ment. Kohler also appears to be rather rigid on Vietnam and resorts from time to time to the rhetoric of the cold war. A useful aspect of his book is his stress on differences between Russians and Americans as people and between their political histories, casting doubt on a foreseeable rapprochement.

A similar theme, arguing against the theory of convergence, pervades the travel book of the Kuhns, a husband-and-wife writing team. Like Kohler, they emphasize that "the Russian has for a thousand years been conditioned to absolutism, while the American has for perhaps three hundred been conditioned to self-rule." The impressionistic account of their trip takes the authors through Leningrad, Moscow, Kiev, Tbilisi, Central Asia, and Siberia, along a well-trodden tourist circuit. Travel vignettes are skillfully interwoven with general background on the Soviet system, marred here and there by factual errors. In an odd mix-up, the Kuhns refer to a Leningrad street supposedly named for N. A. Voznesensky, Gosplan chairman purged in 1950, which was then renamed Maiorov Prospekt. Actually Voznesensky Prospekt was the prerevolutionary name of this important thoroughfare, and it was renamed in 1923 for Peter Vasilievich Maiorov, a political commissar killed during the Civil War.

Stewart's Across the Russias is yet another account of a journey through the Soviet Union. He followed roughly the same route as the Kuhns, except for an extensive tour of the Caucasus. Unlike the Kuhns, Stewart did not set himself a theme for his trip. His is a rather personal story of chance encounters and conversations on his 12,500-mile journey. Again occasional misstatements intrude, such as the contention that the Volga Germans, unlike other minorities exiled during World War II, were not rehabilitated after Stalin's death. Stewart is a skilled photographer, and the seventy-odd photographs, in both color and black and white, add a nice perspective to the book. Photographs are also the principal ingredient of Portrait of a Revolution, one of whose coauthors, Frédéric Rossif, is a French film maker. While making a documentary film in the Soviet Union in 1967, he was given access to film archives that yielded a wealth of still photographs on the early years of Soviet rule. Many of these pictures have been assembled in what was evidently meant to be a pictorial history of the Revolution. The photographs are excellent, but the caption material, apparently designed to provide a connecting account, leaves much to be desired.

> THEODORE SHABAD The New York Times

- SOVIET ECONOMICS. By Michael Kaser. New York and Toronto: McGraw-Hill, 1970. 256 pp. \$4.95, cloth. \$2.45, paper.
- ECONOMIC DEVELOPMENT IN THE SOVIET UNION. By Stanley H. Cohn. Lexington, Mass.: D. C. Heath, 1970. xiv, 135 pp. \$10.00, cloth. \$2.95, paper.

ECONOMIC GROWTH IN JAPAN AND THE USSR. By Angus Maddison. New York: W. W. Norton, 1969. xxviii, 174 pp. \$6.00, cloth. \$1.95, paper.

SOCIALIST AND NONSOCIALIST INDUSTRIALIZATION PATTERNS: A COMPARATIVE APPRAISAL. By Paul Gregory. New York, Washington, London: Praeger Publishers, 1970. xxvi, 211 pp. \$15.00.

These four books are all concerned in one way or another with Soviet economic development, but they differ considerably in objectives, scope, approach, and tech-

nical level. Since the space allotted does not permit an intensive examination of each, this review is devoted primarily to a comparison of the four volumes in the respects mentioned.

Kaser's book is an original and imaginative treatment in the World University Library series intended for the general reader as well as the college student. A large amount of material on Soviet economic history and practice is creatively integrated under three broad headings: ideology, mechanics, and objectives. These titles are somewhat misleading, since Kaser analyzes the ideological background, historical development, and current situation for each topic he considers, and throughout he compares Soviet experience both with tsarist Russia and with contemporary Eastern Europe. Under "ideology" Kaser examines property relations, the Marxian theory of expanded reproduction, input-output, the role of the state in the economy, and the class basis of economic policy, including incentives and attitudes toward the peasantry and elites. Under "mechanics" he treats in turn the use of money and markets, pricing, taxation, the principles and mechanisms of income distribution, the banking system, management, and formal and informal rationing mechanisms. The discussion of "objectives" includes growth strategy, investment and technological policies, and a critique of the economic system and the need for reform.

Thus the division and order of the material differ from those in conventional textbooks on the Soviet economy, and some instructors will find Kaser's book unsuitable for use as the basic text in a course on the Soviet economy, although it will provide provocative collateral reading. Instructors and specialists on the Soviet economy will benefit from many stimulating insights. Although the book includes some technical discussion of various points, noneconomists will find it accessible and rewarding, particularly for its integration of ideological, historical, political, and social aspects with the economic analysis. The book is handsomely produced, with many photographs and multicolored charts, yet is available in paperback at a remarkable price of \$2.45—a feat worthy of emulation by other publishers.

Although the title of Cohn's book is broad, it is a specialized volume concerned with measuring and explaining certain quantitative aspects of Soviet economic growth since 1928. Cohn presents and analyzes many statistical series on the growth of national product, its sectors of origin, and end uses; growth and regional distribution of the output of individual commodities; employment and education; and factor productivity. He draws on commonly used series such as those constructed by Abram Bergson and his collaborators under RAND Corporation auspices and those published in various Joint Economic Committee (JEC) compendia. Cohn elaborates and explains some of his own estimates previously published in the JEC volumes.

Cohn's focus is on statistical measures of growth, with limited attention to the explanation of growth policies. He specifically excludes discussion of both economic organization and planning practices, and his treatment of economic reforms and the possible application of the Soviet "developmental model" elsewhere is brief. The main contribution of the book is the assembly and analysis of important statistical series in a compact and inexpensive form well suited for collateral use in courses on the Soviet economy and on economic development. For this purpose the frequent comparisons with United States, West European, and Japanese economic growth are helpful. The exposition is straightforward, and the more technical aspects are discussed in appendixes. Specialists will find it a handy reference source.

Maddison's book consists of two long essays developed from his articles in the Banca Nazionale del Lavoro Quarterly Review in 1965. They trace the pattern and sources of economic growth over the past one hundred years first in Japan and then in tsarist Russia and the Soviet Union. The choice of this pair of countries is appropriate, because during the past century both have closed much of the gap behind the United States and Western Europe, but through quite different schemes of economic organization and development strategies. Maddison examines the Japanese and Russian-Soviet cases in turn, instead of comparing them in detail throughout. Thus the approach is not a binary comparison but rather a pair of separate studies of national growth, with various international comparisons to Western Europe and the United States in each case.

The book is in some respects complementary to Maddison's earlier *Economic* Growth in the West, but it lacks the latter's depth and originality. Whereas Maddison is intimately acquainted with the West European economies through years of research at the OEEC and OECD, he is not a specialist on either the Japanese or the Soviet economy. The book therefore is primarily a synthesis and evaluation of the findings of others in the published literature (mostly in English but with a few citations to vernacular sources), rather than an original study of growth in either country. Nevertheless, he provides concise, sound, and readable summaries of Japanese and Soviet economic growth—each in a comparative context.

The objectives of Cohn and Maddison are essentially similar, and, using largely the same data, they reach generally the same conclusions. Though Cohn has the advantage of being an active researcher on Soviet growth, Maddison has studied the literature carefully and shows a solid grasp of the materials. Maddison's comparative perspective is broader, and he devotes more attention to institutional and policy aspects. Cohn's book seems to be intended primarily for classroom use, and Maddison's appears to be directed more to the nonspecialist.

In contrast, Gregory's monograph is a technical econometric study based on his Harvard Ph.D. thesis. He compares industrial development in the USSR and Eastern Europe with each other and with the experience of Western countries, taken to constitute the "normal" pattern, in order to test various hypotheses about the effect of the economic system on changes in industrial structure and foreign trade. Using a model for analyzing industrial growth developed by Hollis Chenery ("Patterns of Industrial Growth," *American Economic Review*, September 1960, pp. 624–54), Gregory employs covariance and multiple regression techniques to compare the value-added and labor-force structures of manufacturing in prerevolutionary Russia and the Soviet Union, in Eastern Europe before and after World War II, and between the Soviet Union and Eastern Europe and various Western countries.

Though his techniques are more sophisticated than those of Cohn and Maddison, Gregory's findings confirm the commonly accepted views about the distinctive features of the Soviet pattern of industrialization, the effect on Eastern Europe of following this pattern, and the possible applicability of this pattern to the now lessdeveloped countries. Thus Gregory's analysis shows the differential growth of the heavy and light branches of Soviet industry after 1928, the emphasis on basic metals and nonmetallic minerals, the neglect of the food industry, and so forth. Eastern Europe followed much the same development strategy after World War II. In both cases, the expansion of domestic demand, rather than import-substitution or export-expansion, was the prime source of industrial growth. Although industrial performance was striking, the lag in agriculture and services restrained the growth of national product as a whole. Nevertheless, the Soviet Union was able to build the industrial base for military power and to establish a separate regional market for the CEMA countries. However, for various familiar reasons the suitability of the Soviet model elsewhere is limited.

Although the application of more advanced techniques to the comparative analysis of growth is to be welcomed, various aspects of Gregory's work may be questioned. By "socialist" he means "centrally planned," and thus Yugoslav market socialism is excluded from his study. The performance of Eastern Europe is compared with that of a large group of Western countries, including the United States and Japan, whereas a comparison with Western Europe (in addition or instead) would be desirable. Also, Gregory follows a common but disputed practice by imputing a return to capital in socialist countries at uniform arbitrary rates for all branches of industry in all socialist countries in all years.

Gregory's study will be of interest only to those trained in econometric techniques, and chiefly for its demonstration of the application of these techniques rather than for new substantive findings.

> MORRIS BORNSTEIN University of Michigan

- MATHEMATICS AND COMPUTERS IN SOVIET ECONOMIC PLAN-NING. Edited by John P. Hardt, Marvin Hoffenberg, Norman Kaplan, and Herbert S. Levine. Yale Russian and East European Studies, 5. New Haven and London: Yale University Press, 1967. xxii, 298 pp. \$7.50.
- EKONOMICHESKAIA SEMIOTIKA. Edited by N. P. Fedorenko. Moscow: "Nauka," 1970. 243 pp. 89 kopeks.

The need for informed, timely, and well-coordinated decisions increases faster than the Soviet economic system's ability to generate and communicate them. The renaissance of Soviet mathematical economics since the mid-fifties may be viewed in this context of the economy's unsatisfied demand for optimal planning. The welldesigned symposium held at the University of Rochester in 1965 on "Mathematics and Computers in Soviet Economic Planning" suggests that, as of the mid-sixties, Soviet mathematical economists had hardly begun to cope with that challenge. The authors examine the state of the art in such areas as input-output analysis (surveyed by Vladimir G. Treml), linear programing (Benjamin Ward), and the construction of multiperiod optimizing models (John M. Montias). Richard D. Judy discusses the early development of Soviet economic cybernetics, and Herbert S. Levine, in a brief introduction, projects the issues at stake against the background of traditional planning methods. These new departures on the Soviet economic scene are lucidly presented and, as a rule, soberly appraised. The authors tend to be skeptical about the more immediate prospects for an application of optimal mathematical models in Soviet national planning, partly because, in Edward Ames's words, "Soviet mathematical economics [has] developed along 'ivory tower' rather than useful lines" (p. 246). Viewed from the vantage point of 1971, that healthy skepticism was well taken. Some highly original and even seminal work has been done since by Soviet model builders (to mention only E. Z. Maiminas), but practical applications lag far behind.

One of the reasons is that if Soviet model builders inhabit ivory towers, the practitioners of economic planning and management seem at times to operate in a