

tingencies. In addition, the most important use of Sovmod could become the testing of alternative theories about the operation of the economic institutions of a centrally planned economy.

At present, our theories about what planners do and how a centrally planned economy operates are relatively weak (by theory, I refer to a set of assumptions or postulates that describe the behavior of decisionmakers). In many cases, we cannot specify where decision-making authority lies or how it is divided among economic units. Where we can identify decisionmakers, we cannot always specify what dimensions of a problem are effectively constrained and what dimensions may be subject to control by the decisionmaker.

We need to give more attention to the construction of sets of postulates about the behavior of planners and to the specification of logically valid empirical predictions that might test our assertions. At this point, the results of Sovmod I may suggest such postulates, but they do little to test any theory of the operation of the planned economy.

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SOVIET FOREIGN TRADE: PURPOSE AND PERFORMANCE. By *William Nelson Turpin*. Lexington, Mass. and Toronto: Lexington Books, D. C. Heath, 1977. xiv, 173 pp. Tables. \$15.00.

Originally the author's doctoral dissertation, the book under review is a study of Soviet foreign trade planning activities concerning trade with developed capitalist countries. The first part of Mr. Turpin's book surveys Western and Soviet views concerning Soviet foreign trade planning, the middle section considers the planning system itself, and the latter part of the work delves into policy issues presented to the United States by the Soviet monopoly of foreign trade.

Most of the book examines the literature on various aspects of Soviet foreign trade planning. The review of the sources is not definitive, but on some topics (such as whether or not Soviet foreign trade policy is autarkic) the author has done an adequate job of mining the existing literature in both the United States and Western Europe. The best sections in this regard are chapters 2 and 3. The difficulty here, unfortunately, arises from excessive reliance on quotations where paraphrasing would have proven far superior.

The review of the literature on other topics is not terribly useful. For example, chapter 5, which discusses the organization of Soviet foreign trade planning, is only nine pages in length and rather haphazard in its approach. In the first place, even though the inquiry is limited to Soviet trade with developed capitalist countries, one must nonetheless consider how Soviet planners divide trade in particular products (oil of nonferrous metals, for example) between CMEA and other countries. It is not at all obvious, particularly on the export side, how that decision is made. It is a very important issue for those interested in East-West trade, and Mr. Turpin ignores it. In general, the author's discussion of the foreign trade planning process is surprisingly weak, almost lazy, in light of his apparent (but perhaps limited) familiarity with the sources. He does not, for example, consider, except in passing, how the Ministry of Foreign Trade is organized and how the planning process operates.

Mr. Turpin's attempts to add his own contributions to the literature on foreign trade are few and uninspired. For example, in chapter 4, he sets out to test for autarkic policies in Soviet foreign trade. He begins with a sloppy statement of the hypothesis ("the Soviet Union exports in order to pay for needed imports"). Then, after a discourse (all of which should be in an appendix) on the import-to-GNP

ratio for the USSR, he moves on to his tests. In one set of tests, data on imports (or exports), planned output, and actual output of selected products are analyzed to see if deviations of output from the plan affect trade. One would assume that they would (as they would in a Western country if one could aggregate the plans of individual enterprises and consumers), but this proves nothing about Soviet trade planning. The other tests he conducted were regressions of imports against exports, using various lag structures, but the regressions are not reported, and from the description they appear to be rather uninteresting.

This is not a very good book. Specialists on foreign trade in centrally planned economies will find nothing new. Those who are not specialists can very easily find existing literature which does a better job of identifying and analyzing important issues in Soviet foreign trade planning.

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THE TECHNOLOGICAL LEVEL OF SOVIET INDUSTRY. Edited by *Ronald Amann, Julian Cooper, and R. W. Davies*, with the assistance of *Hugh Jenkins*. New Haven and London: Yale University Press, 1977. xxxii, 575 pp. Tables. Figures. \$30.00.

This book will require much patience to read through, but even if few manage to absorb it at first sitting, it is a magnificent resource that one will want to put on the shelf and return to again and again. It does not provide a neat and simple conclusion concerning the comparative technological level of Soviet industry, but it is a storehouse of approaches to, and facts about, innovation in the Soviet economy. It presents much evidence for—and counterexamples to refute—some of the generalizations current in our thinking about the ability of the Soviet system to generate technical progress.

The paradigm of the work, and of the long-range project for which the book is, to some extent, a progress report, is as follows: Technological progress is based on a series of activities beginning with research, proceeding with embodiment of new ideas in prototypes or pilot plants for a new product or process, then commercial introduction of the innovation, and finally its diffusion throughout the relevant branch of production. To assess the technological level of Soviet industry, one needs to compare the USSR's achievements in each of these phases, and its rate of movement between them, with other countries. This idea is carried out in the book by means of a case-study approach that examines individual industries, products, or technological areas, usually with respect to specific innovations (for example, continuous casting of steel, movement to some new voltage level in electric power transmission, or creation of a synthetic fiber) as the unit of observation. The authors are scrupulously careful to compare Soviet experience not only with the United States, but also with other industrial countries. Japan, the FRG, the United Kingdom, France, and the United States are used systematically as the standards of comparison, and other countries ad hoc in relevant areas of technology.

The book begins with a useful methodological chapter and a chapter that attempts to generalize across all cases in the terms described above. The bulk of the book is made up of chapters dealing with individual cases—iron and steel, machine tools, high-voltage power transmission, the chemical industry, industrial process control, computers, military technology, and rocketry. Most of the studies do not try to deal explicitly with the problem of quality. Rather, the focus is, for example, on the creation of a synthetic fiber, without considering in detail if the synthetic fiber the USSR produces is the equal of those produced in other countries. A final chapter, however, tries to take a separate look at the quality issue by looking at two cases—machine tools and automobiles.