THE ECONOMY OF CHINA:
A TOURIST'S VIEW

BY

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ABSTRACT

Three American economists visited China for two weeks in September 1972 as guests of the Chinese Academy of Sciences and Peking University. The paper reports one visitor's impressions of the Chinese economy and of Chinese economics. The impressions of the economy are organized around a speculative construction of the national accounts of China, designed to make scattered bits of information into a consistent picture of the interrelations of agriculture, industry, and government. The manner in which the countryside is organized in people's communes is described, and income differences within agriculture, within industry, and between sectors are discussed. Finally, the state of the Chinese universities in general, and of academic economics in particular, following the disruptions of the Cultural Revolution is described.

INTRODUCTION.

I visited the People's Republic of China for two weeks September 8-22, together with Professors J.K. Galbraith and Wassily Leontief, in the first of a series of visits by U.S. academicians and scientists arranged by the Federation of American Scientists and the Chinese Academy of Sciences. Our hosts were the Academy of Sciences, the Scientific and Technical Association, and Peking University. We spent a day in Canton, a week in Peking, a day each in Nanking and Hangchow, three days in Shanghai, and nearly two days travelling by train. We spent two and a half days in Peking in discussions with economists from Peking University and from the Academy's Institute of Economics. A similar but less elaborate discussion took place in Shanghai with economists of Fu Dan University. In addition, we visited an arts and crafts workshop, a cotton textile factory, a machine tool plant, a rural people's commune, a grocery supermarket, a large department store, an industrial exposition, a high school, and a hospital. We found all of these visits and discussions extremely informative. Nevertheless we are acutely aware of the vast gaps in our information about the Chinese economic system. Very few macro-economic data were available to us, and we were not able to talk to economists and other responsible officials in the planning and operating agencies of the government.

In this report I have tried to summarize my impressions. They are personal ones, which my travelling companions may not share. Moreover, I am fully aware of the extraordinary margins of uncertainty which surround them, particularly the numerical speculations I have attempted. To write about so large and complex a subject on such short and fragmentary acquaintance is certainly presumptuous. It is justified only by the tremendous interest and ignorance in the West concerning a country with which we have had so little contact for a quarter of a century.

CHINA'S G.N.P.

There really is no information on Chinese national accounts. Indeed, as orthodox Marxists, the Chinese do not recognize bourgeois national accounting concepts. They subscribe to a materialist definition of national output and regard the provision of services as "unproductive" activity. Figures are scanty even for their definition.

Nevertheless I have thought it a worthwhile exercise of imagination to try to construct some plausible, consistent, primitive national accounts from the hints and scraps of data we were able to pick up. Needless to say, the standard errors of these guesses are vast, but the numbers may be indicative of orders of magnitude. One purpose of the exercise is to see how it is possible to reconcile the evidence that labour productivity is 7 to 8 times as high in industry as in agriculture with indications that industrial wage incomes are only 3-4 times as high as agricultural earnings.

First, as to population and labour force, I begin with the U.N. estimate of 1971 population, 773 million. The U.N. derives this by extrapolation from the 1953 census and from provincial reports in the late 1960s. These indicate a rate of increase of 1.8% per year, a figure that accords with information we were given about the population growth of provinces, cities, and communes we visited. I have no information on labour force participation, or even on the age distribution of the population. One may assume a high participation rate because it is customary for women to work both in city and country, and because neither tradition nor life expectancy (50 years according to the U.N.) suggests that there are many retired people. Arbitrarily, I have taken the labour force to be 500 million.

Second, I have divided the labour force among producing sectors. A relatively solid fact is that 80% of the population live in the countryside. I have set the agricultural fraction of the labour force somewhat lower, 75%. Birthrates are higher in rural areas, so the rural population contains relatively more young children. Moreover, although schooling is still less in the country than in the city, the regime has made great strides in universalizing six years of primary education, and in some regions a full eight years of schooling. Another consideration is that the rural population is not exclusively engaged in agriculture. Many communes operate small factories; the one we visited near Shanghai made light bulbs. In addition, the communes encourage and organize peasant handicrafts, traditional and modern. These enterprises absorb labour in slack agricultural periods and are a good source of supplementary cash income.

The other 25% of the labour force cannot be fully assigned to industry, because a substantial number are occupied in service trades, general government, and the armed forces. According to materialist economic accounting, these latter activities are "unproductive". With no statistics to support or contradict me, I have placed 15% of the labour force in industry and 10% in services and government.

Third, a figure of U.S.$90 billion was floating around as an estimate of China's GNP for 1970 or 1971. I was told this by the "principal responsible person" of the Institute of Economics, and he indicated that it came from an interview of Chou-en-lai with a foreign journalist, probably Edgar Snow. My informant could not or would not give details. I assume that the figure covers only value added in "productive" activities and that it is an estimate of such output at market prices, if one may use that term, rather than at factor prices. That is, I assume that value added includes the indirect taxes paid to the state as well as wages and profits.

There are at least two further difficulties of interpretation. One arises from the dual system of agricultural prices to which I will return later in this report. Is agricultural output valued at the prices paid by the state to the producers or at the lower prices charged by the state in sales to industrial users of raw materials and to consumers of food? I have assumed the latter and counted an estimate of the state's trading loss as a subsidy to agricultural producers, in effect a negative indirect tax. The second difficulty is the standard problem of conversion into foreign currency. I assume this is done at the official rate, U.S. 45 cents per yuan. Judging from the informal sample of prices I observed in shops or collected in conversational inquiries from our Chinese escorts, the official rate is not out of the "purchasing power parity" ball park. If anything it understates the dollar value of the yuan in buying a Chinese market basket. It is just not possible, of course, to buy an American market basket in China.

The $90 billion figure implies a per capita output of $116. Previous guesses in World Bank and U.N. publications are $85 for 1965 and $78 for 1968. The implied rate of growth of 6% per year in per capita output since 1965 seems high, and it is possible that the earlier figures are conceptually different. But the qualitative picture is plausible. A decline to 1968 is attributable to the economic damage incident to the Great Cultural Revolution of the years 1966-69. A rapid increase since 1968 is consistent with the impression that the political reorganization, consolidation, and stabilization which terminated the Cultural Revolution in 1969 and 1970 have been a great success. They appear to have given the country not only efficient and dedicated administration but also very high morale and community of purpose. Work and production, more work and more production, are the current Maoist keynotes. All the patriotic zeal with which an authoritarian regime can indoctrinate a population is now channelled to this end. That represents a big change since the Cultural Revolution, when the country and its leadership were confused and divided, when Mao himself was struggling for political and ideological supremacy, and when eradication of elitism, intellectualism, revisionism, and bourgeois cultural survivals took precedence over production.

Fourth, the $90 billion output must be divided between agriculture and industry. The only solid benchmark for this purpose given us was for 1957, when 56.5% of output was attributed to industry, and for 1958, when the figure was 63.6%. I have no reason to believe the figures are much different now, and I have assigned 60% to industry. There has been little change in the allocation of labour force. Agricultural output has grown at 4% a year since 1953, and there is no reason to assume that industry has done better, given the vicissitudes of the Great Leap Forward and the Cultural Revolution.

In producing materialist GNP, then, my guess is that an industrial labour force one-fifth the size of the agricultural labour force produces 150% as much output, implying an average productivity in industry 7½ times that in agriculture.

Income differences between the two sectors are, as I already indicated, much less than the apparent difference in productivity. The main reason is that the state deliberately and systematically redistributes income in favour of the peasants. This brings me to the fifth part of the imaginative exercise, the state budget.

Effective taxes on agricultural output have been reduced from 13.2% of output in 1952 to 6% in 1971. As percentages of value added, both of these figures would be higher. The deliberate policy is to keep absolute aggregate taxes on agriculture constant. The figures therefore imply that output has increased 2.2 times in twenty years, the average growth rate of 4% per annum which I already mentioned. On the other hand, there are substantial subsidies to agriculture, probably exceeding the taxes collected. The most important are the price subsidies already referred to. While food prices to consumers have been stable for twenty years, the prices paid producers for major foodstuffs have risen 90%. Evidently the concept of agricultural-industrial parity is a universal one, transcending ideology and social organization. We were told that the "disparity" had been reduced 40% by government effort since liberation.

As for industry, I would guess that the state takes fifty per cent of industrial output, possibly more. In the first place, there are heavy turnover taxes on gross value of production. The textile factory we visited paid 18% in taxes, the machine tool factory 5%. Our informants agreed that the tax rate is generally higher for consumer goods than for capital goods. In any case, turnover taxes, levied on total value of output including costs of materials, pyramid into substantial rates on gross value added, the concept used in GNP estimates. In the second place, a substantial fraction of depreciation charges are commandeered by the state. The textile enterprise, for example, retained discretion over only half of its replacement allowances. In the third place, industrial enterprises seem to make large net profits, which are turned over to the state in full. The textile factory reported its profit as 19% of the value of its output. The machine tool factory would not say, but it must have been large given that their payroll and turnover tax together accounted for only 10% of the value of their shipments and that their profits were said to be ten times the amount of their gross investments--and this in an expanding industry with high priority in the plan.

My guess of 50% plus is consistent with information given us that 90% of state revenues come from state enterprises, the remaining 10% from agricultural communes, collectives in the service trades, and miscellaneous sources. From the estimated $36 billion of value added in agriculture, the 6% turnover tax must yield more than from $2 to $3 billion, to which must be added taxes from some other non-industrial sources. It is not unreasonable to guess that industry provides the state with more than $27 billion (nine times $3 billion), half the estimated industrial output of $54 billion. I guess that the state collects a total of $32 billion in taxes and in profits and replacement allowances of state enterprises. Of course a substantial part of the state's take from industry is returned in investment appropriations. But industry also pays for "non-productive" investments--housing, hospitals, roads, sewers, etc.--and for some appropriations of investment funds to agriculture.

In addition to taxes and profits, the state through its People's Bank disposes of the people's savings. The only assets, other than small consumer durables, which households can acquire are currency and deposits, on which miniscule interest is paid. The Bank also receives deposits of the working balances of communes and collectives--which could be regarded as indirect deposits of member households--and of state enterprises and state agencies. I have estimated annual household saving at about 6% of household income, but this is a wild guess. The Bank makes mainly short-term loans, to finance inventory-building, seasonal agricultural expenses, and the like. Again interest charges are nominal. Longer-term investments evidently are handled mainly by state appropriations.

The state does no other borrowing. Its budget is balanced, and the pride the Chinese take in this fact would make Herbert Hoover and Dwight Eisenhower happy. China has no debt, external or internal. The debt to the Soviet Union incurred during the Korean War was repaid in advance when the two countries parted diplomatic and ideological ways. Internal bonds were issued prior to 1958 but by the end of 1968 had all been repaid as due from budget surpluses.

Unfortunately we have little evidence on the composition of state outlays. I have included items for the farm price subsidies, and for other transfer payments, mainly pensions. As for investments, we were told that in 1957 gross investment took 24% of materialist GNP--productive investment 15%, unproductive 9%. Should these proportions still hold, they imply gross investments totalling $22 billion in 1971. Not all of this would come from the state budget; some investments are made directly by communes and state enterprises. Our Shanghai commune invests about 5% of the value of its output, 7% of its value added. Our Peking textile factory reinvests

directly half of its depreciation charges. These facts lead to the guess that investments through the budget and the Bank are less than $20 billion--I have written $17 billion in the Table. The remaining state outlays, guessed at $12 billion for consistency, cover administration, defence, education, medical care, public sanitation and health, and so on.

Finally, to complete the imaginative tableau requires some numbers for the so-called "unproductive" sectors, for which we have even fewer statistical clues than for industry and agriculture. I guessed above that 10% of the labour force might be engaged in service and governmental activities. Some of these workers are in modern employment where they earn wages at least comparable to industrial wages: civil servants, teachers, bus drivers, medical workers, department store clerks, etc. Their average productivity--measured in terms of value of output at market prices--is, however, perhaps only half that in industry, since in these activities the mark-ups for taxes and profits are much smaller. Many other workers in these sectors are closer to agricultural workers in their productivity and earnings. They use technology equally as primitive. Most local transportation, for example, is powered by back-breaking human effort. The streets are full of old men and women conveying incredibly heavy loads by pulling two-wheeled carts, or slowly pumping pedal-cabs or tricycle pick-ups, or simply piling cargo on their backs or their bicycles.

If I attribute to the 50 million workers I have assigned to the service sector an average productivity one-third of that in industry, I should add $12 billion to the materialist GNP of $90 billion.

In addition, I should make some other bourgeois imputations, in particular rents for the homes people occupy. Only nominal rents are charged by the state, surely no more than costs of upkeep. The same principle applies to hospital beds, another facility whose use is priced in a market economy but virtually free in China. I have quite arbitrarily placed the value of such imputations at $10 billion, or $13 a year per person. This is probably conservative; the implied proportion of consumer income devoted to housing is low compared to other countries. It is also obvious even to the casual sightseer that the quality of the housing is very poor; this is clearly one of China's biggest economic challenges.

All these guesses are summarized in Tables I and II. We end up with a Chinese GNP, western style, of $145 per capita. More important, perhaps, we get some picture of the interrelationships of agriculture, industry, and government.

IMAGINATIVE CONSTRUCTION OF CHINA'S GNP 1971

TABLE I

	Producing Sector				
	Agriculture	Industry	Services & Government	Housing & Other Consumer Capital	TOTAL
(1) Labour Force (millions)	375	75	50	0	500
(2) Value Added (billions US$)	36	54	12	10	112
(3) Average Productivity (2)/(1) (US$)	96	720	240		224
(4) Payments to govt: taxes and profits ($ billions)	3	28	1		32
(5) Government subsidy ($ billions)	6	-	-		6
(6) Undistributed gross profit ($ billions)	2	2	1		5
(7) Wage payments (2)+(5)-(4)-(6)	37	24	10		71
(8) Average wage (US$) (7)/(1)	99	320	200		142

Memoranda: GNP per capita = 112/773 = 145
Wage income per capita = 71/773 = 92

IMAGINATIVE CONSTRUCTION OF CHINA'S GNP 1971

TABLE II

Sector Accounts and Gross National Expenditure

Households:				Final Purchases	
Wages	71	Saving	5		
Imputed Rent	10	Consumption	78	Household Consumption	78
Transfers	2				
	83		83		
Government:					
Taxes & Profits	32	Subsidies	6		
Household Saving	5	Transfers	2		
	37	"Productive" Investment	7		
		Other Investment	10	Government Purchases	29
		Collective consumption	12		
Enterprises & Communes:					
Retained gross profits	5	Investment	5	"Business" Investment	5
					112

Memorandum:	Household, collective, and government consumption	90
	Total Investment	22
		112

MACRO-ECONOMIC POLICY.

I already noted the proud commitment of Communist China to pre-Keynesian budgetary orthodoxy. The same old-fashioned bourgeois rectitude guides monetary policy. The note issue is carefully confined to the needs of an expanding volume of transactions at stable wages and declining prices. Standard wage rates are held constant--although an individual's wages will rise with experience, seniority, skill, and effort. There is full employment, but no trade unions, no free labour market, no Phillips dilemma. China follows the old prescription that productivity increases over time should be translated into real wages by falling prices rather than rising money wages.

Of course, if prices are not reduced to the extent that productivity improves, the revenues of the state automatically grow. No doubt this avenue is partly responsible for the apparently comfortable budgetary position of the state. By this process it would be easy for the state to raise the share of resources devoted to investment and collective consumption. Our impression, however, is that there is great official resistance to this temptation. Current policy and party line, in contrast to earlier Five-Year Plans and the Great Leap Forward, favour private consumption. The emphasis is on lowering consumer prices--for industrial rather than agricultural products--and on increasing the variety and quality of consumer goods available. Certainly the shops, small and large, were well stocked in every city we visited, and the customer queues often noted in other socialist countries were completely absent.

THE DUAL ECONOMY IN CHINA.

For most countries, a principal feature of economic development is the transfer of population from countryside to city, from agriculture to industry and commerce. This is an important source of growth, because labour productivity is much higher in industry than in agriculture. Moreover, the process raises labour productivity in agriculture as well. Industry provides tractors, combines, fertilizers, electricity. With the help of capital and new technology, crop yields per acre rise while direct human labour per acre declines. During the process of transfer, growth rates are very high. Once the shift is largely completed, as in a mature economy like the United States, growth depends solely on the slower processes of capital accumulation and technological advance within the two sectors.

Industrialization brings growth, but as we know all too well it brings social disruption and misery as well. This was true in England's Industrial Revolution, and even in the United States we are experiencing the social convulsions incident to the last wave of migration from Southern

agriculture to cities. In many developing countries, high wages and glittering city lights attract hordes from the countryside to take their chances on a scarce supply of urban jobs. In these countries the cities are crowded with people unemployed or unproductively occupied in nuisance jobs on the fringes of urban society. Their housing is squalid, and they overwhelm the capacities of municipal services, as the incidence of begging and crime attests.

China is not undergoing economic development in this sense, and by the same token is not suffering from the social problems that accompany it. There is no unemployment in China. The Chinese proudly make this claim, and I find it easy to credit. Individual Chinese do not have free choice of occupation, job, and place of residence. Neither adults nor young people just completing school can leave the countryside of their own volition. On reaching adulthood, a young man or woman simply becomes a full working member of the commune in which he has grown up, gone to school, and worked right along. A rural resident could get nowhere in the city even if he were permitted to travel there, because no factory or other employer would have the right to hire him.

Factories and urban employers do recruit in the countryside when the planning authorities have licensed them to add to their work force. They go to the country "middle schools", junior and senior high schools, in search of promising and interested talent. But my impression is that they do so only when they have exhausted the supply of school-leavers within their city itself.

As a result of this policy, the relative distribution of population between countryside and city has remained stable, with roughly 80% of the population rural. Since the rate of natural increase is higher for the rural population, stability implies some industrial and urban recruitment of rural youth. But the classic process of development by shift of labour force has yet to begin. China has not succeeded in expanding the number of urban jobs much faster than the natural increase of urban population itself.

The happy consequence of strict central control of the labour market is that Chinese cities do not exhibit the distressing urban pathologies from which so many cities elsewhere suffer, and for which some Chinese cities were notorious before the revolution. There are no beggars in the streets, no idlers on the corners, no derelicts without beds or roofs, no sidewalk clamour of peddlars and vendors. Litter goes into litter cans with a regularity that would astound and delight Mayor Lindsay of New York. Streets, parks, public lavatories are clean and well-kept. In all these public places, as well as in your home or hotel, your person and property are

secure day and night. The careless foreign traveller can count on speedy recovery of the full Hongkong shopping bag left behind in the railway coach.

But China is still a miserably backward and poor country, especially rural China. One can travel two days on the train through fields of rice, cotton, jute, maize, wheat, and sorghum and see no tractors and surprisingly few draft animals. Water pumps are fairly frequent, but the main sources of power in agricultural work are the peasants themselves. Even human-powered farm implements, beyond the simplest tools, are rarely in evidence.

Our impression through the train window is somewhat misleading because of the time of year. The people's commune we visited near Shanghai had 84 tractors for the 4,700 households (20,500 people) farming 1,700 hectares, and claimed that 95% of the area was mechanically cultivated. The commune also had some rice-transplanters and small simple threshers. Nevertheless, there can be no doubt that Chinese agriculture is extremely labour-intensive--according to my fellow traveller, former Ambassador to India--much more so than Indian agriculture. Likewise, chemical fertilizer is very little used, again much less than in India. Even in the model commune we visited, chemical fertilizer is only 30-40% of all the fertilizer used.

As in most developing countries, industrial wages are substantially higher than peasants' incomes. My guess in the first section of this report was a factor of three. Here are some other bits of information. A typical wage reported to us in Shanghai or Peking is 720 yuan per year (about $325 at the official exchange rate). A household with two wage-earners, as would be quite usual, would earn 1,440 yuan. In the commune 25 miles from Shanghai the average household income distributed in cash or kind is 675 yuan, also representing the earnings of at least two workers. If income from private gardens and animals is added, these peasants are earning about half as much as their city cousins, although fringe benefits--education, health, public services, pensions--are better in the city. The commune we were shown is untypically prosperous. Its leaders proudly pointed out that its yields per hectare were twice the standards set in the central plan for the region, and the region itself is above the national average.

As I explained above, redistribution through the state budget explains why industrial wages may be only 2 to 4 times peasants' earnings, while industrial productivity is 7 or 8 times higher. I think it is safe to conclude that the marginal productivity of a worker in agriculture is less than his consumption. In this sense there is surplus labour in agriculture, in China as in many other under-developed countries, and industrial wages are well above the shadow price of labour. But in China strict control of personal movement and residence prevents this problem from taking the form of

urban unemployment.

I should note that our Chinese hosts, both economists and others, would not agree with this diagnosis. They repeatedly claimed that there was a shortage of labour in agriculture, a remark I could make sense of only by interpreting it to mean that the marginal product of labour in agriculture exceeds zero. Moreover, they regarded it as entirely natural that people should grow up to work in the locales where they were born, even if their marginal products--my word, of course, not theirs--might be higher somewhere else. The principle militates not only against rural-urban migration but also against rural-rural migration. Our suggestion that it might be desirable gradually to shift people from poorer land to better land was stoutly resisted. If for historical reasons people happen to live in unpromising terrain, they and their children must simply put more Maoist energy and ingenuity into improving the situation, with the help of the state.

THE PEOPLE'S COMMUNES.

The Chinese countryside is organized into people's communes, which are geographical and administrative sub-divisions of government as well as economic units for agricultural, and some non-agricultural, production. The communes vary in size from 5,000 to 40,000 persons. They are in turn divided into production brigades of roughly 1,000 members, and these in turn into production teams of 150-200 members. The team is the basic unit of production, responsible for cultivating its assigned land and for allocating and organizing the work of its members. A part of the proceeds of each team is appropriated by the brigade and the commune for local public services, administrative costs, welfare benefits, and investments. These levies are of the order of 10-15%. In addition, there is the 6% state tax previously referred to. The brigades and communes own certain equipment--tractors, threshers, transplanters. Teams are charged rent for their use.

After all these charges are met, the remainder is available for distribution to the members of the team, although the team itself may decide to appropriate some for collective purposes. Distribution among team members follows what the Chinese described as the socialist principle of remuneration: "to each according to his work". Specifically, each member accumulates work points each day he works, up to a maximum of 13 per day. Distributions are in proportion to accumulated points. These are meant to reflect strength, skill, diligence, and "attitude" Each peasant suggests his own score, and his suggestion usually prevails without dissent. Sometimes his colleagues argue that his score should be higher. Less frequently, we were told, they try to persuade him it should be lower. It was hard to pin down how decisions are made in these cases, but we were told that it was

done by "democratic centralism". In the commune we visited near Shanghai, the average daily score was said to be about 11.

The teams, brigades, and communes also operate their own social security systems. The sick, disabled, and elderly are first of all the responsibility of their kinfolk, by eternal tradition. But in case of need, they become a collective responsibility.

Evidently the process of organizing the entire countryside into teams, brigades, and communes was largely accomplished during the Cultural Revolution and its aftermath. But it is not yet complete in all areas of the country, for it is not yet known in Peking, at least by our informants, how many communes there are altogether and how many people are members.

Peasants in communes are allowed small plots for personal gardens and, in the commune we saw, may keep two pigs. Private output is meant for personal consumption, not for sale, certainly not for sale in the city. But the regime is anxiously conscious of what are termed the "spontaneous forces" of the rural economy, by which I understood the instinct of peasants for private trading and arbitrage. The concerns expressed on this count suggest that private sales may be more frequent than anyone cares to admit.

Normally, the commune keeps what it wants for internal consumption and sells the rest to the state for distribution to factories or retail outlets. There is discretion here as long as the delivery targets specified in the plan are met. A grocery store we visited in Peking maintained direct telephonic contact day and night with neighbouring communes, to order deliveries of fresh vegetables and fruits. In the case of grain crops--the only foodstuffs rationed in China are grain and vegetable oil--the commune is expected to limit its internal consumption and sell the excess, no matter how much it is over-achieving its "tasks", to the state.

Prices are set by the state and are extremely stable. The notion that prices should fluctuate with supply and demand is regarded as a bourgeois doctrine inappropriate to a planned economy. Worse still, it is regarded as a revisionist heresy, associated with Eastern European experiments with market socialism and the hated Krushchev's gestures in the same direction. The ideological heroes in China, one may judge from the portraits that adorn every meeting room in every institution, are Marx, Engels, Lenin, Stalin, and of course Mao. One of the early victims of the Cultural Revolution was an economist--Sun Yeh-fang--who evidently aspired to be China's Liberman.

At first our queries about seasonal fluctuations in prices of fresh produce were met with insistent denials that even these occurred, but

searching inquiry revealed that they do happen. Prices are still, of course, planned rather than market-determined. Two other factors evidently contribute to making fairly stable prices workable. One is the rationing of grain in the form of rice, flour, bread, etc. Although the rations are generous--15 kg per person per month for a normal adult--there is presumably an unsatisfied demand at the controlled price. The same observation may also apply to another major crop, cotton, because cotton cloth is also rationed. The other factor is that most of China's consumers are peasants who can find a way to consume whatever supplies of many products are not purchased for urban consumption. If they have a big harvest of apples and prices are held stable or reduced insufficiently to attract extra urban consumption to match, the peasants can simply eat the apples or preserve them. If the apple harvest is poor, while urban demand stays high, the peasants will simply have fewer apples to consume or preserve. The elasticity of their demand with available supplies provides a buffer that makes controlled prices workable.

This is possible in China because agricultural markets are local and segmented, not of national scope. Every city is served mainly by a surrounding hinterland of diversified agriculture, and only to a minor degree by shipments from distant regions specialized in particular crops.

INCOME DIFFERENCES.

In the commune we visited, the strongest and best workers earned perhaps 40% more than the weaker members. In the textile factory the lowest wage was 35 yuan per month, the average was 60; the highest wage for workers was a bit more than 100; engineers and technicians earned 130-140. In a Peking arts and crafts workshop, wage rates varied from 40 to 102, and some very special experienced craftsmen earned 200. In the department stores wages ranged from 36 to 80 and averaged 63. In a Shanghai hospital average wages were 67 for all staff members, and only 85 for doctors. But some physicians and surgeons earned 200 and even 300. Young university teachers are being paid 50, but the salaries of some veteran professors are 200 or more.

One of the aims of the anti-elitist anti-intellectual Cultural Revolution was to narrow income differentials, especially those that gave educated people superior status to workers and peasants. We were given to understand that the high wages paid to older engineers, doctors, craftsmen, and professors are obsolete vestiges of the past, maintained for present incumbents out of humanity and charity but certainly not anticipated for their successors. At the hospital, for example, it was implied that the current generation of physicians, properly inculcated and motivated by Maoist thought, would not expect to advance much beyond 100.

China really is at the beginning of an experiment to see if non-pecuniary incentives can be substituted for substantial income differences as inducements for high quality professional, scientific, and administrative performance. Of course the chances of success are facilitated by the state's control of job allocations and the denial of free choice of jobs and occupations. Once a university student, for example, chooses his field of study, he has in effect lost control of his career. The engineering student will go where he is assigned, just like an officer newly graduated from a military academy. In conversation with our Chinese companions, I was surprised at how easily and cheerfully they accepted this fact of their lives, and how little value they placed on the freedom of choice they lack. One after another simply said, "I go where the state needs me most". But the high morale inspired by a strong sense of national duty will also have to be sustained to make the experiment a success.

ECONOMICS IN CHINA.

Our contacts were confined to university economists at Peking University and Fu Dan University, Shanghai, and to economists of the Institute of Economics of the Academy of Sciences in Peking. Our requests to meet operating personnel in the economic agencies of the government proper were politely ignored, with hints that this might occur later in the development of cultural and scientific exchange and after the U.S. recognized the existence of that government.

Academic economics is not in good shape by western standards, or even by Eastern European standards. The curriculum is largely ideological and certainly non-quantitative. The authorities in political economy, as in everything else, are Marx, Engels, Lenin, Stalin, and Mao. A course in the history of bourgeois economic thought is offered, starting with Adam Smith and stopping with Keynes and Chamberlin. The approach is the old-fashioned philosophical treatment of contesting "schools". Developments in economics in the west in the last thirty years are simply unknown, and our Chinese friends were genuinely surprised by our insistence that many of these developments were relevant and useful to a socialist economy. Their general attitude was that bourgeois economics must be irrelevant since it is concerned with profit maximization, an objective repudiated by socialist economies.

The Institute of Economics of the Academy of Sciences has 120 staff members and evidently a more empirical bent. Some of its members reported to us very informatively about aspects of the Chinese economy. Others by their questions showed some knowledge of the U.S. and world economies, as well as keen interest.

Universities, and intellectual life in general, took quite a beating from the Cultural Revolution. The universities were shut in 1967, and students were not enrolled again until 1970. At the moment there are only two classes in the universities--first and second-year students--and about as many staff members as there are students. As in all Chinese institutions, the Cultural Revolution ended with new administrations in charge, invariably called Revolutionary Committees. The university is run by a Revolutionary Committee of professors, young teachers, students, army representatives, party delegates, workers, and administrators. So is every sub-division, the economics department for example.

The new university leaders are presiding over what they regard as an educational revolution. Its main elements are these: 1) The university is politicized. All subjects are taught and studied with homage to Mao's thoughts, and with their utility to the state as the first consideration. The university cannot, it is said, divorce itself from the politics of the country. 2) Students and teachers must not set themselves apart from or above workers and peasants. Students will not be admitted until they have two years of practical manual work in farm or factory. Moreover, students must spend a third of every academic year in such work. Teachers and staff must spend at least one month in this way. Intellectuals must learn from workers and peasants, and their aim must be to serve the masses. 3) Subjects must be taught and learned in ways that combine theory and practice. Economists and physicists must learn by doing in factories, not just by abstract study. Mao has told social scientists that the whole society is their laboratory. He was not talking about sample surveys. The message is to get outside the cloistered walls and learn by getting your hands dirty. 4) The length of courses of study has been cut, generally to three years after high school even for professionals like physicians and engineers. Further specialized knowledge is to be learned on the job. "The job", however, can include research assistantships for apprentice academics and scientists. 5) The university is supposed to be less hierarchical and authoritarian in structure than in the old days. The precept applies both within the faculty and between faculty and students. Faculty ranks are being phased out. No more professors are to be appointed. Young teachers and students are to have more say in running the university. Classes are to be conducted with give-and-take between students and teachers. Marks, tests, and cramming are now de-emphasized. Since students are carefully selected, with attitude and political reliability as important as intellectual promise, they are to be treated as mature co-workers, not as recalcitrants in need of discipline or of threats of flunking out.

These last strands of reform sound like academic revolutions in the 1960s all over the world. But I found the general anti-intellectualism and political dogmatism of the university reforms frightening.

I cannot be optimistic about Chinese universities in general, or in particular about economics as a scientific discipline in China. Although we engaged in much brave talk about exchanges of academicians and scientists, I am afraid it will be some time before we talk the same language in economics, and even longer before "a hundred flowers" are allowed once more to bloom in Chinese universities. The Academy of Sciences may be more promising since it is a research institution not involved in the delicate matter of shaping young minds. But at the moment the Academy too is just getting organized after a period of confusion and soul-searching.

Whether these developments in academia are any long-run threat to the Chinese economy is another matter. One has the impression that the Chinese have been consuming intellectual and professional capital since 1965 and are still doing so. But in spite of our own occupational prejudices as academicians, the kind of capital they are consuming may not contribute much to GNP, on either socialist or bourgeois definition. Meanwhile the Chinese are stressing the universalization of primary and secondary education. It too is strongly ideological, but the new generation will be literate as well as Maoist. Since one cannot escape the impression that the Chinese are a very able and industrious people, who were kept in misery and ignorance by centuries of misrule and more recently by a century of foreign exploitation, stable government and elementary literacy may set the stage for remarkable progress for several decades to come.