

this is the lowest percentage recorded since the statistics were first published for 1983.

Europeans have maintained a fairly constant share, roughly 30%, of Canadian patent applications filed since 1980.⁴¹ However, patent and trademark royalty payments from Canada to EC residents have fluctuated between 6% and 10% since 1983.⁴² This suggests that only a comparatively small number of patents granted to Europeans in Canada are actually used or "worked".

Japanese patent activity increased in Canada during the 1980s. In the 1992-93 fiscal year, Japanese residents filed 14% of all Canadian patent applications.⁴³ This is a substantial increase from 8% in 1980.⁴⁴ Unfortunately, Statistics Canada does not publish statistics for patent and trademark royalty payments between Canada and Japan.

5.2 Research and Development

Most foreign-financed research and development in Canada is done by affiliates of U.S. firms. Among a list of the 100 top companies in Canada for research and development spending in 1993, U.S. affiliates were responsible for 68% of the spending by foreign affiliates.⁴⁵ The share of U.S. affiliates was 76% in 1989. This R and D was spread through a wide range of industrial sectors. Although there is not enough data to demonstrate a long-term trend, the apparent decline of the American share appears to be due to the growth of R and D spending by European affiliates. The share undertaken by European affiliates grew from 24% in 1989 to 32% in 1993. A little less than half of European R and D activity in Canada was in the pharmaceutical sector.

Canadian firms do a significant amount of their research and development in the United States. In 1990, U.S.-based affiliates of Canadian companies spent almost US\$2 billion on R and D in the United States.⁴⁶ To put this in context, in 1990

⁴¹ OECD, *Basic Science and Technology Statistics* (Paris 1993), p. 70.

⁴² *Ibid.*

⁴³ Canadian Intellectual Property Office, *1992-93 Annual Report*, p. 31.

⁴⁴ OECD, *Basic Science and Technology Statistics* (Paris 1993), p. 70.

⁴⁵ Data on top 100 R and D spending is based on research by Evert Communications Ltd. of Ottawa.

⁴⁶ OECD, *The Performance of Foreign Affiliates in OECD Countries* (Paris 1994), p. 67.