

technology programmes.⁶⁴ Dual-use programmes include subsidies for projects that accelerate commercial progress in such areas as advanced materials, space systems, flat panel displays and information technology such as high density data storage devices. "When most successful, these advancements permit the production of commercial and defence components on the same assembly line."⁶⁵ Are R&D expenditures for so-called "dual-use" technology just one more example of technological protectionism?⁶⁶

The U.S. federal budget proposes \$73 billion for its R&D programmes in 1996, accounting for about 40 percent of all U.S. R&D expenditures.⁶⁷ While the U.S. budget promises to maintain overall R&D funding at roughly 1995 levels, it proposes about \$1 billion more for civilian R&D (Basic Research (+4%); Applied (+2.8%); and Development R&D (+4.7%)).

If U.S. estimates account for so-called "dual-use" defence R&D, the civilian share of U.S. R&D should exceed 51 percent in 1996, up from 44 percent in 1993.⁶⁸ The Technology Reinvestment Program (TRP) is one key component of the U.S. dual-use strategy. The TRP awards federal funds on a cost-shared basis to enable industry-led projects to create new dual-use technologies. The 1996 Budget request for the program is \$500 million or a 13 percent increase over 1995.

Despite its recent history of leading international efforts to broaden the scope of prohibited subsidies, it is interesting to note that the U.S. Uruguay Round negotiating team boldly changed their negotiating position in 1993 to broaden and deepen the types of R&D assistance that would remain non-actionable.⁶⁹ Their goal,

⁶⁴ The U.S. Semiconductor Manufacturing Technology Consortium, for example, received half of its budget, approximately US \$100 million, from the Advanced Research Programs Agency (ARPA), a division of the U.S. Department of Defense. See Caldwell, *supra*, footnote 20 at 23.

⁶⁵ *Maintaining A Quality Military Force, A Citizen's Guide to the Budget.*

⁶⁶ For example, see President Clinton's reports *Technology for America's Economic Growth: A New Direction to Build Economic Strength* (February 1993) or *Science and the National Interest* (August 1993).

⁶⁷ Industry provides most of the balance, while the combined share of state governments, university and non-profit support has doubled from 3% to 6% between 1985 and 1993. See OECD, *Recent Trends in the Regional Situation and Policy: United States*, DT/REG/(95)3/07, p.2.

⁶⁸ The civilian share of U.S. government R&D expenditures would be 48% in 1996 if dual-use expenditures are not included.

⁶⁹ The non-actionable status of such assistance apparently remained unsettled until the final weeks of the Uruguay Round. It is interesting to note that the PNGV, cited previously, was introduced by the U.S. Department of Commerce the same month that the U.S. officially shifted its position on research subsidies. See *Lawmakers Call for Shift in U.S. Position on Research Subsidies in GATT Trade Talks*, International Trade Reporter (BNA) 24