A MESSAGE TO SHAREHOLDERS







1996 1997 1998 1999 **2000**

The Year in Review

Fiscal 2000, ended March 31, 2000, was another challenging period as we recorded declines in consolidated net sales and operating income for the second consecutive period and, owing to losses on liquidation of subsidiaries and affiliates, posted our first net loss since fiscal 1993.

We saw stable growth in demand for mainstay ball bearings, pivot assemblies and small motors throughout the year from the manufacturers of information and telecommunications equipment, particularly personal computers (PCs). However, sales gains were negated by intense pricing competition in the markets for electronic devices and components and a sharp increase in the value of the yen, which averaged about 16% stronger than the U.S. dollar and more than 20% stronger than the euro in fiscal 2000 than in fiscal 1999. As a consequence, net sales decreased 6.7%, to ¥284,757 million, 27.119 million less than the 2311.876million estimated had the same yen-dollar exchange rate as in fiscal 1999 been applied.

Owing to a temporary increase in manufacturing costs resulting from expanded production of ball bearings, operating income declined 19.4%, to ¥31,069 million. Costs related to the liquidation of subsidiaries and affiliates, particularly consumer credit subsidiary Minebea Credit Co., Ltd., were recorded as an extraordinary loss of ¥25,782 million. As a consequence, we posted a net loss of ¥2,677 million.

Free cash flow totaled ¥42,188 million, an increase of 5.0%. This reflected ongoing efforts to reduce inventories and accelerate the collection of receivables, as well as the fact that expenditures for purchases of property, plant and equipment were maintained well below depreciation and amortization.

Forward-Looking Strategies

Minebea has always thrived on its ability to formulate and implement strategies that take advantage of prevailing economic and business conditions. Since I took the helm in June 1999, I have placed a high priority on strengthening our financial position—a goal I believe we have essentially achieved—and capitalizing on new opportunities in core businesses. We have also taken decisive steps to reinforce profitability and revamped our operating structure to enhance efficiency.

Enhancing our Financial Position

Our first priority here was to dispose of the nonperforming assets of consumer credit subsidiary Minebea Credit. Accordingly, during the period under review, we sold our stake in and transferred the entire operations of Minebea Credit to LSF Nippon Investment Company, LLC, of the United States. While this resulted in a sizeable one-time loss, it also eliminated a major cause of concern with significantly less of an impact than would have been the case had we chosen a less decisive approach.

Our second priority was to lower interest-bearing debt. At fiscal 2000 yearend, the gross balance of interest-bearing debt was ¥192,712 million, down ¥78,339 million from a year earlier. Net interest-bearing debt, i.e., the outstanding balance minus cash and cash equivalents, was \$168,280 million. While these figures are still higher than we would like, they represent improvements from a gross balance of ¥363,600 million and net interestbearing debt of ¥351,259 million three years earlier, when we turned our attention to this crucial task, and are comfortably in line with the target of less than 200,000 million we had set for the beginning of calendar year 2000.



Tsugio Yamamoto President and Representative Director

Strengthening Core Operations and Cultivating New Businesses

To sharpen our competitive edge in terms of product quality, we have invested extensively in recent years to enhance overall production and supply capabilities. In the period under review, however, we focused on strengthening our core operations and cultivating new businesses.

In response to steady growth in demand for ball bearings beginning in early calendar year 1999, we decided in October 1999 to increase our monthly ball bearing output by 25%, to 150 million pieces, from 120 million pieces. Demand continues to grow, and efforts to expand production capacity at out mainstay ballbearing production facilities, particularly those in the People's Republic of China (PRC), Thailand and Singapore are proceeding on schedule. We also expanded our monthly global production capacity for pivot assemblies for hard disk drives (HDDs) to 10.0 million units, from 8.0 million and launched full-scale operations in the area of spindle motors for 3.5-inch and 2.5-inch high-end HDDs, at the same time reducing the weight of motors for 3.5inch low-end HDDs in our product lineup.

The completion of a new plant by subsidiary New Hampshire Ball Bearings, Inc., in Chatsworth, near Los Angeles, during the period, reinforced our bearing production capabilities and integrated service structure in the United States. New facilities currently under construction by precision motor design and development subsidiary Precision Motors Deutsche Minebea GmbH (PMDM) and scheduled for completion late in 2000, will function as our principal R&D and engineering base for all types of small motors.

We also continued to cultivate promising new businesses, entering the market for fluid dynamic bearings and launching production of a DC brushless motor for electric power steering systems.

In March 2000, we entered into cross-license, know-how license and supply agreements for fluid dynamic bearings and spindle motors for HDDs containing fluid dynamic bearings with Seagate Technology, Inc., of the United States, the world's largest supplier of HDDs and related products. The cross-license and know-how license agreements provide for the sharing of proprietary technologies and the joint development, design, manufacture and sale of fluid dynamic bearings and small motors, including spindle motors for HDDs containing fluid dynamic bearings, while the supply agreement has enabled us to become a major supplier to Seagate of fluid dynamic bearings and small motors containing these bearings.

As a consequence of these agreements, we have reinforced our share more than 60%—of the global market for conventional ball bearings and enhanced our competitiveness in the market for small bearings. We have established ourselves as a key player in the highly promising market for fluid dynamic bearings and spindle motors for HDDs containing these bearings. Production of both is scheduled to commence at a new facility





⁻⁵⁰ 1996 1997 1998 1999 **2000**

in late calendar year 2000. We will initially supply these products to Seagate, but intend to expand our marketing focus in the future.

Fiscal 2000 also saw us commence full-scale marketing of ball bearings, small motors and other products to the automotive industry. Following the conclusion of a contract with Delphi Automotive Systems, in April 1999 we launched production of a proprietary DC brushless motor for a new electric power steering system developed by Delphi. This motor was developed and engineered by PMDM, and is being produced exclusively at Minebea Thai Ltd. Although the automotive industry is mature and we are unlikely to see a sharp quantitative increase in vehicle sales, increasing concern for greater energy efficiency, safety and comfort are stimulating demand for electronically controlled motors for electric power steering systems and other applications. We are thus convinced that this market will allow us to maximize our motor development and technological capabilities, as well as our extensive production capacity, and that it offers outstanding potential for our motors.

The special feature section of this year's annual report provides a more detailed look at these strategies and their expected impact on Minebea in the years ahead.

Revamping our Operating Structure

To accelerate responsiveness to technological advances and changes in the operating environment, particularly in the information and telecommunications industry, our biggest market, we introduced a new operating structure designed to clarify responsibility and increase efficiency.

On the administrative side, the new system has resulted in the creation of the Tokyo Head Office Administration Executive Council, which oversees accounting, finance, planning, business administration, systems, personnel and general affairs, logistics and other support departments, thus enabling them to better assist the efforts of manufacturing and sales departments. We have also integrated previously independent sales headquarters for Japan, Asia, the Americas and Europe into a single entity, helping us to respond more efficiently to the rapid realignment and increasingly borderless nature of our key markets.

To promote greater management transparency and ensure the timely presentation of information on our operational strategies and management directions to investors, we created a Disclosure Committee. On April 1, 2000, we launched a new, IR-oriented Web site at http://www.minebea.co.jp.

Strategies for the Future

Thanks to our efforts over the past three years, we have largely achieved our goal of enhancing our financial position. Now is the time to focus on decisive measures to ensure continued growth, further reinforce our corporate strength and bolster our profit performance. To this end, in fiscal 2000, we launched a threeyear management plan. We also outlined three basic management directions.

Three-Year Management Plan

Our new three-year management plan contains clear numerical goals, for net sales, operating income, net income, cash flows from operating activities and expenditure for purchase of property, plant and equipment.

		M	lillions of yen
Years ending March 31	2001	2002	2003
Net sales	¥290,000	¥332,000	¥373,000
Operating income	33,000	39,000	47,000
Net income	15,000	20,000	27,000
Cash flows from			
operating activities	41,900	41,600	46,200
Expenditure for			
purchase of			
property, plant			
and equipment	31,300	32,000	32,000

The principal applications of expenditure for purchase of property, plant and equipment will be to expand our production capacity for ball bearings and to build new production facilities for spindle motors for HDDs and other small motors. The former will primarily involve the installation of new production lines at the plant of subsidiary Minebea Electronics & Hi-Tech Components (Shanghai) Ltd., to facilitate an increase in output from this plant. The latter will involve the construction of two 240 x 85 meter facilities at our Bang Pa-in Plant in Ayutthaya, north of Bangkok, and the installation of equipment. The first facility, which is scheduled for completion late this year, will produce fluid dynamic bearings and spindle motors for HDDs exclusively. The second facility, which we plan to complete in 2001, will produce DC brushless motors for electric power steering systems and a variety of other rotary components for automotive use.

Three Basic Management Directions

Our three basic management directions will guide our efforts until fiscal 2003. First, we will expand our production capacity and cultivate new markets for our profitable mainstay bearings and bearing-related products, such as pivot assemblies. Second, we will build our operations in the area of precision small motors and other rotary components, including spindle motors for HDDs, stepping motors and fan motors, until they are similar in scale to our bearing operations. Third, we will increase the ratio of high-value-added products in our lineup, focusing on bearings and bearing-related products; rotary components; electronic devices, such as switching power supplies, speakers and measuring instruments; fasteners; special machinery components; and wheels.



In Closing

Manufacturers in cutting-edge industries increasingly require component manufacturers with high-precision processing technologies. As a result, the opportunities for Minebea to maximize its capabilities are expanding rapidly. I am confident that by implementing the strategies of our threeyear management plan and adhering to the basic management directions we have set, we will significantly enhance our sales and improve profitability.

I thank our shareholders for their support to date. I look forward to responding to your expectations in the years ahead by building a bigger and stronger Minebea, and ask for your continued endorsement of our efforts.

June 29, 2000

Yamamu

Tsugio Yamamoto President and Representative Director

New Frontiers in Core Businesses

arings

Spindle Motors

Reinforcing Competitiveness

SMALL BEARINGS

Minebea is the leading manufacturer of small ball bearings up to 22mm in external diameter, and has a global market share in excess of 60%. With the launch of production of fluid dynamic bearings, the Company has added a final key dimension to its lineup of small bearings, which includes conventional ball bearings, integrated-shaft ball bearings and RO bearings, positioning us well to take advantage of new markets for these products and respond to rising demand.

The unmatched competitiveness of Minebea's small bearings stems from its vertically integrated manufacturing system, which encompasses all processes, from engineering and development to the manufacture of components, assembly and final testing. This system ensures the same level of quality for small bearings produced at any of Minebea's 10 manufacturing bases worldwide.

Minebea uses its own high-precision small bearings in a broad range of other products, including spindle motors for HDDs, stepping motors, fan motors and pivot assemblies, which has given the Company an outstanding competitive edge in these product categories in terms of quality, supply capabilities, lead time and manufacturing costs.

RO Bearings

The RO bearing features two raceways on the inside of the outer ring and one each on the shaft and inner ring fitted on the shaft, essentially combining the functions of two ball bearings in one while eliminating the misalignment that can occur with two bearings. Because it contains fewer components, the RO bearing also minimizes accumulated tolerance, improving rotating accuracy. Moreover, the stable thermal resonance of RO bearings makes the designing of motors easy. Minebea currently uses most of the RO bearings it produces in its spindle motors for HDDs, but demand is expected to grow for use in pivot assemblies, fan motors and other high-precision components.



Minebea's Small Ball Bearings

Minebea manufactures small ball bearings of more than 8,500 different specifications with external diameters ranging from less than 3mm to 28mm. Each ball bearing comprises an outer ring, inner ring, balls, retainer, shield and snap ring. The average motor contains two ball bearings. Ball bearings are thus essential components in information and telecommunications equipment, household electrical appliances and automobiles. The average household is said to use between 60 to 200 small ball bearings at any given time.





Integrated-Shaft Ball Bearings

The integrated-shaft ball bearing has two raceways on the shaft, allowing the integration of the inner ring and shaft of two ball bearings. This facilitates more precise rotation than is possible with two independent ball bearings, making integrated-shaft ball bearings particularly suited to use in, for example, the cylinder units of video cameras.

Shipments of Small Ball Bearings

Demand for Minebea's ball bearings in the 1950s and 1960s came primarily from the aerospace industry for use in aircraft instruments. In the 1980s, the growing popularity of home-use video cassette recorders caused demand to soar, while in the 1990s, the expanding markets for office automation equipment, household electrical appliances, and PCs have further stimulated demand for ball bearings. The global market has been growing at an unprecedented rate since the second half of the period under review, in response to which Minebea plans to expand its global monthly production capacity by 30 million units, to 150 million units, by the end of 2000.

Cross-License and Other Agreements with Seagate Technology

"Seagate Technology is the world's largest supplier of HDDs and related components, and pioneered the technological development and volume production of fluid dynamic bearing motors. In March 2000, Seagate and Minebea entered into cross-license, know-how license and supply agreements, enabling Minebea to become a major supplier to Seagate of fluid dynamic bearings and various types of motors, including fluid dynamic bearing spindle motors for HDDs based on Seagate's pioneering designs. Seagate's Motor Group holds a high number of motor patents for design as well as manufacturing. The company's fluid dynamic bearings are the result of its leadership in



Gunter Heine, Vice President, Seagate Technology, Inc.

advanced technology, design, quality, productivity and cost-effectiveness. Disk drives will continue to require higher areal and track densities and increasingly quiet operation. Motor technology is a critical, enabling factor in current and future disk drive design, and Seagate believes this agreement with Minebea will be of benefit to both companies. Seagate and Minebea see these agreements as an intelligent way to bring the most advanced disk drive motors to market in a timely and cost-effective manner. The combination of Seagate's advanced motor designs and Minebea's mass-production capabilities will be very powerful. Seagate looks forward to leveraging Minebea's capabilities and its proven, high-volume, low-cost manufacturing expertise, and believes Minebea will be able to ramp quickly into a significant supplier of motors for our best-in-class disk drives."

Fluid Dynamic Bearing Motor Operation

The principle of the fluid dynamic bearing involves replacing the ball bearing function with a layer of lubricant thinner less than one-tenth the thickness of a strand of hair. The rotor supported by the bearing essentially "swims around" the shaft. Special grooves in the metal bearing parts generate a hydrodynamic force that stabilizes the motor rotation and provides the vibration damping required for future disk drive applications. Benefits to drive companies include improved quietness and robustness. Fluid bearings also make it easier to increase data storage density and data transfer rate. The reliability of the Seagate fluid dynamic technology has been proven through two and a half years of successful volume manufacturing experience.



Minebea Co., Ltd., 2000 7

Expanding High-Value-Added Products

SPINDLE MOTORS FOR HDDs

Minebea uses its own high-precision ball bearings in its spindle motors for HDDs, one of the Company's mainstay products. In fact, almost all of the parts in these motors are produced in-house, which gives Minebea an outstanding competitive edge in terms of quality, supply capabilities, lead time and manufacturing costs.

Over the past two years, Minebea has strategically shifted its focus from spindle motors for 3.5-inch low-end HDDs to high-value-added spindle motors for 2.5-inch and 3.5-inch high-end HDDs. Although the Company saw a temporary decline in orders for these motors as a consequence, this strategy has begun to pay off as orders have risen steadily since the latter half of 1999.

Minebea expects to see significant growth in orders for spindle motors for HDDs in the years ahead and plans to expand its monthly production capacity, from approximately 2.0 million units in the first quarter of 2000 to an estimated 3.5 million units by the third quarter of 2000, 5.0 million by the third quarter of 2001 and 10.0 million in 2003.

Shipments of Spindle Motors

for HDDs and Minebea's

Prospects for Growth

At present, spindle motors for 3.5-inch low-end HDDs for desktop PCs account for more than half of Minebea's total monthly output of spindle motors for HDDs, with 3.5-inch highend HDDs for desktop PCs and PC servers and those for 2.5inch mobile information and telecommunications equipment accounting for approximately 20% and 25%, respectively. By the third quarter of 2001, the Company expects its monthly output to more than double, to 5.0 million units, of which approximately 70% will be for high-end markets—1.4 million units for 3.5-inch high-end HDDs for desktop PCs and PC servers, 1.5 million units for 2.5-inch HDDs for information and telecommunications equipment, and 500,000 units for 3.5-inch highend HDDs for enterprise and host computers—and 30% for 3.5-inch low-end HDDs for desktop PCs.

Global Market Prospects

In 2000, total shipments of spindle motors for HDDs are expected to amount to 189.0 million units, an increase of approximately 65% since 1997. Minebea's leading share of this market in 2000 is estimated at 21%, compared to 20% in 1997. In the next few years, however, the market is expected to explode, with shipments projected to reach 330.0 million units in 2003. By enhancing its lineup of spindle motors for HDDs and targeting high-end users, Minebea expects its share of the global market to climb to 36% in the same period.



New Developments in Spindle Motors for HDDs

"Under Minebea's vertically integrated manufacturing system, the Company develops and engineers spindle motors for HDDs in Japan and Germany and conducts all production processes, from the manufacture of parts through to final assembly, at its mass-production facilities in Thailand. Moreover, Minebea has established R&D centers at its product development bases (Japan and Germany), its mass-production base (Thailand), and one of its most important markets (Singapore) to conduct cleanliness evaluation and precision analysis, thus facilitating swift and accurate responses to customer needs in terms of product quality and earning the Company a solid reputation for reliability.

Like hard disks and magnetic heads, spindle motors are high-precision components that are critical to the performance of HDDs. With the rapid expansion of HDD memory capacity and shorter seek times, demand for increasingly precise spindle motors has escalated. In response to changing customer needs, Minebea has launched production of spindle motors for HDDs containing fluid dynamic bearings and spindle motors for HDDs containing RO bearings, and has started using ceramic balls in RO bearings."



Rikuro Obara,

Senior Managing Director, General Manager of the 1st Manufacturing Headquarters and Karuizawa Manufacturing Unit, and General Manager of Bearings Manufacturing Div., Karuizawa Manufacturing Unit. Minebea Co., Ltd.

RO Bearings



When used in a spindle motor, the RO bearing eliminates the misalignment that often occurs with two conventional ball bearings. RO bearings are also superior in terms of responsiveness to thermal shifts, rotating speed and non-repetitive run-out (NRRO). Because RO bearings also enable more compact designs, they are particularly suited to use in spindle motors for higher-precision 3.5-inch and 2.5-inch high-end HDDs. Moreover, the use of Minebea's own ceramic balls, which are highly durable and resistant to thermal

shift, facilitates even higher levels of precision. Minebea intends to expand the proportion of its total output of RO bearings used in its own spindle motors for HDDs to 60% by the end of 2001, from 45% at the close of fiscal 2000.



Cultivating New Markets

AUTOMOTIVE COMPONENTS

Concern for the environment and better vehicle performance has greatly increased the use of electronically controlled steering and engines. As a consequence, Minebea is seeing demand from automotive manufacturers soar not only for the products it has traditionally supplied to the industry, namely fasteners, speakers and rod-end bearings, but also for mainstay small ball bearings, small motors and a broad range of other products.

With the aim of cultivating new markets, in 1997 Minebea set up a sales group within its marketing headquarters in Japan that specializes in automotive components. The Company also augmented its engineering and development capabilities, which are centered at subsidiary PMDM, by establishing a technical center on the outskirts of Detroit to conduct quality evaluation and product testing. Further, Minebea's ball bearing production facilities in Thailand and Singapore have obtained QS-9000, the U.S. Automobile Manufacturers' Association certification of quality systems for suppliers. These efforts have positioned Minebea well to capitalize on the expanding market for automotive components.









utomotiv onent

Production of DC Brushless Motor for Delphi

"In line with a contract signed with Delphi Automotive Systems, in April 1999 Minebea began production of a proprietary DC brushless motor for a new electric power steering system developed by Delphi. Delphi chose Minebea after comparing test motors produced by leading global motor manufacturers according to the same specifications, citing the superior motor technologies of PMDM, Minebea's principal small motor development subsidiary, in Germany. Minebea is manufacturing DC brushless motors for Delphi exclusively in Thailand, and with output expected to increase in the future, is planning to build a new plant in that country for this and other small motors for automobiles."



Dr. Helmut Hans, Vice President, Precision Motors Deutsche Minebea GmbH (PMDM)



Delphi Automotive Systems, a world leader in automotive components and systems technology headquartered in Troy, Michigan, designs, engineers and manufactures a wide variety of components, integrated systems and modules on a worldwide basis. Delphi employs approximately 214,200 people and operates 178 wholly owned manufacturing sites, 41 joint ventures, 53 customer centers and sales offices, and 27 technical centers in 39 countries.

Minebea has been chosen by Delphi to supply a pro-



E-STEER[™] electric power steering system

prietary DC brushless motor used in Delphi's E-STEER[™] electric power steering system. E-STEER[™] is an all-electric engine-independent power steering system developed by Delphi to replace conventional automotive hydraulics. Increased fuel economy and power are some of the numerous benefits that this system provides. Delphi was the winner of a 1999 Premier Automotive Suppliers' Contributions to Excellence (PACE) award, given by Ernst & Young LLP and Automotive News, for this innovative technology.

Minebea's commitment to the global automotive market is evident in the steps that it has taken to accommodate and support this new program. The development of this DC brushless motor, which was designed by Delphi, was performed both in Minebea's German facility and its Automotive Technical Center in Wixom, Michigan. Motors are manufactured at one of Minebea Thai Ltd.'s facilities and shipped to a Delphi facility in Europe, where they are integrated into steering systems for the European automotive market.

Protecting the Environment

Minebea has always placed a high priority on environmental protection in managing its operations. We continue to take steps to enhance the environmental soundness of our operations worldwide, thus ensuring that our facilities are welcomed by local communities.

All of our principal manufacturing facilities, which together account for 95% of aggregate Group output in monetary terms, have obtained ISO 14001 certification, the International Organization for Standardization's standard for environmental management systems, and we are currently preparing to apply for endorsement at our remaining plants.

ISO 14001 Certification at Principal Production Facilities Worldwide



Japan

In April 1997, the Karuizawa Manufacturing Unit obtained ISO 14001 certification, making Minebea the first bearing manufacturer to do so. By the end of April 2000, all production facilities in Japan had followed suit.

Asia (Excluding Japan)

In October 1997, Minebea's seven Thai subsidiaries—which encompass 30 divisions and four sites and account for approximately 60% of total Group output—received ISO 14001 endorsement simultaneously. This feat was repeated by Minebea Electronics & Hi-Tech Components (Shanghai)'s two plants in December 1997 and Minebea's Singapore plants in January 1998.

North, Central and South America

The other manufacturing facility in the United States, U.S. subsidiary New Hampshire Ball Bearings' Peterborough plant obtained ISO 14001 certification in May 1999.

Europe

1997

U.K. subsidiary Rose Bearings' Lincoln and Skegness plants obtained ISO 14001 certification in April 1997 and February 1999, respectively. German subsidiary PMDM was endorsed in February 1998.

Environmental Achievements

- **1991** Minebea organizes the Anti-CFC Committee with the aim of phasing out the use of specified chlorofluorocarbons (CFCs) and ethane as cleaning agents.
- **1993** Minebea develops a water-based washing system, which it installs at all of its plants, becoming the first bearing manufacturer in the world to completely eliminate specified CFCs and ethane from all production and assembly processes.

The parent company and Minebea's Thai subsidiaries receive the Stratospheric Ozone Protection Award from the U.S. Environmental Protection Agency (EPA) for eliminating specified CFCs and for contributing to overall efforts to encourage environmental protection by actively disclosing technical information on its water-based washing system.

Minebea's Anti-CFC Committee is replaced by the Environmental Protection Committee.

Minebea formulates its own "Charter for Environmental Protection."



The U.S. EPA's Best-of-the-Best Stratospheric Ozone Protection Award, given to the Minebea Group in 1997

- **1995** Former president Goro Ogino receives the Stratospheric Ozone Protection Award for individuals from the U.S. EPA.
- 1996 Minebea Electronics & Hi-Tech Components (Shanghai) establishes the Shanghai-Minebea Environmental Protection Fund, aimed at protecting the quality of the water in Lake Daishan-hu and the lake's surrounding environment.

In April, the Karuizawa Manufacturing Unit and U.K. subsidiary Rose Bearings' Lincoln plant obtain ISO 14001 certification, making Minebea the first bearing manufacturer to do so. In October, Minebea's seven Thai subsidiaries, including their 30 divisions and four sites, and two plants in China also receive this endorsement.

The Minebea Group is selected as winner of the U.S. EPA's Best-of-the-Best Stratospheric Ozone Protection Award.

- **1998** In January, Minebea's Singapore plants obtain ISO 14001 certification. This endorsement is also awarded to five plants and three subsidiaries in Japan, and one subsidiary in Germany during the year.
- **1999** One plant in Japan, two plants of a subsidiary in England and one plant in the United States obtain ISO 14001 certification.
- 2000 One plant of a subsidiary in Japan obtains ISO 14001 certification.

(As of June 29, 2000)

In fiscal 2000, Minebea reclassified its operations into three categories-machinery components, electronic devices and components, and consumer and others-to better reflect the nature of the Company's business.

Machinery Components



Ball bearings



Rod-end and







Defense-related special parts

Electronic Devices and Components

electric power steering systems, as well as PC keyboards, floppy disk drive (FDD) submeasuring instruments and other electronic devices.

This category encompasses the manufacture and sale of ball bearings; rod-end and spherical

bearings for the aerospace industry; HDD pivot assemblies and other bearing-related

products, fasteners used in aircraft and automobiles, and a variety of other products,



Spindle motors for HDDs



Speakers



stepping motors



FDD subassemblies



(PM)-type stepping



Switching power supplies



Fan motors





PC keyboards



Strain gauges

Consumer and Others

Operations in this category focus on retail sales of furniture and interior decor items.

Inductors



Principal Products

Bearings and Bearing-Related Products

Miniature ball bearings Small-sized ball bearings Integrated-shaft ball bearings **RO** bearings Rod-end and spherical bearings Roller bearings Journal bearings Pivot assemblies Tape guides

Other Machinery Components

Aerospace fasteners Automotive fasteners Wheels Defense-related special parts Magnetic clutches Magnetic brakes



Reflecting steady growth in demand from customers in the information and telecommunications industry, notably PC manufacturers, and the household electrical appliance industry, sales of ball bearings and HDD pivot assemblies and other bearing-related products were brisk during the period under review. In contrast, sluggish conditions in the aerospace industry, particularly in the United States, led to slow demand for rod-end and spherical bearings, fasteners and other aerospace components. Special machinery components remained comparatively firm.

Sales in this category for the period under review declined 6.6%, to ¥127,734 million, and accounted for 44.9% of net sales. Category sales were ¥11,584 million lower, and those of mainstay bearings and bearing-related products ¥11,207 million lower than would have been the case had the fiscal 1999 average exchange rate been applied. Category operating income was \$21,996 million, equivalent to 70.8% of operating income.

Bearings and Bearing-related Products

Sales of bearings and bearing-related products, comprising small ball bearings, rod-end and spherical bearings, pivot assemblies and other related products, slipped 7.0%, to ¥101,847 million.

Small ball bearing sales flagged in the first half, but recovered with a sharp increase in demand from the information and telecommunications industry. As a consequence, shipments rose 10.0% from fiscal 1999, although the impact of the strong yen led to a decline in sales.

In fiscal 2000, Minebea continued to focus on enhancing product quality. The Company also expanded its lineup of high-value-added ball bearings by inaugurating full-scale mass production of RO bearings, primarily for use in internally manufactured spindle motors for HDDs, and by commencing production of ceramic balls. With demand for products in this category expected to continue rising, Minebea will expand its monthly production capacity for bearings to 150 million pieces by the end of calendar year 2000, from 120 million in the period under review. The Company also anticipates growth in demand for small ball bearings for use in automotive equipment, a new market for these products, reflecting greater emphasis on energy efficiency, safety and comfort and a corresponding increase in

the use of sophisticated electronic systems in vehicles.

During the period under review, Minebea announced plans to enter the market for fluid dynamic bearings, which are expected to become the principal choice for spindle motors for HDDs. Accordingly, by the end of calendar year 2000, Minebea intends to launch production of these bearings for use in spindle motors for HDDs manufactured for Seagate of the United States. This move will reinforce Minebea's lineup of small bearings, as well as enhance its overall supply capabilities.

Owing to flagging demand from aerospace companies, primarily in the United States, the principal customers for rod-end and spherical bearings, sales of these products fell in fiscal 2000. Demand remains slack, but is expected to pick up gradually in fiscal 2001, spurred by economic recovery in Southeast Asia. Minebea will strive to expand sales in this product group by cultivating demand from manufacturers of small and medium-sized aircraft, particularly in the PRC, Canada and Brazil, a market in which it has not traditionally had a strong presence. The Company will also endeavor to enhance production efficiency for these products.

Demand for pivot assemblies continued to soar in fiscal 2000, offsetting the impact of declining sales prices. As a consequence, sales of mechanical assemblies, which also include tape guides, rose from the previous period. With demand expected to remain on an upward trend in fiscal 2001, Minebea plans to boost production capacity and enhance profitability by offering a balanced mix of highvalue-added and low-end products.

Other Machinery Components

Sales of other products in this group, which include fasteners, wheels and defense-related special machinery components, declined 5.1% in fiscal 2000, to ¥25,887 million. With demand from the aerospace and automotive industries unchanged, sales of fasteners remained level with fiscal 1999. In fiscal 2001, Minebea expects demand from the aerospace sector to remain flat and will respond by reducing inventories and further rationalizing operations. A decline in orders prompted a decline in sales of wheels. Sales of special machinery components fell, also reflecting falling orders from defense contractors. In fiscal 2001, Minebea will step up marketing efforts for the latter to private-sector manufacturers.

Note: For more information on Minebea's RO and fluid dynamic bearings, see pages 6-7 in the special feature section of this annual report.

	Bearings and Bearing-Related Products	Other Machinery Components		
Category Sales	 Net sales in fiscal 2000: ¥101,847 million Percentage of category sales: 79.7% 79.7% 	 Net sales in fiscal 2000: ¥25,887 million Percentage of category sales: 20.3% 		
Market Position	 World's largest manufacturer of small ball bearings up to 22mm in diameter (over 60% market share), rod-end and spherical bearings (60% market share) and pivot assemblies (70% market share). 			
Competitive Advantages	 In fiscal 2000, Minebea added fluid dynamic bearings to its already extensive small bearing lineup, which includes conventional ball bearings, integrated-shaft ball bearings and RO bearings, thereby expanding its potential market and positioning it better to respond to demand for even higher levels of precision. Minebea's vertically integrated manufacturing system means that all processes, including engineering, the design, development and manufacture of parts, and assembly are conducted in-house, resulting in product quality, supply capabilities, delivery speed and production costs unmatched by any of its competitors. This system also guarantees identical quality for bearings produced at all of the Company's 10 plants worldwide. Mainstay bearings are used extensively in information and telecommunications equipment, such as PCs, and other high-growth areas. The use of high-precision ball bearings manufactured in-house facilitates a stable supply of superior quality pivot assemblies. 			
Market Outlook	 Minebea expects demand from manufacturers of PCs and other information and telecommunications equipment to continue growing. Significant growth in internal demand for use in spindle motors for HDDs, stepping motors, fan motors, pivot assemblies and other components is also anticipated. Firm demand from automotive manufacturers and related industries is likely. Demand for pivot assemblies for use in HDDs is expected to rise sharply. 			
Fiscal 2000 Highlights	 Plans were announced to raise Minebea's monthly production capacity for ball bearings to 150 million units by the end of 2000, from 120 million in fiscal 2000. Minebea commenced production of ceramic balls. The Company announced its entry into the market for fluid dynamic bearings and plans to start production by the end of 2000. A production system enabling monthly output of 10 million pivot assemblies was established. 			
Basic Strategies	 Enhance production capacity for ball bearings to ensure ability to respond to rising demand. Establish a mass-production system for fluid dynamic bearings as soon as possible. Enter the markets for rod-end and spherical bearings for small and medium-sized aircraft, particularly in the PRC, Canada and Brazil, a market in which Minebea has not traditionally had a strong presence, and bolster productivity to reduce manufacturing costs. Increase profitability by ensuring a balanced mix of high-value-added pivot assemblies with RO bearings and low-end products. 			



Principal Products

Rotary Components

Spindle motors for HDDs Hybrid-type stepping motors PM-type stepping motors Fan motors DC brushless motors for electric power steering systems Resolvers

Other Electronic Devices and Components

PC keyboards
Speakers
Electronic devices
(FDD subassemblies, magnetic
heads for FDDs, front light
assemblies)
Power electronic components
(switching power supplies,
inductors)
Transformers
Hybrid integrated circuits (ICs)
Measuring instruments
(strain gauges, load cells)



1990 1997 1996 1999 2000

Demand for electronic devices from PC manufacturers and other customers in the information and telecommunications industries remained firm throughout fiscal 2000. Despite higher shipments, sales were hampered by intense pricing competition.

Sales in this category amounted to ¥146,133 million, or 51.3% of net sales. Category sales were ¥15,535 million lower than they would have been had the same exchange rate been used as in the previous period. Operating income in this category totaled ¥8,254 million, or 26.6% of operating income.

Rotary Components

Sales of motors, including spindle motors for HDDs, stepping motors and fan motors, edged down 1.6%, to ¥63,758 million.

Spindle Motors for HDDs

In the area of spindle motors, Minebea shifted its marketing focus from those for 3.5-inch low-end HDDs to high-value-added motors for 3.5-inch and 2.5-inch high-end HDDs, resulting in a temporary decline in shipments and a 23.3% decrease in sales in this product group in fiscal 2000. However, increased shipments of high-value-added products to major HDD manufacturers and firm orders for next-generation models are expected to support a significant increase in sales in fiscal 2001. In response, Minebea plans to increase its monthly output of spindle motors for HDDs to 3.5 million units, from 2.0 million, in the third quarter of 2000. Moreover, Minebea expects to complete a new facility exclusively for spindle motors for HDDs at its Bang Pa-in Plant in Thailand late in calendar year 2000, thereby boosting its monthly production capacity to 10.0 million. On another front, Minebea will commence production of fluid dynamic bearing spindle motors for HDDs by the end of 2000.

Fan Motors

Falling product prices also affected sales of fan motors, although the impact was largely offset by expanded shipments, particularly to PC manufacturers and other customers in the information and telecommunications industries. Accordingly, sales of fan motors were up from fiscal 1999. In the immediate future, the Company will endeavor to expand sales of high-value-added fan motors, such as those for mobile telephone base stations, and develop high-value-added new products for the automotive industry.

Stepping Motors and Other Motors

Despite sagging product prices, firm demand, especially for use in office automation (OA) equipment, led to an increase in sales of stepping motors and miscellaneous other small motors. In fiscal 2001, Minebea will strive to cultivate new markets for stepping motors and other motors, such as that for automotive use, which includes DC brushless motors for electric power steering systems.

Other Electronic Devices and Components

Sales of other electronic devices and components decreased 11.2%, to ¥82,375 million, in fiscal 2000. PC keyboard sales rose, spurred by rising demand for use in high-end desktop and notebook PCs. Severe pricing competition contributed to a decrease in sales of speakers. During the period, Minebea acquired a speaker box manufacturer in Malaysia, where many of the leading audio equipment manufacturers have key production bases. In fiscal 2001, the Company plans to enter the growing market for microspeakers for mobile telephones.

Electronic device sales also fell, a consequence of flagging demand, particularly for FDD subassemblies. Minebea will launch production of front light assemblies, which are expected to see a sharp increase in demand, particularly for use in mobile telephones.

Sales of power electronic components expanded. In the current period, Minebea will work to bolster productivity at its massproduction facility for switching power supplies, the principal product in this group, in Thailand. At the same time, the Company will step up development of products for the telecommunications market in Europe and highvoltage power supplies in the United States.

Falling orders in the domestic market prompted a decline in sales of measuring instruments in fiscal 2000.

Note: For more information on Minebea's spindle motors for HDDs and DC brushless motors for electric power steering systems, see pages 8-11 in the special feature section of this annual report.

	Rotary Components	Other Electronic Devices and Components	
Category Sales	 Net sales in fiscal 2000: ¥63,758 million Percentage of category sales: 43.6% 43.6% 	 Net sales in fiscal 2000: ¥82,375 million Percentage of category sales: 56.4% 	
Market Position	 Spindle motors for HDDs: 17% market share Hybrid-type stepping motors: 35% market share PM-type stepping motors: 25% market share Fan motors: 30% market share 	 PC keyboards: 20% market share 	
Competitive Advantages	 Minebea's rotary components are manufactured using the Company's market-leading ball bearings, giving it a significant competitive advantage in terms of product quality and supply capabilities. Minebea's vertically integrated manufacturing system means that all processes, from design and development to the production of pressed parts, plastic injection molded parts, die-cast parts, machined parts and magnets, to final assembly and testing, are conducted in-house. This enables the Company to respond promptly to increased demand and rising expectations in terms of quality. Minebea has testing facilities in each of its major production bases and leading markets, earning the Company a reputation for outstanding reliability. 	• Minebea's vertically integrated manufacturing system means that all processes, from design and development to the produc- tion of pressed parts, plastic injection molded parts, die-cast parts, machined parts and magnets, to final assembly, are conducted in-house. This enables the Company to respond promptly to increased demand and rising expectations in terms of quality.	
Market Outlook	 Minebea expects demand from manufacturers of PCs to continue growing. In particular, the Company anticipates demand for high-value-added spindle motors for 3.5-inch and 2.5-inch high-end HDDs to expand in fiscal 2001. Substantial demand for DC brushless motors, stepping motors and other products from automotive manufacturers and related industries is likely. 	 Minebea forecasts an increase in demand from PC manufacturers, particularly for wireless keyboards and notebook PCs. New Minebea products, such as front light assemblies, are expected to benefit from growth in the markets for mobile telephones and other information and telecommunications equipment. 	
Fiscal 2000 Highlights	 Minebea began supplying DC brushless motors to Delphi, the world's largest manufacturer of automotive components. Minebea announced plans to begin producing spindle motors for HDDs containing fluid dynamic bearings, which will be launched before the end of 2000. 	 A new R&D center was completed in Germany that specializes in the design and development of switching power supplies for non-PC applications and conducts thermal analysis and other testing procedures for these applications. Minebea acquired a speaker box manufacturer in Malaysia, where many leading audio equipment manufacturers have production bases. 	
Basic Strategies	 Grow rotary components into a second pillar of operations for Minebea that is similar in scale to the Company's bearings and bearing-related products business. Increase the weight of high-value-added products and expand product lines to better respond to a wider range of market needs. 	 Increase the weight of high-value-added products and expand product lines to better respond to a wider range of market needs. 	

Consumer and Others



This category focuses on the operations of subsidiary Actus Corporation, which encompass retail sales of imported and domestic furniture and interior decor items in Japan. Despite weak consumer spending, Actus recorded firm results for the third consecutive year in fiscal 2000. As part of an assertive effort to expand its operations, Actus opened a new 3,000m² store at Itami Airport in Osaka. Minebea's other non-core subsidiary, Minebea Credit, which provides real estate collateralized loans, was sold to LSF Nippon Investment Company, LLC, of the United States during the period.

Sales in the consumer and others operations category edged down 0.2%, to \$10,890 million, or 3.8% of net sales. Operating income in this category, at \$819 million, represented 2.6% of operating income. Minebea divides its operations into four regions based on the locations of its principal manufacturing facilities.





North, Central and South America



Japan remains the biggest market for Minebea's products, although the size of this market is gradually shrinking as key domestic customers shift production overseas.

Major production facilities in Asia form the Minebea Group's production nucleus, with output from plants in Thailand, the PRC, Singapore and elsewhere accounting for approximately 75% of total Group production. Most of the products manufactured in this region are exported to customers around the world. The Group's facilities in Thailand, which represent about 60% of total output, form its largest production base and are responsible for most of Minebea's mainstay products. As vertically integrated operations, these facilities conduct all processes, including the manufacture and maintenance of molds and the machining of parts, in-house.

With the increasing number of Japanese, North American and European manufacturers of PCs and household electrical appliances establishing production facilities in Asia, this region has evolved into the Minebea Group's second-largest market after Japan.

Minebea's operations in this region focus on the manufacture of rod-end and spherical bearings and small motors. The region is also home to technical centers that engage primarily in quality testing for automotive components and develop switching power supplies and other products.

Sales activities in the region mainly involve the import of products supplied by the Group's mass-production facilities in Asia for customers in North America.



The Minebea Group's plants in England manufacture rod-end and spherical bearings and small ball bearings, primarily for the European market, while the Group's plant in Scotland prints key caps in regional languages on keyboards supplied by its mass-production facilities in Thailand. The Group also has an R&D center in Europe, which functions as a design and development base for small motors, fan motors, switching power supplies and a variety of other products.

In addition to production, the Minebea Group has sales and marketing subsidiaries in the United Kingdom, Germany, Italy and France, which are responsible for local distribution of products manufactured at its plants in Asia.

Japan

Japan's persistent economic malaise continued to hamper the Minebea Group's domestic operating environment in fiscal 2000. The situation was exacerbated as PC and household electric appliance manufacturers— Minebea's principal customers in the domestic market—accelerated the shift of production to other parts of Asia to counter the rising value of the yen. Falling prices for key products, especially those for information and telecommunications equipment, and the impact of the strong yen contributed to a less-thansatisfactory performance. Sales in Japan decreased 3.3%, to ¥117,141 million, or 41.1% of net sales, while operating income fell 26.6%, to ¥11,883 million. Production in Japan accounted for 14.9% of total Group production during the period.

To improve the efficiency of its marketing activities in Japan, Minebea established three new sales bases during the period.



Asia (Excluding Japan)

The Minebea Group saw increased shipments in Asia in fiscal 2000, reflecting a strong comeback by Southeast Asian economies hampered by currency crises since 1997, as well as renewed production activity in the region by Japanese manufacturers of information and telecommunications equipment and household electrical appliances, which are key Minebea customers. However, sales and operating income were hampered by falling prices, especially for electronic devices.

Sales in the region slipped 3.9%, to ¥74,067 million, or 26.0% of net sales. Operating income declined 10.9%, to ¥15,173 million. Production in Asia amounted to



¥211,385 million, and represented 74.2% of total production by the Group.

In response to rising demand for ball bearings, Minebea expanded the ball bearing production capacity of its plant in Shanghai and other regional plants during the period under review. In Thailand, the Company also commenced full-scale production of DC brushless motors for electric power steering systems and proceeded with work on two new plants it is building in Thailand, at a total cost of ¥15.0 billion. The first plant, a facility for spindle motors for HDDs and fluid dynamic bearings, will be finished by the end of 2000, while the second, which will mainly produce a variety of motors for automotive use, is scheduled for completion in 2001. In Malaysia, where many leading audio equipment manufacturers have established production activities, Minebea acquired a speaker box manufacturer. With key Asian economies continuing to improve, Minebea expects to see strong growth in demand in Asia and will strive in fiscal 2001 to maximize the benefits of having its principal manufacturing facilities in this important region to further increase sales.

North, Central and South America

Sales

Billions of yen

In fiscal 2000, Minebea's performance in North, Central and South America was hindered by sagging demand for rod-end and spherical bearings and other key products from the aerospace industry, as well as falling retail prices for PCs, which intensified pricing competition among component manufacturers.

Sales generated by operations in the region declined 11.5%, to ¥58,253 million and were equivalent to 20.5% of net sales. Operating income fell 13.4%, to ¥2,729 million, and accounted for 8.8% of total operating income. Plants in the region were responsible for 8.6% of Group production.



During the period, work continued on the Chatsworth plant of New Hampshire Ball Bearings, Inc., Minebea's principal manufacturing subsidiary in the region. The plant is slated for completion in early autumn 2000. A highlight of the period was the commencement of full-scale operations at Minebea's new technical center in Detroit, which was finished in fiscal 1999. This facility will be crucial to the Company's efforts to respond to growing demand for ball bearings, small motors and other components for the automotive industry to secure new orders and expand sales.

Demand from major companies in the aerospace industry is currently showing firm signs of recovery. Minebea also plans to expand its sales of aerospace components by stepping up marketing to small and medium-sized aircraft manufacturers in Canada and Brazil. The Company will further strive to expand sales to manufacturers of information and telecommunications equipment and cultivate new markets, such as that for automotive components.

Europe

Falling orders for PC components created a difficult operating environment for the Minebea Group in Europe during the period under review.

Sales in the region decreased 14.7%, to ¥35,296 million, and represented 12.4% of net sales. Operating income dropped 41.2%, to ¥1,284 million, or 4.1% of the Group total. Production in the region represented 2.3% of total Group output for the period.

During the period, new development facilities for fan motors, in the United Kingdom, and switching power supplies, in Germany, launched full-scale operations. Both facilities were completed in late fiscal 1999 and will support Minebea's efforts to expand sales of these components worldwide. The Company also proceeded with construction of new facilities for PMDM in Germany, which designs and develops spindle motors and other small motors, and will function as the Group's principal development base for small motors after the completion of its new head office in autumn 2000. In fiscal 2001, Minebea will endeavor to maximize the capabilities of its various R&D facilities in Europe to bolster sales of mainstay products and improve its performance in the region.



BOARD OF DIRECTORS



Tsugio Yamamoto President and Representative Director

Senior Managing Directors



Yoshihisa Kainuma Member of the Tokyo Office Administration Executive Council, in charge of Personnel & General Affairs Dept. and Logistic & Procurement Dept.



Takayuki Yamagishi General Manager of the 2nd Manufacturing Headquarters and Hamamatsu Manufacturing Unit



Rikuro Obara General Manager of the 1st Manufacturing Headquarters and Karuizawa Manufacturing Unit; General Manager of Bearings Manufacturing Div., Karuizawa Manufacturing Unit



Managing Directors

Masahito Saigusa In charge of Furniture

Business

Ryusuke Mizukami Member of Tokyo Office Administration Executive Council, in charge of Corporate Planning, Business Administration Dept., and Information Systems Dept. and Environmental Preservation; General Manager of Corporate Planning Dept. and Corporate Communications Office



Takashi Yamaguchi Member of Tokyo Office Administration Executive Council, in charge of Finance Dept. and General Manager of Finance Dept.



Kenji Senoue Member of Tokyo Office Administration Executive Council, in charge of Strategy Planning and General Manager of Strategy Planning Office



Tomihiro Maruta General Manager of Fujisawa Manufacturing Unit



Koichi Dosho General Manager of Sales Headquarters, European & American Regional Sales Headquarters, and European Region Operations

Directors

Sadao Sawamura General Manager of Information Systems Dept.

Akihiro Hirao

General Manager of Omori Manufacturing Unit, in charge of Engineering Management Office and General Manager of Engineering Management Office

Sadahiko Oki In charge of Accounting Dept. and General Manager of Accounting Dept.

Takuya Naka In charge of Legal Dept. and General Manager of Legal Dept. and Patent Administration Office

Yukio Shimizu Deputy General Manager of Sales Headquarters (in charge of Japan & Asian region), General Manager of Japan & Asian Regional Sales Headquarters

Masayoshi Yamanaka In charge of North and South American Region Operations Shunji Mase General Manager of Personnel & General Affairs Dept., Secretary of Office Tokyo Office Administration Executive Council

Hiroharu Katogi General Manager of Business Administration Dept.

Masamitsu Osada General Manager of Mechatronics Division

Susumu Fujisawa In charge of Asian Region Operations

Atsushi Matsuoka President and Representative Director of Keiaisha NMB Co., Ltd.

Chanchai Leetavorn Chairman of Asia Credit Plc.

Tomeshiro Takeuchi Senior Managing Director of Keiaisha NMB Co., Ltd.

Standing Corporate Auditors

Shinichi Mori Yoshinori Amano Senior Managing Director of Keiaisha NMB Co., Ltd.

Corporate Auditors

Mitsuo Ichikawa

Toshiro Uchida Certified Public Tax Accountant

Note: Messrs. Mitsuo Ichikawa and Toshiro Uchida are external corporate auditors as required under paragraph 1 of Article 18 of the Law For Special Exceptions to the Commercial Code concerning Audit, etc., of Corporations.

(As of June 29, 2000)