This book is the result of a series of essays prepared for a 1995 conference on Japanese technology and technical standards. It therefore reflects the interests and research biases of the individual authors. Thus, for someone who might want, as the title implies, a single coherent explanation of Japan’s system of technical standards and how they affect Japan’s trade or competing in the Japanese market, this volume is not the answer. Nor does it represent a primer on how to manage or navigate Japan’s complex system of standards. This is the same reason it does not fulfill the introduction’s billing as a “systematic treatment of Japanese technical standards and their impact on trade, industrial policy and competitiveness.” Rather, the essays fall into three basic categories. One deals with Japanese technology: how it is organized, funded, and managed. The second deals with technology and standards in a global context, but not specifically focused on Japan. The third deals with technical standards in Japan.

The first group is represented by Philip Shapira’s work on how the Japanese government supports technology for small and medium size Japanese firms on a regional basis. It has a nice discussion and explanation of Japan’s technopolises and how they operate. It is followed by David Methé’s chapter on R&D and knowledge creation in Japanese electronics companies, where he shows how most major Japanese electronics companies use an evolutionary approach to develop new technology.

The second group includes Gregory Tassey’s comparison of the US, Europe and Japan on the role of government in developing technological infrastructures as well as Koji Tanabe’s chapter on the role of standards in facilitating globalization. Illustration of the globalization theme was also contributed by Stanley Warshaw in his discussion of standards and trade in a changing world economy that briefly reviews standards’ effect within different geographic regions and the role of standards setting within the Uruguay Round. The latter issue is pursued in even more detail in the concluding chapter on “The Uruguay’s Round’s Agreement on Technical Barriers to Trade: Implications for the United States and Japan.”

The last group of essays includes the introduction by the editor, John McIntyre, where he claims more focus for the book in terms of the various effects of standards on Japan’s trade and competition than is readily apparent to the reader. But it is nevertheless followed by some interesting and insightful contributions by John Stern on the influence of Japanese standards on the high technology supply chain through Japanese firms’ control over the standards for many basic components, as well as by Douglas Puffert’s chapter on the role of standards in controlling access to Japan’s telecommunication markets. This is followed by Aki Yoshikawa on how setting Japanese standards for CAT and MRI medical devices has favored Japanese producers such as Hitachi and Toshiba, while also creating international tensions as the Japanese system, IS&C, competes with the de facto international system, DICOM. The Stern’s message is in turn reinforced by Michael Kelly’s observations on how Japanese standards in electronics packaging have contributed to Japanese success in electronics more generally.

Brian Woodhall also does a good job illustrating one of the most annoying and restrictive aspects of Japan’s technical standards (JIS or Japanese Industrial Standards): that is, their proclivity to have one standard for Japan, different from the world standard, even while Japanese firms are supplying the world standard
globally. Appropriately this chapter is titled: “Japan’s Double Standards: Technical Standards and U.S.-Japan Economic Relations.” It also adds credence to Robert Hawkins’ observation in the forward that product standards and specifications can provide advantages to local suppliers.

While the book has several interesting insights and factual contributions with respect to the role of technical standards in trade and competition both globally and relative to Japan, it does suffer in terms of its stated objectives by its lack of coherence. Further, it seems that policymakers and businessmen in affected industries are well aware of the issues raised. Thus, there are no new insights into the trade/standards issue. Nor does the book address the role of standards in converting science to product or anticipate the ISO 9000 software controversy. So though one can conclude from the essays, that US senior managers should begin to take standards as seriously as their Japanese counterparts. And that the new TBT (Technical Barriers to Trade) Agreement under the WTO should facilitate trade generally and access to the Japanese market in particular if member countries, including Japan, actually develop common criteria for accepting test data and agreeing on global standards. It is not clear the book carries our understanding of these situations to a new level.

William V. Rapp

Yale University