

The evidence from the Canada-based pharmaceutical industry shows that R&D outlays (net of marketing costs) as a proportion of total sales declined from 5 percent in 1983 continuously during the 1980s, only to return to 5 percent by 1988.⁵⁶ The ratio had increased to 8 percent in 1990 and to 10 percent in 1991.⁵⁷ Clearly, the 1987 patent term extension has contributed to an increase in innovations as measured by the R&D to sales ratio in the pharmaceutical industry in Canada. On the cost side, the average annual rate of price increase of patented medicines from January 1987 to December 1991 has been 2.9 percent, while the Consumer Price Index rose by 5.6 percent.⁵⁸ A doubling of R&D as a proportion of sales compared with a mere 3 percent annual increase in prices is clearly a favourable trade-off. This calculation suggests that the BK hypothesis of no patent protection benefitting Canada cannot be accepted. There appear to be overall benefits in the pharmaceutical industry from the patent extension in 1987.

The Canadian experience in the pharmaceutical sector raises serious questions about the policy relevance of conclusions drawn solely from economic theory as described in chapter II above. Until better theories are available, this Paper recommends that Canada continue to follow international norms with respect to the patent term, although without encouraging any further across-the-board extension of its current length.

⁵⁶ Industry, Science and Technology Canada, *The Benefits of Bill C-22*, Government of Canada, Ottawa, 1992. These R&D outlays include both clinical testing and basic R&D.

⁵⁷ Patented Medicine Prices Review Board, 1992, *op. cit.*

⁵⁸ Patented Medicine Prices Review Board, 1992, *op. cit.*