

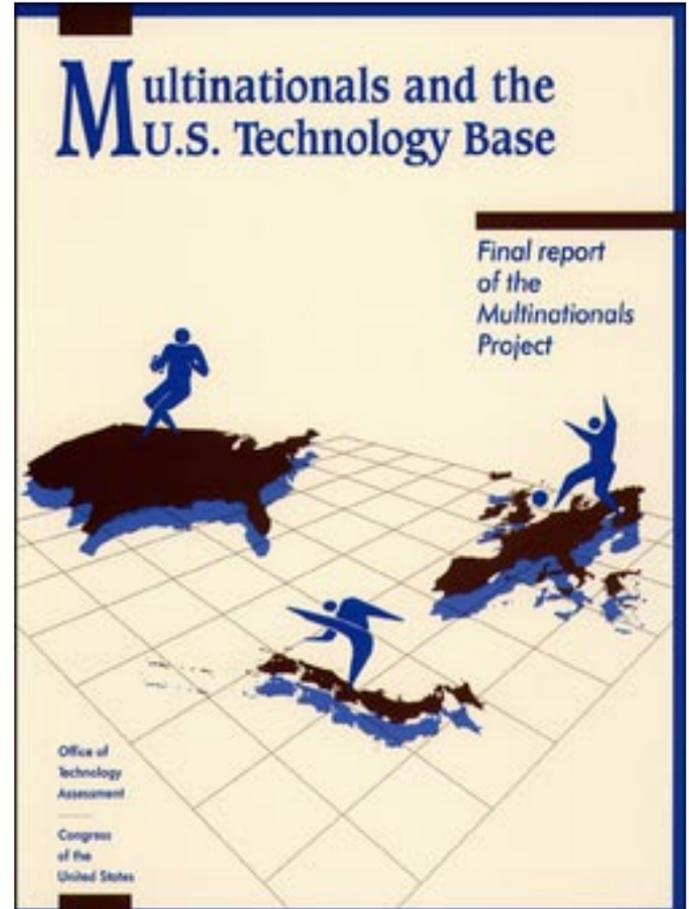
*Multinationals and the U.S. Technology Base*

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# Foreword

**M**ultinational firms are critical to ensuring the health of the U.S. technology base. The most technologically sophisticated and economically significant sectors of the U.S. economy are now characterized by high levels of international production, foreign direct investment, trade among affiliated companies, and complex forms of international financial and technological collaboration.

While it is not wrong to speak of the global research and technology base of multinational firms, it can be misleading. Extensive data suggest that technology is deeply rooted in national (or in the case of Europe, regional) concentrations or bases, with partial and company-specific interconnections. The implication of this finding for public policy is that the U.S. national technology base must be well-maintained on a continuous basis. Moreover, in order for the United States to retain its technology leadership in a broad range of industries, it must address the increasingly important role of multinational enterprises in innovation and in the development of the nation's science and technology base.

Governments understand that the health of the national technology base is related not just to R&D spending, but also to the strategic investment behavior of companies, especially multinationals. Such investment increasingly crosses national borders. Between 1980 and 1992, global foreign direct investment grew by over a factor of four to reach \$2.0 trillion (in nominal dollars). This surge of investment transformed the world economy. Rather than substituting locally produced goods and services for imports, however, investment has augmented and created trade, often through international transfers of merchandise within networks of affiliated firms.

Despite a dramatic increase in international business activities of all kinds, most multinationals remain firmly rooted in the national technical, financial, and corporate cultures of their home countries. World economic integration is occurring at uneven rates, both in relation to the core technology operations of companies and with respect to overall trade and investment relations among nations.

For the foreseeable future, it is unlikely that differences in national patterns of technology development, direct investment, long-term finance, and corporate governance will converge. These differences may be the source of increasing friction in the more complex economic relationships evolving among the United States and its major trading and investing partners.

This is the second and final report of OTA's assessment of Multinational Firms and the U.S. Technology Base. The first report, *Multinationals and the National Interest: Playing by Different Rules*, was published in September 1993. This assessment was requested by the Senate Committee on Commerce, Science, and Transportation and the Senate Committee on Banking, Housing, and Urban Affairs. Over the course of this assessment, OTA worked closely with many MNEs based in the United States, Europe, and Japan. The information they provided was invaluable to the conduct of this study. OTA also appreciates the assistance provided by its contractors and the advisory panel, as well as by the many reviewers whose comments helped to ensure the accuracy of this report.



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**Note:** OTA appreciates and is grateful for the valuable assistance and thoughtful critiques provided by the advisory panel members. The panel does not, however, necessarily approve, disapprove, or endorse this report. OTA assumes full responsibility for the report and [he accuracy of its contents.

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