nation.

What does China propose? Is she going to have a planned economy on Soviet lines or will she allow private enterprise? So far, one thing has been decided by the Chinese Government. We are going to embark upon industrialization on a General Plan; in other words, industries which are related to defence and to the general welfare of the people will be operated either completely or partly by the State, while all other industries and businesses will be open to private enterprise. But be it a State industry or private enterprise, it must follow certain requirements which will be the substance of the General Economic Plan. The question of the formation of a plan for co-ordination will be worked out by the various Government authorities concerned, but the extent to which private industries will be subject to control will concern only general principles and will, I am sure, not stifle their free development. In this there is close similarity between the Chinese system and that which France followed when developing her railways. In the case of France the construction of the railways was open to private enterprise, but it had to follow the routes mapped out by the Government. In the case of China, an overall plan for economic development will be drawn up by the Government. It will be executed partly by State industries, but largely by private enterprise. Certain industries have already been reserved as State monopolies. These have been defined as postal services and telecommunications, arsenals, mints, principal railways, and large-scale hydro-electric-power plants. As you know, with the exception of hydro-electric-power plants, all the above-mentioned industries and works have already operated as State monopolies. All other industries are open to private enterprise under a general economic plan. Among these industries there are some, such as large-scale petroleum fields, steel plants, air and water transportation, which private capital is not capable of developing, or which the Government regards as being of special importance. These the Government may itself undertake as a business enterprise, not as a monopoly, or it may go into partnership with private interests. In this category there will be ample room for private companies to negotiate with the Government, and there will also be flexibility in regard to ownership. For instance, the Government may take over a private enterprise which is losing money but the importance of which the Government recognizes. Or, the Government may become a partner in a joint stock company.

As I have just said, in regard to private enterprise, the Government only requires that it should conform to a general economic plan, which is being worked out in detail. So far, it is only known that the general plan will include points in respect of location, planned capacity and the required standard of quality. It will also require that the issue of debentures and shares should be registered with the Government bureau in charge.

Some of you may have noticed in the reports on the proceedings of the International Business Conference, held last winter in New York, a statement issued by the Chinese Delegation setting out the salient points of China's post-war economy. This statement dwelt mainly on points which are of interest to our foreign friends, and emphasized, among other things, the following:

(a) That no restriction will be placed upon the percentage of foreign participation and management in Chinese companies.

(b) That technicians may be brought to China to assist in the development and operation of industries in which foreign capital is invested.

(c) That foreign nationals, in conformity with Chinese laws, may establish branch factories, branch business houses and independent business enterprises in China.

(d) That there will be no discrimination in the matter of taxation as between Chinese and foreign nationals.

(e) That the Government may grant special charters to foreign interests for undertaking important enterprises in China.

This statement of the Chinese Delegation to the International Business Conference is in full accord with the latest decisions of the Government on the economic policy of post-war China.

While waiting for the general economic plan to be announced, you may perhaps be interested in a few schemes which, though not officially prescient of the general economic plan, should at least be regarded as some of the bricks with which the general plan will be built up. Of the many that have been prepared and published, I should like to single out (1) Dr. Sun Yat-sen's "International Development of China," (2) the Economic Plan drawn up at China's request by the Foreign Economic Administration of the U.S.A., and (3) the revised Kuomintang Economic Programme of 1945. I have no time to go into the details of these three plans, but will only bring out the salient points of each.

Dr. Sun Yat-sen's Scheme.—Dr. Sun's *International Development of China*, which contains his plan for the economic reconstruction of the country, was published in 1921, immediately after the end of the first world war. As he himself has made it clear, his scheme was intended to serve the double purpose of the economic development of China and of facilitating the transition of belligerent countries from war to peace. The following quotation from Dr. Sun speaks for itself:

"We remember that one hundred and twenty million dollars were spent every day on direct war supplies. Let us then suppose that the two items mentioned (*i.e.*, the reconstruction of the various countries and the supply of comforts and luxuries that will be resumed) will take up one-half of this sum, which will still leave us a balance of sixty million dollars a day. Just imagine sixty million dollars a day, or twenty-one billions and nine hundred millions of dollars a year, of new trade created by the war suddenly having to stop when peace is concluded: if the billions of dollars worth of war industries can find no place in the *post-bellum* readjustment, then they will be a pure economic waste. The result will not only disturb

the economic condition of the producing countries, but will also be a great loss to the world at large.

"Fortunately, the natural resources of China are great, and their proper development would create an unlimited market for the whole world and would utilize the greater part, if not all, of the billions of dollars worth of war industries soon to be turned into peace industries. The workshops that turn out cannon can easily be made to turn out steam-rollers for the construction of roads in China. The workshops that turn out tanks can be made to turn out trucks for the transportation of the raw materials that are lying everywhere in China. And all sorts of war-industry machinery can be converted into peaceful tools for the general development of China's latent wealth."

This quotation sounds extremely optimistic, and I wonder if he would write the same if he were writing to-day?

The latest appreciation of Dr. Sun's prophetic scheme comes from the *Economist*, which says in its issue of April 28, 1945, that "the remarks of the great Chinese leader are apposite and topical at the present juncture, when the dangers of sudden reconversions and large backlogs of war products might be partially offset by export to the under-capitalized countries of the Far East."

Dr. Sun's *International Development of China* holds in Chinese politics a unique place of prestige and authoritativeness. Written a quarter of a century ago, it is to-day still being officially regarded as the basic blueprint for the economic reconstruction of China. To show this, a few random quotations from books and official documents will suffice. Generalissimo Chiang Kai-shek says, "As to economic reconstruction, we must follow the principles laid down in the *Industrial Plan*," which is the title given to the Chinese version of the *International Development of China*. In the preamble to the *Principles for China's Economic Development*, adopted by the Supreme National Defence Council in Chungking on December 28, 1944, it is said: "The task of China's economic reconstruction must be undertaken along the line planned in the teachings of Dr. Sun Yat-sen, so that economic developments under a general reconstruction plan will eventually lead to the establishment of an economic system prescribed in the *Three Principles of the People*." As a last example, the Kuomintang National Congress held in 1945 resolved that a detailed industrial plan should be drawn up on the basis of the outlines contained in Dr. Sun Yat-sen's *The International Development of China* and Generalissimo Chiang Kai-shek's *China's Destiny*.

Dr. Sun Yat-sen's economic plan provides for the following categories of construction—namely, communications, commercial harbours, modern cities, water-power, and iron and steel and cement works. The scheme also envisages mineral development, agricultural development, irrigation works, re-afforestation in Central and North China, and colonization in the North-eastern Provinces (Manchuria), Mongolia, Sinkiang, Kokonor and Tibet.

Dr. Sun's communications system envisages the development of

ishment of 1,400 fuelling stations and garages and 60 basic repair stations. Total expenses required, £55,750,000.

Establishment of food factories.

The American-made plan also provides for the training of industrial personnel, improvement of industrial hygiene and the establishment of technical libraries.

Side by side with the above industrial plan, there is a scheme drawn up by the famous American hydraulic engineer, Professor Savage, for the development of the Yangtze Valley, which received a serious and sympathetic study from Chinese experts. This work will take six years to complete and will involve a total expenditure of £250,000,000. It will feed all the provinces through which the Yangtze flows.

When and if completed it will be :

1. Several times greater than the T.V.A.
2. Dammed to raise water-level by 160 metres.
3. Generating 10,500,000 kw. electricity; half of this power to electrify an area 1,000 miles in diameter with an aggregate population of 200,000,000.
4. So constructed that the other half may be used to manufacture chemical fertilizers, with a yearly output of several million tons.

5. Able to permit, by means of locks, the passage of steamers over 10,000 tons right up the 1,300 miles from the coast to Chungking.

The Yangtze Valley Scheme is receiving a most enthusiastic welcome in China. After its model the T.V.A., it is being called the Y.V.A., Y standing for the Yangtze River.

There has been great divergence of opinion with regard to the reception of the Yangtze scheme. Many people had no definite opinion; were, indeed, afraid to think of a scheme on so gigantic a scale, which would revolutionize all the provinces through which the Yangtze flows. It is quite certain that hydro-electric power plant will be set up, and that a portion of the Y.V.A. will be carried out as soon as possible.

Now we come to the principles for China's industrial reconstruction as adopted by the Sixth National Kuomintang Congress on May 19, 1945. These principles will remain as the basic elements of China's economic policy for some years to come. I can only give a résumé of them here.

The industrial reconstruction of China will be based on an over-all plan drawn up by the Government. The underlying idea is to develop an industrial base in order to realize the dual objective of national defence and people's livelihood.

The scale of development will be conditioned by the capital made available by the people's savings and foreign investment, especially at the earlier stages of the plan.

To promote State capital it is necessary to institute a State-owned enterprise system, but private enterprises will also be encouraged within the framework of the over-all plan so long as such enterprises do not exploit the masses.

State industry will be confined largely to heavy industries such as iron and steel, coal, copper, lead, zinc, electricity, chemicals and cement, and also to other industries that have a direct bearing on the people's liveli-

hood, such as textiles, flour and leather. The Government may participate in the development of agricultural products, such as raw silk, tea, tung oil and vegetable oil, to supply the domestic and foreign markets.

The State will also take care of the two basic services essential to industrialization—power and communications. These must be accorded the highest priority and developed according to the needs of the industrial plan.

As China is deficient in certain natural resources, such as copper, sulphur, rubber and iron ore, a definite plan must be formulated to encourage their import and stock piling. With rich reserves of bauxite and alunite, China should develop aluminium as a partial substitute for copper and as raw material for aircraft industry.

Attention should be directed to the organization of each industry with a view to achieving the highest efficiency, and this may be supplemented by a planned distribution of labour. Last, but not least, there should be a plan for intensive geological prospecting and the gathering of economic data necessary for the industrial development of the country.

The industrial plan must be carried out according to schedule, and various industries must be brought into harmony with the over-all plan.

The Government will divide the country into industrial regions according to the distribution of natural resources and other economic factors. For the development of the basic industries, strategic considerations are important.

To carry out the planned production and the harmonious development of the various industries, the State and private industries must have proper division of work and co-ordination. The State may help private industries by organizing trade associations of related industries so as to promote close co-operation.

Private industries conducted in accord with the State plan will receive the utmost assistance in foreign exchange, transportation, equipment, raw materials and labour. This protection will encourage investment in the industries necessary to the development of the State plan. Private and State enterprises of the same category will be given equal treatment. That is, there will be no discrimination against private industries.

The Government will also encourage handicraft industries and co-operatives. Where the handicraft industry has an international market the State will give technical help to improve the quality of the product. Where the product may serve as raw material of industry, the State will bring about closer co-ordination between the producer and the manufacturer.

The State should encourage savings and channel investments to industry. Profits from industry should be ploughed back to industry. To achieve this the competitive profit must be attractive.

The country's financial policy should be in line with the requirements of industry. This applies also to taxation and to Customs tariffs. At the outset, when certain industries are in their infancy, some form of protection may be necessary. More vital, however, is the stabilization of the currency, without which little economic activity will be possible. In addition, the Central Bank of China must be strengthened so as to exercise

effective control over financial policy in order to extend the greatest possible aid to industry. A securities and bond market should be developed.

China's educational policy should also help industrialization. This refers particularly to the technical and vocational educational programme.

Invention and scientific research should be encouraged by suitable awards or subsidy. There should be legal protection for patrons. Exchange or pooling processes of related industries should be regulated and encouraged so as to obtain the greatest benefit.

Foreign investments should be welcomed. There are four kinds of investment—loans, joint enterprise, extension of credit, and special investment. The floating of loans abroad should be done by the Government or by organizations designated by the Government. Such loans should be invested in enterprises vital to the industrial programme and will be self-liquidating. There will be no restriction on the investment of foreign capital except in the munitions industry. Where the joint enterprise requires large capital it is best for the State to participate so as to realize Dr. Sun Yat-sen's industrial programme. If a private enterprise participates in a corporation with foreign interests, the sanction of the State is necessary. Where the foreign corporation enters into technical assistance contract with Chinese enterprise, it has to obtain the approval of the controlling organization. Direct investment by foreign corporations will have to conform to Chinese law.

Now, Mr. Chairman, as this society is mainly interested in Central Asia, I should perhaps mention briefly the position of the north-western provinces—namely, the provinces of Shensi, Kansu, Chinghai, Ningsia, Suiyuan and Sinkiang. These provinces are sparsely populated but total about 2,000,000 square miles, almost 40 per cent. of China's territory. The first consideration in the development of the north-west is conservancy and irrigation, to increase agricultural production in order to support more people. The lack of man-power (6.19 persons to 1 square kilometre) is the greatest handicap to intensive development of the north-west. The Central Planning Board in Chungking is working on a detailed ten-year plan for the development of the north-west. The plan will include agriculture, mining, transportation, conservancy, education and public health.

The Generalissimo recently ordered that a 100 million yuan project be mapped out to water farms in the Kansu corridor in ten years, at the rate of 10 million yuan a year.

A start has been made to resume and expand the work unfinished by Marquis Tso Tsung-tang in the last century. A far-sighted statesman, Marquis Tso visualized an industrialized north-west. He established machine shops, woollen mills and other factories. The work, however, stopped after the Marquis completed his term as the Viceroy of Shensi-Kansu. The Bank of China, in co-operation with local authorities, has established a number of development companies in Kansu and Shensi to establish factories and to undertake irrigation, farming and grazing activities. Millions of yuan have been earmarked by the bank for the development of the north-west. Other Government banks are also investing in factories, mines and companies in the north-west. The Ministry of Economic Affairs, through the National Resources Commission, has

established a number of iron and steel works, oil wells, coal mines and power stations. The north-west is rich in both metallic and non-metallic mineral resources, including mineral oil, coal and salt. There are also some iron resources close to the coal-fields.

Cotton and other industrial plants grow well in the north-west. Much cotton is grown in Central Shensi. Besides introducing improved cotton seed to Shensi farmers, the Ministry of Agriculture and Forestry is trying to introduce cotton to Kansu farms. Southern Sinkiang is also a well-known cotton district.

Mr. Chairman, I think my time is up. I have tried to cover as much ground as I can in a language which is not my own. I hope that in the course of my discussion I have conveyed to you a sense of urgency, as felt by the Chinese in this matter of industrialization. I also hope that I have made myself quite clear in thinking that there is no danger of China becoming another Japan. There is no danger, ladies and gentlemen, of China becoming an aggressive power which will compete with other nations, with America, Soviet Russia or Great Britain for supremacy in any other part of the world than within her own territory. I have done all this within the short space of an hour, but think what time and human effort it will take to bring any scheme of industrialization in China to fruition. It would be sad if the Chinese people should embark on a plan which would force her to become an undesirable partner in the United Nations Organization. We are a people, as Mr. Chairman you well know, with an ineradicable background of idealism and moral principle. We have been thought too academic at international conferences because we have insisted too rigidly on the principle of justice. I feel, however, that a little idealism in this world will not do us any harm. But no world organization could possibly succeed if it were to rest entirely on idealism; there are practical needs to meet and practical problems to solve. China's desire to industrialize has arisen largely from her need to raise the standard of living of her people, to break Bishop Malthus' cycle and to build up her defence industries, so that she will not become a tilt-yard for political and economic rivalry.

Mr. O. WHITE: I would like to ask the lecturer what is being done about floods on the Hoang-Ho?

Dr. YEH: The Yellow River is a long story which I cannot go into now. But this Yangtze Valley plan has in it a long chapter on the relation of this plan to the conservancy problems in relation to the Yellow River.

Group-Captain SMALLWOOD: Is anything visualized in regard to the industrialization of Manchuria? Manchuria is known to be rich in all sorts of iron.

Dr. YEH: I do not think any definite plan has been worked out for Manchuria. The Central Planning Board has got a plan which has not been passed by the Supreme War Council. There you have a very great opportunity for many things; but at present I cannot give you any definite plan.

Lord HAILEY: I am interested in one particular point in the lecture.

We can dismiss at once all the fears that if China is industrialized it will become a potential source of danger to the rest of the world. If she is to obtain a balanced economy she must be industrialized, and only by obtaining a balanced economy can she take her position in the world and cease to be a source of trouble to the world. This industrialization will require an enormous outlay of capital, £55,000,000,000, which can be raised in one of two ways. The first is from her internal resources. Russia raised capital by a long period of self-sacrifice and self-denial. The other method is by foreign investment. Can Dr. Yeh indicate at all what means there are within China of raising capital, not on that scale but on any large scale, and what proportion of this vast figure would have to be financed from outside as compared with the proportion from internal resources?

Dr. YEH: As we know, the Chinese have been thinking of two divergent ways of raising the money. One is the hard way adopted by Soviet Russia. The other I will not call a soft way, but it is the co-operative way. As to the amount of capital that can be raised at present in China, whatever the amount we cannot rely upon it because of the difficulty in stabilizing the currency. I cannot give exact figures, but that study has been made. I think if we accept the present figures as I have given them, China's own ability to raise money will not come to more than 30 per cent.; indeed, it will certainly be less than 30 per cent. Foreign capital is a very important thing, and I have given a good deal of thought to it. I think conditions are now being made so favourable to investment that we hope that scheme will be workable, except of course for stabilization.

The CHAIRMAN: If there are no more questions it only remains for me to thank Dr. Yeh on your behalf for the very brilliant lecture he has given. It was the lecture not of an economist or scientist, I am delighted to say, but of one of those scholar-officials of the tradition that goes so far back as 1100 B.C., who anticipated the theories and discoveries of Western science of the twentieth century. As I listened to his very scholarly discourse I was reminded of the time when I arrived in Peking forty-seven years ago. One of the great men I then met was Sir Robert Hart, who had already been about forty years there. He told us how some years previously he had had an interview with the Princes and Ministers of the Tsungli Yamen and had tried to explain to them the wonderful new discovery of the telephone. When he had got the idea of it into their heads, Prince Ch'ing said that about the year 800 B.C. the Emperor was conducting a campaign against the barbarians in the south, and wished to send a message to the general commanding the troops at the front. He spoke the message into a box, which was transmitted to the general, who put his ear to the box and heard the message. "I suppose," said the Prince, "your telephone must be constructed on the same principle." If China relies upon the accumulated wisdom of four thousand years in dealing with the problems she has to face to-day, she will probably not go far wrong. I am not impressed with the difficulty of raising £55,000,000,000 for the capitalization and reconstruction of China. If the Emperor who built the great wall had brought in a committee of experts they would have produced a plan not of 3,400 pages but of 70,000.

pages. They would have told him how much it would cost in labour and materials, the time required and all about it. But the great wall would never have been built. That is not a joke; for something very similar happened in connection with the Burma-Yunnan road. Foreign engineers, capitalists, experts and so on were called in. They looked at it and shook their heads; but China built it in ten months. I think the Chinese will deal with their other difficulties in the same way. I thank Dr. Yeh on your behalf very much indeed for his most interesting lecture.

