

**CIA HISTORICAL REVIEW PROGRAM
RELEASE AS SANITIZED**

18 SEPT 95

TITLE: Chinese Growth Estimates Revisited: A Critique

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VOLUME: 7 ISSUE: Spring YEAR: 1963

STUDIES IN INTELLIGENCE



A collection of articles on the historical, operational, doctrinal, and theoretical aspects of intelligence.

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*"Lessons from errors past" re-
jected as inferred from false
analysis.*

CHINESE GROWTH ESTIMATES REVISITED:
A CRITIQUE

Edward L. Allen

Omphaloskepsis is a widespread practice, and nowhere does it have more dedicated practitioners than among the members of the intelligence profession. Indeed, national estimating procedures have institutionalized this self-contemplation in their "validity studies." As in the production of the estimate itself, a principal task in these post-mortems is to keep the keenly honed scalpels of self-interest from carving the defenseless corpus into an unrecognizable image of the original.

Recently the Second Conference on Intelligence Methods held in Washington was privileged to hear the scathing results of an unusually thorough intelligence autopsy entitled [REDACTED]

[REDACTED] "Seldom has Western intelligence been so awry," he said, as it was in assessing the Chinese economy. There is no doubt that our estimates in 1958-60 of likely future rates of Chinese economic growth erred considerably on the high side. This reviewer, however, finds [REDACTED] arraying of the facts to be mistaken and his diagnosis of the reasons for the too high estimates to be wide of the mark, at least so far as U.S. intelligence is concerned. If the purpose of the post-mortem is to learn the lessons of experience, the record should be read straight.

The First Five Year Plan

We may start by reviewing the estimative history of the First Five Year Plan period (1953-57), contrasting [REDACTED]

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██████ allegations with the language in the relative NIE, *Chinese Communist Capabilities and Probable Courses of Action Through 1960*, dated 5 January 1956. We find that what was said is very different from what he says was said:

██████
NIE 13-56

It has become customary within the intelligence community, when discussing the First [Chinese] Five-Year Plan, to describe it as "well conceived and impressively implemented," with the connotation that the able leadership of the regime was a principal causal factor. Knowing what we now know about agricultural difficulties, is there justification for persisting in this formulation? The Plan's neglect of investment in agriculture is surely a serious black mark against it.

When China first began to issue over-all production figures . . . we tended to accept them with little reservation

33. In mid-1955 the regime, after considerable delay, adopted a comprehensive First Five Year Plan (1953-57). The Plan is fairly rudimentary Even though the Russians have given extensive technical assistance, the Chinese Communists admittedly have encountered great difficulties in drafting their plan. Its delayed announcement was officially attributed to the lack of resource data, difficulties in the collection of statistics, lack of skilled personnel, and inexperience in handling problems

59-60. Although the regime is planning to achieve a 23 percent increase in total agricultural production during the Five Year Plan period, we believe it will be doing well to exceed a 10 percent increase. . . . The estimated increase in food output approximates the estimated population growth

Looking backward in 1958, after completion of the Plan, our judgment was straightforward. We said in NIE 13-58 (13 May), p. 5:

17. Although the regime has made a pretense of proceeding according to an over-all Five Year Plan, it has actually operated from year to year on annual plans which have generally been aimed at correcting the excesses and defects of the previous year. Nevertheless, the regime demonstrated its capability to control the economy sufficiently to limit consumption and to marshal resources for investment

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Speaking of the shortfall in agricultural output, the same NIE came to the very conclusion that [redacted] reproaches us for not having drawn:

[redacted]
NIE 13-58

It behooved us to inquire whether such a crash [collectivization] programme as China's in 1955 and 1956 could have been achieved without detrimental effects on morale and production, at least in the short term.

22. Moreover, [agricultural] production was adversely affected by the disruption and confusion which accompanied the rapid collectivization of agriculture in 1955 and 1956. Agricultural growth was also hampered as a result of the regime's decision to minimize state investment in this sector

One is puzzled as to why [redacted] thinks we were so bemused by Chinese progress in the 1953-57 period that our intelligence estimates on the First Five Year Plan "provided a sufficiently biased picture to make us vulnerable to the claims of the Leap Forward."

As the explanation for this "biased picture" and later larger errors [redacted] tells us: ". . . There existed in the Western intelligence world a disposition to respect, or at least a reluctance to disparage, Communist China's own claims and policies in economic matters." Throughout his paper he returns to this theme of his from time to time—the widespread Western acceptance of false Chinese statistics. We must ask, first, whether the practice was widespread, and second, whether it led Western intelligence into a trap.

What do the relevant NIE's say? In NIE 13-56 (p. 14), there was no disposition to accept the Chinese claim:

In the crop year 1954-55, we estimate that the Chinese Communists produced about 158 million tons of basic food crops and about 1 million tons of cotton, as against Communist claims of 170 and 1.1 million tons respectively.

Nor was there any heedlessness of pitfalls. For the first time, in this estimate, a statistical table showing estimated Chinese production of selected commodities for 1954, 1957, and 1960 was introduced (p. 12). The reader was warned:

The figures in this table should be used with caution. The estimates are subject to varying margins of error, some of which might be considerable. The 1954 estimates for certain of these

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commodities should probably be regarded as a maximum, particularly for pig iron and crude steel The estimated production of industrial products, as projected for 1957 and 1960, depends upon construction or improvement of capacity, the assimilation of advanced techniques by the Chinese Communists, the continuance of Soviet Bloc aid, and continued importation of capital goods from the West With the exception of pig iron, steel, trucks and food crops, our estimates of 1957 production are of the approximate order of magnitude of the Chinese Communists' goals. With respect to crude oil and gasoline . . . we believe that the Communist goals are overly optimistic.

Thus the reader is given the best estimates possible of current output—whether in agreement with the official Chinese or not—and told the basis of future projections. He is also told which estimates had not been cross-checked and therefore must be considered questionable although still the best available. The analytical procedures were straightforward, objective, and fully explained. They would not seem to warrant [redacted] view that "they provided a sufficiently biased picture to make us vulnerable to the claims of the Leap Forward."

The validity of the Chinese data continued in later years to be a matter prominent in the estimators' minds; indeed in NIE 13-59 (28 July 1959) a separate annex was devoted to the reliability of Chinese Communist economic statistics which pointed to their deterioration caused by the Leap Forward, a deterioration [redacted] finds noted only in hindsight.

Why Estimate Where Facts Are Scarce?

If he absolves us of the charge of unquestioning acceptance of Chinese statistics, the reader may still ask, as [redacted] invites him to, why estimate the production of specific commodities in the face of great uncertainty? Why attempt to aggregate these into totals of industrial production? Why go further to the construction of estimates of levels of total output (GNP)?

If there had been no other reasons, policy considerations at that time made it imperative that a complete picture of the Chinese economy be developed. Anyone reviewing the tables of contents of NIE's 13-56 and 13-57 would be struck by the unusual amount of space devoted to international and domestic trade and transport, the very detailed consideration of the

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quantities of goods moving over transport routes—rails, roads, inland waterways, and maritime routes—which seems out of place at the National Estimate level. But these were the years of the “blockaders,” those who strongly advocated a naval blockade of the Chinese coast as an allegedly powerful weapon to counter Chinese intransigence.

The intelligence officers who represented the services advocating blockade based their case for the desirability and effectiveness of such a measure on a view that the railroads were capable of carrying only about half the tonnage announced officially by the Chinese, a view which could be held only if the level of economic activity in the country were granted to be no more than about half of that claimed by the government.² With this low rail capacity only a small amount of imports could be moved over the inland transport system, and China would be heavily dependent on the import of goods by sea. Thus a blockade of her ports would have serious consequences for the economy and military strength of Communist China.

Those who opposed this view rested their stand on CIA's detailed and painstakingly constructed statistical arrays covering the Chinese economy, which showed that it had indeed expanded very rapidly and that this growth must have been paralleled by a sharp rise in internal freight movement, including movements over rail connections with the USSR, on which at least half of China's foreign trade flowed and more could flow if Chinese ports were blockaded. The crucial question to policymakers—would a blockade be effective or not?—did not require an absolutely precise measure of Chinese economic activity. But it did require the careful piecing together of a consistent picture of the total Chinese economy—and some elementary correlation analysis—to show that China had grown very much larger in industrial output, had reoriented much of its trade to the USSR, and had developed the internal transport services needed. The construction of a total picture of the economy is as essential to economic analysis as the piecing together of skeletal structure in anthropology.

²See the Joint Staff and Air Force footnotes to NIE 13-56, p. 16.

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The entire statistical base of China, every fragment of data, was thus subjected to microscopic examination and to serious questioning long before the Leap Forward started. The intelligence community was not either "belated" or "inconsistent," as [redacted] charges, in recognizing the likelihood of statistical error. Every NIE from 1954 to the present time has recognized the "numbers problem" and qualified its estimates accordingly.

Faced with the same kind of intelligence problem in Cuba today, we find ourselves turning to the same techniques of analysis. The careful construction of a total picture of the Cuban economy, admittedly from scarce and often inaccurate data, is an essential to answer the key questions—what has happened to the Cuban economy since Castro? how much must the USSR put in this year to keep it going? The alternative to the quantitative estimate remains today what it was in 1958—that is, reliance on impressionistic bits and pieces of evidence that make the attempted over-all estimate no more than a gallimaufry of trivia.

Stance for the Leap Forward

So much for the situation through 1957. Looking at these estimates now, and considering that they were made in the face of a scarcity of hard facts, this reviewer concludes that they have stood the test of time. This judgment is a far cry from [redacted] somewhat condescending view that they were "not badly awry." As for the Leap Forward period, 1958-60, and the immediate years beyond, [redacted] is certainly quite correct in stating that our estimates of likely rates of industrial growth have proved to be very wide of the mark. It is both legitimate and important to ask why this was so.

Every intelligence estimate of future developments must rest on one or more hypotheses basic to the projection. On the eve of the Leap Forward a National Estimate, NIE 13-58, was published. What were its hypotheses? They emerge clearly, as follows:

1. "The leadership of the [Chinese Communist] party continues to demonstrate cohesion and determination and, at the same time, a considerable degree of flexibility." (p. 1)

2. "Communist China will almost certainly remain firmly aligned with the USSR. . . . Although there will almost certainly be some frictions, these are unlikely to impair Sino-Soviet cooperation during the period of this estimate [through 1962]." (p. 3)

3. Because the regime is determined to industrialize rapidly, it will have few material goods to offer its people; while there may be increased peasant dissatisfaction, "we believe the net effect on the regime's [social control] programs will be no more than a complicating or retarding one." (p. 1)

The Leap Forward

Within two months of the publication of this estimate the Chinese leadership had embarked on a completely unforeseen course which has effectively brought her pretension to great power status to an indefinite halt. The carefully considered hypotheses on which our growth projections were based proved to be very wrong indeed.

First of all, the disruptive commune organizational change and the useless backyard industry program upset the precarious holding program in agriculture. The so-called Leap Forward eliminated the thin margin between agricultural production and the population's minimum consumption needs, wiping out the nation's annual savings increment and hence new investment, the indispensable ingredient of growth.

Secondly, the all-important economic gains from the alliance with the Soviet Union—loans, technical assistance, industrial equipment—were sacrificed on the ideological altar of Chinese pretensions to Bloc leadership. The exacerbation of tensions reached a climax in mid-1960, when Khrushchev's patience wore thin and the Soviet technicians were precipitately withdrawn from China. This action effectively ended large-scale outside financial and technical assistance, the key to rapid industrialization.

Thirdly, the Chinese leadership decided to try to keep as many people as possible alive, which means that its small foreign exchange earnings were (and are) being used up largely to purchase grain and fertilizer in the West. A rational policy would be just the opposite—namely, to let the least productive members of society starve, to limit the number of births

as severely as possible, and to use the very scarce foreign exchange to import the technical skills which are in short supply and are needed to get industry rolling again.

Finally, to the bungling of man was added the unkindness of nature, which presented China with a series of subnormal growing conditions for food crops. Nevertheless, the Chinese have rebuffed Soviet attempts to patch up the ideological quarrel; indeed, the dispute has been inflamed nearly to the point of open break. The result is that Mainland China, from 1949 to 1958 a shining showcase of Communist success in bringing rapid industrialization and growth to an underdeveloped country, is now a very tarnished and discredited model.

This reviewer submits that the incredible blunders of the Chinese leaders could not reasonably have been foreseen. Intelligence estimates made by mere men cannot hope to be correct in every case; there is always an element of the unknowable about the future. Prescience, omniscience with regard to the future, is a faculty denied to mortals.

██████████ laments that "the West was so slow in fully appreciating the outrageous character of the Leap Forward." But nine months after the initiation of this accelerated Chinese program, a CIA report, *Evaluation of Mainland China's 1958 Agricultural Production Claims* (CSM 19/59, dated 30 March 1959), declared:

An examination of the practices instituted and a consideration of their probable effects strongly suggest that production claims advanced by Peiping have been grossly overstated.

This report also gave estimates of the likely levels of agricultural output far below the Chinese claims. Similarly, NIE 13-59 (paragraph 26) said that "The official claims for agriculture . . . are patently nonsense . . ." With respect to industrial claims this NIE (paragraph 28) affirmed, "We believe that total industrial output in 1958 increased by approximately 40 percent, about two-thirds of the amount claimed." Further along (paragraphs 29 and 30) it concluded: "The production records of 1958 were achieved at considerable economic and human cost. The obsession with quantity and the spread of the backyard furnace movement led to a great amount of economic waste. . . . It is almost certain that they [the Chi-

nese] cannot re-establish and maintain either the rate of increase or the intensity of human effort attained in 1958."

Estimates of the likely future rates of growth were successively reduced in subsequent NIE's as the situation in China became clearer, particularly the devastating impact on Chinese industrial output of the withdrawal of Soviet technicians and technical assistance. [redacted] believes that we should have written these estimates down to zero rather than merely cut back the Chinese claims rather sharply. He also believes that the pattern making for stagnation and chaos should have been visible early. How? By having the analyst adopt "a frankly more intuitive and premonitory approach." We cannot, he warns us, use the inductive method "to obtain confident generalizations about the . . . ability of Communist China's leadership."

Future Research on the Chinese Economy

What guidelines for the future emerge from [redacted] analysis of past research failures? He is not optimistic. He concludes that the three most important factors affecting China's future are (1) the forces of nature, an imponderable; (2) the state of Sino-Soviet relations, which is full of uncertainty; and (3) the wisdom and realism of the regime, an intractable subject. Therefore our estimates will have to be "much less determinate than in the past," content with qualitative descriptions and "pointing out theoretical strengths and weaknesses." What, if anything, useful to the policymaker would flow from such intelligence reports is not clear. Nor does [redacted] dismissal of the chances for successful research on the main determinants seem to hold up.

By the "forces of nature" [redacted] must mean (at least very largely) future weather conditions and the effect on crop yields. Although the weather in any single future growing season is not subject to precise measurement, certainly weather-yield relationships over time are susceptible to analysis, norms can be worked out, and future time periods longer than a year can be predicted with some confidence.

The state of Sino-Soviet relations, to be sure, is full of uncertainty. But the economic effects of a variety of possible relationships—status quo, complete break, reconciliation—

are doable research projects and need to be done before the fact if the leadership's alternatives are to be assessed with any appreciation of penalty or gain.

The "wisdom and realism of the regime" is a broad subject, but, having laid out a research program to measure the consequences of the various possible levels of Sino-Soviet cooperation, we have made a good start on the foreign policy side. With respect to other foreign economic activities affecting growth, the impact of such a current policy as grain and fertilizer imports on growth is measurable. With respect to domestic economic and social policy, it is equally possible to isolate the factors of basic importance, such as programs which would increase future agricultural output (fertilizer, machinery, greater local autonomy) or decrease consumption (massive birth control) and to estimate what the regime's capabilities are to carry out each.

This transgresses [redacted] prescription for "a less rigid and a less ambitious analytical approach." However, it will enable intelligence to provide policymakers with "We think China is most unlikely to become a world power in ten years" rather than an unhelpful "We really don't know what will happen." The needs for intelligence assistance do not fade away because the factual data on which to base judgments become scarce.

One should also stress, in the absence of key facts, the need to work low-grade ores in order to lay the basis for improved future estimates. This takes time and people. An example in the Chinese context is the book published by Choh-Ming Li, *Statistical System of Communist China* (University of California Press, 1962). This very detailed analysis of the Chinese statistical system, including what happened to it during the Leap Forward and subsequently, was made possible by a research grant from an intelligence service. The project, under competent Western supervision, made use of the language skills of native-born Chinese, who combed the press and periodical literature in exhaustive detail. Li's integration of the thousands of individual references and examples of Chinese statistical practices over time is "must" reading for anyone who hopes to understand recent Chinese economic history or

interpret the current day-to-day statistical developments in China.

An even more time-consuming project on agriculture is still under way. The objective of this research is to provide the intelligence community with the means to assess agricultural developments in China, which are generally admitted to be the key to economic success and growth. We currently collect extensive weather data on China. In order to make maximum use of it, we need far more complete and reliable information on land-use patterns and historical data on crop yields—knowledge of past effects of climate, fertilizers, irrigation, improved seeds, etc. on local growing areas. When assembled and analyzed, the resulting yardsticks will enable us to know with a good deal more precision, and on a much more current basis, what success or failure China is having as the crop year develops.

The Big Picture

Finally, [redacted] believes the organizational set-up in research was wrong. He tells us:

Fine divisions of research responsibility had been established before the Leap Forward to pursue research in some depth. These divisions served us ill as information dried up. More and more analysts lost their moorings, fewer people had the big picture, and in the scramble to keep up intelligence production more conjecture—fragmented, uncoordinated conjecture at that—went on at all levels.

[redacted] apparently is unaware of the formal and informal mechanisms for coordination that exist in U.S. intelligence. Let me cite one—the China Committee of CIA's Office of Research and Reports. To provide an opportunity for all the various functional and area specialists dealing with Communist China to discuss problems of mutual interest, ORR established this Committee in 1954. By the end of 1962, it had met approximately 260 times. Members of the Committee and other interested individuals from other offices (and sometimes other governments) used these meetings to exchange views on developments taking place in Communist China. The Committee is a vehicle for the informal exchange of information and ideas rather than for formal research. It provides a forum for the discussion of research techniques and

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problems, a means for immediate group action on any problems of general concern to ORR, and a commons in which analysts can develop closer working relationships. The meetings are devoted generally to the discussion of current topics concerning Communist China and to briefings by members and invited speakers on research problems and other topics of interest.

In view of [redacted] additional charge of "research conducted in isolation" and exhortation to "benefit from the insights of political scientists," it is noteworthy that the China Committee was addressed by or had access to just about everyone who knew anything about China and was clearable. Historians, geographers, area specialists, and political scientists (as well as at least one anthropologist) often attended meetings and participated in discussions. The Committee was particularly active during 1958-59, when the Leap Forward program was at its height. Considerable time was devoted to evaluations of the production claims of China. Long before the official Chinese admission that errors had been made, Committee members concluded that the Communists had exaggerated their production achievements for 1958. Considerable attention was given in the Committee sessions to the problems and consequences of running a planned economy using false statistical data. In spite of these successes, no one foresaw far in advance that China was headed for economic stagnation, that irrationality rather than reason would rule in Peking. Prescience failed us in the Western world.

Probably even more important than the China Committee was the extensive interchange between analysts needed to coordinate papers before publication. This goes on all the time, not only within disciplines but also among the specialized research components.

To say that the U.S. analysts were isolated is untrue; to say that they should have foreseen China's deep-seated economic differences earlier is an idle charge. From [redacted] it is an unfair one, because in the absence of data they were using his own recommended yardstick—"a more frankly intuitive and premonitory approach." It proved to be a very slender reed indeed.

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