

Canadian exports of high technology products grew 48 percent from \$12.4 billion in 1990 to \$18.4 billion in 1994. The principal deficit sectors were information and communications equipment and advanced electronics (see Table 2). The primary two industries with a surplus during this period were aerospace and advanced materials. Two categories, information and communications, and aerospace, accounted for about 80% of Canada exports in 1994.

Imports grew an even faster 105 percent during this period. As a result, Canada went from a small advanced technology trade surplus in 1990 to a deficit of \$5.8 billion in 1994. It should be noted that, given Canada's much higher than OECD average reliance on off-shore inputs, our value-added deficit is even higher. In fact, it is suggested that advanced technology industries, while paying higher than average wages, operate in relative isolation from the domestic economy, since their output is largely exported and their intermediate inputs are often imported.<sup>12</sup>

Table 2 - Balance of Trade by ATP Category, 1990-94

	1990	1991	1992	1993	1994
(millions of dollars)					
Biotechnology	-93	-107	-138	-176	-213
Life sciences	-388	-504	-472	-515	-701
Opto-electronics	4	-3	-61	-61	-81
Information and Communications	-2 118	-1 634	-2 334	-2 726	-2 556
Electronics	1 218	-207	-1 637	-2 128	-3 854
Flexible Manufacturing	-563	-462	-408	-414	-680
Advanced Materials	83	-823	3	27	42
Aerospace	2 639	2 059	491	2 293	2 554
Weapons	-73	-68	-44	-114	-196
Nuclear technology	-100	-47	-108	-32	-163
Total	609	-1 795	-4 707	-3 846	-5 848
Source: Industry Canada estimates.					

<sup>12</sup> A recent study indicates that approximately 16% of the value of Canadian exports result from imported inputs. Imported inputs, however, remain central to the competitive survival of several advanced technology export industries. See James McCormack, *The Impact of Exports: An Input-Output Analysis of Canadian Trade*, Policy Planning Staff Paper No. 94/12, Department of Foreign Affairs and International Trade, December 1994.