

B. INDUSTRY STRUCTURE

At this point I would like to focus your attention on the economic structure of the miniature precision bearing business. It is not really one homogenous business but rather three businesses with each of the three returning a very different profit performance. Unfortunately each business is interrelated so that a manufacturer must be in all three to be in the miniature precision bearing business. I can best describe this situation by dividing the business into its three major categories.

Category I includes the high volume standard products that have completed the engineering and development cycle and which are at the lower end of the precision scale. We estimate that this product group accounts for about 60% of the total bearings produced by the miniature bearing industry. Many of these products were developed and engineered years ago. They are produced with little or no engineering support and little or no engineering service is required in selling them to our customers. This product category returns a good profit as it is produced in large volume.

Category II is made up of a combination of established standard bearings and special products. The production volume is smaller than in the Category I group, and we estimate this product category accounts for approximately 35% of the total bearings produced by the miniature bearing industry. These products are at the top end of the precision scale for standard products. They require engineering support in manufacture, and a significant amount of engineering support in selling the product to our customers. This product category also returns a good profit.

Category III is what we at MPB call "special precision products." The bearing products in this category are specials that are manufactured to tolerances as low as 20 millionths of an inch. It is here, in Category III, where we are pushing the state of the art. Machining of the parts is accomplished under conditions approaching those of a white room. The whole operation is attended with a concentration of technical support, special white room facilities, instrumentation, quality control and exacting requirements which combine to make it very difficult to accurately estimate the cost of this type of work. Profits are hard to come by in this category of our business. In some years the losses have been substantial. Production volume is small. A good many of the bearings produced in this category are prototypes for test and evaluation in future defense programs. When a "miniature precision bearing" is in this category it is going through the creation and design stage which may lead to future volume production under Category II or Category I. It has been a practice of the miniature precision bearing industry to take on Category III business in anticipation of future volume production in Category I or II.

C. FOREIGN COMPETITION

Now, let's take a look at the foreign competition. The preceding discussion of the composition of the miniature precision bearing business was necessary in order to detail the inroads that have been made by foreign competition. Imports now come from Germany, Canada, Switzerland and Japan. Competition from overseas sources is concentrated in the Category I classification—the completely developed, high volume product—which I have just discussed. From a competitive standpoint, this is the logical market for an overseas producer to initially penetrate. The technical content that he must provide with his product, and the direct contact that he must have with his U.S. customers is reduced to an absolute minimum. Additionally, the overseas producer, with his lower costs, can offer a product in this country at a price that a U.S. producer cannot afford to meet.

Government procurement practices—in which awards are generally made to the low bidder—encourage and in some cases almost demand the use of imported miniature bearings. In a competitive situation, one contractor choosing to use miniature imports will force all of his competition to do likewise. The miniature precision bearing industry in this country is accordingly faced with a declining share of its "bread and butter" Category I and II markets.

Exhibit I of this statement shows in graphic and tabular form the U.S. production of Category I product over the last four years. Also shown is the output of one Japanese factory, Nippon Miniature Bearings, which has been exported to the U.S. It will be noted that these imports from a *single* producer, have increased to the point where they now represent 95% of the total U.S. production of Category I product.