

**THE TASK FORCE
ON THE FUTURE OF AMERICAN INNOVATION**

Innovation is America's Heartbeat

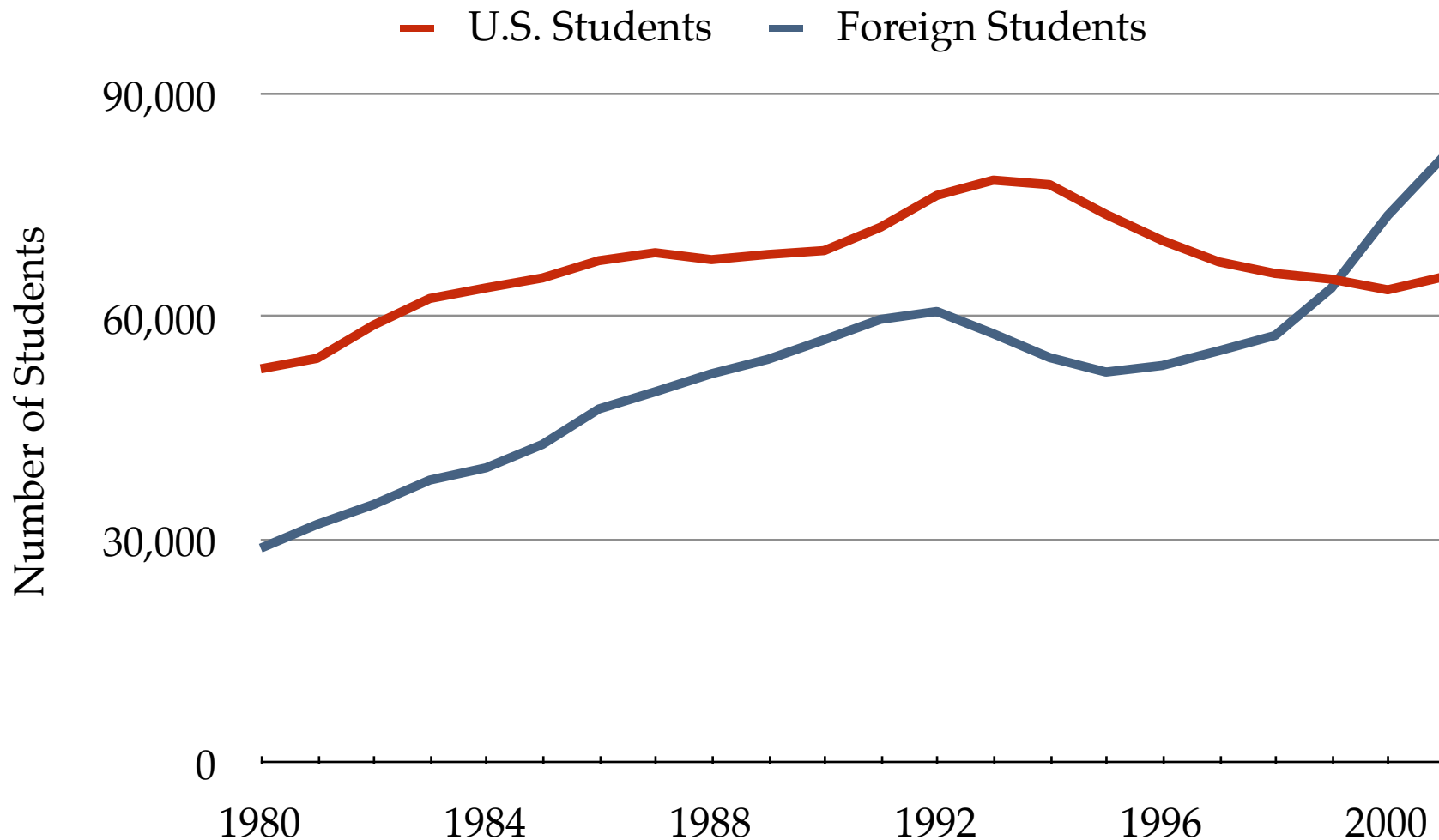
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**THE KNOWLEDGE ECONOMY:
IS THE UNITED STATES LOSING ITS COMPETITIVE EDGE?**

Benchmarks of our Innovation Future

February 16, 2005

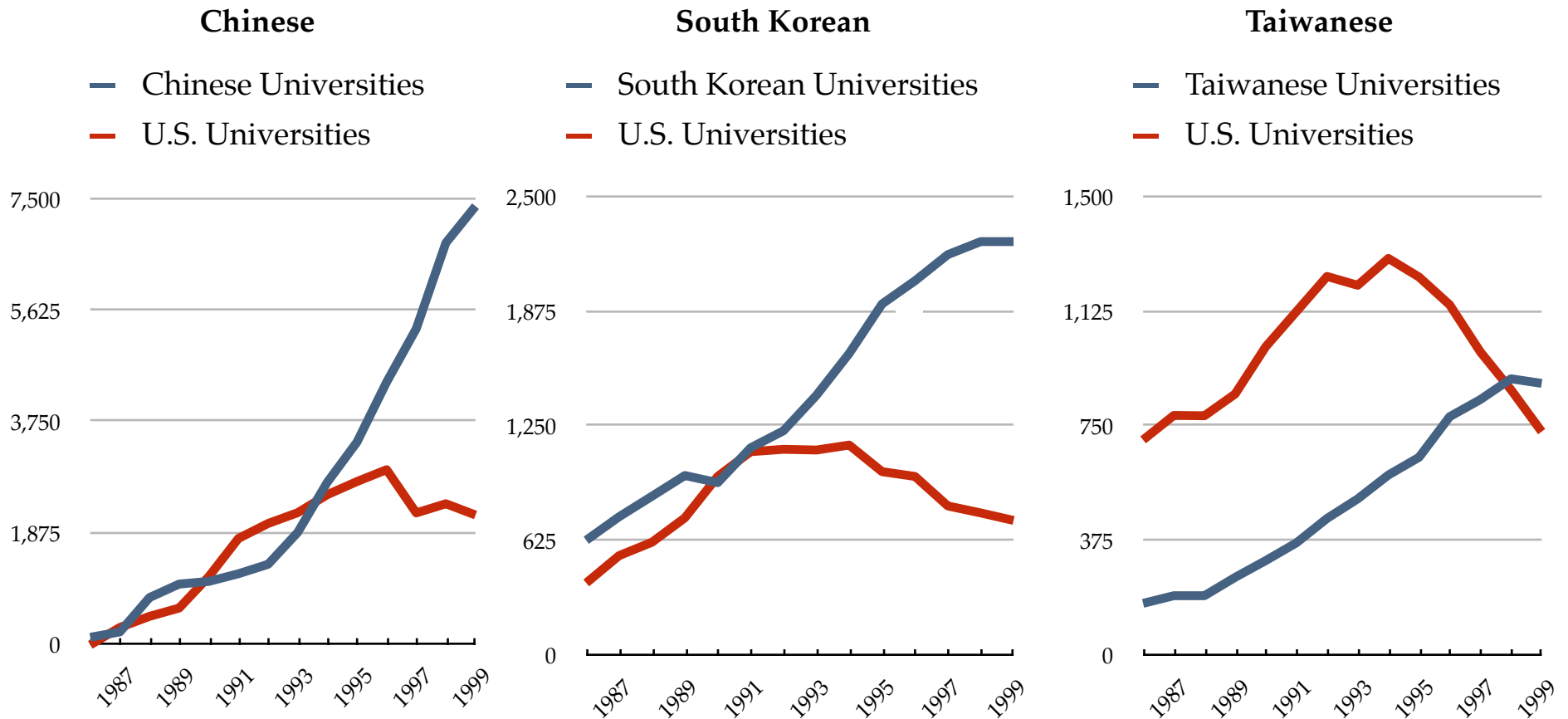
U.S. GRADUATE INSTITUTIONS: FOREIGN STUDENTS OUTNUMBER U.S. STUDENTS



Source: National Science Foundation, *Graduate Students and Postdoctorates in Science and Engineering: Fall 2001*, Tables 8-9.
Compiled by the APS Office of Public Affairs.

ASIAN PHD. STUDENTS ARE STAYING AT HOME

(1986 - 1999)

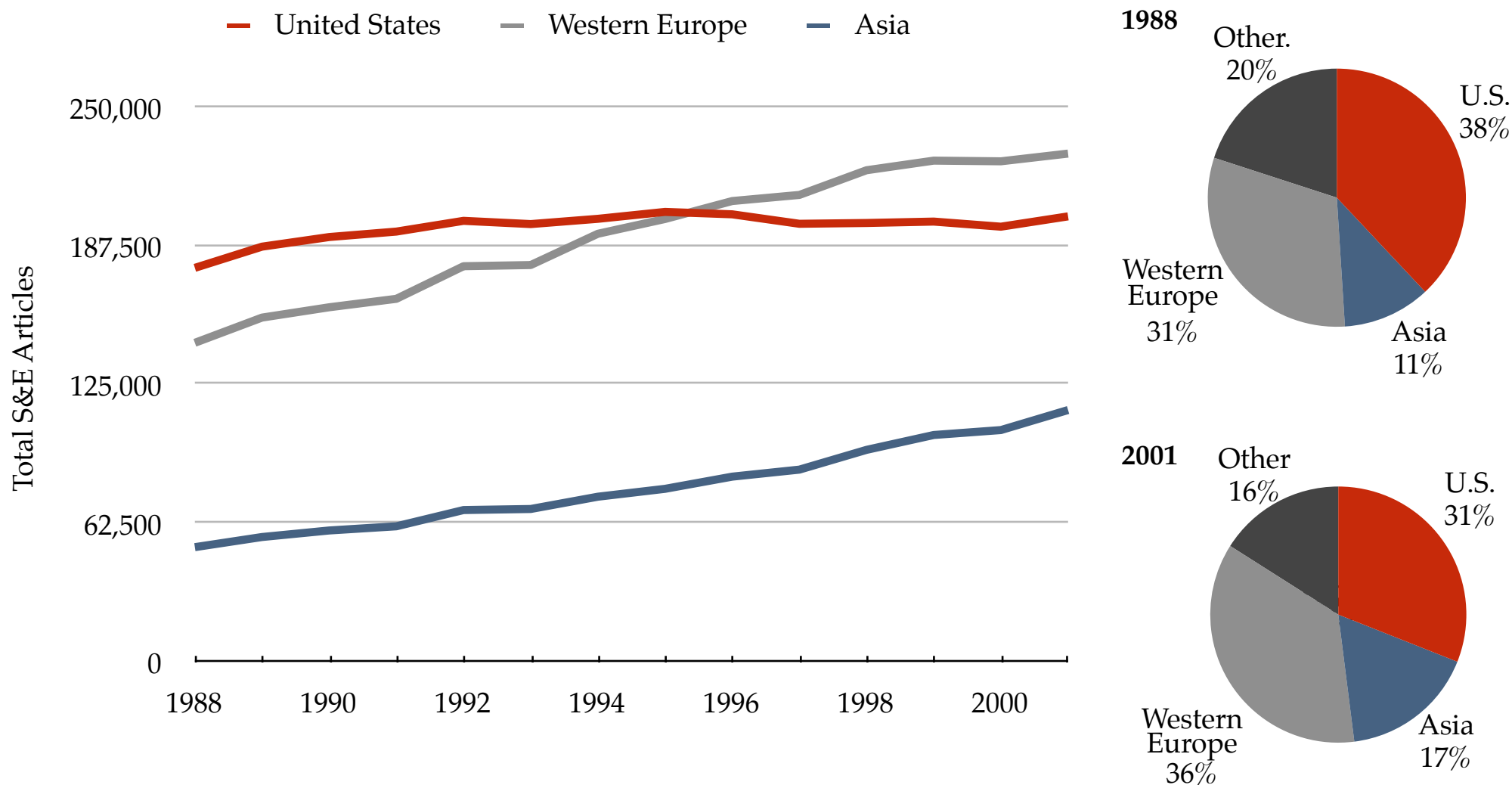


Source: National Science Foundation, *Science and Engineering Indicators 2002*, Appendix Table 2-41.

Adapted from Diana Hicks, "Asian countries strengthen their research," *Issues in Science and Technology*, Summer 2004.

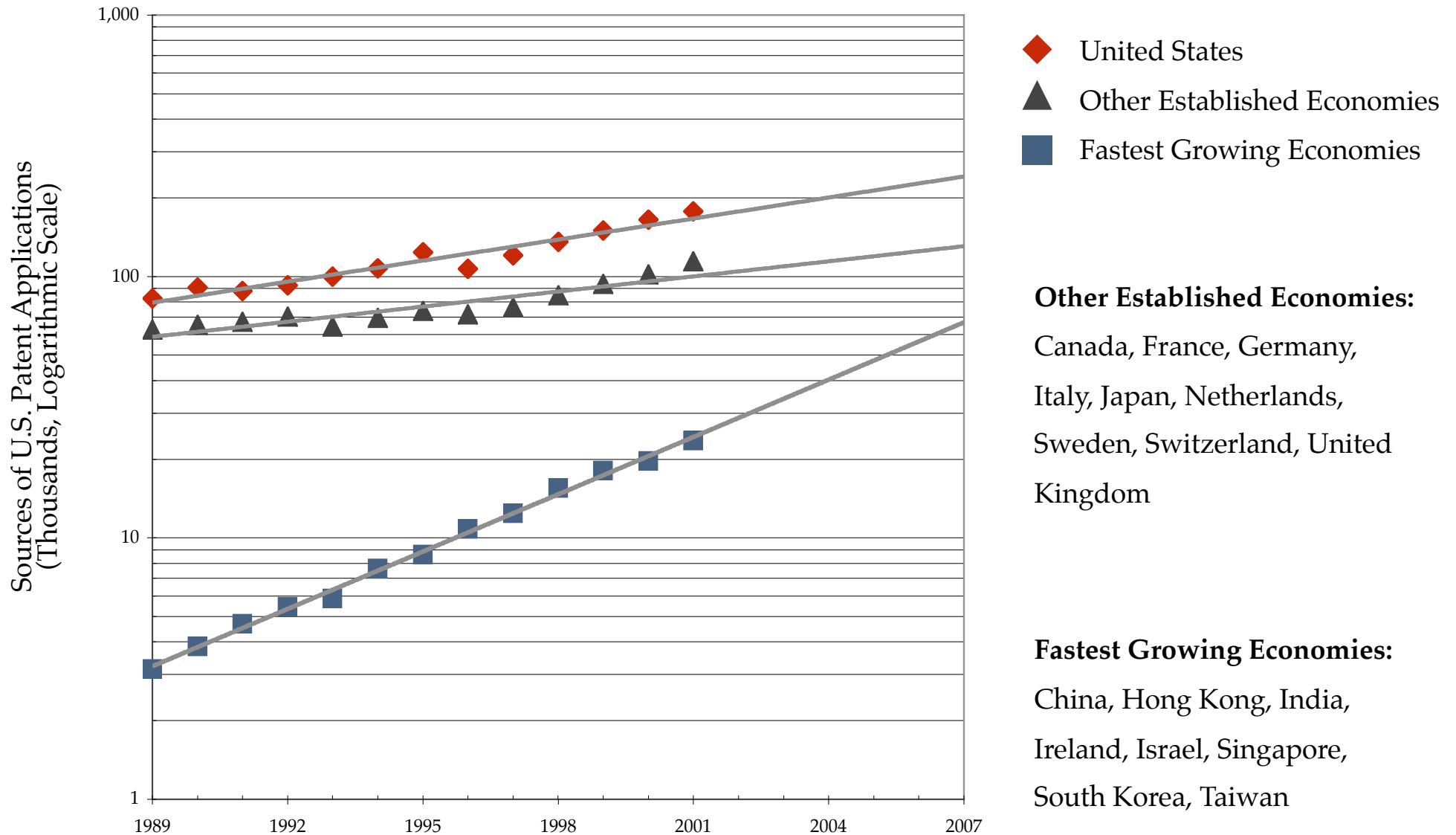
Compiled by the APS Office of Public Affairs.

S&E ARTICLES: U.S. ALREADY PASSED BY WESTERN EUROPE, ASIA RAPIDLY CLOSING



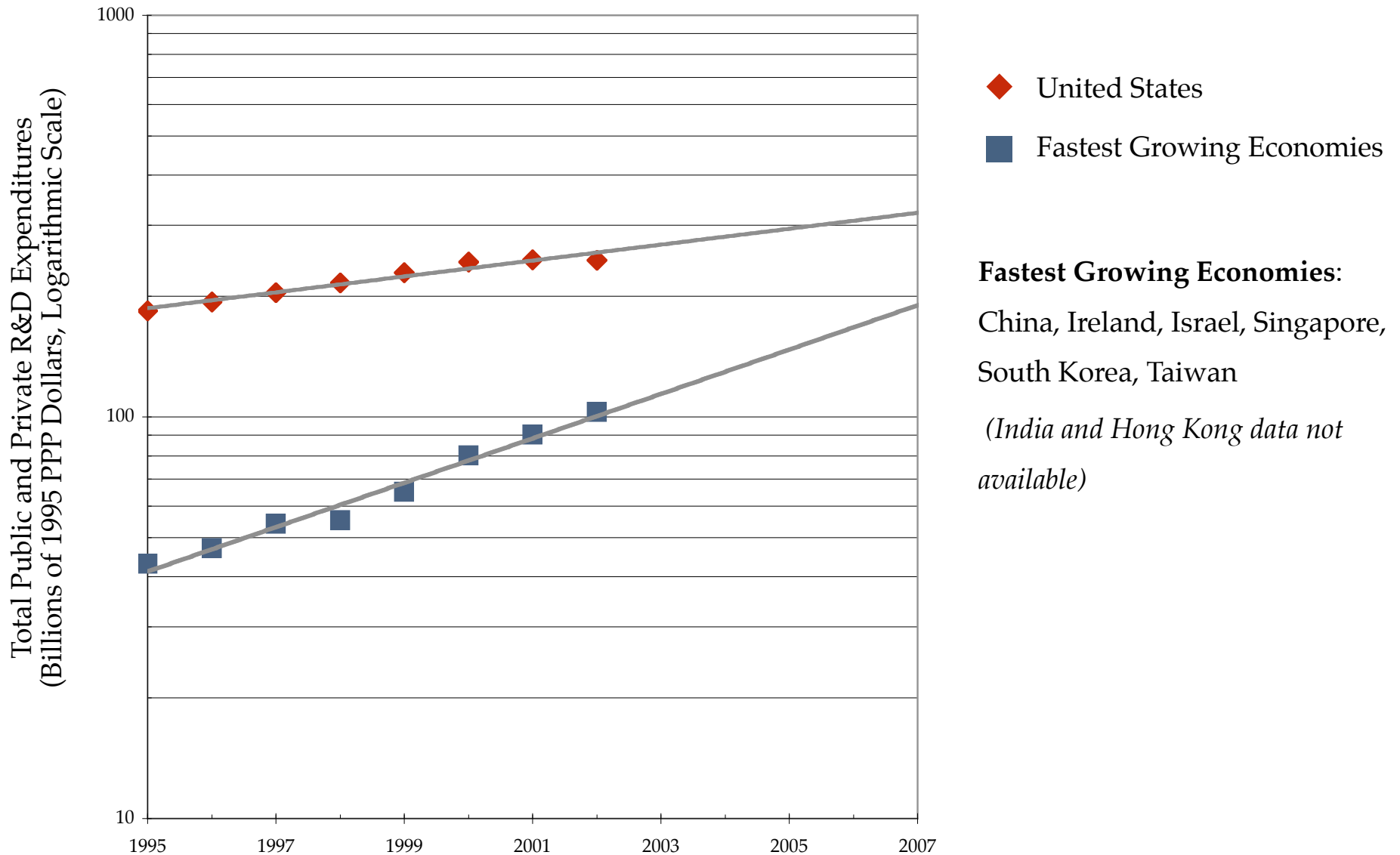
Source: National Science Foundation, *Science and Engineering Indicators 2004*. Appendix Table 5-35.
 Compiled by the APS Office of Public Affairs.

U.S. PATENT APPLICATIONS: FASTEST GROWING ECONOMIES GAINING ON U.S. RAPIDLY



Source: National Science Foundation, *Science and Engineering Indicators 2004*, Appendix Table 6-11.
Compiled by the APS Office of Public Affairs

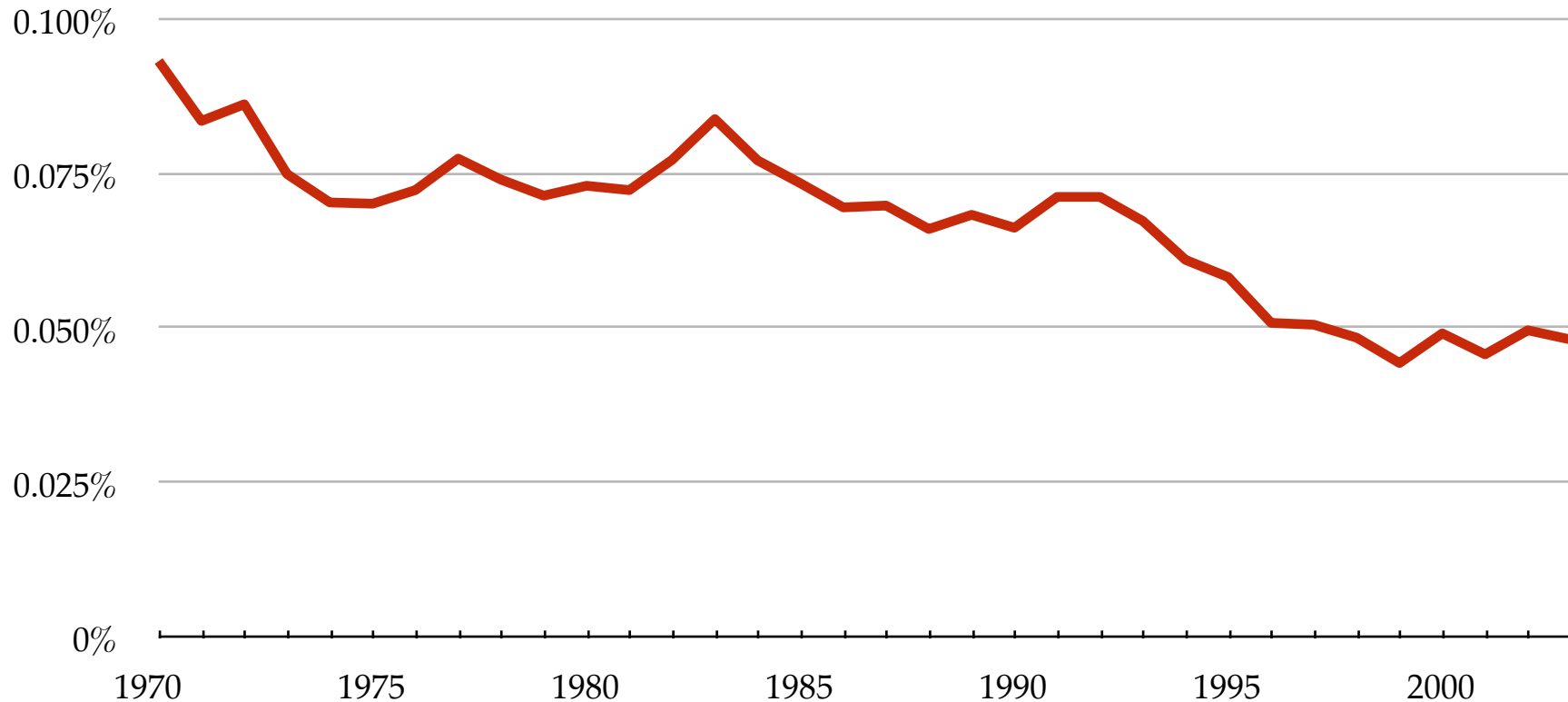
TOTAL R&D INVESTMENTS: FASTEST GROWING ECONOMIES GAINING RAPIDLY ON U.S.



Source: Organisation for Economic Cooperation and Development, *Main Science and Technology Indicators*, May 2003.
Compiled by the APS Office of Public Affairs

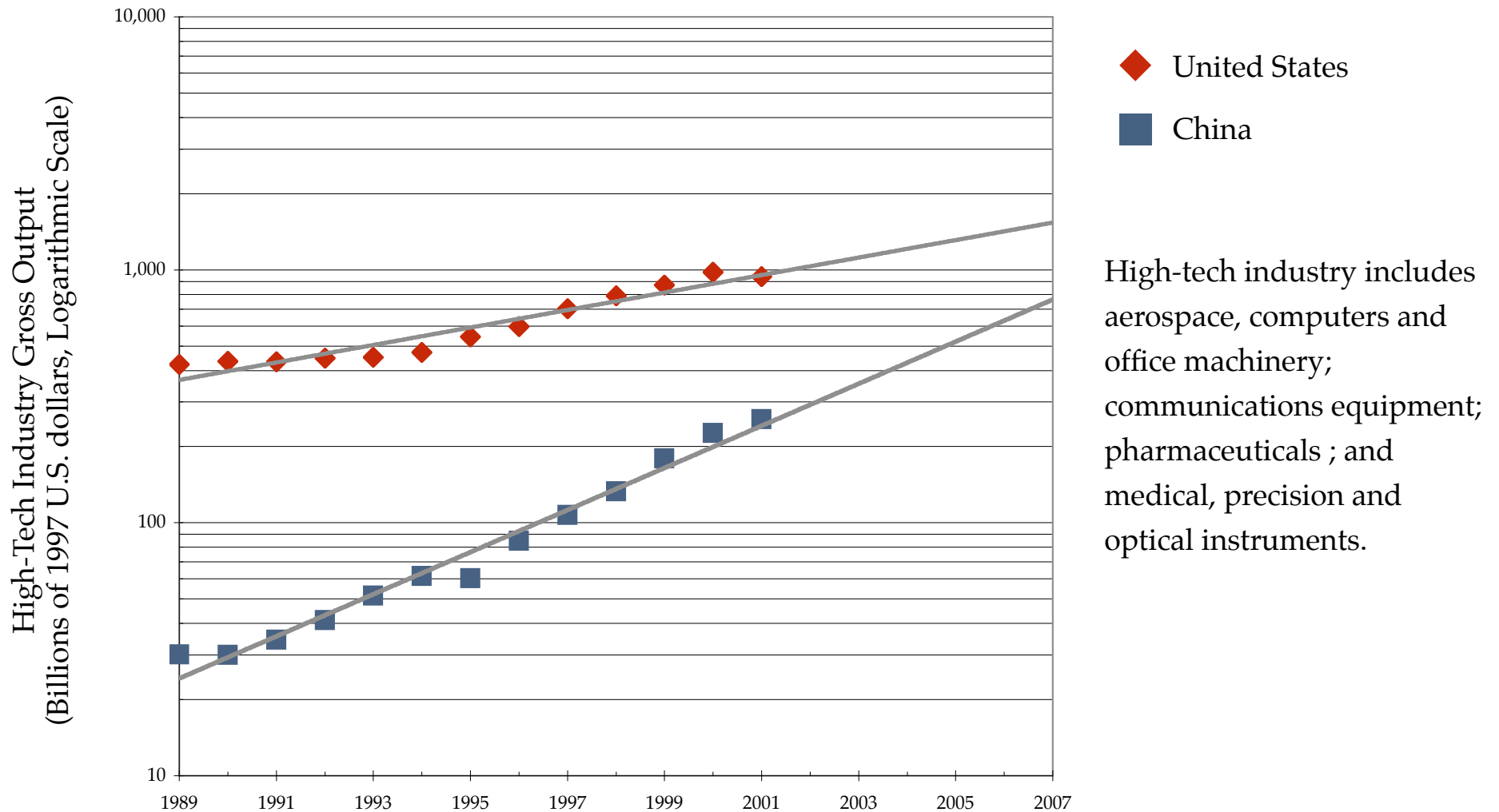
FEDERAL INVESTMENT IN PHYSICAL SCIENCES IN SIGNIFICANT DECLINE

Ratio of U.S. Federal Government Funding for Physical Sciences Research to
U.S. Gross Domestic Product: 1970-2003



Source: American Association for the Advancement of Science. www.aaas.org/spp/rd/guidisc.htm
Compiled by the APS Office of Public Affairs

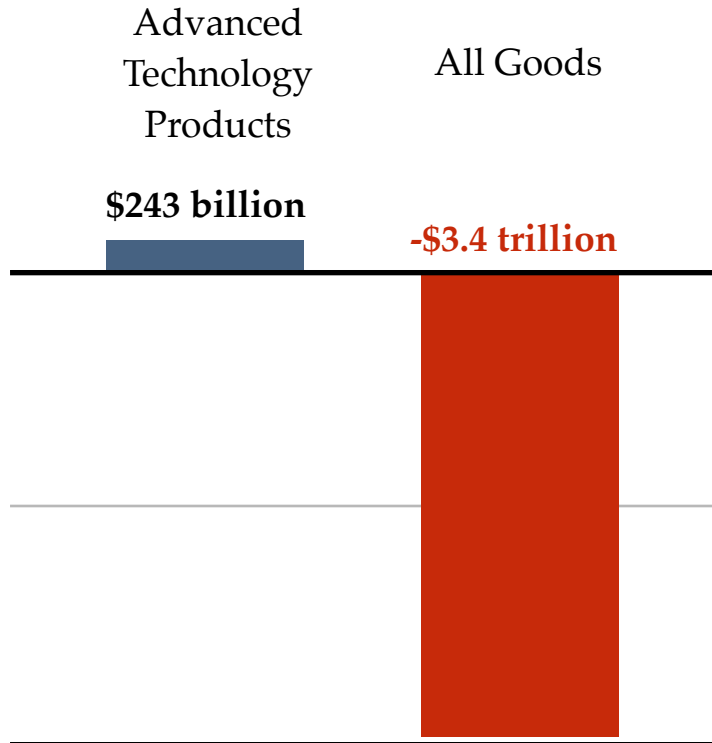
HIGH-TECH INDUSTRY OUTPUT: CHINA RAPIDLY GAINING ON U.S.



Source: National Science Foundation, *Science and Engineering Indicators 2004*, Appendix Table 6-1.
Compiled by the APS Office of Public Affairs

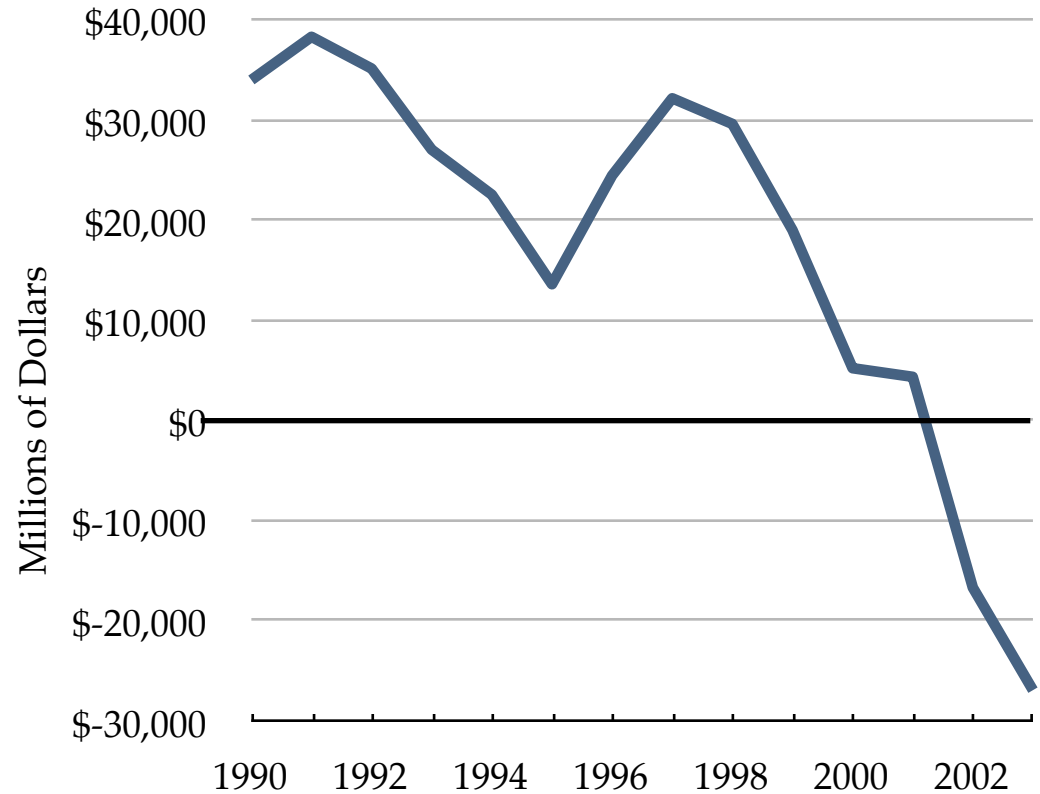
HIGH-TECH HAS DELIVERED FOR THE U.S. ECONOMY ...

Cumulative U.S. Trade Balance, 1990-2003



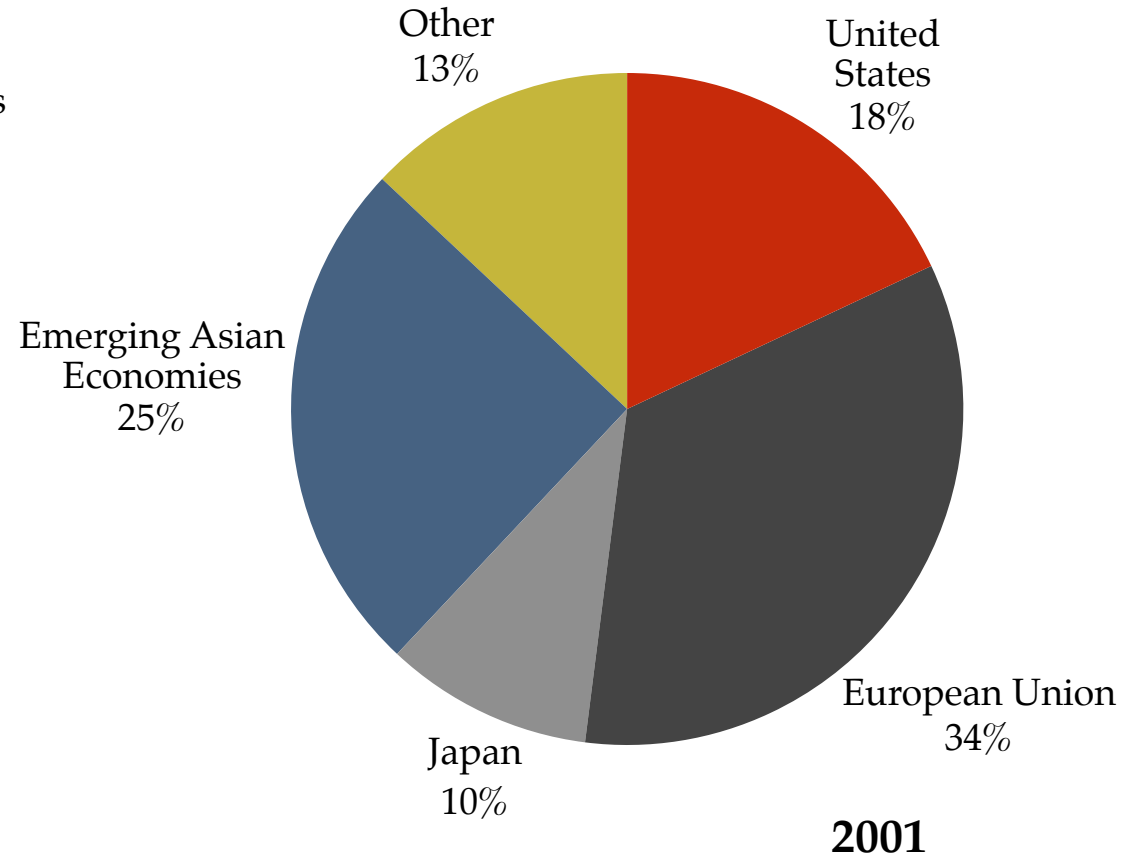
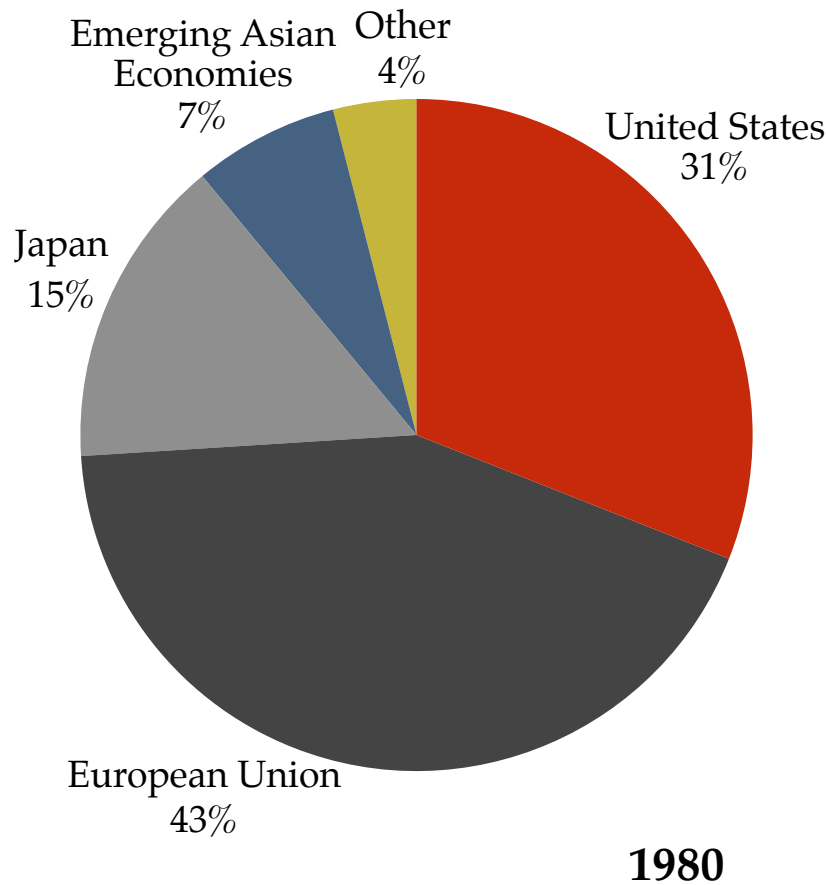
...BUT WILL IT CONTINUE?

U.S. Trade Balance for High-Tech Products, 1990-2003



Source: U.S. Census Bureau Foreign Trade Statistics, *U.S. International Trade in Goods and Services*.
Compiled by the APS Office of Public Affairs.

HIGH-TECH INDUSTRY EXPORTS: U.S. LOSING WORLD SHARE



Emerging Asian Economies: China, South Korea, Taiwan, Singapore, Hong Kong, India

Source: National Science Foundation, *Science and Engineering Indicators 2004*, Appendix Table 6-1
Compiled by the Association of American Universities