

superpowers known as the Triad (the U.S., EC and Japan). He views the conflict of the post war period as having shifted from a military to an economic basis. Technology features very prominently in this "head-to-head" competition. He advocates a general strategic growth policy for the U.S. that would retain public investment in skills and infrastructure domestically and would use public funds to lever R&D that is privately instigated and privately managed. With regard to trade policy, he predicts freer trade within regions and managed trade between regions.

David Mowery believes that, paradoxically, technonationalist policies, which he terms "technological mercantilism", actually foster technoglobalism in the private sector. He observes that the results of research are often hoarded by nations as a source of power or competitive advantage. In this context, the transfer of technology across borders is viewed by some governments as a zero-sum game. He writes: "National (and, in the EC, regional) R&D projects that exclude foreign firms coexist with, and provide additional incentives for, transnational collaborations that in turn further 'technoglobalism'."³³

2.2 Technoglobalism: Who Benefits?

In the past, the Japanese have been criticised for benefitting from the open system of scientific research in other nations, specifically the United States and in Europe, and for not contributing sufficient resources to international scientific research. Some observers say that their industrial policy of importing technology for rapid commercialisation has left them without the basic science capability necessary to generate their own technology.³⁴ Therefore, they conclude that it is imperative that the Japanese maintain access to scientific discoveries in other nations as well as building their own science base in order to fulfil the technological needs of Japan Inc..³⁵

³³ D.C. Mowery, "Techno-Globalism and US Technology and Trade Policies: Declining Hegemon, Wounded Giant, or Ambivalent Gulliver?" University of California, Berkeley, Working Paper prepared for the OECD Symposium "Toward Techno-Globalism", (March 5-9, 1990), p.3.

³⁴ OECD statistics show Japanese Gross Expenditures on R&D (GERD on a Purchasing Power Parity basis for the period 1984-88) to be second only to the United States. In terms of GERD as a percentage of GDP, their expenditures on R&D are comparable to those of the U.S., ranging from 2.6-2.9% of GDP for the period 1984-88. The data for Japan may be somewhat overestimated.

³⁵ This sentiment, whether justified or not, is apparently shared by a number of people in both the U.S. and Europe. In Europe, ICL, a computer company located in the UK which is 80% owned by Fujitsu, was ejected from European computer research and technological development programs, whereas IBM was accepted into JESSI, a Eureka sub-program. Legislation in the U.S. which restricts the participation of foreigners in domestic R&D programs is allegedly targeted primarily at the Japanese. A recent call for participation in the Japanese instigated Real World Computing program resulted in an enquiry from Digital Equipment Corporation (DEC) Canada. DEC USA would not sanction the involvement of its subsidiary in this program.