

● Government Funding of Defence R&D

During the Cold War, technology policies in the EU and North America were often motivated by military security concerns rather than economic strategy. As a result, government funding of "applied" R&D was often confined largely to purely defence-related areas. Defence economic cooperation between Canada and the United States, for example, is an important part of the bilateral relationship and perhaps unique in the world.⁴⁰ The comprehensive network of existing arrangements on defence trade and production originated during World War II, when the two governments decided to pool industrial resources to increase the effectiveness of the allied war effort. Successive governments have recognized that the cooperative use of research, development and production resources is in our mutual military and economic interest.⁴¹

The effect of government expenditures on private industrial R&D is generally believed to have a significant spillover and give a considerable boost to domestic private R&D spending.⁴² Moreover, procurement can have a marked effect on investment location decision-making. Recently, the Clinton Administration has promoted military-civilian technology links under "dual-use" technology programmes which has stretched the notion of "national security", and confused legitimate government expenditure on basic R&D with subsidized research used for commercial purposes. Such targeted government procurement, like subsidies, can be used as a policy instrument to reinforce government support for high-tech industries with spinoffs from the technology developed transferred to other commercial applications.

⁴⁰ The Permanent Joint Board on Defense (PJBD) was established in 1940 to "develop a coordinated program of requirements, production and procurement...." The goal was to remove as far as possible barriers which would impede the flow between Canada and the U.S. of goods essential for the common defence. Since that time, Canada and the U.S. have concluded over 200 defence-related agreements. Collectively, these agreements have become known as the Defence Production Sharing Agreement (DPSA).

⁴¹ For example: Defence Development Sharing Agreement (DDSA). DDSA products cannot be set-aside for Small/Disadvantaged Businesses (DFARS 219.502-1); Defence Production Sharing Arrangement (DPSA) which provides access not afforded under the NAFTA (Annex 1001b-2).

⁴² See R. Preston McAfee and John McMillan, *Government Procurement and International Trade*, *Journal of International Economics*, (26) 1989, 291-308; F. Lichtenburg, *The Effect of Government Funding on Private Industrial Research and Development: A Reassessment*, *Journal of Industrial Economics*, (36) 1987, 97-104; D. Levy and N. Terleckyj, *The Effects of Government R&D on Private R&D Productivity: A Macro-economic Analysis*, *Bell Journal of Economics*, (14) 1983, 551-61.