

Actually, Soviet productivity growth in terms of real output per worker is outpaced by both Italy and Japan. Moreover, this undistinguished growth performance is relatively costly because capital stock per worker grows faster than the Italian and the Japanese; Soviet "technical progress" is also lower. As for consumption per capita, it too grows less rapidly than output per capita, and thereby indicates a departure from the balanced growth pattern in the majority of Western countries. Thus, growth is revealed to be costly in terms of an increase over time in capital inputs per unit of output.

Bergson's conclusions about Soviet economic performance are plausible but they raise several methodological issues. For example, Bergson adopts output per worker (and alternatively, relative employment in agriculture) as an index of the "stage of economic advance," in order to compare Soviet performance with "like" Western countries. These measures clearly exclude important cultural, historical, and institutional determinants of static efficiency and growth, as is suggested by the contrasts between Japan and Italy which are bracketed together by this index. Furthermore, Bergson's application of Gerschenkron's framework of "advantages of backwardness" seems to have limited application to the Soviet Union which, for reasons not entirely of its own preference, could not always take advantage of its "backwardness" in terms of access to technology, foreign capital inflow, credits, and so forth. Bergson is doubtless aware of the objections to his methodology, but the reader may well consider them to be sufficiently strong to throw doubt on Bergson's conclusions regarding Soviet economic performance.

Perhaps the one important point on which Bergson's analysis is open to question is his use of the Cobb-Douglas production function, as estimated by using competitive relations, for assessing Soviet "technical change." Recent research, by Weitzman and Desai, on estimating Soviet production functions and technical progress is founded on the recognition that competitive assumptions are not suitable for analysis of the Soviet economy. They use, therefore, nonlinear estimation procedures, thus circumventing the need for these assumptions. The results, reported in papers in the *American Economic Review* (1970 and 1976), indicate strongly that imputed factor shares are significantly different from actual shares and that Bergson's procedure, therefore, would introduce serious errors into the analysis.

In conclusion, the lectures provide an expert's view of Soviet comparative growth performance. They can be read with profit by comparative systems specialists, professional economists, and intelligent laymen alike.

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THE MODERNIZATION OF JAPAN AND RUSSIA: A COMPARATIVE STUDY. By Cyril E. Black, Marius B. Jansen, Herbert S. Levine, Marion J. Levy, Jr., Henry Rosovsky, Gilbert Rozman, Henry D. Smith, II, and S. Frederick Starr. New York and London: The Free Press and Collier Macmillan, 1975. xiv, 386 pp. \$17.95.

This is an interesting experiment in the use of history for the exploration of the meaning of "modernization." The framework adopted for this book fits Japan smoothly, because Japan has been a standard topic in the discussion of modernization. But its application to Russia and the USSR ("Russia" for both hereinafter) should surely raise a few eyebrows among those who have dealt with this country in the perspective of "comparative systems," according to the honor of parity with the United States as the basis of an alternative socioeconomic system, "socialism" as against "capitalism."

To them, the book's attempt to evaluate the Russian experiences by comparison with the Japanese within the framework of modernization would appear rather degrading to the dignity of their field, or unfair in the choice of the approach. Indeed, the whole book does seem to be organized according to the convention of Japanese studies, making Japan the standard of measurement and Russia the object measured by that standard.

The historical period that the authors consider relevant to the discussion of modernization consists of three stages: "preconditions," "transformation," and "high modernization." For Japan and Russia, this stretches over four centuries, from about A.D. 1600 to date. The usual concept of "modernization" refers to the stage of "transformation." By "modernization" the authors mean "the process by which societies have been and are being transformed under the impact of the scientific and technological revolution" (p. 3). Furthermore, modernization is viewed as "a holistic process affecting all aspects of society" (p. 3). Some of the aspects used for comparison between Japan and Russia are: the international environment, political structures, economic growth, general social interdependence, and knowledge and education (pp. 3-4). The "impact of the scientific and technological revolution" seems to be of paramount importance. It covers the diplomatic pressures on a given latecomer country exerted by previously modernized countries, as well as the internally generated pressures within the latecomer as a consequence of the imported, implanted, and eventually assimilated scientific and technological revolution. Characteristically, the first "impact" is exogenous—humiliation upon a diplomatic or military confrontation with superior modern countries; for example, the opening of Japan to the world after the 1853 U.S. naval expedition to Japan, and Russia's defeat in the 1853-56 Crimean War. The external pressures produce internal responses motivated by the desire to attain military and diplomatic parity with the superior powers. The forces of scientific and technological changes then permeate throughout the entire social system affecting all of its aspects—economy, society (narrowly defined with emphasis on interpersonal relations), and politics. The result of these changes is a radically transformed social system as compared with the preimpact state of affairs. An alias for this transformation is "modernization." How fast and how smoothly this takes place depends to a great extent upon the nature of the preimpact social system; hence, the need for the discussion of "preconditions."

Japanese history falls neatly into the three stages mentioned above: the Tokugawa period (1600-1868) for "preconditions," from the Meiji Restoration (1868) to the end of the Second World War (1945) for "transformation," and the postwar period to date for "high modernization." But whether the three-stage modernization process can be identified as sharply in Russian history as in Japanese can be debated. Unlike Japan, Russia has been a Western country. Unlike Japan, therefore, Russia did not need westernization together with modernization. Assuming that a variant of the three-stage process, however muted, can be identified in Russian history, one still wonders why each stage must be so cogently contemporaneous for both Russia and Japan, as is uncritically assumed in this book. For example, the Russian Revolution of 1917 poses awkward problems. Its significance is glossed over on grounds that it is one of those "shorter variations" which are outweighed in significance by the "long-term trends in the period of transformation" from the 1860s to the 1940s (p. 11). A few sentences devoted to the justification of this position hardly do justice to the importance of the issue.

Now, this reader is not a Russia specialist. It would be the last thing he would do to quarrel with the authors of this book with respect to different weights that should be placed on different historical events of Russia. Nevertheless, he feels uneasy about their rating of the historical events of Russia relative to one another (for example,

the emancipation of serfs of 1861 as compared with the October Revolution of 1917) or relative to Japanese parallels (for example, Japanese westernization under the Meiji emperor as compared with Russian westernization under Peter I). Only as an illustration of doubts, let us assume for the moment that the significance of a historical event or of a set of interrelated events may be measured by the depth and extent of societal transformation for which the consensus of historians would hold that event or that set of events as an initiator. The relative rating of the "Great Reforms" of the 1860s and 1870s and the Revolution of 1917 and related developments can then be evaluated by comparing how Russia had changed between 1860 and 1917 with how it had changed between 1917 and 1973 (over the same span of time—fifty-six years). This reader feels that by this kind of comparison, the role of the Revolution of 1917 as a change initiator surpassed the role of the "Great Reforms." At least, it is difficult for him to accept that the Revolution of 1917 and the Five-Year Plans of the 1930s were only minor variations subsumed under the major trends initiated by the "Great Reforms." There is a need for another look at the periodization of Russian history and an extended discussion of the relevance of the modernization stages to Russian experience.

Another objection arises in relation to the meaning of "westernization" for Japan. What modernization there was in Meiji Japan was largely modeled on the Western practices. The authors give a caricatured definition of westernization, phrased to make it sound obviously foolish, and dispose of it as irrelevant to modernization (p. 8). But this misses one of the most important differences between Russia and Japan. Japan modernized as a by-product of westernization, while Russian westernization, commonly believed to have begun with Peter I around 1700, had made Russia a full-fledged Western country by the time of "modernization." Russia participated in the historical evolution of the West as fully as any other Western country by the contemporary standards. Even before Peter I, Russia's "western-ness" should have been substantial; after all, Byzantium was West. The rhetorical tour de force guided by the concept of "modernization" in this book then has this curious effect: it de-westernizes Russia by setting it apart from "the West," while it almost "westernizes" Japan by minimizing or considering irrelevant the significance of differences between East and West. This does not seem to be a balanced view of either country's history of societal transformation since 1600.

To confess, "modernization" has never been an easy concept for this reader to grasp. No one therefore should take his objections to some aspects of this book seriously. If the eminent authors have felt that there is enough mileage in the concept of "modernization" to ride through a book, that of course is just as good a reason as any other for which books have been written. Unfortunately, the use of this concept involves a reevaluation of historical experiences and eventually leads to a reinterpretation and a rewriting of history. It is this larger import of the concept that is at stake. This reader does not enjoy the shape of history brought to him in the package of "modernization."

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