For New Technology Network

NTN

Annual Report 2003

Year ended March 31, 2003

NTN Corporation

Corporate Philosophy

Our contribution to the global community lies in our creation of new technologies and development of new products.

The directors and employees of NTN Group companies strictly adhere to rules of conduct and strive to be consistently fair and responsible in their business activities.
Through these actions, they seek to fulfill the NTN Group's responsibility to its shareholders, customers, regional communities, and other stakeholders.

Profile

- A precision equipment manufacturer, NTN ranks fifth in the world in bearing sales. Since its establishment in 1918, the Company has supplied many industries with products and technologies that have been essential to their development.
- NTN has also achieved notable growth in fields other than bearings. It holds the No. 2 global market share of constant-velocity joints (CVJs)—a key component for automobile drive-trains. In 2003, the Company celebrates the 40th anniversary of CVJ business with cumulative production surpassing 300 million units.
- NTN is a global organization, with more than one third of its approximately 12,000 employees working overseas. Since 1961, NTN has been building a worldwide sales and production network encompassing the quadrilateral base system of Japan, the Americas, Europe, and Asia. In the fiscal year ended March 2003, overseas sales generated more than 50% of consolidated net sales for the first time.
- The Company's structural reform plan, NTN Evolution for Worldwide Plan 21 (NEW Plan 21), is steadily yielding results. Having attained the goals set for the first year of the plan, NTN is driving toward its second-year goals.

Contents

Notice: This annual report contains forecasts and projections regarding NTN's future plans, strategies, and business results. Please note that actual business results may vary from the projections made herein by the Company.

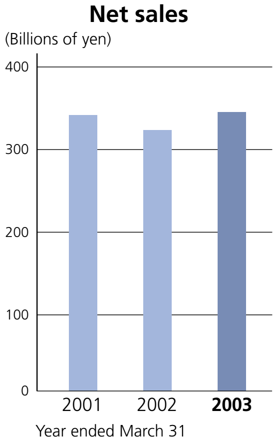
Financial Highlights

NTN Corporation and Consolidated Subsidiaries
Year ended March 31

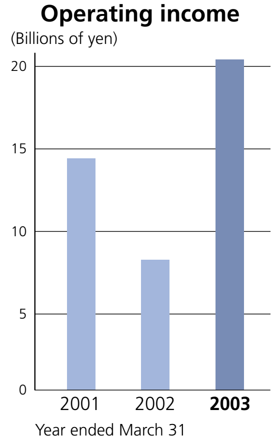
	Millions of yen except per share amounts			Thousands of U.S. dollars except per share amounts
	2003	2002	2001	**2003**
FOR THE YEAR DATA				
Net sales	**¥ 342,745**	¥ 324,339	¥ 340,551	**$ 2,851,456**
Operating income	**20,785**	8,140	14,335	**172,920**
Income (loss) before income taxes and minority interests	**6,198**	(701)	6,888	**51,564**
Net income (loss)	**2,657**	(132)	4,289	**22,105**
PER SHARE DATA				
Shareholders' equity	**¥ 291.82**	¥ 299.27	¥ 299.44	**$ 2.43**
Net income (loss)				
–Basic	**5.70**	(0.29)	9.26	**0.05**
–Diluted	**5.51**	–	8.78	**0.05**
Cash dividend	**5.00**	5.50	6.00	**0.04**
AT YEAR-END DATA				
Total assets	**¥ 467,198**	¥ 462,895	¥ 478,945	**$ 3,886,839**
Shareholders' equity	**134,928**	138,532	138,625	**1,122,529**
Number of employees	**11,810**	11,989	12,619	**11,810**

Notes: U.S. dollar amounts have been translated from yen, for convenience only, using the approximate exchange rate at March 31, 2003, which was U.S.$1=¥120.20.

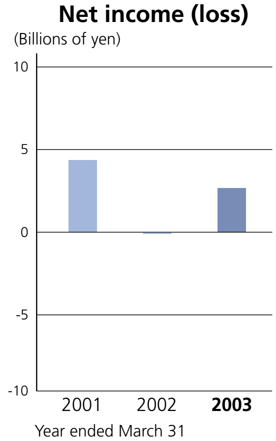
Net sales



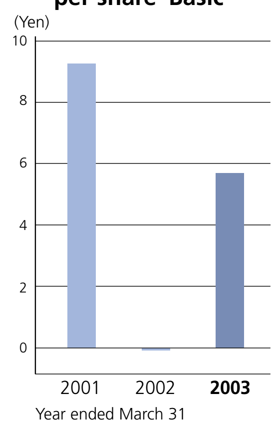
Operating income



Net income (loss)



Net income (loss) per share–Basic



To Our Shareholders

Yasunobu Suzuki
President

Overview of Fiscal 2002

In fiscal 2002, ended March 31, 2003, NTN made good progress under its structural reform plan, NEW Plan 21, posting consolidated net sales growth and substantial gains in profit.

Consolidated net sales increased ¥18.4 billion, or 5.7%, to ¥342.7 billion, principally driven by increased sales of constant-velocity joints (CVJs) to the automotive industry. Overseas sales accounted for ¥172.7 billion of net sales, rising ¥17.5 billion, or 11.3% year-on-year. Fiscal 2002 was the first year in which overseas sales generated more than half of the Company's consolidated net sales, reflecting NTN's current emphasis on global sales activities.

Consolidated operating income benefited from increased sales and production and structural reform efforts, jumping ¥12.6 billion (155.3%) from ¥8.2 billion, to ¥20.8 billion.

Non-operational revenues included a ¥14.5 billion gain on return of the substitutional portion of employees' Welfare Pension Fund Plan, but this was offset by non-operational expenses totaling ¥29.8 billion. These expenses included structural reform expenses such as the expected increase in severance payments due to the early retirement program initiated in March 2003.

Consolidated net income for fiscal 2002 amounted to ¥2.7 billion, climbing ¥2.8 billion from the loss recorded in fiscal 2001.

Despite the continued harsh business climate, NTN declared cash dividends of ¥5.00 per share under its policy of maintaining a stable dividend payout record.

The Company has continuously been striving to streamline its balance sheet, focusing particularly on reducing inventories and interest-bearing debt. Further progress was made during the fiscal year under review, with inventories dropping to ¥92.7 billion, down ¥5.8 billion, and interest-bearing debt declining to ¥161.4 billion, down ¥11.1 billion. Despite these improvements, total assets edged up ¥4.3 billion, to ¥467.2 billion because of an accumulation of cash for the expected increase in severance payments.

Progress Under NEW Plan 21

NEW Plan 21, our structural reform plan, got under way in April 2002. Making concerted efforts in various areas, we achieved the goals set for the first year of the plan. I would like to express my appreciation to shareholders, customers, and business partners for their cooperation and support and to our employees for their efforts in this great accomplishment.

Now in the wind-up year of the plan, we have a fully prepared structure with which to continue down the road to reform without let up. In the following sections, I will report on the achievements of the first year and touch on the main measures being implemented in fiscal 2003.

1 Strengthening Business Development Capabilities

My first initiative under this reform issue was the reform of our business organization. To establish an organization under which our sales sections could utilize our technical capabilities to quickly and accurately respond to the needs of customers and markets, we integrated our sales and engineering divisions in April 2002. Moreover, we appointed Global Account Managers (GAMs) to oversee sales activities globally targeting the automotive industry on a customer group basis. The GAM system has had a strong impact on our global sales activities, and already we are seeing major new orders coming in.

In the CVJ sector, we have taken advantage of the superior technology of such new products as our light and compact and low vibration types of CVJs to win large orders from DaimlerChrysler, General Motors (GM) Corporation, and others. Extrapolating from this success, we expect that these new orders will increase our share of the global CVJ market from its current 17% to 24% over the next four years culminating in the fiscal year ending March 2007.
We also have plans to expand our production capacity to meet this sharp rise in demand. At our North American production base NTN Driveshaft, Inc., we began constructing a new plant in September 2002, with completion of the building scheduled for November 2003. By March 2007, we will have increased monthly production from the current 350,000 units to 900,000 units. In Europe, we have received new orders from DaimlerChrysler, the GM group in Europe, Toyota Motor Corporation, and other companies in addition to our orders from Renault. Consequently, we plan to increase monthly production of CVJs at NTN Transmissions Europe from the current 300,000 units to 450,000 units by March 2007.

Axle unit sales have also benefited from the success of our GAM-focused sales activities, achieving growth in orders, notably in North America, along with the progressive conversion to third generation products. Based on orders received, we calculate that our share of the global axle unit market will expand from the current 11% to 16% by March 2007. In future, our main issue will be how to increase our market share in Europe. We will be focusing our efforts on attaining strategic growth in sales of high-value-added products, including CVJs and brake-related and other modular products.

In the needle roller bearing market, where we dominate the Japanese market with an estimated 40% share, the main issue is expanding our presence overseas. In particular, I see sales growth in North America as a critical step. We are principally targeting sales to the Japanese transplant factories but are also planning on gaining more orders from the Big Three.

With our February 2003 appointment of Global Application Managers for each classification in the industrial machinery sector, we are redoubling our efforts to conduct more market-oriented sales activities focused on growth markets in this field.

2 Strengthening Profitability

The reduction of outside procurement costs proceeded as planned in the fiscal year under review. We achieved cost reductions by revising purchase costs, expanding local procurement overseas, and increasing in-house production. To reach our final goals, we plan to continue with these measures while also promoting value analysis (VA) and value engineering (VE) proposals and the optimization of procurement on a global basis.

To cut personnel costs, among other measures, we launched an early retirement plan in Japan as well as restructuring the retirement benefit system. We initiated the early retirement plan in March 2003, receiving 781 applications against our original target of 700 employees. Within the imminent reorganization of production, we intend to make personnel expenses more flexible through the effective use of outsourcing and temporary workers. Based on these measures, we are reforming our personnel structure to enable NTN to respond flexibly to fluctuations in demand. Under this system, we have a minimum number of highly efficient full-time employees responsible for the high-value-added part of our business working in unison with a production system capable of achieving high productivity levels using outsourcing resources. We also are motivating individual employees by broadening their job descriptions and energizing them. To maximize our "people power," we are strengthening human resource development and emphasizing a results-based compensation and reward system.

We have made good progress in cutting logistic expenses through such measures as lowering transport prices, revising contracts and distribution routes, and decreasing the number of distribution centers in Japan through network integration. In fact, cost reductions are proceeding at a faster pace than planned. We will continue these measures and achieve added cost reductions while building a global logistics network.

3 Restructuring Production

During the fiscal year under review, we moved forward with our plans for the China market by establishing a business organization there. In 2003, we took the next step by kicking off full-fledged operations at three bases.

NTN-Nidec (Zhejiang) Corp., our joint venture with Nidec Corporation, began production and sales of fluid dynamic bearing units for the motors of next-generation hard disk drives in March 2003. Monthly production for the first fiscal year will be two million units, to be stepped up to eight million units by the end of 2004.

Our other two bases in China will commence operations in July 2003. Guangzhou NTN-Yulon Drivetrain Co., Ltd., our joint venture with the Yulon Group of Taiwan, has already received orders from several companies, and is looking at producing 20,000 units per month. Shanghai NTN Corp. will be a supply base for components and semi-finished products, and will provide strong support in strengthening the cost competitiveness of our strategic products.

In April 2003, we established a Representative Office for the China region in Shanghai. The office is responsible for overseeing various activities to seamlessly integrate each of our bases and solidify our foothold in this developing market.

In fiscal 2003, our fundamental restructuring of production has gotten under way. We are creating an organization that optimizes production of strategic and core products on a global basis. Depending on production schedules, production will be centralized, moved, and outsourced to achieve optimum results. We are shifting production of standard general-purpose products overseas while reforming the production methods and personnel expense structures of products made in Japan. Our overall goal is to lower costs to be better able to compete with products made in China.

We conducted further restructuring of Japanese production in fiscal 2002. In March 2003, we dissolved NTN Kishiwada Corp., moving its production to NTN Casting Corp. This step was taken to strengthen the competitiveness of our bearing unit operations. In another restructuring measure, we exited the general industrial ball screw market and sold our production facilities. This move will allow us to concentrate our business resources on other more promising areas.

4 Enhancing Product and Equipment Development Capabilities

We sped up our product development process through such measures as adding new testing and prototype-making equipment and development staff and establishing cooperative development programs among our research and development (R&D) bases in Japan, North America, and Europe. These efforts have led to the winning of orders for our latest CVJ models and other new products. During fiscal 2003, we will be working on additional improvements in development speed by sharing research results on a global basis and establishing a 24-hour development structure. To that end, we will be further strengthening our R&D staff. Since quality is as important as speed to the development process, we are also expanding and reinforcing our in-depth quality control system.

As part of the process of fortifying our equipment development capabilities, we are developing next-generation equipment that aims to reduce capital expenses by half. We have completed development of such production equipment for small size radial ball bearings, which has been introduced at Iwata Works' Ball Bearing Plant.

Our plans call for the successive introduction of this next-generation production equipment at our ball bearing plants around the world. We also intend to develop similar equipment for other products. For more details on our next-generation equipment, please see page 24.

Perspectives

Structural reform is NTN's first step in making a significant leap forward in terms of growth and development over the medium to long term. To achieve those goals, we need to accelerate the pace of our reforms. Building on the accomplishments of the first year of the structural reform plan, we are approaching the second and wind-up year of the plan with a new management team. Guided by a strong sense of urgency and responsibility, we will boldly push ahead with reforms.

In April 2003, we implemented organizational changes aimed at strengthening our planning division. We renamed our corporate planning division to the Management Planning Office and further reinforced its planning functions. The Management Planning Office has the important responsibility of mapping out over the long term which strategies the Company should pursue in the global marketplace to maximize the enterprise value of the NTN Group.

We also set up a Business Structure Reform Office to eliminate wasteful use of assets and generate cash to invest in our future. The principal mission of the office is to reduce inventories, for which purpose it is proceeding with the establishment of a global supply chain management system that fully utilizes information technology.

Aiming to consolidate our profitability base over the medium to long term, NTN has established a Production Headquarters that integrates our procurement, costing, production, and logistic functions. By coordinating the forces of Sales and Production to cooperate more closely, we can use NTN's institutional experience and expertise to optimize operations and earn the maximum possible profit.

We are also introducing measures to boost marketing. By reorganizing our sales agency network in Japan, we are expanding and strengthening our sales capabilities and fortifying our business base through a conversion to large-scale outlets. At the same time, we have taken steps to implement online marketing. In April 2003, we introduced a computerized system at NTN Bearing Service Co., Ltd., that enables inventory inquiries and ordering over the Internet.

We recognize that from a long-term perspective, the fulfillment of our responsibilities as a corporate citizen, including a commitment to the environment, will take on increasing importance if we are to achieve sustainable development. We have always been carrying out environmental activities, and these efforts were recognized in March 2003 when we received a Resource Recycling Technology & System Incentive Award from the Ministry of Economy, Trade and Industry (METI) for our development of a technology for solidifying grinding swarf, a cutting waste produced in our manufacturing process. Our environmental activities have received awards overseas as well. In November 2002, American NTN Bearing Mfg. Corp.'s Elgin Plant was presented the Conservation and Natural Landscaping Award by the US Environmental Protection Agency and the Chicago Wilderness Coalition. In September 2002, NTN Driveshaft, Inc., received the Governor's Award for Environmental Excellence from the Indiana Department of Environmental Management. We are committed to the further reduction of the environmental impact of our operations under our guiding principle of building a recycling-oriented society. To gain recognition as a truly global company, we have also beefed up our compliance organization. For further details on this area, please see page 26.

In fiscal 2003, we expect economic conditions to remain challenging because of the risk of worldwide deflation, intensifying competition in global markets, and other negative factors. Nevertheless, no matter what the business environment, we will use the momentum acquired from the success of our first year of structural reform to accomplish the goals of the second year of the NEW Plan 21. To achieve cost reductions totaling ¥40 billion on a consolidated basis and an operating margin of 8% in the fiscal year ended March 2005, we will pursue innovations aimed at giving us a more powerful, streamlined corporate structure and maximizing NTN's corporate value. We greatly appreciate your ongoing support as we forge ahead.

June 27, 2003

Yasunobu Suzuki
President

Progress of Structural Reforms

One year has passed since the start of our structural reform, NEW Plan 21. By thoroughly reducing costs and concentrating NTN's business resources on high value-added fields, the plan is guiding structural reforms intended to achieve within two years a profit structure that is resistant to fluctuations in economic conditions.

1 Strengthening Business Development Capabilities

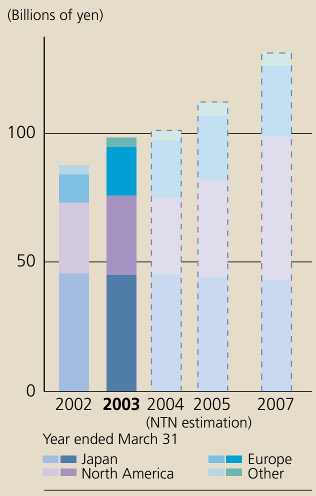
Goal

Capture top shares of the global markets for NTN's high-value added strategic products, such as CVJs, axle units, needle roller bearings, precision bearings, aerospace bearings, and automobile clutches. This goal will be achieved by concentrating managerial resources on the development of these strategic products, which will underpin the Company's future growth.

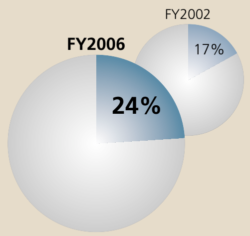
Progress Report

The GAM system has begun to demonstrate results, with orders for all NTN's strategic products steadily expanding. The Company will continue to boost its ability to rapidly develop new proprietary technologies and to utilize the organizational strength of the NTN Group to further expand market share.

CVJ sales

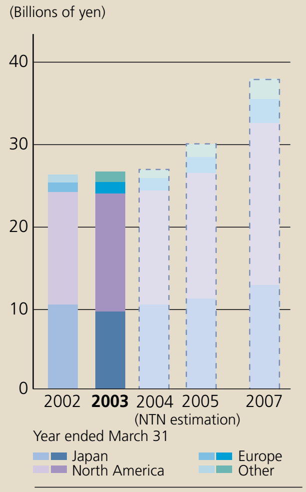


Global CVJ share

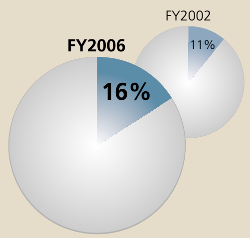


(NTN estimation)

Axle unit sales

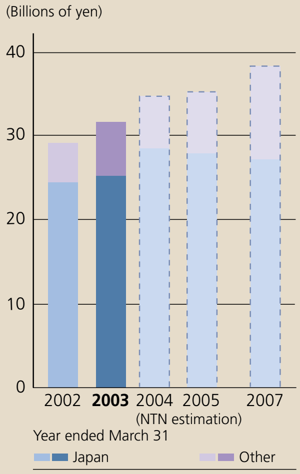


Global axle unit share

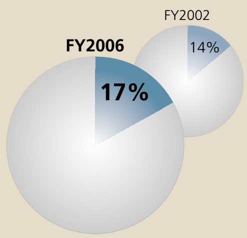


(NTN estimation)

Needle roller bearing sales



Global needle roller bearing share



(NTN estimation)

Its goals include an approximately ¥40 billion reduction in costs and an operating margin of 8% upon completion of reforms in the fiscal year ending March 2005.

2 | Strengthening Profitability

Goal
Strengthen the Company's profit structure to ensure success against fierce international competition and achieve a 20% reduction in outside procurement, personnel, and logistics costs over a two-year period.

Progress Report
NTN has undertaken a company-wide effort to cut outside procurement, personnel, and logistics costs over the past year. The Company has met cost reduction goals for each targeted area for the first year, and is further strengthening its profit structure to attain the objectives for fiscal 2003. In March 2003, the Company introduced an early retirement plan under which 781 employees retired in May 2003. This reduction in employees will provide substantial cost benefits in fiscal 2003. NTN will continue to implement fundamental reform measures to further reductions in outside procurement, personnel, and logistics costs.

	Reduction in Outside Procurement Costs	Reduction in Personnel Costs	Reduction in Logistic Costs
FY2002	• Revised purchase costs. • Localized procurement overseas and increased in-house production.	• Initiated early retirement program. • Returned substitutional portion of employees' Welfare Pension Fund Plan. • Made salary cuts, bonus restrictions. • Seconded and transferred employees to other companies, revised allowances.	• Lowered transport prices and revised contracts and distribution routes. • Revised business commission and packaging material costs. • Promoted greater outsourcing. • Reduced the number of distribution centers in Japan through network integration.
FY2003	• Reorganize and consolidate suppliers. • Utilize component production in China. • Localize procurement overseas and increase in-house production. • Promote VA and VE proposals.	• Reform personnel cost structure. (Target reduction in personnel expenses as a percentage of net sales.) • Reduce number of employees through attrition. • Thorough application of results-based compensation and reward system. • Restructure retirement benefits system.	Continue FY2002 measures.

3 Restructuring Production

Goal

Improve the Company's earnings base by establishing an optimal production network based on the unique characteristics of each product, specifically by concentrating and locating production on a global basis to increase productivity.

Progress Report

Although fundamental restructuring of global production was tagged as a future issue rather than for fiscal 2002, NTN did establish a business organization in China as a first step toward strengthening its earnings base. In 2003, operations will get started at three bases in China. In Japan, the Company will purchase land at the Tado No. 2 Industrial Area at Tado-cho, Kuwana-gun, Mie Prefecture in July 2003. The new plant to be built there is intended to be a model plant for NTN's new production system. The system will produce internationally competitive products by making effective use of outsourcing and by making innovative changes in production lines. Preparations are proceeding toward a scheduled start of operations in September 2004.

Shanghai NTN Corp. will commence production of CVJ components and bearings in July 2003.

NTN's China operation get started!

NTN-Nidec (Zhejiang) Corp. started production of fluid dynamic bearing units for hard-disc drive motors in March 2003.

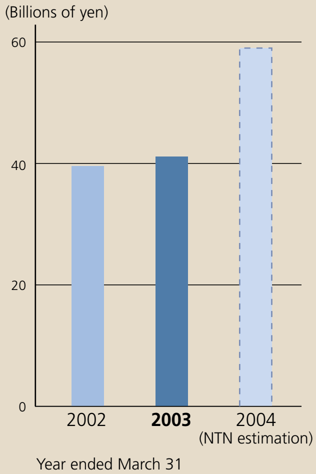
Guangzhou NTN-Yulon Drivetrain Co., Ltd., will start producing CVJs in July 2003.

4 Enhancing Product and Equipment Development Capabilities

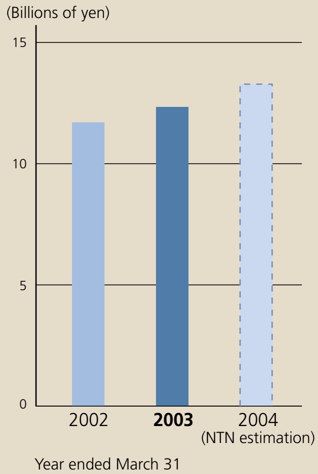
Goal
Support growth in sales of strategic products from the aspect of production by strengthening product development capabilities with particular emphasis on development speed and cost-aware equipment development.

Progress Report
During the fiscal year under review, NTN took various steps to strengthen product and equipment development capabilities. The Company explored research themes tailored to each market field (automotive and industrial), utilized digital engineering methods (incorporating simulation and other technologies), and created a global R&D system by strengthening cooperation between Japan, North America, and Europe. And the Company made progress in speeding up the development process by expanding and improving facilities such as testing and prototype-making equipment. These efforts were reflected in an improvement, among other areas, in sales for new products and in development speed. During fiscal 2003, NTN is strengthening its product development capabilities even further by completing the establishment of a 24-hour R&D structure. For equipment development achievements during fiscal 2002, please see the section on the next-generation equipment on page 24.

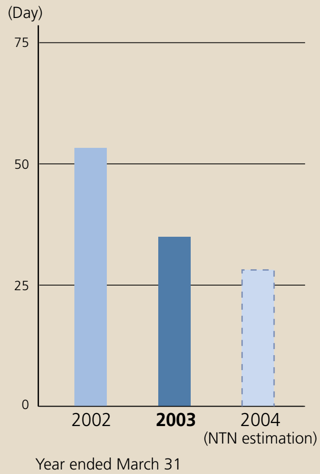
New product sales



R&D expenditures



Prototype-making lead time



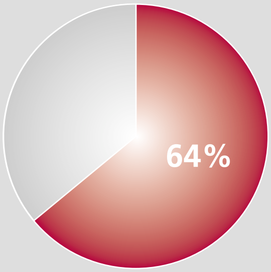
Bearings

Bearings are NTN's principal business, accounting for 64% of consolidated sales. Currently, NTN bearings have a 26%* share of Japan's market and 8%* of the global market.

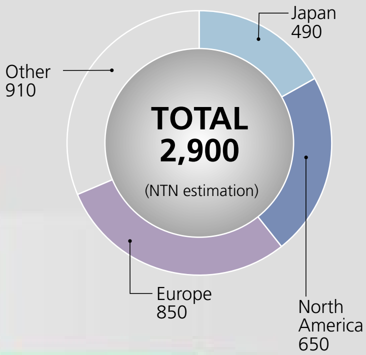
NTN began international expansion of its sales offices in the 1960s and followed with the development of a global manufacturing network a decade later. Today, NTN is using its expertise as a leading bearing manufacturer to create new value-added products and services to meet the needs of customers in a wide range of industries, including the core automotive industry and the machinery, semiconductor, IT, medical, and biotechnology industries.

*NTN estimation

Bearing sales ratio
(% of total sales)

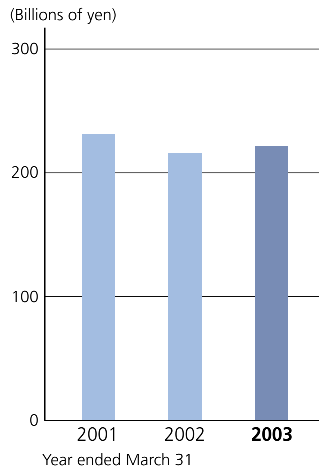


Global bearing market
(Billions of yen)



Review of Operations

Bearing sales



Major Products

- Ball bearings
- Roller bearings
  - Needle roller bearings
  - Tapered roller bearings
  - Cylindrical roller bearings
  - Spherical roller bearings
- Axle units
  - Hub bearings
- Bearing units
- Oil-impregnated sintered bearings
- Engineering plastics sliding bearings
- Other bearings

Overview of Performance

During the fiscal year under review, bearing sales rose ¥5.1 billion, or 2.4%, to ¥220.7 billion. Although sales to general machinery industry and to distributors struggled, robust sales to the automotive industry in Japan, North America, and Asia supported overall growth.

In Japan, business conditions improved during the first half of the fiscal year under review due to a recovery in personal consumption and growth in exports in the automotive and IT markets. This trend did not develop into a genuine economic recovery in the second half, however, because of concern about a global slowdown due to the situation in Iraq and other events. Bearing sales to the automotive industry were robust despite the deteriorating business environment. However, sales of bearings to the general machinery industry and to distributors declined during the first half, and the recovery in sales during the second half was not strong enough to cover the overall decline. As a result, sales amounted to ¥104.7 billion, approximately the same as in the previous fiscal year. In future, NTN intends to reorganize its production bases, particularly ball bearings and tapered roller bearings, working to improve productivity and achieve an optimum allocation of production globally.

Although the depreciation of the U.S. dollar against the yen negatively affected sales performance in the North America, the growth in sales of strategic products (mainly for the automotive industry—axle units and needle roller bearings) compensated for the slowdown in sales to the general machinery industry and to distributors. Consequently, sales of bearings in North America totaled ¥60.9 billion, edging upward ¥0.2 billion, or 0.3%. Looking ahead, NTN plans further capital investment to expand production capacity with a view to increasing sales of axle units and needle roller bearings. At the same time, the Company will proceed with the reorganization of production at its seven manufacturing bases.

European sales were boosted by solid sales of bearings to the automotive industry and by the appreciation of the Euro. Sales increased ¥2.0 billion, or 7.9%, to ¥27.4 billion. Within its ongoing consideration of how to reorganize global production, the Company is looking at reorganizing European production around Eastern Europe.

Also assisted by strong sales to the automotive industry, bearing sales in Asia and other areas rose ¥2.9 billion, or 11.7%, to ¥27.7 billion. During fiscal 2003, two new bearing production bases have come on stream in China, including a production plant for fluid dynamic bearing units. Because of their importance to our overall global production plan, we are committed to attaining stable production levels at these plants quickly.

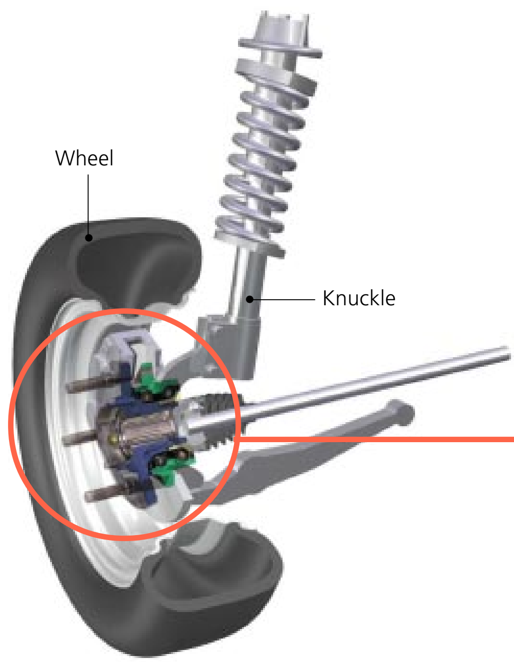
Axle Units

Key Data

Sales contribution (consolidated basis)	Consolidated sales: ¥26.7 billion Bearing sales contribution: 12% Net sales contribution: 8% Proportion of overseas sales: 63%
Breakdown by industry	Automotive industry
Market shares (NTN estimation)	Japan: 26% Global: 11%
Highlights for FY2002	• Decision made to expand production at the Elgin Plant in North America. • Winning of global orders. • Decision made to commence production in China.
Strengths	NTN is a manufacturer of both axle units and CVJs. Leveraging this technological advantage, the Company has developed fourth generation hub joints and is leading the industry in modularization.
Strategies	Aim to expand sales through marketing activities that integrate production, sales, and engineering divisions based on NTN's Global Account Manager (GAM) system.
Technological issues	As modularization progresses through the first, second, and third generation stages, light weight, compactness, and cost competitiveness are chief concerns for success.

What Is a Hub Bearing?

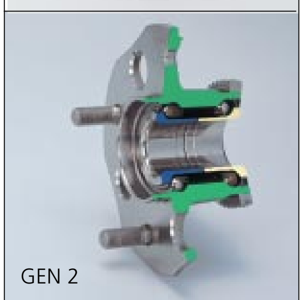
Installed on the wheels of automobiles, a hub bearing enables the wheels to turn while also bearing the weight of the vehicle body. Although extremely basic, the hub bearing plays an essential role in vehicle movement. Ordinarily, the greater the weight, the stronger the resistance to smooth rotation of the wheels. Therefore, a hub bearing's ability to simultaneously support a heavy load while achieving smooth wheel rotation has a strong influence on the running performance of the vehicle.



A hub bearing installed on a wheel

Hub bearings have evolved from the earlier first generation to second and third generation hubs in pursuit of simplified assembly. Modularization is increasing with each generation, achieving lighter and more compact designs through reductions in the number of components.

First Generation



Second Generation
In second generation hub bearings, a flange for attachment to either the wheel or body (knuckle) is formed as part of the hub bearing, simplifying assembly compared with first generation products.

Third Generation
These hub bearings have flanges for both wheel and body mounting, further simplifying assembly and making them more compact in the axial direction.

Fourth Generation
Fourth generation hub joints combine third generation hub bearings with CVJs for even greater compactness in the axial direction.

NTN Hub Bearings

In accordance with the requirements of customers, NTN offers a full gamut of hub bearings. The Company was quick to begin the modularization process, and began mass-producing Japan's first third generation hub bearings in the early 1980s. Today, based on proprietary technology continuously developed over years, the Company continues to churn out new high-value added products that are a fusion of the latest mechatronic and control technologies. In particular, NTN has developed a fourth generation hub joint with an even greater degree of modularization than third generation hub bearings. Combining a hub bearing and a CVJ—made possible by NTN's command over both technologies—the hub joint has caught the eye of automobile manufacturers as an NTN innovation.

New Product: Hub Bearings with Brake Rotor

By machining the rotor braking surface after the rotor has been attached to the hub bearing, NTN's new third generation hub bearing for automotive applications provides simpler assembly and better high speed balance, improving driving, comfort by reducing vibration levels.

Third generation hub bearing with brake rotor

Needle Roller Bearings

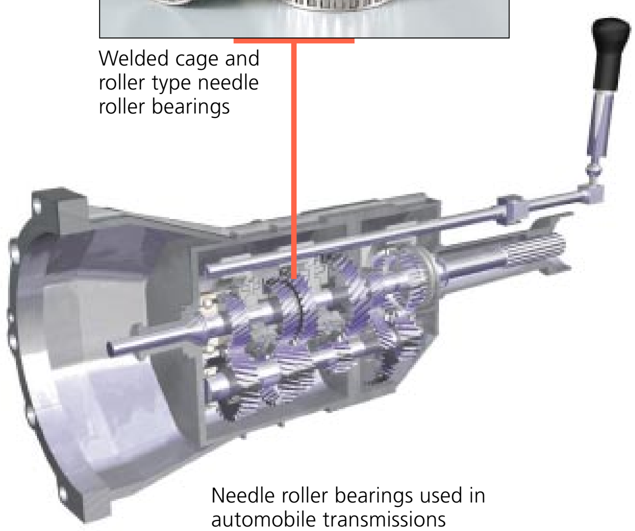
Key Data

Sales contribution (consolidated basis)	Consolidated sales: ¥31.7 billion Bearing sales contribution: 14% Net sales contribution: 9% Proportion of overseas sales: 20%
Breakdown by industry	Approx. 70% automotive industry and 30% others.
Market shares (NTN estimation)	Japan: 40% Global: 14%
Highlights for FY2002	• Decision made to commence production in China.
Strengths	• In-house manufacture of needle rollers, a structural component, makes NTN highly cost competitive. • The Company's wide array of needle roller bearing products find application in a diverse range of products, from automobiles to industrial machinery.
Strategies	• To expand its share of overseas markets, NTN is increasing its share of local manufacturer markets using sales to the overseas production bases of Japanese companies as a base to build on. • The Company is also developing new products that take advantage of its material development, surface processing and other proprietary technology, and welding cage production technology capabilities.
Technological issues	In addition to reinforcing the technical ability to respond to the myriad of demands from customers, it is important to strengthen cost competitiveness by expanding the number of press processed products.

What Is a Needle Roller Bearing?

Needle roller bearings are classified as rolling bearings, and have relatively small diameter cylindrical, needle-like rolling elements. The outstanding feature of needle roller bearings is their high load-bearing capacity and rigidity relative to size. Needle roller bearings enable compact and lightweight designs for customers. They also serve as a ready replacement for journal bearings.

Welded cage and roller type needle roller bearings



Needle roller bearings used in automobile transmissions
(One product application example)

NTN's Needle Roller Bearings

NTN commenced production of needle roller bearings in 1962. The Company has manufactured needle roller bearings on an independent divisional basis since their start, and production, sales, and engineering departments work together closely as a unit today. One of the special features of NTN needle roller bearings is their extreme cost-effective performance—the result of in-house production of needle rollers and a wide lineup of press processed cages, thin type outer rings, and other components. NTN's needle roller bearing operations were long centered in Japan, but the Company is pressing forward with expansion of overseas sales based on its strong technology and cost competitiveness. As part of this strategy, NTN has brought on stream overseas production bases over the past few years: Thailand in 1999, the United States in 2000, and China in July 2003.

New Product: Drawn Cup Needle Roller Bearings (Premium Shell Series)

As the word "premium" indicates, NTN's Premium Shell series drawn cup needle roller bearings are one rank above our previous one. They have longer life, low fuel consumption and greater power. The series has a lot of potential, because it will become a next-generation standard, which can be used for various applications.

Drawn cup needle roller bearings
(Premium Shell series)

Special Column

NTN's Fluid Dynamic Bearing Business Growing.

NTN started production of fluid dynamic bearing units in China in March 2003 jointly with Nidec Corporation and its business is steadily growing. Compared with conventional ball bearings, fluid dynamic bearings demonstrate superior running accuracy and quietness. Leveraging these advantages, they are expected to become the mainstream bearings used in hard disk drive motors.

Fluid Dynamic Bearings' Advantages Over Ball Bearings

Fluid dynamic bearings have lubricating oil enclosed between the shaft and the bearing, enabling the shaft to rotate without contacting the bearing. This property gives fluid dynamic bearings two distinct advantages.

The first advantage is running accuracy. When a conventional ball bearing rotates, the geometrical imperfections of the ball, inner and outer ring, and retainer influence the non-repeatable run-out (NRRO). Because of this innate structure, there is a limit to the improvement in performance that can be achieved by manufacturing each component to highly precise specifications. On the other hand, because there is no direct contact between the shaft and bearing in fluid dynamic bearing, the geometrical imperfections of each component are smoothed out by the compensating effect of the lubricating oil film, resulting in high running accuracy.

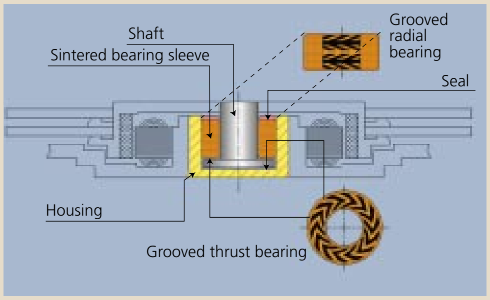
Another advantage is quietness. Although it is impossible to avoid some sound from a conventional ball bearing due to motion and friction, a fluid dynamic bearing makes no sound when rotating, making it a superior bearing for quietness.

Special Features of NTN Fluid Dynamic Bearings

The use of oil-impregnated sintered bearings, which contain lubricating oil within the porous bearing body eliminates the occurrence of the phenomenon of sudden death in hard disk motors. Consequently, hard disk drive systems using these bearings do not exhibit any loss of data as do systems using the solid bearings of competitors.

An additional advantage of NTN fluid dynamic bearings is their cost competitiveness—the result of volume production made possible by a superior press manufacturing system.

Structure of a fluid dynamic bearing unit



Fluid dynamic bearing units

Prospects for Fluid Dynamic Bearing Business

For the time being, NTN's goal is to establish a strong record as a volume supplier to Nidec Corporation. The latent market for this product is expected to expand in the digital consumer product field. The Company plans to tap this market by developing competitive products and to build fluid dynamic bearings into a business with annual sales of ¥10.0 billion.

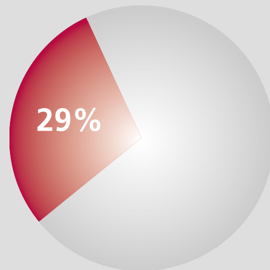
Constant-Velocity Joints

A strategic product with strong growth potential, constant-velocity joints (CVJs) currently generate 29% of consolidated sales. CVJs boast a strong market position, holding 39%* of Japan's market and 17%* of the global market.

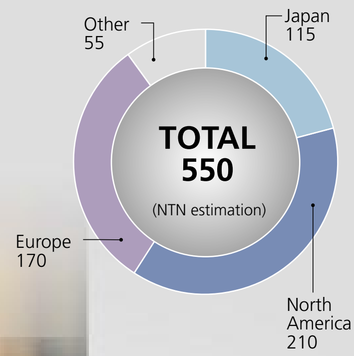
NTN began producing CVJs in Japan in 1963. Beginning in the 1990s, NTN expanded production throughout the world. In response to the global sourcing needs of today's automotive industry, major customers for CVJs, NTN has established a strong base of operations supported by a development system covering Japan, the Americas, and Europe. A quadrilateral production and sales system encompassing these three regions as well as other parts of Asia has also been formed. Making the most of its efficient operating systems and advanced technological expertise, NTN has established its reputation as a leader in the CVJ sector.

*NTN estimation

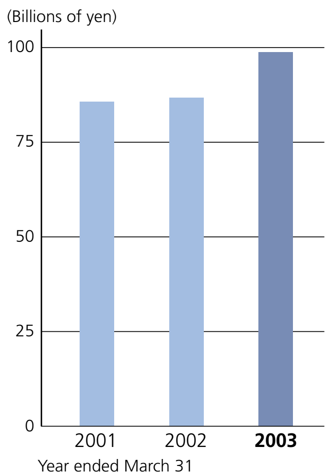
CVJ sales ratio
(% of total sales)



Global CVJ market
(Billions of yen)



CVJ sales



Major Products

- Automotive CVJs
(for halfshafts, propeller shafts and steering shafts)
- CVJs for industrial machinery

Overview of Performance

The CVJ business segment struggled during the fiscal year under review, pressured by falling prices caused by intensified competition and stalled growth in Japan. Nevertheless, substantial sales increases in North American and European markets and sales growth in Asia supported a ¥12.1 billion, or 13.9%, rise in CVJ sales to ¥98.9 billion.

Affected by this intensified competition and falling prices, sales in Japan edged down ¥0.3 billion, or 0.7%, to ¥45.5 billion. The Japanese market is experiencing difficult operating conditions because of foreign competitors' emergence in the Japanese market and the shift to overseas local sourcing by major customers. Under NEW Plan 21, the Company has been advancing efforts to build a profit structure that is not dependent on business scale and to strengthen product development capabilities.

In North America, firm demand for automobiles supported a ¥4.0 billion, or 14.8%, increase in regional sales to ¥31.0 billion. Production by Japanese automobile manufacturers in North America was particularly robust and was the main driver of sales growth. This sales performance also reflected the success of sales activities under the Global Account Manager (GAM) system introduced in April 2002. Based on major orders by DaimlerChrysler and GM covering the period from fiscal 2004 to fiscal 2006, NTN's U.S. production base (NTN Driveshaft, Inc. (NDI)) will expand its monthly production to 900,000 units over the four years to fiscal 2006, approximately 2.5 times current levels. To that end, the Company is planning capital investment of approximately ¥22.0 billion for building extensions and forging facilities.

Sales in Europe climbed ¥7.7 billion, or 72.0%, to ¥18.4 billion thanks to growth in sales to Renault. The increase in production at NTN Transmissions Europe (NTE) in France continued the growth of fiscal 2001 and contributed strongly to increased sales. Based on orders received from customers other than Renault, NTN is planning to expand production capacity from the current 300,000 units per month to 450,000 units per month by March 2007, investing approximately ¥8.4 billion.

Sales in Asia and other areas also expanded during the fiscal year under review. Boosted by growth in sales to the automobile industry in ASEAN countries, sales advanced ¥0.7 billion, or 21.2%, to ¥4.0 billion. Looking forward, the Company will begin production at two bases in China during fiscal 2003. Shanghai NTN Corp. will take on the role of a supplier of components and semi-finished products, commencing production of CVJ components to be supplied to Guangzhou NTN-Yulon Drivetrain Co., Ltd., in China, to NDI in North America, and to NTE in Europe.

Constant-Velocity Joints

Key Data

Sales contribution (consolidated basis)	Consolidated sales: ¥98.9 billion Net sales contribution: 29% Proportion of overseas sales: 54%
Breakdown by industry	Automotive industry: 99%
Market shares (NTN estimation)	Japan: 39% Global: 17%
Highlights for FY2002	• Decision made to increase production at the NDI Plant in North America. • Winning of global orders boosted market share. • Decision made to commence production in China.
Strengths	• Proprietary technology allows NTN to stay one step ahead of its competitors in offering a lineup of lightweight, compact, and low vibration products.
Strategies	• Aim to expand sales through marketing activities that integrate sales, engineering, and production divisions based on NTN's GAM system. • The Company will also be seeking to expand sales by taking advantage of the increased use of propeller shaft CVJs in automobiles and more diversified product lineup compared with competitors. • NTN will optimize production, making use of its production bases in China. NTN's Chinese locations are expanding business to become global suppliers of components and semi-finished products and are also targeting demand in the automobile manufacturing market in China.
Technological Issues	• Lighter, more compact, and lower vibration CVJs are needed for improved fuel economy and better running performance of automobiles. • Propeller shafts also have increased demand for constant velocity and low vibration.

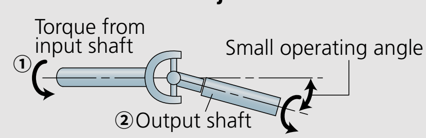
What Is a Constant-Velocity Joint?

CVJs contributed significantly to the growth in automobile production and the shift to front-wheel drive vehicles that began in the mid-1960s. At the time, it was recognized that front-wheel drive offered many advantages, such as more spacious car interiors and superior fuel efficiency. Smooth transmission of torque from the engine to the front wheels as the wheels are turned was viewed as a technical obstacle. The development and commercialization of CVJs cleared the way.

Before the invention of CVJs, manufacturers tried to use cross joints (a type of universal joint) in the halfshafts of front-wheel drive vehicles *(Figure 1)*.

Figure 1

Cross joint

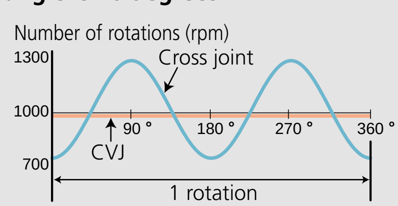


At small operating angles, torque from the input shaft (①) is transmitted to the output shaft (②) at a relatively constant velocity.

However, if the operating angle exceeds four degrees, cross joints lose constant velocity. A condition where constant torque is applied to the input side, the torque of the output side will fluctuate. This creates a problem in obtaining desired performance when using cross joints where a large operating angle is required, such as the front wheel in front-wheel drive vehicles *(Figure 2)*.

Figure 2

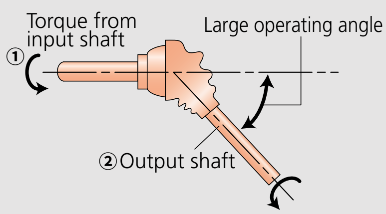
Fluctuation of output shaft rotation at a constant input shaft rotation (1,000rpm) when the operating angle is 40 degrees.



In contrast, CVJs can smoothly transmit large torques from the input side to the output side at large angles of between 40 degrees to 50 degrees *(Figure 2 and Figure 3)*. Currently,

Figure 3

Constant-velocity joint



Even at large angles, torque from the input shaft (①) is transmitted to the output shaft (②) at a constant velocity.

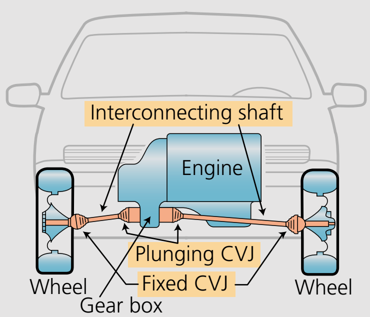
CVJs are used in the halfshafts of front-wheel drive and four-wheel drive (4WD) vehicles as well as the propeller shafts of 4WD and rear-wheel drive vehicles. Their use has contributed strongly to improving drive-train systems and reducing vibration. CVJs are also an essential component in industrial machinery, such as the drive mechanisms for rollers of machinery used in the steel and paper industries.

●Halfshaft CVJs

Front-wheel drive vehicles use halfshaft CVJs to transmit the engine torque to the front wheels. CVJs are mounted to the interconnecting shafts on the gear box side and the wheel

Figure 4

Halfshaft CVJs for front wheel



side, being integrated into one unit *(Figure 4)*. These CVJs smoothly transmit engine torque to the wheels without power loss even when steering changes the angle of the wheels to the halfshaft CVJ and also absorb the axial movement caused by road shock to the wheels.

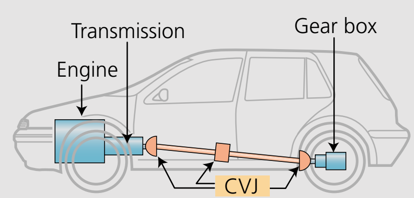
CVJs fall into one of two broad classfications. Fixed CVJs for the wheel side that can accommodate large angles, such as EBJs and EUJs, and plunging CVJs for the gear box side that can slide in the axial direction, such as EDJs, ETJs, and PTJs.

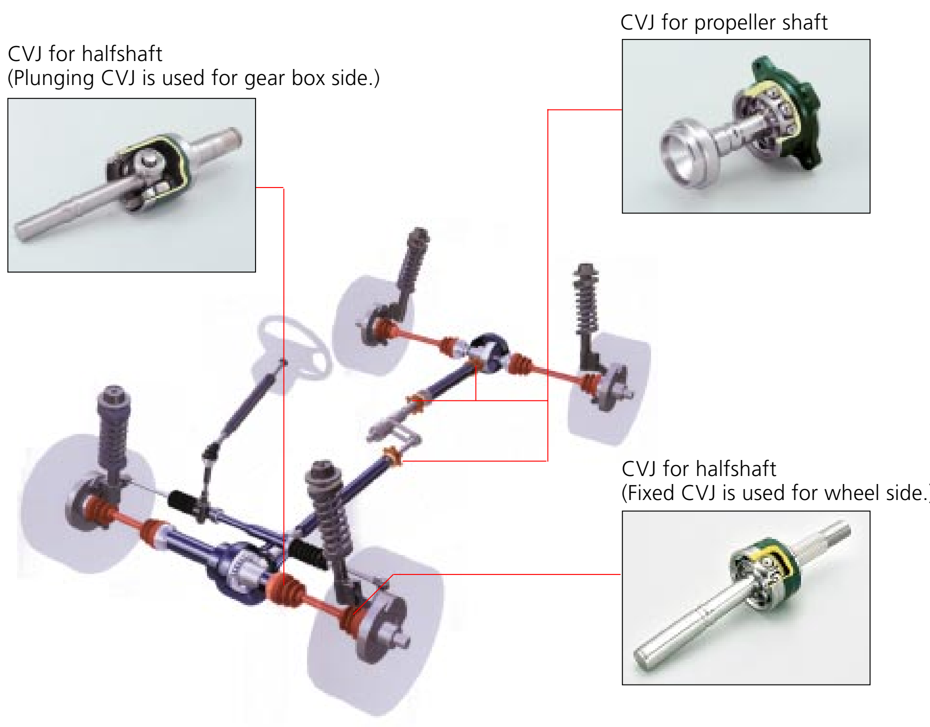
●Propeller Shaft CVJs

Rear-wheel drive and 4WD vehicles use a propeller shaft to transmit torque from the front-seated engine to the rear wheels *(Figure 5)*. The propeller shaft can be either a single long pipe shaft or divided into two. Joints are employed because small angles are used in connecting the transmission and gear box sides. When the propeller shaft is divided into two, joints are also used between the two halves.

Non-constant velocity cross joints were and are used in propeller shafts. To reduce vibration resulting from the complex structure of drive-train system for 4WD vehicles, the automotive industry has started using plunging and fixed CVJs. These CVJs are also being used for the propeller shaft to improve the comfort and ride in rear-wheel drive vehicles.

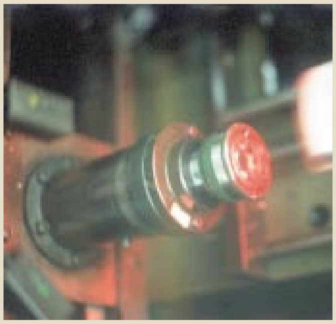
Figure 5 **Propeller shaft CVJs**





Special Column

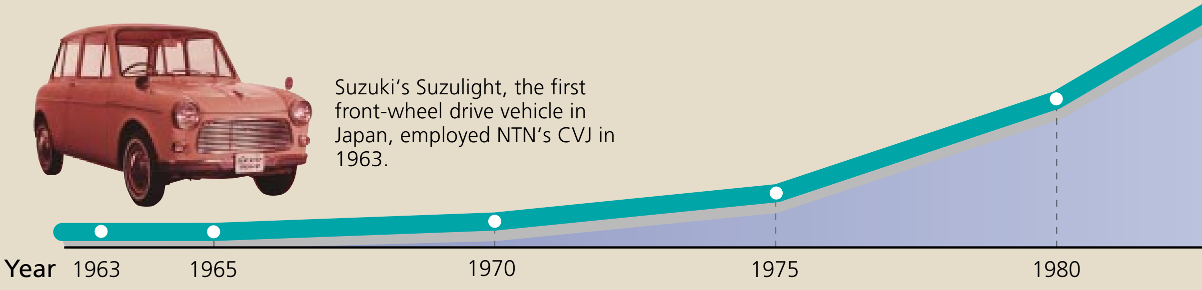
40 Years of CVJ Business with Cumulative Production Exceeding 300 Million Units

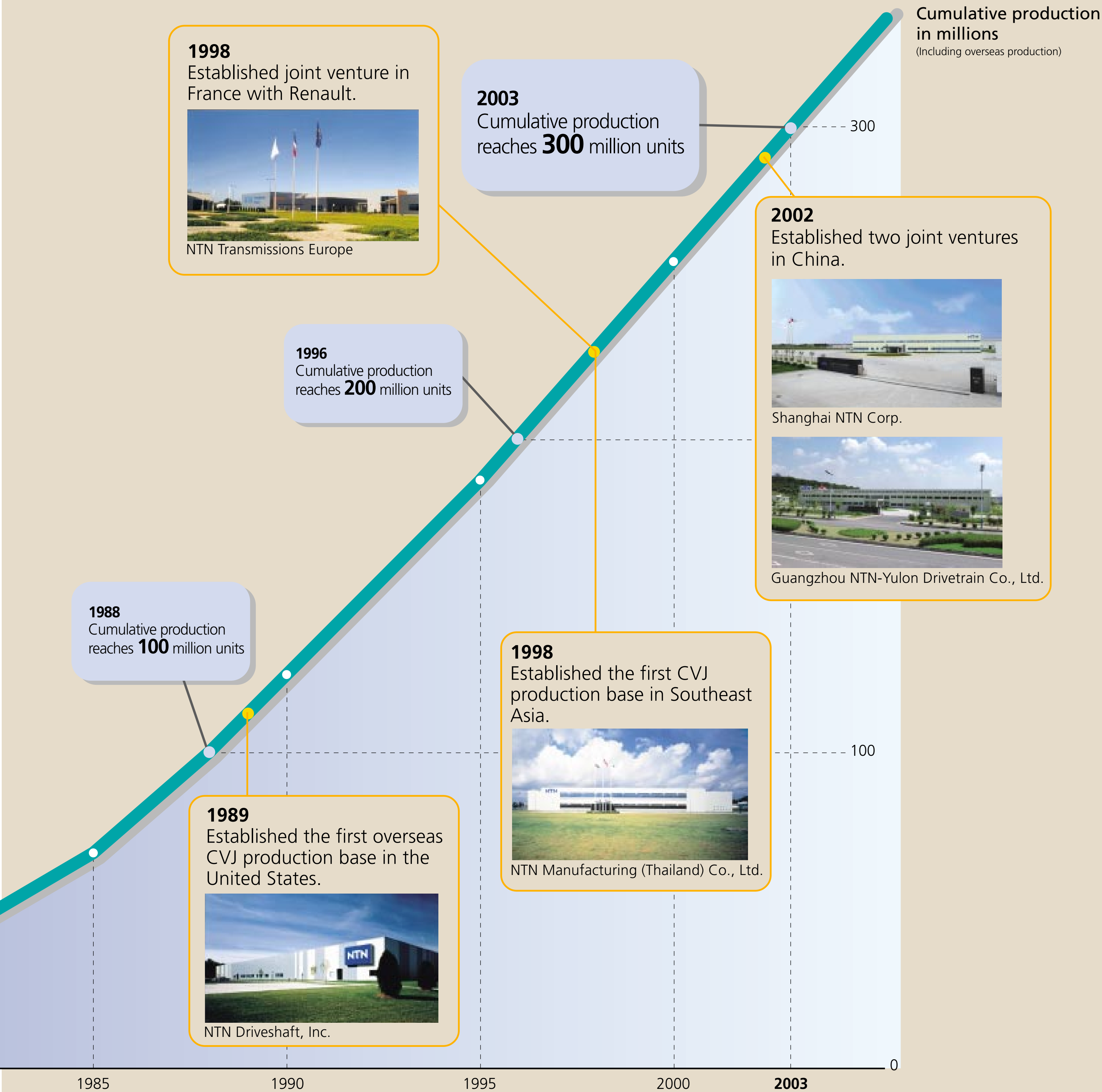


NTN began production of CVJs in 1963, manufacturing BJ, its first fixed CVJ, for Suzuki Motor Corporation's Suzulight FE. In 1965, NTN successfully developed DOJ, the world's first commercial plunging CVJ, and began volume production. The advent of the DOJ truly marked the beginning of a new automotive age in Japan: it was the key to the successful development by Fuji Heavy Industries, Ltd., of the Subaru 1000. With this development, halfshafts with BJs on the wheel side and DOJs on the gear box side became commonplace.

During the 1960s, rear-wheel drive vehicles, which do not need CVJs, remained the mainstream product in the automotive industry. But NTN foresaw that the day of front-wheel drive vehicles would eventually come, and began developing its CVJ operations. Taking advantage of the oil shock in 1973, sales of front-wheel drive vehicles began to climb because of their fuel efficiency. Production of CVJs leaped. With the development of four-wheel drive (4WD) vehicles, demand for CVJs expanded further. Moreover, even rear-wheel drive vehicles started using CVJs for rear wheels to improve the ride. And, as mentioned, CVJs began to be used increasingly in propeller shafts for 4WD and rear-wheel drive vehicles. Today, nearly 100% of automobiles made in Japan incorporate CVJs. There are even some vehicles that have four CVJs on the halfshafts and three more on the propeller shaft.

To boost competitiveness internationally, we have been expanding our operations overseas since the start of the 1990s. Adding to our production bases in North America, France, and Thailand, we will commence production in China in July 2003 to enable an optimum response to growing demand. We will press for further growth while continuing to improve our proprietary technologies.




Cumulative production in millions
(Including overseas production)
300
100
0
1985
1990
1995
2000
2003
1988
Cumulative production reaches 100 million units
1989
Established the first overseas CVJ production base in the United States.
NTN Driveshaft, Inc.
1996
Cumulative production reaches 200 million units
1998
Established joint venture in France with Renault.
NTN Transmissions Europe
1998
Established the first CVJ production base in Southeast Asia.
NTN Manufacturing (Thailand) Co., Ltd.
2002
Established two joint ventures in China.
Shanghai NTN Corp.
Guangzhou NTN-Yulon Drivetrain Co., Ltd.
2003
Cumulative production reaches 300 million units
NTN

Precision Equipment

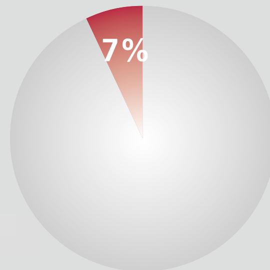
Accounting for 7% of consolidated net sales, the Precision Equipment business segment combines leading-edge technology products and products for special fields. Using highly sophisticated mechatronic technologies developed over the years, NTN supplies products with special features to the market.

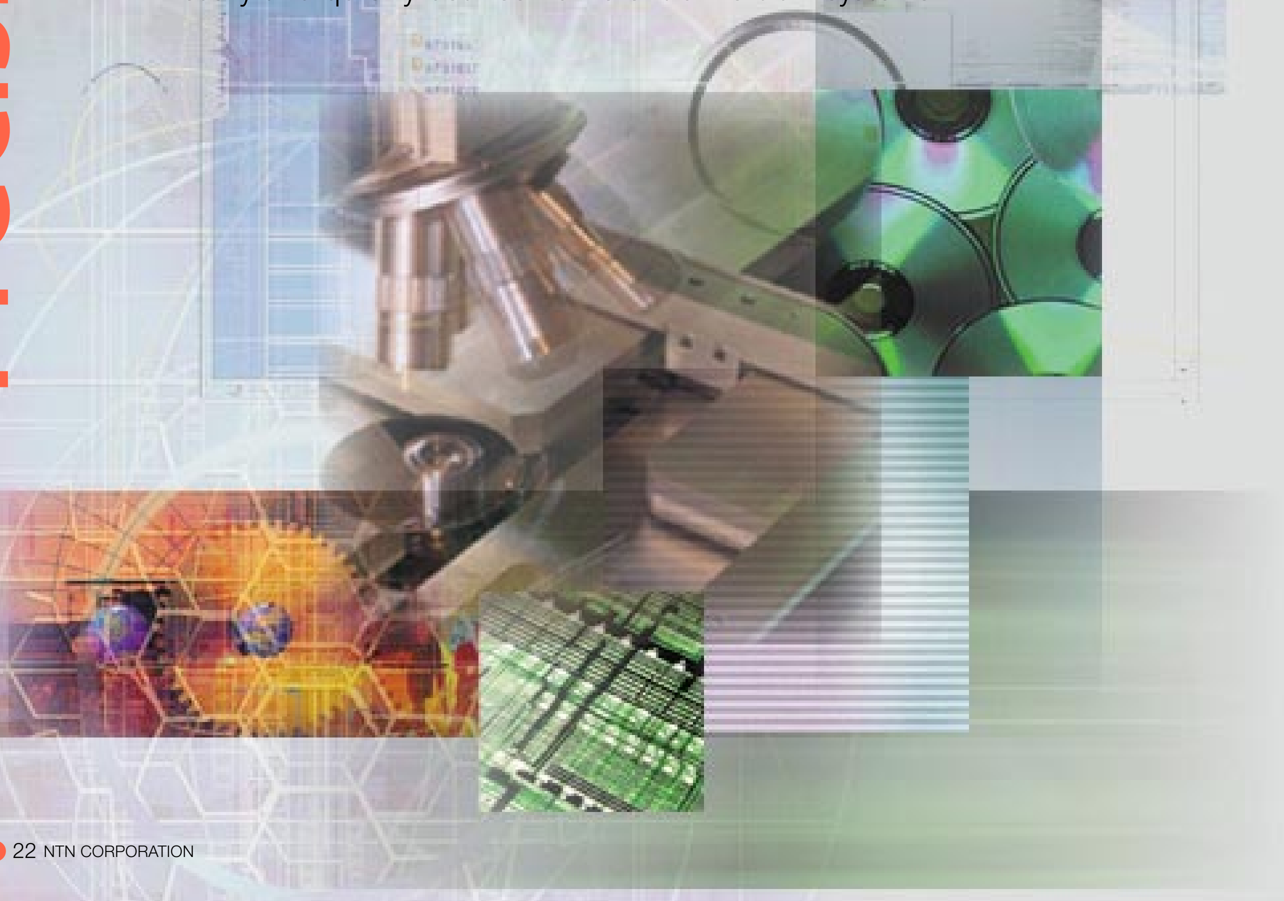
We provide the IT industry with a range of mechatronic products, including our liquid crystal display (LCD) repair devices, which efficiently repair defects in LCDs. Our parts feeders automatically align various parts and feed them into production machinery. Of particular note is our surface mounted device (SMD) feeder, which enables the high-speed alignment and feeding in the production process of microchips used in mobile phones and other devices.

We supply the automobile industry with a variety of products, such as autotensioners, which automatically adjust the tension of the timing belt for engines. We offer a diverse lineup of clutch units, including mechanical clutch units (MCUs), which enable vehicles to be shifted easily and quickly between different drive-train systems.

Precision equipment sales ratio

(% of total sales)





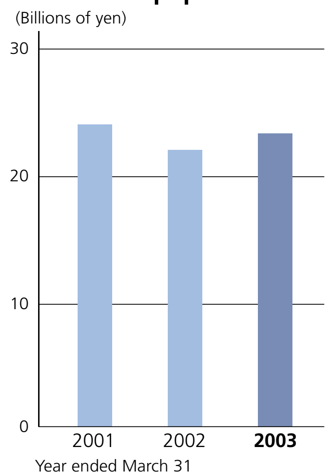
Overview of Performance

Boosted by the sales contributions in Japan of such new products as mechanical clutch units (MCUs), sales of the precision equipment business segment rose ¥1.2 billion, or 5.5%, from the previous fiscal year, to ¥23.2 billion.

NTN supplies mechatronic products, parts feeders, and other precision equipment to the semiconductor, LCD, electronic devices, and other industries that feature rapid technological innovation and fluctuating production levels. In April 2002, the Company created a new division to serve this business segment and flexibly adapt to these technological and production issues.

During the fiscal year under review, NTN discontinued its production of ball screws for general machinery industry use. Guided by NEW Plan 21, its structural reform plan, the Company is enhancing its efforts to be focused and selective in its businesses, and to concentrate its business resources on the most promising areas.

Precision equipment sales



Profile of Precision Equipment Strategic Product

Clutches

Key Data

Sales contribution (nonconsolidated basis)	Nonconsolidated sales: ¥3.5 billion Precision equipment sales contribution: 16%
Breakdown by industry	Approximately 60% automotive and 40% industrial machinery
Highlights for FY2002	• The FourTrax Foreman all-terrain vehicle being marketed in the United States employs a NTN mechanical clutch unit that enables the smooth shift from two-wheel drive to four-wheel drive "on the fly." The unit is anticipated to have application in a wide range of fields, including fuel efficiency and transmission systems for hybrid vehicles.
Strengths	• A diverse product lineup is available, ranging from office equipment to automobiles. • In mechanical aspects, NTN's clutches demonstrate the same capabilities as electromagnetic control systems. Consequently, NTN expects substitution demand to expand among customers seeking greater fuel efficiency.
Strategy	• Continuing to develop new products that combine NTN's clutch and control technologies, we plan to emphasize sales expansion for our line of clutch products for automobiles.
Technological Issues	• Clutches have application in most industries. The key to success is in how accurately proposals for clutch products meet customers' needs.

Major Products

- Auto-tensioners
- Clutches
- Parts feeders
- Ball screws
- LCD repair devices
- Magnetic-bearing spindles
- Hydrostatic bearings
- XY tables
- Engineering plastics parts
- Machine equipment, etc.

NTN's Technological Assets—Next-Generation Equipment

To increase capital efficiency, a 50% reduction in equipment costs compared with the fiscal year ended March 2002 is one of the important goals set forth in our structural reform plan. One year after the start of the plan, NTN successfully developed next-generation equipment for that purpose. The first version is for the production of small size radial ball bearings and was introduced to Iwata Works.

The new equipment is capable of small-lot, multiple-product manufacturing by drastically reducing changeover time, while costing 60% less, halving line length, and reducing energy consumption by two-thirds. The next-generation equipment features a simple design that eliminates unnecessary functions, making the machinery easy to operate. The significant reduction in capital investment, depreciation, and manpower cuts down fixed costs and increases the asset turnover ratio. In addition, it frees up space within the plant that can be used effectively to reorganize production under the NEW Plan 21. Consequently, we plan to introduce this equipment at other overseas plants. By expanding the scope of equipment to include other types of bearings, we intend to strengthen our cost competitiveness.

The success of this development brought another benefit: growth of our young engineers. The challenge of developing production equipment that was not only cost-competitive but exhibited superior ease of operation and a high degree of efficiency—and within the short space of one year—was not an easy task. The group that achieved this development, which had been proposed by the president himself, was a team of 15 junior engineers chosen from our plants. By coming up with the novel ideas free from traditional concepts and enduring through numerous hurdles, the team made breakthroughs in production systems. The sense of accomplishment gained from this project will certainly provide the spark to drive our next development project.

Special Features of the Next-Generation Equipment

- **Smaller capital investment:** Reduced by 60%
- **Energy efficient:** Power consumed per product reduced to one-third
- **Space efficient:** Length of production lines halved
- **Support for small-lot, multiple-product production:** Changeover time reduced drastically
- **Real-time technical support:** Remote monitoring and maintenance support possible using the Internet

The 15 engineers were formed into the lead development team for the project, effectively fusing the creativity of the junior engineers with the expertise of their veteran counterparts.

Members of the next-generation equipment development project

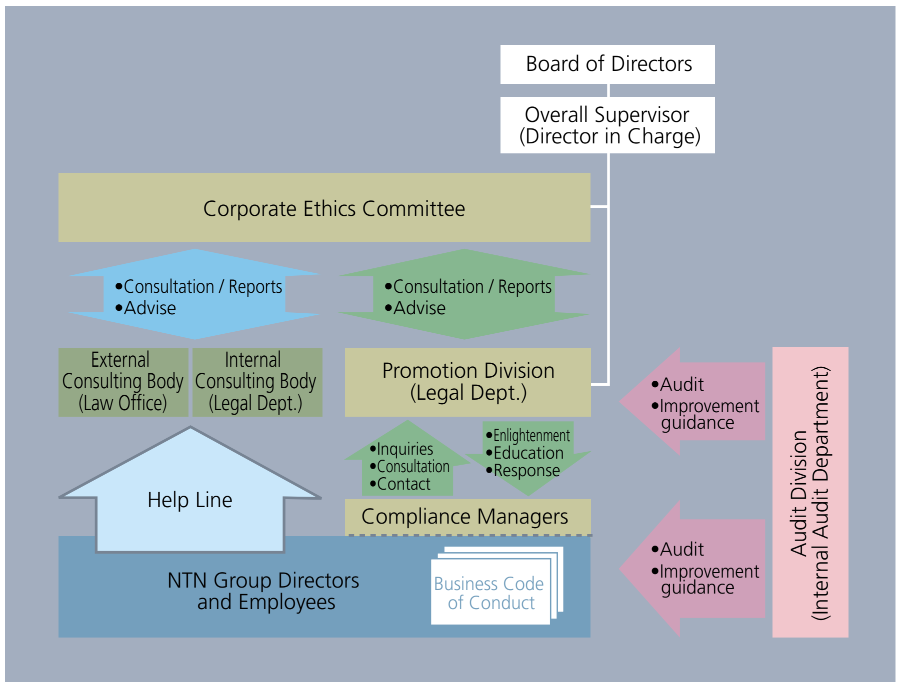
Corporate Social Responsibility

NTN aims for stable and sustainable growth over the long term and to fulfill its responsibilities to shareholders, customers, employees, regional communities, and all the other stakeholders.
NTN is responsible for addressing environmental issues, complying with laws and regulations, and contributing to the society, as well as for providing technology and services.

Compliance

In April 2003, the president issued a statement to implement a new set of Corporate Ethics (Compliance) Control Guidelines, followed by the establishment of a new compliance organization in May. Under the new system, the Company has appointed the director in charge of the Legal Department as the overall supervisor for compliance activities and designated the Legal Department as the corporate compliance promotion division. Within this organization, NTN has set up a group of 26 compliance managers to deal with inquiries from employees and provide in-house consulting services. In addition, the Company introduced a Help Line to provide a route for direct inquiries, consultations, reports, and other contact with the Corporate Ethics Committee. Among other measures being taken to ensure thorough compliance, the Company also distributed a Business Code of Conduct Guidebook to all employees.

★Business Code of Conduct Compliance Organization



Social Contribution Activities

Seeking to coexist in harmony with local communities, the offices and plants of the NTN Group throughout the world actively participate in activities that contribute to society. Examples include making donations to charitable organizations, dispatching staff to assist with disaster relief or other community activities, and supporting educational, cultural, and sports events. During the fiscal year under review, we cooperated with fund raising activities to provide medical supplies and apparatus to deal with the outbreak of severe acute respiratory syndrome (SARS), principally in China and Southeast Asia.

We also have established a system to allow employees to take time off work to partake in volunteer activities in their own communities.

Safety and Health in the Workplace

NTN implements a variety of programs to ensure the safety and health of its employees in the workplace and to provide a good working environment. Among those programs, the Company's measures to improve and maintain the health of its employees, and labor and health policies designed to protect employees working with harmful substances received the Minister of Health, Labor and Welfare Award in October 2002. The Company will continue to involve all employees in its efforts to keep employees healthy and maintain safety in the workplace.

★Business Code of Conduct

1. **Compliance with laws and norms:**
   We shall do our utmost to act with conscience as corporate employees and as socially responsible adults, by complying with the law, our internal rules, and the ethical norms of society.

2. **Pursuit of quality and safety:**
   We shall deliver products that ensure reliability and customer satisfaction by enhancing quality and safety.

3. **Proper labeling and specification:**
   We shall properly label and specify the contents of our products and services.

4. **Compliance with the Anti-Monopoly Law:**
   We shall not violate the Anti-Monopoly Law and we shall make only fair trades.

5. **Fair trade with suppliers:**
   We shall follow fair trade practices with our suppliers and comply with the Subcontract Laws.

6. **Refusal to engage in improper conduct with business partners:**
   We shall decline any invitation to engage in improper or illegal conduct with any business partner.

7. **Ensuring security by strengthening exportation controls:**
   We shall not export any freight or provide any technology that may threaten international peace and security.

8. **Honoring agreements:**
   We shall enter into and honor fair agreements with our business partners.

9. **Respect for intellectual property rights:**
   We shall recognize that intellectual property rights are precious managerial resources, and show respect for and not infringe upon others' intellectual property rights, while making efforts to create and keep our own intellectual property.

10. **Proper control of confidential information:**
    We shall place proper controls on our proprietary information and also on such confidential information as we have obtained lawfully from others, and we shall not allow leaks to occur or disclose such information to any party outside our company without the relevant party's consent.

11. **Compliance with industrial laws:**
    We shall fully comply with industrial laws in all our business operations, and we shall not violate those laws.

12. **Efforts to preserve the environment:**
    We shall make positive efforts to preserve the environment and reduce the burden on our planet by creating a recycling society that will co-exist with the natural environment and contribute to the well-balanced development of society and Earth.

13. **Proper disclosure of our managerial information:**
    We shall properly disclose our managerial information, including our financial status, business operating conditions, etc., to relevant parties such as shareholders and investors, in addition to informing them clearly of our management policy and receiving in good faith their opinions or criticism regarding that information.

14. **Positive contribution to society:**
    We shall contribute to society through our business activities, and also continuously participate in social, cultural, educational, and sports activities as a good corporate citizen, active supporter, and conscientious contributor.

15. **Compliance with labor-related laws and company work rules:**
    We shall comply with labor-related laws, our company work rules, and any ancillary rules and regulations.

16. **Realization of a safe, positive work environment:**
    We shall understand and comply with the laws and internal rules concerning operational safety and hygiene in order to ensure our safety and good health in our offices and facilities and to form a positive work environment.

17. **Respect for human rights:**
    We shall respect human rights and shall not engage in conduct that might lead to discrimination by sex, age, race, handicap, etc.

18. **Prohibition of sexual harassment:**
    We shall recognize that sexual harassment harms our work environment and hinders the smooth operation of the workplace. Therefore, we shall prohibit sexual harassment in the workplace.

19. **Proper control of information about individuals:**
    We shall strictly control the information about individuals–executives, employees, and others–that is acquired and used in our business operations.

20. **Prohibition of insider trading:**
    We shall not violate nor shall we engage in conduct that even suggests actions contrary to the regulations against insider trading.

21. **Confronting harmful social forces:**
    We shall not submit to any social force harmful to society, and we shall resolutely confront any such force.

22. **Self-restraint regarding entertainment and gifts:**
    We shall not try to bribe domestic or foreign governmental officials or engage in any such suspicious behavior. We shall circumscribe entertainment or gift-giving in our relations with business partners by practicing proper judgment and common sense.

23. **Lawful actions on behalf of political parties:**
    We shall not illegally act on behalf of, or make contributions to, political parties.

24. **Proper utilization of our information system:**
    We shall use our information system only for our corporate operations and not for personal purposes.

25. **Strict distinction between public and private matters:**
    We shall strictly distinguish personal from corporate interests and carry out our duties in good faith.

Environmental Activities

Environmental activities receive one of the highest priorities at NTN. We dedicate ourselves through our daily business activities to reducing the environmental impact of our operations and to helping convert our world into a recycling-oriented society. Through these efforts, we are working to create an environment that is beneficial to the earth.

The Award Winning Environmental Activities

NTN's global environmental activities were singled out for praise by various institutions and public bodies during the fiscal year under review, receiving various awards. In Japan, our technology to solidify grinding swarf (cutting waste made up of fine metal particles and grinding coolant) was recognized by the Ministry of Economy, Trade and Industry (METI), which presented NTN with a Resource Recycling Technology & System Incentive Award. The grinding swarf briquetter compresses grinding swarf into briquettes (metal bricks) without using solidifying chemicals, while effectively removing grinding coolant (fluids). Through the use of this briquetter, NTN now can completely recycle grinding swarf, which was previously buried at industrial waste sites, enabling the Company to alleviate its environmental impact and reduce costs at the same time. In May 2002, NTN set up Unitop Corporation to manufacture and sell the briquetter and create a business to introduce a recycling route for briquettes.

The NTN Group also captured several prizes overseas. In September 2002, NTN Driveshaft, Inc., received the Governor's Award for Environmental Excellence in the pollution prevention/ source reduction category by the Indiana Department of Environmental Management in the United States. In November 2002, American NTN Bearing Mfg. Corp.'s Elgin Plant was presented the Conservation and Natural Landscaping Award given to corporations in the Chicago land area for their natural landscaping efforts. This award is granted by the U.S. Environmental Protection Agency and Chicago Wilderness, a group of private and public organizations that has pledged to protect and restore natural communities in the Chicago land and north east Indiana area. As part of its activities to protect the environment, the Elgin Plant converted 4 of 13 acres of grassy field to native tall grass prairie.This land is now home to a variety of prairie grasses and flowers that has become a diverse habitat for insects and small animals.

NTN Driveshaft, Inc., received governor's environmental award in September 2002.

American NTN Bearing Mfg. Corp.'s Elgin Plant received award for prairie restoration in November 2002.

Conservation and Natural Landscaping Award received by Elgin Plant

Reduction of Global Warming

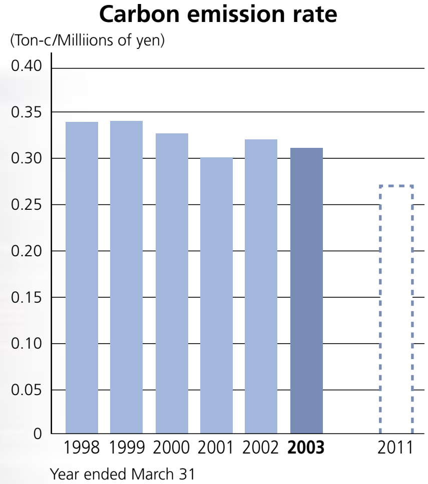
As part of its efforts to reduce global warming, NTN has formed a plan targeting a company-wide 20% reduction in its carbon emissions from its fiscal 1997 levels by the fiscal year ending March 2011. Our original goal for the fiscal year under review was to achieve a 5% reduction in comparison with fiscal1997, but in actual fact, we attained an 8% reduction. The new cogeneration facilities brought on stream at Iwata Works in December 2002 contributed significantly to this achievement by reducing power-transmission-loss and enabling the recycling of a portion of exhaust heat. We are now considering introducing the cogeneration facilities to Okayama Works.

Among other efforts aimed at reducing global warming, the Company is pursuing a variety of energy conservation activities based on demand control achieved through the computerization of compressors, air conditioning control units, and other equipment. Furthermore, the Company is actively working on entering the wind power generation-related business and on implementing new energy sources, such as wind and solar power generation stations, in its operations.

Achieving Zero Waste

The Company had been working to reduce the amount of industrial waste produced, but beginning with the fiscal year under review, the goal has been upgraded to zero waste. By introducing grinding swarf briquetters, we are now targeting achieving zero waste at our plants in Japan by September 2003. We are introducing our grinding swarf briquetters at our overseas plants to enable us to attain zero waste there as well.

Carbon emission rate



Award-winning tall grass prairie at Elgin Plant

Financial Section

NTN Corporation and Consolidated Subsidiaries
Year ended March 31

Five-year Summary of Selected Financial Data

NTN Corporation and Consolidated Subsidiaries
Year ended March 31

	(Millions of yen except per share amount)					*(Thousands of U.S. dollars except per share amount)*
	2003	2002	2001	2000	1999	**2003**
FOR THE YEAR DATA						
Net sales	**¥ 342,745**	¥ 324,339	¥ 340,551	¥ 326,474	¥ 325,812	**$ 2,851,456**
Operating income	**20,785**	8,140	14,335	9,675	13,633	**172,920**
Income (loss) before income taxes*	**6,198**	(701)	6,888	(41,822)	9,726	**51,564**
Net income (loss)	**2,657**	(132)	4,289	(24,677)	4,067	**22,105**
Capital expenditures	**25,264**	21,088	24,123	26,013	27,609	**210,183**
Depreciation	**23,838**	24,400	23,402	24,122	24,835	**198,319**
R&D expenditures	**12,255**	11,706	10,618	9,779	9,274	**101,955**
AT YEAR-END DATA						
Total assets	**¥ 467,198**	¥ 462,895	¥ 478,945	¥ 494,677	¥ 487,477	**$ 3,886,839**
Shareholders' equity	**134,928**	138,532	138,625	143,874	171,969	**1,122,529**
Number of employees	**11,810**	11,989	12,619	12,770	12,554	**11,810**
PER SHARE DATA						
Shareholders' equity	**¥ 291.82**	¥ 299.27	¥ 299.44	¥ 310.77	¥ 371.39	**$ 2.43**
Net income (loss)						
–Basic	**5.70**	(0.29)	9.26	(53.30)	8.78	**0.05**
–Diluted	**5.51**	-	8.78	-	8.31	**0.05**
Cash dividends	**5.00**	5.50	6.00	6.50	8.00	**0.04**
OTHER INFORMATION						
Net income (loss)/Total assets (ROA)	**0.6%**	(0.03%)	0.9%	(5.0%)	0.8%	**0.6%**
Net income (loss)/Shareholders' equity (ROE)	**1.9%**	(0.1%)	3.0%	(15.6%)	2.4%	**1.9%**
Shareholders' equity ratio	**28.9%**	29.9%	28.9%	29.1%	35.3%	**28.9%**

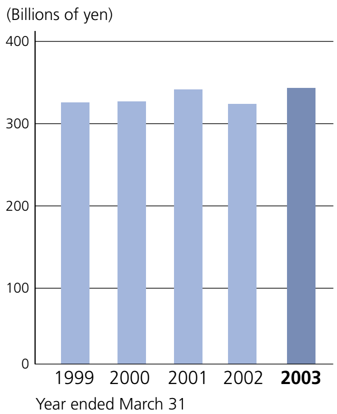
* Income (loss) before income taxes and minority interests

	Millions of yen				*Thousands of U.S. dollars*
	2003	2002	2001	2000	**2003**
SEGMENT INFORMATION					
By business					
Bearings	**¥ 220,685**	¥ 215,558	¥ 230,017	¥ 224,819	**$ 1,835,982**
CVJs	**98,875**	86,785	86,318	81,382	**822,587**
Precision equipment	**23,185**	21,996	24,216	20,273	**192,887**
By region					
Japan	**¥ 170,010**	¥ 169,080	¥ 195,134	¥ 183,936	**$ 1,414,393**
North America	**92,696**	87,774	85,925	86,399	**771,181**
Europe	**47,871**	38,748	30,449	27,602	**398,261**
Asia and other areas	**32,168**	28,737	29,043	28,537	**267,621**

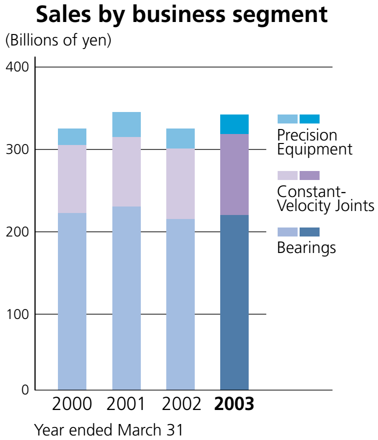
Notes: 1)U.S. dollar amounts have been translated from yen, for convenience only, using the approximate exchange rate at March 31, 2003, which was U.S.$1=¥120.20.

Financial Review

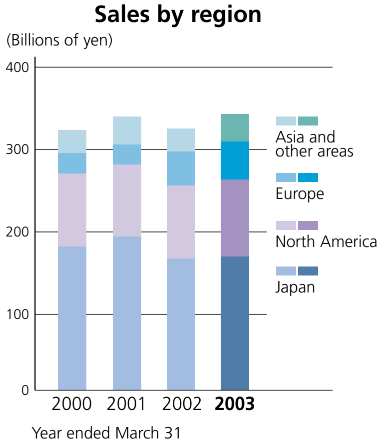
Net sales



Sales by business segment



Sales by region



Scope of Consolidation

As of March 31, 2003, NTN had 31 consolidated subsidiaries, including 9 domestic and 22 overseas subsidiaries. There were a total of four affiliates (overseas) that were accounted for by the equity method. Three subsidiaries newly established during the fiscal year, Shanghai NTN Corp., NTN-Nidec (Zhejiang) Corp., and Guangzhou NTN-Yulon Drivetrain Co., Ltd., were added to the scope of consolidation during the fiscal year under review.

Sales and Income

Sales Performance

Consolidated net sales for the fiscal year ended March 31, 2003 amounted to ¥342,745 million, increasing ¥18,406 million, or 5.7% from the previous fiscal year. Of this increase, currency adjustments accounted for ¥1,703 million. Overseas sales totaled ¥172,735 million, rising ¥17,476 million, or 11.3% year on year. Overall, overseas sales contributed 50.4% of net sales, edging up 2.5% from the prior fiscal year. Overseas sales contributions by region were North America, 27.0%; Europe, 14.0%; and Asia and others; 9.4%.

•Sales by Business Segment

Sales of bearings to the general machinery industry and to distributors struggled during the fiscal year. Nevertheless, favorable sales to auto manufacturers in Japan, North America, and Asia supported an overall increase of ¥5,127 million, or 2.4%, to ¥220,685 million.

Constant-velocity joint (CVJ) sales climbed ¥12,090 million, or 13.9%, to ¥98,875 million. Despite prices declines caused by stiff competition and a flat domestic market, sales rose on the strength of a substantial increase in sales to Renault in Europe and sales growth in the North American and Asian market.

Sales of the precision equipment segment were boosted by the additional sales of a new mechanical clutch unit and other new products to auto manufacturers. Sales advanced ¥1,189 million, or 5.4%, to ¥23,185 million.

•Sales by Region

In Japan, sales to auto manufacturers expanded favorably throughout the fiscal year. In contrast, sales to general machinery manufacturers and distributors posted growth in the second half thanks to increased sales for injection molding equipment and construction machinery, but were unable to make up for the slump in sales during the first half. As a result, overall sales in Japan edged up ¥930 million, or 0.6%, to ¥170,010 million.

Despite the depreciation of the U.S. dollar, sales in North America increased ¥4,922 million, or 5.6%, to ¥92,696 million due to growth in sales of CVJs and bearings to the automotive industry.

European sales jumped ¥9,123 million, or 23.5%, to ¥47,871 million. The increase could be attributed to a substantial increase in sales of CVJs to Renault, solid sales of bearings to auto manufacturers, and appreciation of the Euro.

Robust sales of CVJs and bearings to auto manufacturers in ASEAN countries were behind sales growth in Asia. Overall sales in Asia and other areas climbed ¥3,431 million, or 11.9%, to ¥32,168 million.

Cost of Sales and Selling, General and Administrative Expenses

Cost of sales amounted to ¥272,748 million, and the percentage of cost to overall sales improved 2.5% to 79.6%. This improvement was achieved despite a competition-driven decline in prices (particularly for automobile related products), thanks to greater economies of scale resulting from higher sales and production volumes in each region, lower proportional costs provided mainly by declines in external procurement costs, and lower personnel costs achieved despite expanded production through productivity gains. The cost benefits realized in these areas, which were specifically targeted under the Company's business structural reform programs, contributed strongly to overall cost reductions.

Reduced personnel, logistics, and other costs resulting from business structural reform supported a ¥650 million, or 1.3% decline in selling, general, and administrative expenses, to ¥49,212 million. Accordingly, the percentage of cost to overall sales improved 1.0% to 14.4%.

Income

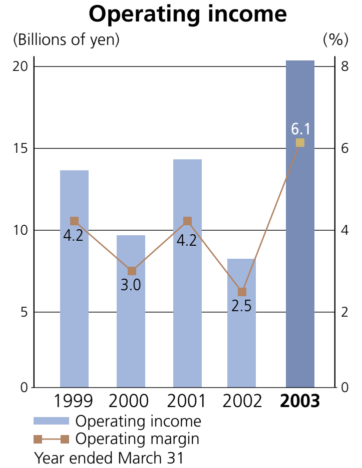
Operating income soared ¥12,645 million, or 155.3%, from the previous fiscal year ¥8,140 million, to ¥20,785 million. Similarly, operating margin rose 3.6%, to 6.1% due to improvements in the ratios of selling, general and administrative expenses and cost of sales to net sales.

Regionally, operating income increased in Japan, North America, and all other regions. In Europe, the improvement in the performance of NTN Transmissions Europe contributed strongly to growth in regional operating income.

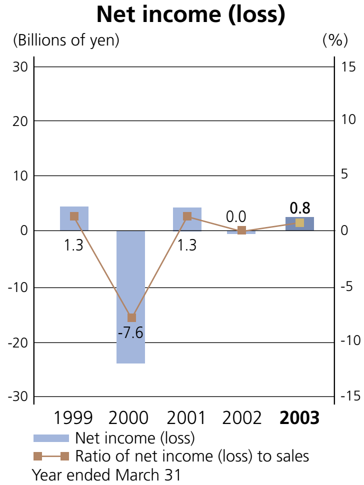
Other non-operating income and expenses amounted to a net expense of ¥14,587 million. Non-operating income totaled ¥15,242 million and included a ¥14,485 million gain on return of the substitutional portion of employees' Welfare Pension Fund Plan and a ¥431 million equity in earnings of affiliates. Non-operating expenses totaled ¥29,829 million. Among the major expense items was ¥11,399 million in restructuring costs that included a ¥10,988 million provision of a reserve for the employees' early retirement plan as part of efforts to reform personnel cost structure and a ¥411 million loss on the liquidation of a subsidiary. Other major items included a ¥5,944 million provision for reserve for product defect compensation and a ¥2,564 million loss on devaluation of investments in securities. Among financial expenses, interest expenses declined ¥992 million compared with the previous fiscal year as a result of the high priority being placed on reducing interest-bearing debt by the Company. Net non-operating expenses in the previous fiscal year amounted to ¥8,841 million, comprising a loss on devaluation of investments in securities and payments of antidumping duties in the United States for prior periods combined with gains on the sales of a plant site and other fixed assets. Consequently, net non-operating expenses increased ¥5,746 million year-on-year.

As a result, the Company reported income before income taxes and minority interests of ¥6,198 million, up ¥6,899 million from a loss in the previous year. Consolidated net income amounted to ¥2,657 million, increasing ¥2,789 million from a net loss in the year before. Net income per share for the fiscal year was ¥5.70 and cash dividends of ¥5.00 per share were declared.

Operating income



Net income (loss)

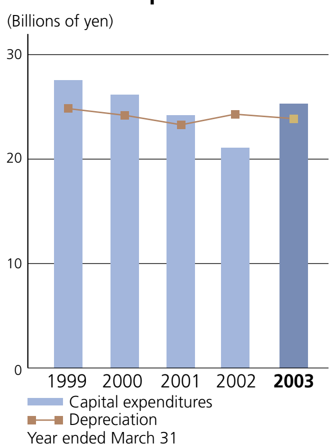


R&D and Capital Expenditures

Research and Development

In line with its business structural reform plan, the Company concentrated its business resources on strategic product during the fiscal year under review. In addition, the Company worked to shorten development times by pursuing an R&D structure that operates around the clock. Reflecting these efforts, R&D expenditures for the fiscal year increased ¥549 million, or 4.7%, to ¥12,255 million, representing 3.6% of consolidated net sales. The breakdown of R&D expenses by business segment was ¥6,911 million for bearings, up ¥221 million year-on-year; ¥4,205 million for CVJs, up ¥1,019 million; and ¥1,139 million for precision equipment, down ¥691 million from the prior fiscal year.

Capital expenditures and depreciation



Capital Expenditures

Capital expenditures for the fiscal year were primarily focused on increasing production capacity, implementing labor savings and rationalization, maintaining and upgrading present facilities, enhancing the safety of those facilities, and new product R&D. In total, capital expenditures increased ¥4,176 million, or 19.8%, from the prior fiscal year to ¥25,264 million.

A total of ¥14,555 million was invested in the bearing segment, an increase of ¥2,591 million from the previous fiscal year. Expenditures were made for Iwata Works' Needle Roller Bearing Plant, the expansion of hub bearing manufacturing facilities at American NTN Bearing Mfg. Corp., and buildings, plant, and equipment at both NTN-Nidec (Zhejiang) Corp. and Shanghai NTN Corp.

In the CVJ segment, the Company increased its capital expenditures by ¥2,093 million, to ¥10,247 million. Major allocations included the expansion of manufacturing facilities at CVJ Plant at Iwata Works and at NTN Transmissions Europe and NTN Driveshaft Inc.

Capital investment in precision equipment amounted to ¥462 million, down ¥508 million from the prior fiscal year. Funds were principally invested in manufacturing-related areas at Nagano Works.

All expenditures were funded with internally generated funds. Capital investment remained within the scope of depreciation, which declined ¥562 million during the fiscal year under review, to ¥23,838 million.

Financial Position and Cash Flows

Financial Position

As of March 31, 2003, total assets amounted to ¥467,198 million, increasing ¥4,303 million from the previous year. The turnover ratio of total assets rose slightly from the previous fiscal year, increasing 0.03, to 0.73.

Total current assets at year-end amounted to ¥246,440 million, increasing ¥16,963 million. Significant year-on-year changes included cash and cash equivalents, which expanded ¥14,168 million and trade receivables (notes and accounts), which climbed ¥3,033 million in line with sales growth. Inventories, for which reduction measures are proceeding with high priority, declined ¥5,784 million. Excluding the effect of ¥1,463 million in currency translations, inventories fell ¥4,321 million on a real basis. The inventory turnover ratio for the year improved 0.41, to 3.70 from the previous year.

Current liabilities at year-end were ¥237,304 million, increasing ¥63,873 million. Major changes included a ¥37,360 million increase in short-term bank loans, including a ¥50,000 million increase in the current portion of long-term debt, and a ¥13,554 million increase in trade notes payable (notes and accounts) in line with production growth. As a result, net working capital, excluding the current portion of long-term debt, increased ¥3,090 million to ¥59,136 million, and the liquidity ratio, excluding the current portion of long-term debt, declined 0.7% from the previous year to 131.6%.

Similar to inventories, high priority is being given to reducing interest-bearing debt, which decreased ¥11,142 million during the fiscal year. Excluding the effect of ¥2,251 million in currency translation adjustments, interest-bearing debt actually fell by ¥8,891 million. The interest-bearing debt-to-total assets ratio improved 2.7%, to 34.6% and the average redemption period of debt also improved 2.4 years, to 3.3 years.

During the fiscal year, shareholders' equity decreased ¥3,604 million, to ¥134,928 million, declining despite a ¥313 million increase in consolidated retained earnings because of a ¥3,174 million decline in the translation adjustment and a ¥560 million drop in net unrealized holding gains on securities. The shareholders' equity ratio edged down 1.0% from the previous fiscal year, to 28.9%. The shareholders' equity ratio on a market value basis was 46.5%, rising 15.7% from the prior fiscal year.

The Company made a ¥30,000 million domestic straight bond issue in June 2003, with proceeds to be applied to repayment of ¥50,000 million of the current portion of long-term debt. The remaining ¥20,000 million is scheduled to be raised on capital markets sometime after October 2003 with timing to depend on market movements.

Notes:
1. Average redemption period of debt = interest-bearing debt ⁄ net cash provided by operating activities
2. Shareholders' equity ratio on a market value basis = market value of shares ⁄ total assets

Cash Flows

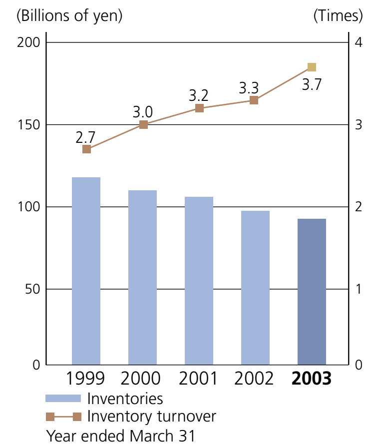
For the fiscal year ended March 2003, net cash provided by operating activities amounted to ¥48,421 million, increasing ¥18,387 million, or 61.2%, from the previous fiscal year.

From this net cash, the Company made expenditures of ¥24,821 million in payments for property, plant, and equipment among net cash used in investing activities totaling ¥24,087 million, which were up ¥5,732 million, or 31.2%, year-on-year.

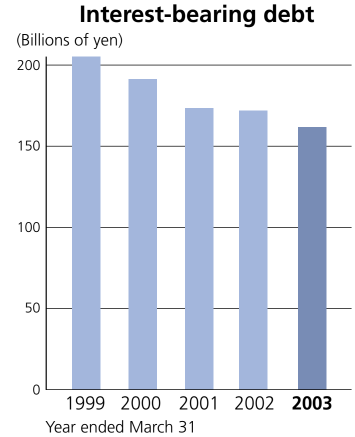
An ¥8,342 million decline in short-term bank loans and long-term debt (net base) and ¥2,314 million in cash dividends paid were the main components of net cash used in financing activities, which amounted to ¥9,925 million, up ¥1,960 million, or 24.6% from the previous fiscal year.

Currency adjustments reduced cash and cash equivalents by ¥272 million while the adjustment for merger increased them by ¥31 million. As a result, cash and cash equivalents at end of the year totaled ¥50,240 million, up ¥14,168 million, or 39.3% from the prior fiscal year. The Company plans to allocate most of the increase in cash and cash equivalents to the payment of severance payments during fiscal 2003 due to the implementation of an early retirement plan.

Inventories



Interest-bearing debt



Consolidated Balance Sheets

NTN Corporation and Consolidated Subsidiaries
March 31, 2003 and 2002

	2003	2002	2003
	(Millions of yen)		(Thousands of U.S. dollars) (Note 1)
Assets			
Current assets:			
Cash and cash equivalents *(Note 3)*	¥ **50,240**	¥ 36,072	$ **417,970**
Short-term investments	**256**	102	**2,130**
Trade receivables:			
Notes	**17,843**	16,982	**148,444**
Accounts	**68,859**	66,301	**572,871**
Allowance for doubtful accounts	**(403)**	(17)	**(3,353)**
	86,299	83,266	**717,962**
Inventories *(Note 4)*	**92,729**	98,513	**771,456**
Deferred income taxes *(Note 14)*	**9,961**	4,778	**82,870**
Other current assets	**6,955**	6,746	**57,862**
Total current assets	**246,440**	229,477	**2,050,250**
Property, plant and equipment *(Note 5)*:			
Land	**22,095**	21,559	**183,819**
Buildings and structures	**109,091**	109,838	**907,579**
Machinery, equipment and vehicles	**429,469**	430,769	**3,572,953**
Construction in progress	**8,299**	4,072	**69,043**
	568,954	566,238	**4,733,394**
Less accumulated depreciation	**(393,036)**	(387,770)	**(3,269,850)**
Property, plant and equipment, net	**175,918**	178,468	**1,463,544**
Investments and other assets:			
Investment securities *(Note 3)*	**8,926**	14,535	**74,260**
Investments in unconsolidated subsidiaries and affiliates	**7,928**	8,679	**65,957**
Deferred income taxes *(Note 14)*	**23,385**	27,723	**194,551**
Other assets	**4,601**	4,013	**38,277**
Total investments and other assets	**44,840**	54,950	**373,045**
Total assets	¥ **467,198**	¥ 462,895	$ **3,886,839**

	2003	2002	2003
	(Millions of yen)		*(Thousands of U.S. dollars) (Note 1)*
Liabilities, minority interests and shareholders' equity			
Current liabilities:			
Short-term bank loans *(Note 5)*	**¥ 81,071**	¥ 92,416	**$ 674,468**
Current portion of long-term debt *(Note 5)*	**50,953**	2,248	**423,902**
Trade payables:			
Notes	**27,052**	21,217	**225,058**
Accounts	**39,712**	31,993	**330,383**
	66,764	53,210	**555,441**
Accrued income taxes *(Note 14)*	**2,067**	1,808	**17,196**
Deferred income taxes *(Note 14)*	**13**	68	**108**
Reserve for employees' early retirement incentive plans *(Note 13)*	**10,988**	–	**91,414**
Other current liabilities	**25,448**	23,681	**211,714**
Total current liabilities	**237,304**	173,431	**1,974,243**
Long-term liabilities:			
Long-term debt *(Note 5)*	**29,422**	77,924	**244,775**
Accrued retirement benefits for employees *(Note 6)*	**53,646**	67,044	**446,306**
Accrued retirement benefits for directors and statutory auditors	**519**	491	**4,318**
Reserve for product defect compensation	**4,500**	–	**37,438**
Deferred income taxes *(Note 14)*	**2,863**	3,089	**23,819**
Other long-term liabilities	**1,866**	767	**15,524**
Total long-term liabilities	**92,816**	149,315	**772,180**
Minority interests	**2,150**	1,617	**17,887**
Contingent liabilities *(Note 8)*			
Shareholders' equity *(Note 7)*:			
Common stock			
Authorized – 800,000,000 shares			
Issued – 463,056,775 shares at March 31, 2003 and 2002	**39,599**	39,599	**329,443**
Capital surplus	**52,622**	52,622	**437,787**
Retained earnings	**50,722**	50,409	**421,980**
Net unrealized holding gain on securities *(Note 14)*	**865**	1,425	**7,196**
Translation adjustments	**(8,609)**	(5,435)	**(71,622)**
Sub total	**135,199**	138,620	**1,124,784**
Treasury stock, at cost; 681,313 shares in 2003 and 155,751 shares in 2002	**(271)**	(88)	**(2,255)**
Net shareholders' equity	**134,928**	138,532	**1,122,529**
Total liabilities, minority interests and shareholders' equity	**¥ 467,198**	¥ 462,895	**$ 3,886,839**

See accompanying notes to the consolidated financial statements.

Consolidated Statements of Operations

NTN Corporation and Consolidated Subsidiaries
Years ended March 31, 2003 and 2002

	2003	2002	2003
	(Millions of yen)		(Thousands of U.S. dollars) (Note 1)
Net sales	¥ 342,745	¥ 324,339	$ 2,851,456
Cost of sales *(Note 12)*	272,748	266,337	2,269,118
Gross profit	69,997	58,002	582,338
Selling, general and administrative expenses *(Note 12)*	49,212	49,862	409,418
Operating income	20,785	8,140	172,920
Other income (expenses):			
Interest and dividend income	326	332	2,712
Interest expenses	(3,193)	(4,185)	(26,564)
Equity in earnings of affiliates	431	719	3,586
Gain on return of substitutional portion of employees' Welfare Pension Fund Plans *(Note 6)*	14,485	–	120,507
Gain on sale of property, plant and equipment	–	3,233	–
Restructuring costs *(Note 13)*	(11,399)	–	(94,834)
Provision for reserve for product defect compensation	(5,944)	–	(49,451)
Loss on devaluation of investment securities	(2,564)	(3,377)	(21,331)
Other, net	(6,729)	(5,563)	(55,981)
	(14,587)	(8,841)	(121,356)
Income (loss) before income taxes and minority interests	6,198	(701)	51,564
Income taxes *(Note 14)*:			
Current	4,259	3,427	35,432
Deferred	(1,046)	(4,005)	(8,702)
	3,213	(578)	26,730
Income (loss) before minority interests	2,985	(123)	24,834
Minority interests in subsidiaries	(328)	(9)	(2,729)
Net income (loss)	¥ 2,657	¥ (132)	$ 22,105

See accompanying notes to the consolidated financial statements.

Consolidated Statements of Shareholders' Equity

NTN Corporation and Consolidated Subsidiaries
Years ended March 31, 2003 and 2002

	2003	2002	2003
	(Millions of yen)		*(Thousands of U.S. dollars) (Note 1)*
Common stock:			
Balance at beginning and end of the year	**¥ 39,599**	¥ 39,599	**$ 329,443**
Capital surplus:			
Balance at beginning and end of the year	**¥ 52,622**	¥ 52,622	**$ 437,787**
Retained earnings:			
Balance at beginning of the year	**¥ 50,409**	¥ 53,459	**$ 419,375**
Increase in retained earnings resulting from merger with an affiliate not accounted for by the equity method	**2**	–	**17**
Net income (loss)	**2,657**	(132)	**22,105**
Appropriations:			
Cash dividends	**(2,314)**	(2,778)	**(19,251)**
Bonuses to directors and statutory auditors	**(26)**	(140)	**(216)**
Loss on sales of treasury stock	**(6)**	–	**(50)**
Balance at end of the year	**¥ 50,722**	¥ 50,409	**$ 421,980**
Net unrealized holding gain on securities:			
Balance at beginning of the year	**¥ 1,425**	¥ 2,444	**$ 11,855**
Net change during the year	**(560)**	(1,019)	**(4,659)**
Balance at end of the year	**¥ 865**	¥ 1,425	**$ 7,196**
Translation adjustments:			
Balance at beginning of the year	**¥ (5,435)**	¥ (9,424)	**$ (45,216)**
Net change during the year	**(3,174)**	3,989	**(26,406)**
Balance at end of the year	**¥ (8,609)**	¥ (5,435)	**$ (71,622)**

See accompanying notes to the consolidated financial statements.

Consolidated Statements of Cash Flows

NTN Corporation and Consolidated Subsidiaries
Years ended March 31, 2003 and 2002

	2003	2002	2003
	(Millions of yen)		(Thousands of U.S. dollars) (Note 1)
Cash flows from operating activities:			
Net income (loss) before income taxes and minority interests	**¥ 6,198**	¥ (701)	**$ 51,564**
Adjustments for:			
Depreciation and amortization	**23,838**	24,400	**198,319**
Increase in allowance for doubtful accounts	**244**	717	**2,030**
Decrease in accrued retirement benefits for employees	**(13,387)**	(386)	**(111,373)**
Increase (decrease) in accrued retirement benefits for directors and statutory auditors	**28**	(205)	**233**
Increase in reserve for employees' early retirement incentive plans	**10,988**	–	**91,414**
Increase in reserve for product defect compensation	**4,500**	–	**37,438**
Interest and dividend income	**(326)**	(332)	**(2,712)**
Interest expense	**3,193**	4,185	**26,564**
Translation adjustments and foreign exchange loss, net	**491**	151	**4,085**
Equity in earnings of affiliates	**(431)**	(719)	**(3,586)**
Gain on sale of property, plant and equipment	**–**	(3,233)	**–**
Loss on devaluation of investment securities	**2,564**	3,377	**21,331**
(Increase) decrease in trade receivables	**(3,606)**	12,659	**(30,000)**
Decrease in inventories	**4,197**	9,841	**34,917**
Increase (decrease) in trade payables	**12,604**	(9,986)	**104,859**
Payments of bonuses to directors and statutory auditors	**(28)**	(142)	**(233)**
Other	**2,454**	2,196	**20,416**
Subtotal	**53,521**	41,822	**445,266**
Interest and dividend income received	**945**	868	**7,862**
Interest expense paid	**(3,231)**	(4,677)	**(26,880)**
Income taxes paid	**(2,814)**	(7,979)	**(23,411)**
Net cash provided by operating activities	**48,421**	30,034	**402,837**
Cash flows from investing activities:			
(Increase) decrease in short-term investments	**(154)**	159	**(1,281)**
Purchases of property, plant and equipment	**(24,821)**	(21,021)	**(206,498)**
Proceeds from sale of property, plant and equipment	**–**	3,722	**–**
Purchases of other assets	**(1,297)**	(450)	**(10,790)**
Proceeds from sales of investment securities and others	**2,051**	–	**17,063**
Investments in affiliates	**–**	(1,132)	**–**
Other	**134**	367	**1,115**
Net cash used in investing activities	**(24,087)**	(18,355)	**(200,391)**
Cash flows from financing activities:			
Decrease in short-term bank loans, net	**(8,265)**	(5,294)	**(68,761)**
Proceeds from long-term debt	**3,655**	2,503	**30,408**
Repayment of long-term debt, including current portion	**(3,732)**	(2,379)	**(31,048)**
Issuance of common stock assigned to minority shareholders of a consolidated subsidiary	**996**	–	**8,286**
Cash dividends paid	**(2,314)**	(2,778)	**(19,251)**
Other	**(265)**	(17)	**(2,205)**
Net cash used in financing activities	**(9,925)**	(7,965)	**(82,571)**
Effect of exchange rate changes on cash and cash equivalents	**(272)**	(1,183)	**(2,263)**
Net increase in cash and cash equivalents	**14,137**	2,531	**117,612**
Cash and cash equivalents at beginning of the year	**36,072**	33,541	**300,100**
Increase in cash and cash equivalents resulting from merger with an affiliate not accounted for by the equity method	**31**	–	**258**
Cash and cash equivalents at end of the year	**¥ 50,240**	¥ 36,072	**$ 417,970**

Notes to the Consolidated Financial Statements

NTN Corporation and Consolidated Subsidiaries
March 31, 2003

1. Basis of Presenting Consolidated Financial Statements

NTN Corporation (the "Company") and its domestic subsidiaries maintain their accounts and records in accordance with the provisions set forth in the Commercial Code and the Securities and Exchange Law of Japan and in conformity with accounting principles and practices generally accepted and applied in Japan, which may differ in certain material respects from accounting principles and practices generally accepted in countries and jurisdictions other than Japan.

The Company's overseas subsidiaries maintain their accounts and records in conformity with generally accepted accounting principles and practices prevailing in their respective countries of domicile.

The accompanying consolidated financial statements are prepared based on the consolidated financial statements of the Company and its subsidiaries as required by the Securities and Exchange Law.

In preparing the accompanying consolidated financial statements, certain reclassifications and rearrangements have been made to the consolidated financial statements issued domestically in order to present them in a form which is more familiar to readers outside Japan. Certain amounts in the prior years' financial statements have been reclassified to conform to the current year's presentation. Such reclassifications had no effect on consolidated net loss or shareholders' equity.

The translation of yen amounts into U.S. dollars is included solely for the convenience of the reader, using the prevailing exchange rate on March 31, 2003, which was ¥120.20 to US$1.00. This translation has been made solely for the convenience of the reader, and should not be construed as a representation that the Japanese yen amounts have been, or could be in the future, converted into U.S. dollars at this or any other rate.

2. Summary of Significant Accounting Policies

(a) Principles of Consolidation
The accompanying consolidated financial statements include the accounts of the Company and the significant companies which it controls directly or indirectly. Companies over which the Company exercises significant influence in terms of their operating and financial policies have been included in the consolidated financial statements on an equity basis. The assets and liabilities of the newly consolidated subsidiaries are stated at fair value as of their respective dates of acquisition.

The financial statements of certain consolidated subsidiaries whose fiscal year end is 31st December have been included in consolidation on the basis of a full fiscal year closing on 31st March for consolidation purposes.

The differences between the cost and the underlying net equity in the net assets at the dates of acquisition of the consolidated subsidiaries and companies accounted for by the equity method are amortized by the straight-line method over the appropriate periods.

(b) Foreign Currency Translation
Monetary assets and liabilities denominated in foreign currencies are translated into yen at the rate of exchange in effect at the balance sheet date. Revenues and expenses are translated at the rates of exchange prevailing when the transactions were made.

Assets and liabilities of foreign subsidiaries and affiliates are translated into yen at the exchange rates in effect on the respective balance sheet date, and shareholders' equity is translated at the respective historical rates. Revenue and expenses are translated at the average rates of exchange for the respective years. Differences arising from translation are reflected in shareholders' equity (presented as "Translation adjustments") and minority interests in the consolidated balance sheets.

(c) Cash and Cash Equivalents
Cash and cash equivalents consist of cash on hand, deposits with banks withdrawable on demand, and short-term investments which are readily convertible to cash subject to an insignificant risk of any change in their value and which were purchased with an original maturity of three months or less.

(d) Allowance for Doubtful Accounts
The allowance for doubtful accounts is computed based on the actual ratio of bad debts in the past and an estimate of certain uncollectible amounts determined after an analysis of specific individual receivables.

(e) Short-term Investments and Investment Securities
An accounting standard for financial instruments requires that securities be classified into three categories: trading, held-to-maturity or other securities. Under this standard, trading securities are carried at fair value and held-to-maturity debt securities are carried at amortized cost. Marketable securities classified as other securities are carried at fair value with any changes in unrealized holding gain or loss, net of the applicable income taxes, included directly in shareholders' equity. Non-marketable securities classified as other securities are carried at cost. Cost of securities sold is determined by the moving average method.

(f) Inventories
Inventories are principally stated at cost determined by the average method.

(g) Property, Plant and Equipment
Property, plant and equipment are stated at cost. Depreciation is computed at rates based on the estimated useful lives of assets by the declining-balance method, except for buildings and assets of the overseas consolidated subsidiaries to which the straight-line method is applied.

The principal estimated useful lives are as follows:

Buildings and structures	10 to 50 years
Machinery, equipment and vehicles	5 to 12 years

(h) Reserve for Employees' Early Retirement Incentive Plans
The Company and certain domestic subsidiaries recently introduced employees' early retirement incentive plans. During March 2003, 781 employees applied to join these plans and applications were closed. The Company and certain domestic subsidiaries have provided a reserve for the expected payment of additional retirement benefits to these 781 employees and the related expenses at an estimated amount.

(i) Accrued Retirement Benefits for Employees
Accrued retirement benefits for employees have been provided principally at an amount calculated based on the retirement benefit obligation and the fair value of the pension plan assets, as adjusted for net unrecognized actuarial gain or loss, and unrecognized prior service cost. The estimated benefit is attributed to each period by the straight-line method over the estimated years of service of the eligible employees.

Prior service cost is amortized in the year in which the gain or loss is recognized primarily by the straight-line method over the estimated average remaining years of service of the eligible employees (principally 15 years).

Net unrecognized actuarial gain or loss is amortized commencing the year following the year in which the gain or loss is recognized primarily by the straight-line method over the estimated average remaining years of service of the eligible employees (principally 15 years).

(j) Accrued Retirement Benefits for Directors and Statutory Auditors
Subject to approval at the shareholders' meeting, directors and statutory auditors of the Company are entitled to lump-sum payments under unfunded retirement benefit plans. The provision for retirement benefits for directors and statutory auditors has been made at estimated amounts based on the Company's internal regulations.

(k) Reserve for Product Defect Compensation
During the year ended March 31, 2003, the Company encountered serious problems involving significant deficiencies in the quality of certain of its products. The Company has provided a reserve for product defect compensation in order to cover the expected payment of compensation at an estimated amount.

(l) Leases
Finance leases other than those which transfer the ownership of the leased property to the lessee are accounted for as operating leases.

(m) Research and Development Costs and Computer Software
Research and development costs are charged to income when incurred.

Expenditures relating to computer software developed for internal use are charged to income when incurred, except if the software is expected to contribute to the generation of income or to cost savings. Such expenditures are capitalized as assets and are amortized by the straight-line method over their estimated useful life, generally a 5-year period.

(n) Income Taxes
Deferred income taxes have been provided for temporary differences between the balances of assets and liabilities reported for financial purposes and the corresponding balances for tax reporting purposes.

(o) Derivative Financial Instruments and Hedging Activities
All derivatives are stated at fair value with any changes in fair value included in net income or loss for the period in which they arise, except for derivatives which meet the criteria for deferral hedge accounting under which realized gain or loss is deferred as an asset or a liability. Receivables and payables hedged by forward foreign exchange contracts which meet certain conditions are translated at the corresponding foreign exchange contract rates.

(p) Appropriation of Retained Earnings
Under the Commercial Code of Japan, the appropriation of retained earnings with respect to a given financial period is made by resolution of the shareholders at a general meeting held subsequent to the close of the financial period. The accounts for the period do not reflect such appropriations.

3. Securities

(a) Information regarding marketable securities classified as other securities at March 31, 2003 and 2002 is summarized as follows:

	Millions of yen						Thousands of U.S.dollars		
	2003			2002			2003		
	Acquisition costs	Carrying value	Unrealized gain (loss)	Acquisition costs	Carrying value	Unrealized gain (loss)	Acquisition costs	Carrying value	Unrealized gain (loss)
Securities whose carrying value exceeds their acquisition costs:									
Equity securities	**¥ 2,954**	**¥ 4,774**	**¥ 1,820**	¥ 4,042	¥ 6,955	¥ 2,913	**$ 24,576**	**$ 39,717**	**$15,141**
Other	**–**	**–**	**–**	–	–	–	**–**	**–**	**–**
Subtotal	**2,954**	**4,774**	**1,820**	4,042	6,955	2,913	**24,576**	**39,717**	**15,141**
Securities whose carrying value does not exceed their acquisition costs:									
Equity securities	**4,006**	**3,642**	**(364)**	6,532	6,062	(470)	**33,328**	**30,300**	**(3,028)**
Other	**42**	**28**	**(14)**	47	32	(15)	**349**	**233**	**(116)**
Subtotal	**4,048**	**3,670**	**(378)**	6,579	6,094	(485)	**33,677**	**30,533**	**(3,144)**
Total	**¥ 7,002**	**¥ 8,444**	**¥ 1,442**	¥10,621	¥ 13,049	¥2,428	**$ 58,253**	**$ 70,250**	**$11,997**

(b) The carrying value of non-marketable other securities at March 31, 2003 and 2002 is summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2003	2002	2003
Cash and cash equivalents:			
Money management funds	**¥ 6,998**	¥ 4,994	**$ 58,220**
Investment securities:			
Unlisted equity securities	**482**	486	**4,010**
Unlisted foreign bonds	**–**	1,000	**–**
	¥ 7,480	¥ 6,480	**$ 62,230**

4. Inventories

Inventories at March 31, 2003 and 2002 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2003	2002	2003
Finished goods	**¥ 50,997**	¥ 57,820	**$ 424,268**
Work in process and raw materials	**41,732**	40,693	**347,188**
	¥ 92,729	¥ 98,513	**$ 771,456**

5. Short-term Bank Loans and Long-term Debt

Short-term bank loans principally represent short-term notes with annual average interest rates of 1.58% and 2.1% at March 31, 2003 and 2002, respectively.

Long-term debt at March 31, 2003 and 2002 consisted of the following:

	Millions of yen		*Thousands of U.S. dollars*
	2003	2002	**2003**
Loans from banks and other financial institutions, due through 2008, with annual average interest rate of 3.4%	**¥ 10,375**	¥ 10,172	**$ 86,314**
0.85% unsecured convertible bonds due 2004	**30,000**	30,000	**249,584**
1.85% unsecured bonds due 2003	**20,000**	20,000	**166,389**
2.14% unsecured bonds due 2006	**10,000**	10,000	**83,195**
2.7% unsecured bonds due 2009	**10,000**	10,000	**83,195**
	80,375	80,172	**668,677**
Less current portion	**(50,953)**	(2,248)	**(423,902)**
	¥ 29,422	¥ 77,924	**$ 244,775**

The 0.85% convertible bonds are convertible at any time up to and including March 30, 2004 into shares of common stock of the Company at the conversion price of ¥687 ($5.72) per share.

The assets pledged as collateral for short-term bank loans and long-term loans at March 31, 2003 were as follows:

	Millions of yen	*Thousands of U.S. dollars*
Land	**¥ 720**	**$ 5,990**
Buildings and structures	**392**	**3,261**
Total	**¥ 1,112**	**$ 9,251**

Short-term bank loans and and long-term loans secured by such collateral at March 31, 2003 were as follows:

	Millions of yen	*Thousands of U.S. dollars*
Short-term bank loans	**¥ 1,724**	**$ 14,343**
Long-term loans	**258**	**2,146**
Total	**¥ 1,982**	**$ 16,489**

The assets pledged as a foundation mortgage at March 31, 2003 were as follows:

	Millions of yen	*Thousands of U.S. dollars*
Land	**¥ 95**	**$ 790**
Buildings and structures	**182**	**1,514**
Machinery, equipment and vehicles	**77**	**641**
Total	**¥ 354**	**$ 2,945**

Short-term loans and long-term loans secured by the foundation mortgage at March 31, 2003 were as follows:

	Millions of yen	Thousands of U.S. dollars
Short-term bank loans	**¥ 91**	**$ 757**
Long-term loans	**77**	**641**
Total	**¥ 168**	**$ 1,398**

The aggregated annual maturities of long-term debt subsequent to March 31, 2003 are summarized as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2004	**¥ 50,953**	**$ 423,902**
2005	**1,684**	**14,010**
2006	**4,588**	**38,170**
2007	**11,202**	**93,194**
2008	**1,948**	**16,206**
2009	**10,000**	**83,195**
	¥ 80,375	**$ 668,677**

6. Accrued Retirement Benefits for Employees

The Company and its domestic consolidated subsidiaries have defined benefit plans, i.e., welfare pension fund plans ("WPFP"), tax-qualified pension plans and lump-sum payment plans, covering substantially all employees who are entitled to lump-sum or annuity payments, the amounts of which are determined by reference to their basic rates of pay, length of service, and the conditions under which termination occurs. Certain foreign consolidated subsidiaries have defined benefit plans.

The following table sets forth the funded and accrued status of the plans, and the amounts recognized in the consolidated balance sheets at March 31, 2003 and 2002 for the Company's and the consolidated subsidiaries' defined benefit plans:

	Millions of yen		Thousands of U.S. dollars
	2003	2002	**2003**
Retirement benefit obligation	**¥ (122, 480)**	¥ (176,144)	**$(1,018,968)**
Plan assets fair value	**38,714**	92,637	**322,079**
Unfunded retirement benefit obligation	**(83,766)**	(83,507)	**(696,889)**
Unrecognized actuarial loss	**33,455**	19,917	**278,328**
Unrecognized prior service cost	**(3,335)**	(3,454)	**(27,745)**
Accrued retirement benefits for employees	**¥ (53,646)**	¥ (67,044)	**$ (446,306)**

The components of retirement benefit expenses for the years ended March 31, 2003 and 2002 are outlined as follows:

	Millions of yen		Thousands of U.S. dollars
	2003	2002	**2003**
Service cost	**¥ 5,307**	¥ 5,412	**$ 44,151**
Interest cost	**6,096**	6,280	**50,715**
Expected return on plan assets	**(3,232)**	(3,518)	**(26,888)**
Amortization:			
Actuarial loss	**1,294**	842	**10,765**
Prior service cost	**(465)**	(216)	**(3,868)**
Retirement benefit expenses	**¥ 9,000**	¥ 8,800	**$ 74,875**

Effective April 1, 2002, the Company and certain domestic consolidated subsidiaries made amendments to their WPFP with respect to the age of eligibility for annuity payments for the company portion of their benefits in accordance with the amendments to the Welfare Pension Insurance Law of Japan.

Pursuant to the enactment of the Defined Benefit Corporate Pension Plan Law, the Company and certain consolidated subsidiaries obtained approval from the Minister of Health, Labour and Welfare on February 17, 2003, for an exemption from future retirement benefit obligations with respect to the substitutional portion of the employee WPFP the Company operates on behalf of the Japanese government. The Company and certain domestic consolidated subsidiaries accounted for the separation of the substitutional portion of the benefit obligation from the corporate portion of the benefit obligation under its employee WPFP as of the date of approval of the exemption, assuming that the transfer to the Japanese government of the substitutional portion of the benefit obligation and the related pension plan assets had been completed as of that date. As a result, the Company recognized a gain of ¥14,485 million ($120,507 thousand) for the year ended March 31, 2003. The pension assets which have been transferred were calculated at ¥40,633 million ($338,045 thousand) at March 31, 2003.

The assumptions used in accounting for the defined benefit plans for the years ended March 31, 2003 and 2002 were as follows:

	2003	2002
Discount rates	**Principally 2.6%**	Principally 3.5%
Expected rate of return on plan assets	**Principally 4.0%**	Principally 4.0%

7. Shareholders' Equity

The Commercial Code of Japan (the "Code") provides that an amount equivalent to at least 10% of cash dividends paid and bonuses to directors and statutory auditors, and exactly 10% of interim cash dividends paid be appropriated to the legal reserve until the sum of additional paid-in capital (which has been stated as a component of capital surplus in the consolidated balance sheets) and the legal reserve equals 25% of stated capital. The Code also provides that additional paid-in capital and the legal reserve are not available for dividends, but may be used to reduce a capital deficit by resolution of the shareholders or may be capitalized by resolution of the Board of Directors. The Code also stipulates that, to the extent that the sum of the additional paid-in capital account and the legal reserve exceeds 25% of the common stock account, the amount of any such excess is available for appropriation by resolution of the shareholders. The legal reserve of the Company, which is included in retained earnings, amounted to ¥8,639 million ($71,872 thousand) at March 31, 2003 and 2002.

Effective April 1, 2002, the Company and its consolidated subsidiaries adopted a new accounting standard for treasury stock and reversal of legal reserves. The effect of the adoption of this standard on the consolidated results of their operations for the year ended March 31, 2003 was immaterial.

8. Contingent Liabilities

At March 31, 2003, the contingent liabilities of the Company and its consolidated subsidiaries were as follows:

	Millions of yen	*Thousands of U.S. dollars*
Trade notes receivable discounted with banks	**¥ 719**	**$ 5,982**

9. Finance Leases Without Covenants Transferring Ownership of Properties to Lessees

(a) Lessees' accounting

The following pro forma amounts represent the acquisition costs, accumulated depreciation and net book value of the leased assets at March 31, 2003 and 2002, which would have been reflected in the consolidated balance sheets if finance lease accounting had been applied to the finance leases currently accounted for as operating leases:

	Millions of yen						*Thousands of U.S. dollars*		
	2003			2002			**2003**		
	Acquisition costs	Accumulated depreciation	Net book value	Acquisition costs	Accumulated depreciation	Net book value	Acquisition costs	Accumulated depreciation	Net book value
Building and structures	**¥ 2,638**	**¥ 1,316**	**¥ 1,322**	¥ 2,792	¥ 1,357	¥ 1,435	**$ 21,947**	**$ 10,949**	**$10,998**
Machinery, equipment and vehicles	**1,576**	**1,245**	**331**	2,474	1,763	711	**13,111**	**10,357**	**2,754**
Other assets	**83**	**44**	**39**	88	43	45	**691**	**366**	**325**
	¥ 4,297	**¥ 2,605**	**¥ 1,692**	¥ 5,354	¥ 3,163	¥ 2,191	**$35,749**	**$ 21,672**	**$14,077**

Lease payments relating to finance leases accounted for as operating leases in the accompanying consolidated financial statements amounted to ¥552 million ($4,592 thousand) and ¥678 million for the years ended March 31, 2003 and 2002, respectively. Depreciation of the leased assets computed by the straight-line method over the respective lease terms amounted to ¥552 million ($4,592 thousand) and ¥678 million for the years ended March 31, 2003 and 2002, respectively.

Future minimum lease payments subsequent to March 31, 2003 for finance leases accounted for as operating leases are summarized as follows:

Year ending March 31,	*Millions of yen*	*Thousands of U.S. dollars*
2004	**¥ 319**	**$ 2,654**
2005 and thereafter	**1,373**	**11,423**
Total	**¥ 1,692**	**$ 14,077**

The acquisition costs and future minimum lease payments under finance leases presented in the above tables include the imputed interest expense portion.

(b) Lessors' accounting

The following amounts represent the acquisition costs, accumulated depreciation and net book value of the leased assets relating to finance leases accounted for as operating leases at March 31, 2003 and 2002:

	Millions of yen		*Thousands of U.S. dollars*
	2003	2002	**2003**
Machinery, equipment and vehicles			
Acquisition cost	**¥ 69**	¥ 69	**$ 574**
Accumulated depreciation	**(60)**	(58)	**(499)**
Net book value	**¥ 9**	¥ 11	**$ 75**

Lease income relating to finance leases accounted for as operating leases in the accompanying consolidated financial statements amounted to ¥6 million ($50 thousand) and ¥8 million for the years ended March 31, 2003 and 2002, respectively. Depreciation of the assets leased under finance leases accounted for as operating leases amounted to ¥2 million ($17 thousand) and ¥3 million for the years ended March 31, 2003 and 2002, respectively.

Future minimum lease receipts subsequent to March 31, 2003 for finance leases accounted for as operating leases are summarized as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2004	¥ 6	$ 50
2005 and thereafter	18	150
Total	¥ 24	$ 200

The imputed interest income is included in the above amounts.

10. Operating Leases

Future minimum lease payments subsequent to March 31, 2003 for noncancelable operating leases were as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2004	¥ 177	$ 1,473
2005 and thereafter	772	6,422
Total	¥ 949	$ 7,895

11. Derivative Financial Instruments

Derivative financial instruments are utilized by the Company and its consolidated subsidiaries principally to reduce interest rate and foreign exchange rate risk, and consist of forward foreign exchange contracts, currency options, currency swaps, interest-rate options and interest-rate swaps. The Company and its consolidated subsidiaries do not hold or issue derivative financial instruments for speculative purposes.

The Company is exposed to certain market risk arising from its interest-rate swap agreements. The Company is also exposed to the risk of credit loss in the event of nonperformance by the counterparties with respect to interest-rate swap agreements; however, the Company does not anticipate nonperformance by any of these counterparties all of whom are financial institutions with high credit ratings.

The Company and its consolidated subsidiaries have established policies which include maximum upper limits and reporting obligations for derivative transactions and the Company and its consolidated subsidiaries comply fully with these guidelines. Derivative transactions are entered into by the Company's Finance Department and its subsidiaries. The Company carries out mutual supervision and monitoring of its derivative transactions in accordance with management policies and its consolidated subsidiaries apply the same approach. Each derivative transaction of the Company is reported to the director responsible when entered into. The consolidated subsidiaries are required to report the status of their derivatives positions to the Company on a monthly basis and are also required to consult with the Company when they enter into derivative transactions other than forward foreign exchange contracts.

At March 31, 2003 and 2002, all derivatives utilized by the Company and its consolidated subsidiaries met the criteria for deferral hedge accounting.

12. Research and Development Costs

Research and development costs included in cost of sales and selling, general and administrative expenses totaled ¥12,255 million ($101,955 thousand) and ¥11,706 million for the years ended March 31, 2003 and 2002, respectively.

13. Restructuring Costs

Restructuring costs of ¥11,399 million ($94,834 thousand) for the year ended March 31, 2003 consisted of the provision of a reserve for the employees' early retirement incentive plans of ¥10,988 million ($91,415 thousand) and loss on the liquidation of a subsidiary of ¥411 million ($3,419 thousand).

14. Income Taxes

Income taxes applicable to the Company and its domestic subsidiaries comprise corporate tax, inhabitants' taxes and enterprise tax which, in the aggregate, resulted in a statutory tax rate of 41.3% for the years ended March 31, 2003 and 2002. Overseas subsidiaries are subject to the income taxes of the countries in which they operate.

The effective tax rate for the year ended March 31, 2003 differs from the Company's statutory tax rate for the following reasons:

Statutory tax rate	**41.3%**
Permanent non-deductible expenses	**1.5**
Permanent non-taxable income	**(6.2)**
Elimination of dividend income	**12.7**
Equity in earnings of affiliates	**(2.9)**
Decrease in deferred tax assets at March 31, 2003 resulting from change in statutory tax rate	**7.4**
Tax loss carryforward of subsidiaries whose tax effect is not recognized	**4.9**
Other	**(6.9)**
Effective tax rate	**51.8%**

The corresponding information for the year ended March 31, 2002 has been omitted because a loss before income taxes and minority interests was recorded.

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets at March 31, 2003 and 2002 are presented below:

	Millions of yen		*Thousands of U.S. dollars*
	2003	2002	**2003**
Deferred tax assets:			
Accrued retirement benefits for employees	**¥ 18,608**	¥ 23,876	**$ 154,809**
Inventories	**2,254**	2,516	**18,752**
Tax loss carryforwards	**4,460**	4,429	**37,105**
Reserve for employees' early retirement plans	**4,542**	–	**37,787**
Reserve for product defect compensation	**1,800**	–	**14,975**
Accrued expenses	**2,085**	1,391	**17,346**
Loss on devaluation of investment securities	**644**	1,566	**5,358**
Unrealized holding loss on securities	**151**	195	**1,256**
Other	**1,343**	1,494	**11,173**
Total gross deferred tax assets	**35,887**	35,467	**298,561**
Less valuation allowance	**(326)**	(73)	**(2,712)**
Deferred tax assets	**35,561**	35,394	**295,849**
Deferred tax liabilities:			
Depreciation and amortization	**(3,698)**	(4,141)	**(30,765)**
Unrealized holding gain on securities	**(728)**	(1,203)	**(6,057)**
Reserve for deferred gain on property included in retained earnings	**(481)**	(471)	**(4,002)**
Other	**(184)**	(235)	**(1,531)**
Deferred tax liabilities	**(5,091)**	(6,050)	**(42,355)**
Net deferred tax assets	**¥ 30,470**	¥ 29,344	**$ 253,494**

In accordance with a law on amendments to local tax laws, etc. announced on March 31, 2003, the Company and its domestic consolidated subsidiaries applied a statutory tax rate of 40.0% to the calculation of deferred tax assets at March 31, 2003 which are expected to be reversed on April 1, 2004 and thereafter. The effect of this change in the statutory tax rate was to decrease deferred tax assets at March 31, 2003 and net income for the year then ended by ¥438 million ($3,644 thousand) and ¥457 million ($3,802 thousand), respectively, and to increase net unrealized holding gain on securities at March 31, 2003 by ¥19 million ($158 thousand).

15. Amounts Per Share

	Yen		*U.S. dollars*
	2003	2002	**2003**
Net income:			
Basic	**¥ 5.70**	–	**$ 0.05**
Diluted	**5.51**	–	**0.05**
Net loss	**–**	(0.29)	**–**
Cash dividends applicable to the year	**5.00**	5.50	**0.04**
Net assets	**291.82**	299.27	**2.43**

Until the year ended March 31, 2002, basic net income per share or net loss per share were computed based on the net income or loss reported in the consolidated statements of operations and the weighted average number of shares of common stock outstanding during each year, and diluted net income per share was computed based on the net income reported and the weighted average number of shares of common stock outstanding during each year after giving effect to the dilutive potential of shares of common stock to be issued upon the conversion of convertible bonds. Net assets per share were computed based on the net assets reported in the consolidated balance sheets and the number of shares of common stock outstanding at each balance sheet date.

In accordance with a new accounting standard for earnings per share which became effective April 1, 2002, basic net income per share has been computed based on the net income available for distribution to shareholders of common stock and the weighted average number of shares of common stock outstanding during the year, and diluted net income per share has been computed based on the net income available for distribution to the shareholders and the weighted average number of shares of common stock outstanding during each year after giving effect to the dilutive potential of shares of common stock to be issued upon the conversion of convertible bonds for the year ended March 31, 2003.

The amount per share of net assets at March 31, 2003 was computed based on net assets available for distribution to the shareholders and the number of shares of common stock outstanding at the year end.

If the new method of computation had been applied at March 31, 2002 and for the year then ended, net loss per share and the amount per share of net assets would have been ¥0.34 and ¥299.21, respectively.

Cash dividends per share represent the cash dividends proposed by the Board of Directors as applicable to the respective years together with the interim cash dividends paid.

16. Segment Information

(1) Geographic Segment Information

The segment information recognized by geographic area for the years ended March 31, 2003 and 2002 were as follows:

	Millions of yen						
	2003						
	Japan	North America	Europe	Asia and other areas	Total	Elimination	Consolidated
External sales	**¥ 182,649**	**¥ 92,702**	**¥ 47,953**	**¥ 19,441**	**¥ 342,745**	**¥ –**	**¥ 342,745**
Intersegment sales	**67,030**	**264**	**75**	**8**	**67,377**	**(67,377)**	**–**
Total sales	**249,679**	**92,966**	**48,028**	**19,449**	**410,122**	**(67,377)**	**342,745**
Operating expenses	**236,877**	**88,867**	**46,681**	**17,563**	**389,988**	**(68,028)**	**321,960**
Operating income	**¥ 12,802**	**¥ 4,099**	**¥ 1,347**	**¥ 1,886**	**¥ 20,134**	**¥ 651**	**¥ 20,785**
Assets	**¥ 333,507**	**¥ 94,901**	**¥ 46,791**	**¥ 18,788**	**¥ 493,987**	**¥ (26,789)**	**¥ 467,198**

	Millions of yen						
	2002						
	Japan	North America	Europe	Asia and other areas	Total	Elimination	Consolidated
External sales	¥ 181,555	¥ 88,734	¥ 38,038	¥ 16,012	¥ 324,339	¥ –	¥ 324,339
Intersegment sales	57,247	291	50	6	57,594	(57,594)	–
Total sales	238,802	89,025	38,088	16,018	381,933	(57,594)	324,339
Operating expenses	234,214	87,622	37,704	14,930	374,470	(58,271)	316,199
Operating income	¥ 4,588	¥ 1,403	¥ 384	¥ 1,088	¥ 7,463	¥ 677	¥ 8,140
Assets	¥ 326,864	¥ 107,330	¥ 39,187	¥ 13,503	¥ 486,884	¥ (23,989)	¥ 462,895

	Thousands of U.S. dollars						
	2003						
	Japan	North America	Europe	Asia and other areas	Total	Elimination	Consolidated
External sales	**$1,519,543**	**$ 771,231**	**$ 398,943**	**$ 161,739**	**$2,851,456**	**$ –**	**$ 2,851,456**
Intersegment sales	**557,654**	**2,197**	**624**	**66**	**560,541**	**(560,541)**	**–**
Total sales	**2,077,197**	**773,428**	**399,567**	**161,805**	**3,411,997**	**(560,541)**	**2,851,456**
Operating expenses	**1,970,691**	**739,326**	**388,361**	**146,115**	**3,244,493**	**(565,957)**	**2,678,536**
Operating income	**$ 106,506**	**$ 34,102**	**$ 11,206**	**$ 15,690**	**$ 167,504**	**$ 5,416**	**$ 172,920**
Assets	**$2,774,601**	**$ 789,526**	**$ 389,276**	**$ 156,306**	**$4,109,709**	**$(222,870)**	**$ 3,886,839**

(2) Overseas sales

Overseas sales, which include export sales of the Company and its domestic consolidated subsidiaries and sales (other than exports to Japan) of the foreign consolidated subsidiaries, for the years ended March 31, 2003 and 2002 are summarized as follows:

	Millions of yen							
	2003				2002			
	North America	Europe	Asia and other areas	Total	North America	Europe	Asia and other areas	Total
Overseas sales	**¥ 92,696**	**¥ 47,871**	**¥ 32,168**	**¥ 172,735**	¥ 87,774	¥ 38,748	¥ 28,737	¥ 155,259
Consolidated net sales	**–**	**–**	**–**	**¥ 342,745**	–	–	–	¥ 324,339
Ratio of overseas sales to consolidated sales	**27.0%**	**14.0%**	**9.4%**	**50.4%**	27.1%	11.9%	8.9%	47.9%

	Thousands of U.S. dollars			
	2003			
	North America	Europe	Asia and other areas	Total
Overseas sales	**$771,181**	**$398,261**	**$267,621**	**$1,437,063**
Consolidated net sales	**–**	**–**	**–**	**2,851,456**

17. Subsequent Events

(1) Bond issuance

Upon resolution of the directors of the Company at a Board of Directors meeting held on May 21, 2003, the Company issued the following bonds:

Description	Aggregate amount	Annual interest rate	Due date
10th series of unsecured bonds	¥10 billion	0.48%	June 10, 2008
11th series of unsecured bonds	¥20 billion	0.76%	June 10, 2010

The issue price of these bonds is ¥100 for a face value of ¥100. The due date of the subscription payment was June 10, 2003. The Company will use the proceeds from these bonds for the redemption of bonds and the repayment of loans.

(2) Appropriations of retained earnings

The following appropriations of retained earnings of the Company, which have not been reflected in the accompanying consolidated financial statements for the year ended March 31, 2003, were approved at a shareholders' meeting held on June 27, 2003:

	Millions of yen	Thousands of U.S. dollars
Year-end cash dividends (¥2.5 = $0.02 per share)	**¥ 1,155**	**$ 9,609**

Report of Independent Auditors

Shin Nihon & Co.

Report of Independent Auditors

The Board of Directors
NTN Corporation

We have audited the accompanying consolidated balance sheets of NTN Corporation and consolidated subsidiaries as of March 31, 2003 and 2002 and the related consolidated statements of operations, shareholders' equity, and cash flows for the years then ended, all expressed in yen. These financial statements are the responsibility of the Company's management. Our responsibility is to independently express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards, procedures and practices generally accepted and applied in Japan. Those standards, procedures and practices require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of NTN Corporation and consolidated subsidiaries at March 31, 2003 and 2002, and the consolidated results of their operations and their cash flows for the years then ended in conformity with accounting principles and practices generally accepted in Japan.

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended March 31, 2003 are presented solely for convenience. Our audit also included the translation of yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 1.

Shin Nihon & Co.

Osaka, Japan
June 27, 2003

See Note 1 which explains the basis of preparation of the consolidated financial statements of NTN Corporation and consolidated subsidiaries under Japanese accounting principles and practices.

NTN Group Investment Holdings

As of March 31, 2003

Consolidated Subsidiaries	*Paid-in capital*	*Holding in percent*
HIGASHINIHON NTN SERVICE CORP.	¥40,000,000	100
KYOEI NTN CORP.	¥20,000,000	100
NTN KONGO CORP.	¥1,000,000,000	100
NTN ENGINEERING PLASTICS CORP.	¥100,000,000	100
NTN POWDER METAL CORP.	¥400,000,000	40[60]
NTN MIKUMO COMPANY LTD.	¥450,000,000	100
NTN CASTING CORP.	¥450,000,000	100
NTN KISHIWADA CORP.	¥20,000,000	100
NTN KINAN CORP.	¥450,000,000	100
NTN USA CORP.	US.$97,820,000	100
NTN BEARING CORP. OF AMERICA	US.$24,700,000	100(100)
NTN DRIVESHAFT, INC.	US.$38,580,000	100(100)
AMERICAN NTN BEARING MFG. CORP.	US.$24,330,000	100(100)
NTN-BOWER CORP.	US.$67,000,000	100(100)
NTN-BCA CORP.	US.$16,000,000	100(100)
NTN BEARING CORP. OF CANADA LTD.	CAN.$20,100,000	100
NTN SUDAMERICANA, S.A.	US.$700,000	100
NTN WÄLZLAGER (EUROPA) G.m.b.H.	EURO 14,500,000	100
NTN KUGELLAGERFABRIK (DEUTSCHLAND) G.m.b.H.	EURO 18,500,000	100
NTN BEARINGS (UK) LTD.	STG.£2,600,000	100(0.04)
NTN FRANCE S.A.	EURO 3,700,000	99.999(0.006)
NTN TRANSMISSIONS EUROPE	EURO 71,727,792	85
NTN BEARING-SINGAPORE (PTE) LTD.	S.$36,000,000	100(1)
NTN CHINA LTD.	HK.$2,500,000	100
NTN BEARING-THAILAND CO., LTD.	BAHT 600,000,000	99.15(99.15) [0.85]
NTN MANUFACTURING (THAILAND) CO., LTD.	BAHT 611,000,000	99.99(99.99)
NTN BEARING-MALAYSIA SDN. BHD.	M.$350,000	60(60)
NTN KOREA CO., LTD.	WON 500,000,000	100
SHANGHAI NTN CORP.	US.$15,250,000	95
NTN-NIDEC (ZHEJIANG) CORP.	US.$6,500,000	60
GUANGZHOU NTN-YULON DRIVETRAIN CO., LTD.	US.$4,400,000	60

Affiliated Companies Accounted for by the Equity Method		
SOCIÉTÉ NOUVELLE DE TRANSMISSIONS DU MANS	EURO 32,994,600	20
TUNG PEI INDUSTRIAL CO., LTD.	NT.$1,257,232,620	27.35
TAIWAY LTD.	NT.$160,000,000	36.25
UNIDRIVE PTY. LTD.	A.$5,000,000	40

(Notes)

1. NTN Corporation's share of voting rights in NTN POWDER METAL CORP. is less than 50%. As this company is substantially controlled by NTN Corporation, however, it is treated as a subsidiary.
2. Under "Holding in percent," the figure in parentheses indicates the percentage of indirectly owned, and is included as part of the total holding. The figure in brackets indicates the percentage owned by parties having close ties with the Company. It is not included in the ownership percentage.

NTN's Global Network

As of June 27, 2003

JAPAN

Sales

Automotive Sales Headquarters
Industrial Sales Headquarters
6th Floor, TOC Bldg., 22-17
Nishi-Gotanda 7-chome, Shinagawa-ku,
Tokyo 141-0031, Japan
Phone : +81-3-5487-2826
Fax : +81-3-5487-2940

Precision Equipment Division
6th Floor, TOC Bldg., 22-17
Nishi-Gotanda 7-chome, Shinagawa-ku,
Tokyo 141-0031, Japan
Phone : +81-3-5487-2867
Fax : +81-3-5487-2713

Fluid Dynamic Bearing Division
101 Katsutaba, Kanie-cho, Ama-gun,
Aichi Prefecture 497-8541, Japan
Phone : +81-567-95-5005
Fax : +81-567-95-5939

NTN BEARING SERVICE CO., LTD.
3-1, 1-chome, Takanawa, Minato-ku,
Tokyo 108-0074, Japan
Phone : +81-3-3440-3321
Fax : +81-3-3440-3334

KYOEI NTN CORP.
26-4 Hikawa-cho, Itabashi-ku,
Tokyo 173-0013, Japan
Phone : +81-3-3963-2755
Fax : +81-3-3963-2760

Manufacturing

Kuwana Works
2454 Aza-Tsuchijima, Oaza-Higashikata,
Kuwana, Mie 511-8678, Japan
Phone : +81-594-24-1811
Fax : +81-594-21-0840

Iwata Works
1578 Higashi-Kaizuka, Iwata, Shizuoka
438-8510, Japan
Phone : +81-538-37-8000
Fax : +81-538-37-8009

Okayama Works
500-1 Hatakeda, Bizen, Okayama
705-8510, Japan
Phone : +81-869-66-6701
Fax : +81-869-66-8101

Takarazuka Works
2-1 Toyo-cho, Takarazuka, Hyogo
665-0032, Japan
Phone : +81-797-71-1131
Fax : +81-797-71-1818

Nagano Works
14017-11 Oaza-Nakaminowa,
Minowa-machi, Kamiina-gun, Nagano
399-4601, Japan
Phone : +81-265-79-8888
Fax : +81-265-79-8881

NTN KONGO CORP.
177 Kido-cho, Kawachinagano, Osaka
586-0001, Japan
Phone : +81-721-53-1317
Fax : +81-721-54-6981

NTN ENGINEERING PLASTICS CORP.
970 Oaza Ano, Toin-cho, Inabe-gun,
Mie 511-0243, Japan
Phone : +81-594-76-7221
Fax : +81-594-76-7244

NTN POWDER METAL CORP.
101 Katsutaba, Kanie-cho, Ama-gun,
Aichi Prefecture 497-8541, Japan
Phone : +81-567-95-3913
Fax : +81-567-95-6160

NTN MIKUMO COMPANY LTD.
750-1 Oaza-Onoe, Mikumo-cho,
Ichishi-gun, Mie Prefecture 515-2109,
Japan
Phone : +81-598-56-3311
Fax : +81-598-56-7151

NTN CASTING CORP.
475-1, Nadabun-cho, Hirata, Shimane
Prefecture 691-0003, Japan
Phone : +81-853-63-3108
Fax : +81-853-63-3463

NTN KINAN CORP.
2504-1 Ikuma, Kamitonda-cho,
Nishimuro-gun, Wakayama Prefecture
649-2103, Japan
Phone : +81-739-47-1801
Fax : +81-739-47-1829

HIKARI SEIKI INDUSTRY CO., LTD.
8 Motohigashikata, Sanmaiden-cho,
Tenri, Nara Prefecture 632-0046, Japan
Phone : +81-743-66-0285
Fax : +81-743-67-1512

THE AMERICAS

Holding Company

NTN USA CORP.
1600 E. Bishop Court, P.O. Box 7604,
Mount Prospect, IL 60056-7604, U.S.A.
Phone : +1-847-298-7500
Fax : +1-847-294-1209

Sales

NTN BEARING CORP. OF AMERICA
1600 E. Bishop Court, P.O. Box 7604,
Mount Prospect, IL 60056-7604, U.S.A.
Phone : +1-847-298-7500
Fax : +1-847-699-9744

NTN BEARING CORP. OF CANADA LTD.
6595 Ordan Drive, Mississauga,
Ontario, L5T 1X2, Canada
Phone : +1-905-564-2700
Fax : +1-905-564-7749

NTN SUDAMERICANA, S.A.
World Trade Center Panama Calle 53
Este, Urbanización Marbella Piso NO.16,
Oficina 1601 Apartado Postal 832-
0487, Panamá, Rep.de Panamá
Phone : +507-269-4777
Fax : +507-264-5592

NTN DE MEXICO, S.A.
Calle 22 No.2465, Esq, Calle 3,
Zona Industrial, C.P. 44940 Guadalajara,
Jalisco, México
Phone : +52-33-3145-1490
Fax : +52-33-3145-1594

NTN DO BRASIL LTDA.
Av. Moema, 94-9º
Andar, Conj. 92 a 93 Cep 04077-020,
Indianópolis, São Paulo, SP, Brasil
Phone : +55-11-5051-0600
Fax : +55-11-5051-2807

Manufacturing

AMERICAN NTN BEARING MFG. CORP.
Schiller Park Plant
9515 Winona Avenue, Schiller Park,
IL 60176, U.S.A.
Phone : +1-847-671-5450
Fax : +1-708-681-5298

Elgin Plant
1500 Holmes Road, Elgin, IL 60123,
U.S.A.
Phone : +1-847-741-4545
Fax : +1-847-888-1226

NTN-BOWER CORP.
Macomb Plant
711 North Bower Road, Macomb,
IL 61455 U.S.A.
Phone : +1-309-833-4541
Fax : +1-309-837-7373

Hamilton Plant
2086 Military Street South,
Hamilton, AL 35570, U.S.A
Phone : +1-205-921-2173
Fax : +1-205-921-2059

NTN DRIVESHAFT, INC.
8251 South International Drive
Columbus, IN 47201 U.S.A.
Phone : +1-812-342-7000
Fax : +1-812-342-1155

NTN-BCA CORP.
Lititz Plant
401 West Lincoln Avenue, Lititz,
PA 17543-7020, U.S.A.
Phone : +1-717-627-3623
Fax : +1-717-627-4560

Greensburg Plant
987 North U.S. Highway 421,
Greensburg, IN 47240-9399, U.S.A.
Phone : +1-812-663-3361
Fax : +1-812-663-5442

NTN BEARING MFG. CANADA
A DIV. OF NTN BEARING CORP. OF
CANADA LTD.
6740 Kitimat Road, Mississauga,
Ontario, L5N 1M6, Canada
Phone : +1-905-826-5500
Fax : +1-905-821-3486

EUROPE

Sales

NTN WÄLZLAGER (EUROPA) G.m.b.H.
Max-Planck-Strasse 23, 40699 Erkrath,
F.R.Germany
Phone : +49-211-2508-0
Fax : +49-211-2508400

NTN BEARINGS (UK) LTD.
Wellington Crescent, Fradley Park,
Lichfield, Staffordshire, WS13 8RZ, U.K.
Phone :+44-1543-445000
Fax :+44-1543-445035

NTN FRANCE S.A.
Z.I.Sablière BP 338
Schweighouse Sur Moder 67507
Haguenau Cedex, France
Phone : +33-3-88-53-2222
Fax : +33-3-88-73-4695

Manufacturing

NTN KUGELLAGERFABRIK (DEUTSCHLAND) G.m.b.H.
NTN Strasse 1-3, 40822 Mettmann,
F.R. Germany
Phone : +49-2104-1409-0
Fax : +49-2104-13138

NTN TRANSMISSIONS EUROPE
Z.A. des Trémelières Communauté
Urbaine du Mans 72704 Allonnes
Cedex, France
Phone : +33-2-43-83-9000
Fax : +33-2-43-83-9030

ASIA AND OTHER AREAS

Sales

NTN BEARING-SINGAPORE (PTE) LTD.
No.9 Clementi Loop Singapore 129812
Phone : +65-64698066
Fax : +65-64695400

NTN CHINA LTD.
Rm. 1914-1915, Park-in Commercial
Centre, 56 Dundas Street, Mongkok,
Kowloon, Hong Kong
Phone : +852-2385-5097
Fax : +852-2385-2138

NTN BEARING-THAILAND CO., LTD
12th Floor, Panjathani Tower, 127/15
Nonsee Road, Chongnonsee Yannawa,
Bangkok 10120, Thailand
Phone : +66-2-681-0401
Fax : +66-2-681-0408

NTN BEARING-MALAYSIA SDN. BHD.
Lot No. 764C, 4 1/2 Miles Jalan Kelang
Lama, 58000 Kuala Lumpur, Malaysia
Phone : +60-3-79817931
Fax : +60-3-79814678

NTN KOREA CO., LTD.
10th Floor, Press Center, 25,
Taepyeong-Ro 1-GA, Jung-Gu,
Seoul 100-745, Korea
Phone : +82-2-720-3666
Fax : +82-2-720-3669

NTN-CBC (AUSTRALIA) PTY. LTD.
3, The Crescent, Kingsgrove, NSW
2208, LOCKED BAG 1800, Kingsgrove
1480. NSW Australia
Phone : +61-2-9502-1833
Fax : +62-2-9502-4013

Manufacturing

NTN MANUFACTURING (THAILAND) CO., LTD.
111/2 Moo 4,Tambol Pluakdaeng,
Amphur Pluakdaeng,
Rayong 21140, Thailand
Phone : +66-38-955-185
Fax : +66-38-955-191

SHANGHAI NTN CORP.
No.666, Nanle Road, Songjiang
Industrial Zone, Songjiang,
Shanghai, China
Phone : +86-21-5774-8666
Fax : +86-21-5774-8555

NTN-NIDEC (ZHEJIANG) CORP.
No.600, Changsheng Road,
Pinghu Economic Development Zone,
Pinghu City, Zhejiang Province, China
Phone : +86-573-5096688
Fax : +86-573-5096767

GUANGZHOU NTN-YULON DRIVETRAIN CO., LTD.
No.11 Jun Da Road, East District of
Guangzhou Economic and
Technological Development Zone,
Guangzhou, Guangdong Province,
China
Phone : +86-20-8226-6458
Fax : +86-20-8226-6937

TUNG PEI INDUSTRIAL CO., LTD.
10th Floor No.142, Chung Hsiao E.Rd.,
Sec. 4, Taipei, Taiwan, R.O.C.
Phone : +886-2-2741-7321
Fax : +886-2-2741-6623

TAIWAY LTD.
No.14, Kwang Fu Road, Hukou 303,
Hsianchu, Taiwan, R.O.C.
Phone : +886-3-5983601
Fax : +886-3-5982787

UNIDRIVE PTY. LTD.
45-49 McNaughton Road,
Clayton, Victoria 3168
Australia
Phone : +61-3-9542-4100
Fax : +61-3-9544-8117

Management

As of June 27, 2003

Yasunobu Suzuki
● President

Yasuhiro Goto
● Deputy President

Naokazu Iyama
● Senior Managing Director

Directors

Yasunobu Suzuki*	President
Yasuhiro Goto*	Deputy President
Naokazu Iyama*	Senior Managing Director
Hiroyuki Tomari	Managing Director
Junji Oba	Managing Director
Wasaburo Suganuma	Managing Director
Tadatoshi Kato	Managing Director
Naohiko Fujimura	Director
Hideo Sofue	Director
Osamu Wakisaka	Director
Katsuhiro Inoue	Director
Katsuhiko Machiyama	Director
Takeshi Yoshimura	Director
Kenji Okada	Director
Yoshikazu Fukumura	Director
Hirotsugu Mori	Director
Makoto Onoda	Director
Osamu Kato	Director
Tatsuo Kondo	Director
Yasuo Fujioka	Director

*Representative Directors

Auditors

Hideki Takeda	Standing Statutory Auditor
Mitsunobu Matsuo	Standing Statutory Auditor
Tadataka Nishiyama	Statutory Auditor
Teruo Takashima	Statutory Auditor

Investor Information

Head Office

NTN Corporation
3–17 Kyomachi-bori 1-chome, Nishi-ku,
Osaka 550-0003 Japan
Investor Relations
Phone: +81-6-6449-3612
Fax: +81-6-6443-6966
E-mail: sysad@osa.ntn.co.jp

NTN on Internet

NTN's Web site offers a variety of corporate and product information, including the latest annual report and financial results.
http://www.ntn.co.jp

Common Stock (As of March, 2003)

Authorized	800,000,000 shares
Issued and outstanding	463,056,775 shares

Number of Shareholders (As of March 31, 2003)

30,022

Transfer Agent for Common Stock

UFJ Trust Bank Limited
4-3, 1-chome, Marunouchi, Chiyoda-ku,
Tokyo, 100-0005, Japan

Stock Exchange Listings

Tokyo, Osaka stock exchanges (#6472)

Independent Accountants

Shin Nihon & Co.

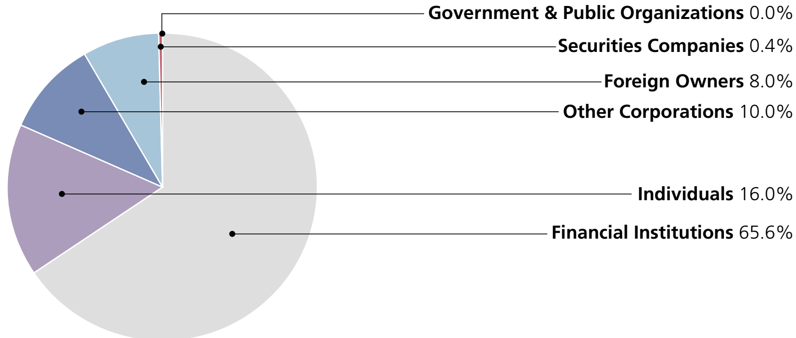
General Meeting of Shareholders

The General Meeting of Shareholders was held on June 27, 2003 in Osaka

Stock Price Range in Fiscal 2002

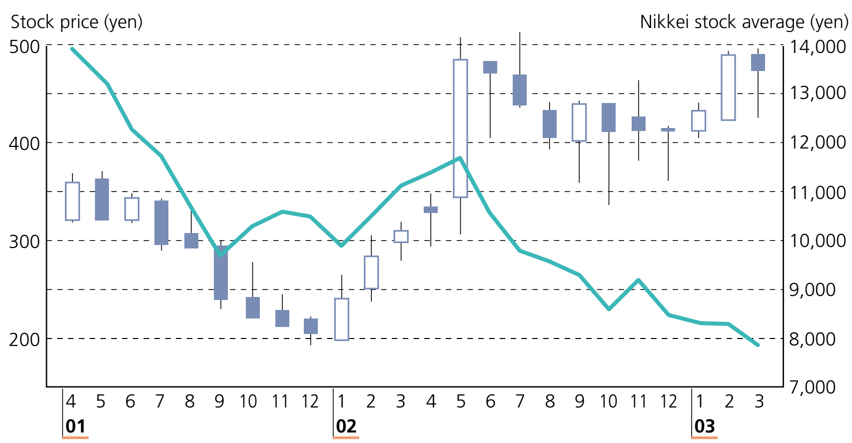
High: ¥508 (July 12, 2002)
Low: ¥295 (April 2, 2002)

Shareholders by Category

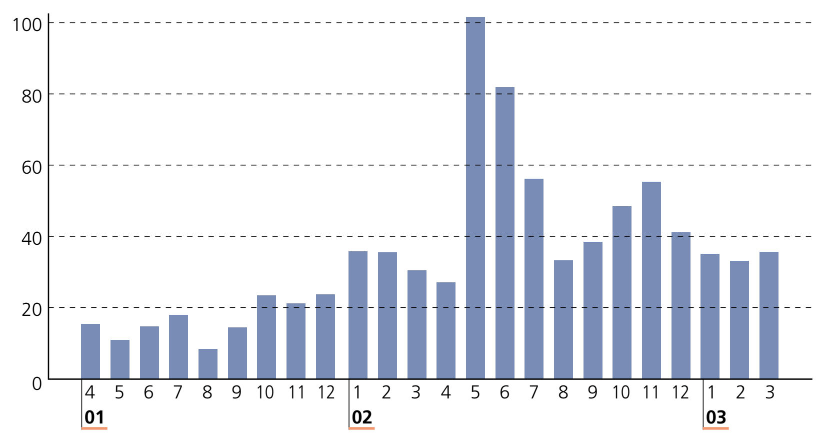


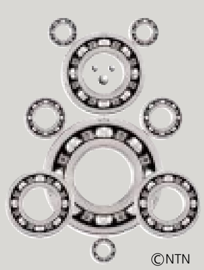
Tokyo Stock Price Range

Monthly stock price (yen) — **Nikkei stock average**



Monthly volume traded (Million shares)





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Front cover: NTN's technology has application in industries around the world.

For New Technology Network

NTN Corporation

Head Office
3-17, 1-chome, Kyomachibori, Nishi-ku,
Osaka 550-0003, Japan

http://www.ntn.co.jp

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