In testimony on the above brief before the Committee, it was stated:

"The fact that a new drug which is developed in one particular market may be superseded a few months later by a more reputable rival is definitely a risk-increasing circumstance but you cannot say very well that the industry is a high risk." (Minutes of Proceedings, page 2327)

In the same brief, page 22, with respect to the "substantial expenditures on research", the following statement appears:

"...the share of total research and development outlays in the sales dollar of the Canadian drug firm is not as great as the industry would like to have us believe."

In the submission of the Pharmaceutical Manufacturers' Association of Canada, research and development costs for 1964 were said to represent 7 per cent of the sales dollar (brief, page 2.3). This is small by comparison to marketing costs which were identified as 30 per cent of the sales dollar (brief, page 2.3). Moreover, it is noted that the practice in the industry is to amortize research and development costs as incurred and thus charge them against current revenue. Further, from the evidence before this Committee, it appears that the particular firms which incur these costs not only recover them in full but realize profits in addition. While industry spokesmen have maintained that expenditures on research are "substantial" or "relatively heavy" and that there is a significant financial risk involved as a result of them, it appears that all of the research and marketing costs are being adequately compensated.

On the other hand, analysis of the negative rates of return for loss companies as shown by Tables 1 and 3 reveal that losses in the pharmaceutical industry, when incurred, tend to be higher and vary more widely than for manufacturing in general. The rate of loss on sales for drug manufacturers averaged 9.22 per cent over the period 1953-64 as compared to 4.71 per cent for all manufacturers. For pharmaceuticals, the rate of loss varied from 3.18 per cent to 16.18 per cent; for manufacturing in general, this ranged from 3.66 per cent to 6.15 per cent. Similarly, from Table 3 it is observed that the average rate of loss on resources employed by drug manufacturers was higher than that for all manufacturers: 7.18 per cent as compared to 2.52 per cent. Also, there was greater variability in these rates for drug manufacturers than there was for all manufacturers.

It should be pointed out, perhaps, that the ratios for loss companies as shown in Table 2 have not been analysed because it is felt that many of the figures used in the calculation of these negative rates of return are not truly representative of the pharmaceutical industry. For example, in 1964 the amount of capital invested in loss companies was \$2.6 million. This represents only 2.4 per cent of the total capital invested in the pharmaceutical industry. Also, it financed only about 12 per cent of the total assets of the loss companies whereas, for profit companies, the capital investment of \$105.8 million financed approximately 65 per cent of the total assets. Obviously, the loss companies in this year were, by comparison, greatly under-capitalized, a situation which can be shown to exist in other years as well. The lack of adequate capital is probably a significant factor in the incurrence of the losses.

As noted above, it is apparent that when losses are incurred they tend to be higher in the pharmaceutical manufacturing industry than in all manufacturing. However, it is significant to note, from Table 5, that losses do not involve a higher proportion of the total pharmaceutical companies than they do of all manufacturing companies. In fact, the proportion of companies incurring losses is about the same for each group. Also the pharmaceutical loss companies