(Table 3.2.1).[35] Of the 16.9% representing large foreign-controlled firms, however, 14.2% were from the U.S. and 2.6% from the UK, showing the regional nature of technological development and leading to the conclusion that the technological activities of large firms in Canada are heavily dependent on the U.S.. Both a high proportion of large-firm technology in Canada comes from the U.S. and a high proportion of Canadian large firms' R&D is performed in the U.S.. Although this could be assumed to bode ill for Canadian R&D, this need not be the case. The high proportion of R&D shown to be undertaken in the "Other" category in Table 3.2.1 indicates that domestic large firms are unwilling or unable to undertake R&D and, therefore, could benefit from foreign influences.[36] The high degree of foreign control could augment domestic activity because of the limited size of the Canadian market vis-a-vis its U.S. neighbour and because of the under-development of Canadian infrastructure, again in comparison to the U.S..

A recent Economic Council of Canada study also investigated the effects of foreign R&D spillovers. Foreign R&D in this study was defined as R&D activities carried out abroad and did not include the activities of foreign affiliates located in Canada. R&D was assumed to spread across borders via FDI, the sale of patents and trademarks, international trade in goods and services and the cross-border flow of scientific personnel.[37]

The study revealed a weaker than expected effect of foreign R&D, given the importance of Canadian trade with the U.S., the high percentage of foreign ownership of Canadian firms and the proximity of the U.S. market. The return on foreign R&D was drastically lower than the return on domestic R&D. The private rate of return on domestic R&D was found to be in the 10% to 40% range, whereas the private return

[35]P. Patel and K. Pavitt, "The Limited Importance of Large Firms in Canadian Technological Activities", *Foreign Investment, Technology and Economic Growth*, 1991, pp. 79-80.

[36]The category "Other" in Table 3.2.1 included government agencies, other (non-large) firms, and individuals. More than half of the patents in this category were granted to Canadian individuals, who are represented as self-employed entrepreneurs. This again underlines the structural problem of Canadian large firms not undertaking R&D, while small firms and individuals undertake a relatively high proportion.

[37]It is interesting to note that, within the framework developed by Mohnen in this study, the U.S. accounted for 98% of foreign R&D flowing into Canada. None of the other sources (i.e., West Germany, Japan, France and the UK for this study) accounted for more than 1% of the R&D accessible to Canadian manufacturing. This was attributed to the large percentage of high-tech imports coming into Canada from the U.S..