The Technology Imperative
Synopsis

"Page after page, this book builds a case of a major international transformation that has left the world economy much more dependent on science-driven technology. [The book's] arguments should attract attention and deserve to be discussed widely and thoroughly.' - Nicholas S. Vonortas, The George Washington University, US

"The innovative models, supporting data, and unique policy analyses make this book a must for economists, policy analysts, and industry managers concerned about S&T policies and economic growth. It could easily end up as a definitive work on the modern technology-based economy.' - Albert N. Link, University of North Carolina, Greensboro, US

The convergence of technology-based competitive capabilities among the world's economies has drastically altered the required economic growth strategies in industrialized nations. Based on a variety of corporate and government investment trend data and comparisons among national growth strategies, Gregory Tassey examines how this convergence has created an imperative for new growth models and strategies. In particular, he analyzes the major policy mechanisms for stimulating R&D investment and improving R&D efficiency over technology life cycles, detailing the needed changes.

In the 65 years since Joseph Schumpeter's classic characterization of the 'creative destruction' process of industrial technological change, the role of technology in economic growth has grown relentlessly. The author provides the first detailed assessment of underinvestment in R&D and the two major R&D policy response mechanisms - tax policy and direct funding. The policy models and analyses presented are based largely on US economic experience, but the resulting prescriptions are relevant for all existing and emerging technology-based economies. The author's ultimate message is that the industry-centric Schumpeterian model must be expanded to one in which competition among governments is as important as it is within the private sector. This cutting-edge study will be of interest to science and technology policy researchers and analysts, economists focusing on the impacts of technological change, government managers of science and technology programs, and industry managers from high-tech firms.


Book Information