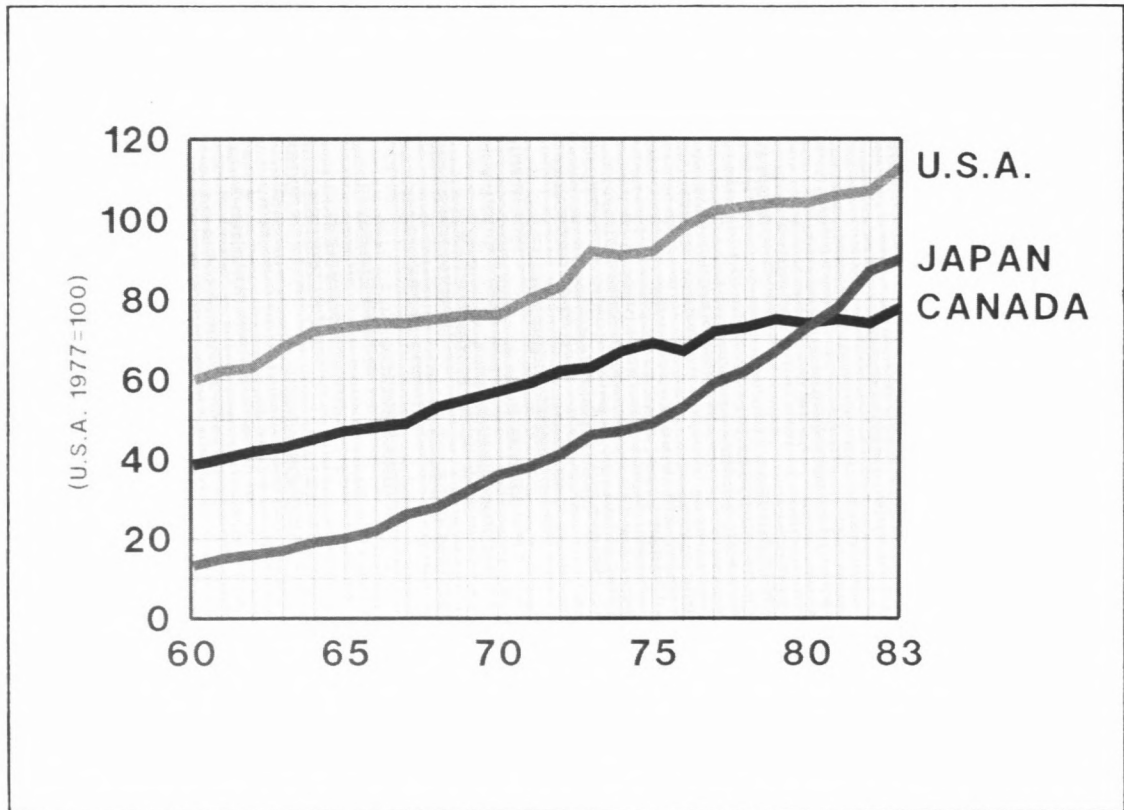


Figure 9: OUTPUT PER HOUR IN TOTAL MANUFACTURING (U.S., 1977 = 100)



Source: D.J. Daly and D.C. MacCharles, Canadian Manufactured Exports: Constraints and Opportunities, December, 1984.

*Expenditures on research and development (R&D) are an imperfect indicator but what they suggest is, nonetheless, not reassuring.*

Expenditures on research and development (R&D) are an imperfect indicator of a nation's economic competitiveness, particularly as a good deal of technology is imported. R&D expenditures are, nonetheless, indicative of one aspect of industrial performance and what they suggest is not reassuring. (See Figure 10.)

R&D and the innovative process, as a whole, are crucial factors in achieving improved economic performance. The percentage of our GDP devoted to R&D has recovered to about the same level as it was in 1971, while those of most other major industrialized countries have moved upward significantly. As a proportion of our domestic product, we spend about half of what the U.S., West Germany, Japan and the U.K. do on research. We rank still further down the list of OECD countries when our performance in R&D done by industry is compared to that of others. Our record on patent registrations at home and abroad accords with these observations. Relative to other industrialized countries, we have fewer research-intensive industries and we spend less on research. Additionally, there appears to be a disposition in some industries in Canada to look to the government for R&D financing and, in some cases, for R&D itself.