





UBE INDUSTRIES,LTD.



	1	
Consolidated Financial Highlights	5	
Fiscal 2001 Business Highlig	zhts	
A Message from the Pr	resident	
Revision of the "N	New 21•UBE" Management Plan	
Business Hig	ghlights	
► Cher	micals & Plastics	
	Construction Materials	
Profile		
Founded in 1897, Ube	► Machinery & Metal Products	
Industries, Ltd., is preparing for operations in a third con-	► Energy & Environment	
secutive century. The four segments that comprise the		
UBE Group—Chemicals & Plastics, Construction	► Responsible Care	
Materials, Machinery & Metal Products, and Energy	► Research & Development	
& Environment—are pursu-		
ing independent business strategies but have the com-	Consolidated Five-Year Summary	
mon goal of strengthening consolidated Group manage-	Financial Review 23	
mon goal of strengthening		
mon goal of strengthening consolidated Group manage- ment. Ube Industries is using superior technologies acquired through extensive	Financial Review 23 Consolidated Balance Sheets	
mon goal of strengthening consolidated Group manage- ment. Ube Industries is using superior technologies acquired through extensive R&D to create high-quality, value-added products that		
mon goal of strengthening consolidated Group manage- ment. Ube Industries is using superior technologies acquired through extensive R&D to create high-quality, value-added products that are capable of securing strong positions in domestic	Consolidated Balance Sheets 20 Consolidated Statements of Income 28	_
mon goal of strengthening consolidated Group manage- ment. Ube Industries is using superior technologies acquired through extensive R&D to create high-quality, value-added products that are capable of securing strong positions in domestic and overseas markets.	Consolidated Balance Sheets 20 Consolidated Statements of Income 28 Consolidated Statements of Stockholders' Equity 29	
mon goal of strengthening consolidated Group manage- ment. Ube Industries is using superior technologies acquired through extensive R&D to create high-quality, value-added products that are capable of securing strong positions in domestic and overseas markets.	Consolidated Balance Sheets 20 Consolidated Statements of Income 28	
mon goal of strengthening consolidated Group manage- ment. Ube Industries is using superior technologies acquired through extensive R&D to create high-quality, value-added products that are capable of securing strong positions in domestic and overseas markets.	Consolidated Balance Sheets 20 Consolidated Statements of Income 28 Consolidated Statements of Stockholders' Equity 29	_
mon goal of strengthening consolidated Group manage- ment. Ube Industries is using superior technologies acquired through extensive R&D to create high-quality, value-added products that are capable of securing strong positions in domestic and overseas markets.	Consolidated Balance Sheets 26 Consolidated Statements of Income 28 Consolidated Statements of Stockholders' Equity 29 Consolidated Statements of Cash Flows 30 s to Consolidated Financial Statements 31	_
mon goal of strengthening consolidated Group manage- ment. Ube Industries is using superior technologies acquired through extensive R&D to create high-quality, value-added products that are capable of securing strong positions in domestic and overseas markets.	Consolidated Balance Sheets 20 Consolidated Statements of Income 28 Consolidated Statements of Stockholders' Equity 29 Consolidated Statements of Cash Flows	_
mon goal of strengthening consolidated Group manage- ment. Ube Industries is using superior technologies acquired through extensive R&D to create high-quality, value-added products that are capable of securing strong positions in domestic and overseas markets. Notes Report of Indo on the Consol	Consolidated Balance Sheets 26 Consolidated Statements of Income 28 Consolidated Statements of Stockholders' Equity 29 Consolidated Statements of Cash Flows 30 to Consolidated Financial Statements 31 Dependent Certified Public Accountants 42	_
mon goal of strengthening consolidated Group manage- ment. Ube Industries is using superior technologies acquired through extensive R&D to create high-quality, value-added products that are capable of securing strong positions in domestic and overseas markets. Notes Report of Indo on the Consol Board of Directors	Consolidated Balance Sheets 26 Consolidated Statements of Income 28 Consolidated Statements of Stockholders' Equity 29 Consolidated Statements of Cash Flows 30 s to Consolidated Financial Statements 31 ependent Certified Public Accountants 42 43	-
mon goal of strengthening consolidated Group manage- ment. Ube Industries is using superior technologies acquired through extensive R&D to create high-quality, value-added products that are capable of securing strong positions in domestic and overseas markets. Notes Report of Indo on the Consol	Consolidated Balance Sheets 26 Consolidated Statements of Income 28 Consolidated Statements of Stockholders' Equity 29 Consolidated Statements of Cash Flows 30 s to Consolidated Financial Statements 31 ependent Certified Public Accountants 42 43	-
mon goal of strengthening consolidated Group manage- ment. Ube Industries is using superior technologies acquired through extensive R&D to create high-quality, value-added products that are capable of securing strong positions in domestic and overseas markets. Notes Report of Indo on the Consol Board of Directors	Consolidated Balance Sheets 26 Consolidated Statements of Income 28 Consolidated Statements of Stockholders' Equity 29 Consolidated Statements of Cash Flows 30 to Consolidated Financial Statements 31 ependent Certified Public Accountants 42 43 4	-
mon goal of strengthening consolidated Group manage- ment. Ube Industries is using superior technologies acquired through extensive R&D to create high-quality, value-added products that are capable of securing strong positions in domestic and overseas markets. Notes Report of Indo on the Consol Board of Directors	Consolidated Balance Sheets 26 Consolidated Statements of Income 28 Consolidated Statements of Stockholders' Equity 29 Consolidated Statements of Cash Flows 30 to Consolidated Financial Statements 31 ependent Certified Public Accountants 42 43 4	_

CONTENTS

**CONSOLIDATED FINANCIAL HIGHLIGHTS** 

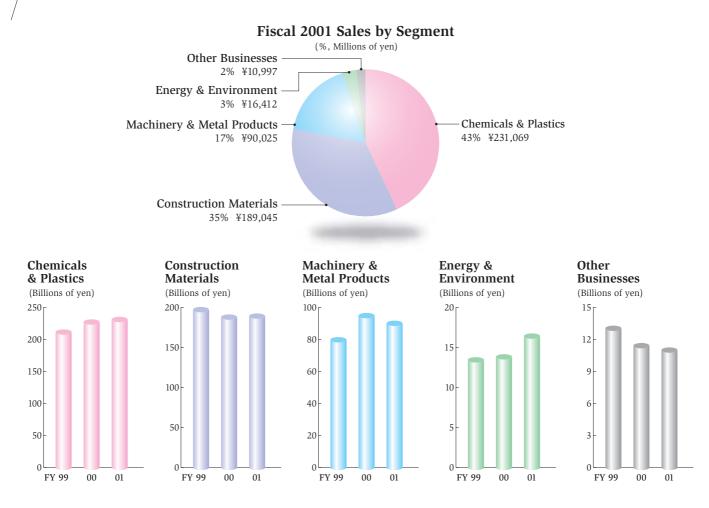
UBE INDUSTRIES, LTD. AND CONSOLIDATED SUBSIDIARIES For the years ended March 31, 2002 and 2001

		Million	s of ye	n	U.S	usands of 3. dollars Note 1)
	2	002	1	2001		2002
For the year:						
Net sales	¥53	7,548	¥53	35,007	\$4,0	041,714
Operating income		7,596		28,520		132,301
Net income		1,002		7,911		7,534
At year-end:						
Total assets	¥82	0,213	¥78	30,875	\$6,	167,015
Total stockholders' equity	9	6,947	9	94,345		728,925
		Y	'en			6. dollars Note 1)
Per share:						
Net income, primary (Note 2)	¥	1.20	¥	9.48	\$	0.009
Cash dividends applicable to the period		—		3.00		_

Notes: 1. U.S. dollar amounts are translated from yen, for convenience only, at the rate of ¥133=US\$1, the approximate rate of exchange on March 31, 2002.

2. Net income, primary, per share is based on the weighted-average number of shares of common stock outstanding during the respective fiscal years.

# FISCAL 2001 BUSINESS HIGHLIGHTS



t is always an honor to have the opportunity to say a few words to all our stockholders on behalf of the staff and Board of Directors of Ube Industries, Ltd.

#### Management Overview

In fiscal 2001, ended March 31, 2002, a downturn in IT-related industries and the September 11 terrorist attacks in the United States contributed to a slowdown in the U.S. and Asian economies. In Japan, lackluster personal consumption and a substantial drop in capital investment magnified sluggish domestic demand, and the deflationary trend became more pronounced. These factors, in addition to intensified global competition, led to the rapid worsening of the Japanese economy.

Against this background, in the first year of the "New 21•UBE" consolidated three-year mediumterm management plan, we have chosen the keywords "business concentration and growth" to help us create a management system based on global standards. We tried to achieve this goal by



focusing managerial resources on our "core businesses" and strengthening the international competitiveness of our "fundamental businesses." In addition, the management has made every effort to respond to the rapid downturn in the economy. We are working toward implementing intensive cost-reduction measures to reduce the cost of raw materials procurement, distribution, and labor; activating nonperforming assets; and selling some businesses to reduce debt. Despite these efforts as well as such new additions to the Group's consolidated affiliates as Thai Caprolactam Public Co., Ltd., and Ube Nylon (Thailand) Ltd. (UNT), a downturn in the Asian and European caprolactam markets, a reduction in shipments of specialty products for use in IT-related industries, and slack domestic demand for cement resulted in an unavoidable and substantial reduction in profit. Consolidated net sales rose ¥2.5 billion, to ¥537.5 billion; operating income

 $\mathcal{D}$ 

fell ¥10.9 billion, to ¥17.5 billion; ordinary income dropped ¥10.0 billion, to ¥7.7 billion; and net income declined ¥6.9 billion, to ¥1.0 billion.

In light of the present conditions, executives' salaries were reduced as of October 2001, and further cuts became effective from March 2002.

#### "New 21•UBE" Plan Revision

The UBE Group started the "New 21•UBE" plan in fiscal 2001 to work toward creating a management system based on global standards as well as strengthening the international competitiveness of the Company. The plan established the following tasks.

Task 1: Implementing management reforms to optimize "consolidated segment management that prioritizes stockholder value"

Task 2: Aiming for exponential growth in our core business areas—fine chemicals, pharmaceutical products, specialty products, nylon 12, and aluminum wheels

#### Main Management Indexes (Consolidated results for fiscal 2000 and 2001)

	Calculation Method	Unit	Fiscal 2001	Fiscal 2000	Difference
Debt-to-equity ratio	Debt/total stockholders' equity	Times	5.4	5.1	0.3
Free cash flow	Cash flow from operating activities + cash flow from investing activities	¥ billion	7.1	34.2	(27.1)
Return on assets (ROA)	Business income/ total assets	%	2.2	3.7	(1.5)
Return on equity (ROE)	Net income/ total stockholders' equity	%	1.0	8.6	(7.6)

Note: Business income: operating income + interest and dividend income + equity in losses of unconsolidated subsidiaries and affiliated companies

Task 3: Improving the Company's financial structure to further reduce debt

## Task 4: Implementing environment-oriented management to push forward with environmental preservation plans

We have revised the original plan because it appeared that we would not meet the targets set during the first fiscal year of the plan due to increasingly severe economic conditions. We did not change the basic policies set out in the plan, but the revised plan for the next two years entails the integration of operations through extensive rationalization. This includes a full-fledged reduction of labor costs and expenses as well as the adoption of a holding company structure as a part of streamlining. The plan also calls for moving forward measures to cut back debt through such measures as keeping down capital investment, other investments, and loans as well as selling assets.

The UBE Group will implement the revised "New 21•UBE" plan with "speed and reliability" to solidify its base for further growth. We hope to receive the continued support and cooperation of all our stockholders in the coming year.

K. Jennemi

Kazumasa Tsunemi President and Representative Director

### **REVISION OF THE "NEW 21-UBE" MANAGEMENT PLAN**

Severe economic conditions are likely to persist in light of the prolonged IT slump, a slowing of the world economy, and the entrenchment of deflation. We will restructure our revenue base through a major streamlining of the UBE Group and move forward the management plan to reduce debt in order to solidify the Group's base for further growth. We aim to achieve the following goals within the next two years.

#### (1) Implementing Comprehensive Rationalization

In order to realize a ¥23 billion rationalization effect within the next two years, all operations must be reviewed. However, the plan to reduce personnel will have the biggest impact.

#### **Rationalization Strategies**

• Regroup UBE headquarter sections and indirect segment subdivisions and integrate them into "UBE Group Staff" and the "UBE Group Shared Service Center" to free up expenses, reduce personnel, and expedite Group decision making (from October 2002)

- Integrate the Chemicals & Plastics segment's R&D department with the corporate R&D department to reduce personnel and improve R&D efficiency (from April 2002)
  - Review the production and sales department workforce in each segment to trim personnel and improve efficiency (from April 2002)

#### GOALS

(In comparison with fiscal 2001)

We plan to increase operating income in fiscal 2002 by ¥6.5 billion, to ¥24 billion, and in fiscal 2003 by ¥16.5 billion, to ¥34 billion. We intend to reduce the number of UBE Group personnel by 900, to 10,900. We also plan to reduce debt by ¥80 billion, to ¥440 billion.

#### (2) Continuing to Expand and Strengthen Core Businesses

The core businesses that will solidify our future revenue base are pharmaceutical products, fine chemicals, specialty products, and aluminum wheels. To these, we have added nylon 12 operations, and we will continue to expand and strengthen these core businesses.

#### **Core Business Strategies**

**Pharmaceutical Products** • Become authorized as a strategic supplier for major domestic and overseas pharmaceutical companies to expand consignment production operations

• Expand manufacturing facilities, including those abroad, in response to the rapid growth in consignment pharmaceutical operations (A third manufacturing plant in compliance with U.S. Food & Drug Administration standards is now under construction.)

**Specialty Products** • Increase production capacity, cultivate new customers, and develop and boost sales of new products to take advantage of expected substantial medium- to long-term growth

• Use our proprietary technologies to create unique products and maintain top shares of their respective markets

**Aluminum Wheels** UBE Automotive, Ltd., was established in April 2001 to coordinate the three manufacturing operations in Japan, the United States, and Canada as a global formation.

- Become the customer's strategic partner by creating a full-range service system that covers concept consultation, design specification, delivery, and after-sales services
  - Increase production capacity at the Sarnia Plant in Canada, which commenced operations in March 2002, to 2.2 million units per year by 2005

**Nylon 12** There are only four producers of nylon 12 in the world, and future growth is expected to exceed 10% annually.

- Increase production capacity to meet this demand
- Start feasibility study of a new production facility at Productos Quimicos del Mediterraneo, S.A. (PQM), in Spain, aiming to commence operations in January 2006

4

<b>Business</b>	Portfolio	at a	Glance
-----------------	-----------	------	--------

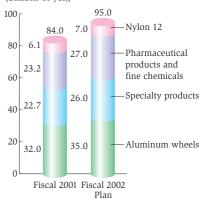
	Core Businesses to Be Expanded	Fundamental Businesses	New Businesses	Reorganization, Etc.
Chemicals & Plastics	Pharmaceutical products (in-house developed drugs and contracted manufacture of inter- mediates and APIs) Fine chemicals Specialty products (materials for electron- ics, information equip- ment, and batteries) Nylon 12	Caprolactam Nylon 6 Industrial chemicals (caprolactam business chain)		Polyethylene Synthetic rubber polyalphaolefin Amorphous poly- alphaolefin (APAO) (Petrochemicals business) Agri-materials
Construction Materials		Cement Construction materials		
Machinery & Metal Products	Aluminum wheels	Machinery		
Energy & Environment		Coal Electric power	Environmental businesses	
Other Businesses			Next-generation businesses	Real estate

#### (3) Reforming **Financial Structure**

We are striving to improve earnings despite the severe business environment through the implementation of the aforementioned rationalization and actions to strengthen our core businesses. Recognizing that the Group's first priority is the reduction of debt, we will accelerate the implementation of our original plan. Our goal is to cut debt by ¥80 billion over a period of two years, starting from the end of fiscal 2001, and bring it down to ¥440 billion by the end of fiscal 2003.

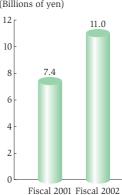
#### Net Sales for Core Businesses

(Billions of yen)



#### **Operating Income** for Core Businesses

(Billions of yen)



Plan

#### Plan to Reduce Debt (Billions of yen)

	Fiscal 2002 Plan	Fiscal 2001	Difference
Beginning-of-year debt (A)	¥521	¥483.8	¥37.2
Depreciation Ordinary income Sale of assets Capital investment & loans and other investment Operating capital	32 13 39 (37) 0	31.0 7.7 26.4 (59.2) 3.7	1.0 5.3 12.6 22.2 (3.7)
Total cash (debt repayment) (B) Decrease (increase) due to changes in number of consolidated subsidiaries (C)	47 9	9.6 (46.7)	37.4 55.7
End-of-year debt (A-B-C)	¥465	¥521.0	¥(56.0)

# Chemicals & Plastics

#### **Basic Strategy:**

The Company is accelerating the expansion of its core businesses -fine chemicals, pharmaceutical products, specialty products, and nylon 12-the major sources of the Group's growth. Focusing its resources on these areas will help expand this group of products, for which Ube Industries is among the top three companies in the world. In the globally expanding caprolactam business, the Company is strengthening such traditional businesses as nylon and fine derivatives and will aim for stable revenue from these areas as fundamental businesses.

#### Achievements in Fiscal 2001:

Two consolidated subsidiaries, Thai Caprolactam and UNT, were newly added to the Chemicals & Plastics segment, but segment sales only climbed to ¥231.1 billion, up ¥4.0 billion from the previous year. Operating income dropped ¥8.1 billion, to ¥3.6 billion, due to downturns in Southeast Asian and European caprolactam markets as well as reduced shipments of specialty products for use in IT-related industries.

#### **Principal Products:**

Polyolefins, synthetic rubber, caprolactam, nylon resins, pharmaceutical bulk compounds and intermediates, fine chemicals, industrial chemicals, specialty products

#### Background to Fiscal 2001 Business Results and Current-Term Outlook

**Polyolefins and Synthetic Rubber** -> Shipments of polyolefins were sluggish for fiscal 2001, and the market was inactive. There was a steady increase in demand for and shipments of UBE super-polyethylene "UMERIT," which is manufactured using metallocene catalysis technology and is highly commended in the market as a functional material.

The Company decided to pull out of polypropylene manufacturing as a part of its business reorganization. The Company transferred all its shares of Grand Polymer Co., Ltd., to Mitsui Chemicals, Inc., the other partner in the joint venture, on October 1, 2001. The Company also transferred all its shares of ATC Inc.—a U.S. manufacturing hub providing a source of stable income from polypropylene compounds—to Mitsui Chemicals America, Inc., on May 1, 2002.

In the polybutadiene manufacturing business, the Company acquired the stock of Thai Synthetic Rubbers Co., Ltd., from its joint-venture partner in Thailand in December 2001, securing management authority. The Company will continue to manufacture polybutadiene rubber for general-use products at Thai Synthetic Rubbers and specialty forms domestically to better respond to customer needs.

In the acrylonitrile butadiene styrene (ABS) plastic business, Mitsubishi Rayon Co., Ltd., and Ube Cycon, Ltd., in a joint venture with GE Japan Holdings Inc., integrated their ABS plastic operations, establishing UMG ABS, Ltd., on April 1, 2002. The Company expects this newly consolidated company to come out a winner in the fiercely competitive Asian ABS plastic market. Both Mitsubishi Rayon and Ube Cycon boast advanced technical skills, business know-how, and market development skills as well as a wide range of products. Coupled with the effective use of managerial resources from the three joint-venture partners (Ube Industries, Mitsubishi Rayon, and GE Japan Holdings), UMG ABS is expected to evolve to actively respond to the new business environment.

**Caprolactam, Nylon, and Industrial Chemicals** → Caprolactam shipments were weak, and the market fell substantially due to a worldwide falloff in demand for caprolactam coupled with an influx of Russian, Eastern European, and Indian products into the Southeast Asian market.

In the caprolactam business, the Company will strive to be more costcompetitive, while maintaining its Asia-centered global trilateral production base comprising 200,000 tons of domestic manufacturing capacity, 85,000 tons in Spain (PQM), and 80,000 tons in Thailand (Thai Caprolactam)— presently aggregating a production capacity of 365,000 tons and making the Company the leader in Asia with a 20% market share and third on a global basis. Moreover, the Company determined it would increase the annual production capacity at Thai Caprolactam to 100,000 tons (+20,000 tons) by 2003.

The nylon business comprises such products as nylon 6, nylon 66, and nylon 12. Domestic shipments of nylon 6 slipped, but shipments in Thailand rose, resulting in little change overall from the previous fiscal year. The Company has responded to the modularization and plasticization of automobile parts by committing to significant capacity increases over the coming years, targeted primarily at overseas plants. Total annual production capacity for nylon 6 is currently 75,000 tons, with domestic capacity at 55,000 tons and UNT providing another 20,000 tons. The Company is considering increasing production capacity 20,000 tons in Spain (PQM)—10,000 tons by 2005 and another 10,000 tons at a later date—to keep abreast of Japanese automobile manufacturers' efforts to procure parts locally as they globalize their production bases.

Nylon 66 has even higher heat resistance than nylon 6 and is being used in automobile parts and electronic parts.

The use of nylon 12 in automobile parts is expanding, and the nylon 12 business is accordingly experiencing steady growth. The Company boasts a 9,000-ton annual domestic production level of high-performance nylon 12. This output is based on raw material inputs of laurolactam, which is produced by Ems-Ube, Ltd., a manufacturing joint venture with EMS-CHEMIE AG, a major chemical firm based in Switzerland. Sales of nylon 12 in Japan as well as overseas, mainly in Europe and the United States, have been extensive, and demand for nylon 12 for use in automobile fuel tubes and hoses is expected to grow in the future. To meet this demand, PQM in Spain will collaborate with EMS-CHEMIE in developing the nylon 12 business by expanding sales of nylon 12 produced from laurolactam to the U.S. and European automobile industries. The Company has added nylon 12 operations to its core businesses.

Shipments of industrial chemicals were strong despite a downturn in the market.



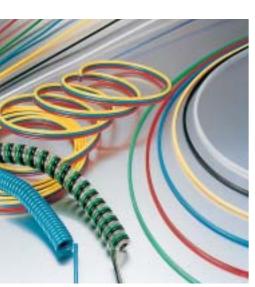
Polybutadiene applications



Completion ceremony at the UNT compound plant (March 2002)



Thai Caprolactam plant



Nylon 12 applications (industrial tubes)



Ube Industries' second pharmaceutical products manufacturing plant (exterior and interior)

In the industrial chemicals business, we will continue to supply basic raw materials, including such inorganic chemicals as ammonia, an intermediate raw material in the lactam complex; such organic chemicals as cyclohexanone; and gaseous products.

**Fine Chemicals and Pharmaceutical Products** → Fine chemicals shipments were comparatively strong in fiscal 2001.

The fine chemicals business comprises such products as diphenol, C1 chemicals (dimethyl carbonate (DMC), dimethyloxalate (DMO)), C12 chemicals (dodecanedoic acid (DDA), aminododecanoic acid (ADA)), and lactam-related chemicals (diol, amine, methylethylketoxime (MEKO)). Sales in this area are set to rise to ¥30 billion annually by 2008, a target representing two times the value of current production.

A 1,6-hexanediol production facility was newly established at PQM in Spain. Demand for 1,6-hexanediol, which is used in high-quality polyurethanes and the polyester plastics used in paints, is growing in Europe, the United States, and Japan. Ube Industries uses its proprietary technologies to recycle and convert by-products generated in the production of caprolactam, making this an environment-friendly product. The Ube Chemical Factory and the Sakai Factory have a combined annual production capacity of 8,500 tons, and the third major production facility in Europe is performing well with an annual capacity of 3,500 tons.

China-based Jade Fine Chemicals (Wúxi) Co., Ltd., a joint venture with Rhodia Inc., of France, has commenced production of guaiacol, a diphenol derivative used as a raw material in the production of perfumes and pharmaceutical intermediates.

To meet rising demand for high-quality catechol, which is used in the manufacture of resist exfoliants required in semiconductor production, and with exports to the United States growing particularly quickly, we increased production capacity 40%.

DMC and diphenyl carbonate (DPC) have received attention as derivatives that impose a relatively low burden on the environment and can be used in the production of polycarbonates in place of phosgen, which is highly toxic. The Company hopes that current DPC production processes will lead to new production processes for other polycarbonates. In the pharmaceutical products business, sales of the antiallergenic agent Talion<sup>®</sup>, developed in collaboration with Tanabe Seiyaku Co., Ltd., were up, and there was growth in intermediates for antibacterial agents manufactured on a consignment basis for major U.S. drug manufacturers.

The Company began manufacturing intermediates for anti-inflammatory and antibacterial agents on a consignment basis from the middle of the 1990s and has recently started manufacturing intermediates for new anticancer agents on a consignment basis for major overseas pharmaceutical companies, working toward further global development.

As for products developed in-house, Talion<sup>®</sup> is now on the market, and the launch of an antihypertensive agent, Calblock<sup>®</sup>, developed in collaboration with Sankyo Co., Ltd., is slated for the end of fiscal 2002. Business expansion is proceeding smoothly.

Ube Industries has successfully leveraged its organic synthesis technology to build two pharmaceutical products manufacturing plants as well as an experimental drug manufacturing facility, all of which are current Good Manufacturing Practice (cGMP) compliant. A third pharmaceutical products manufacturing plant is under construction and is scheduled to start operating as early as the latter half of fiscal 2002. This capacity expansion is to meet the increased demand for the consignment production of intermediates for antibacterial and anticancer agents. The Company's operations in consignment pharmaceuticals mainly involve manufacturing intermediates for users as well as offering a consistent consignment process to take products from the early experimental stage all the way through production. We have obtained steady orders from major overseas pharmaceutical companies by differentiating our operations from our competitors, and the recognition of the Company's name overseas is rising.

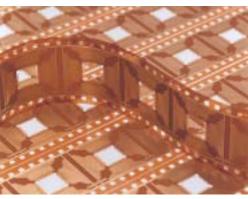
The Company has positioned these operations as strategically important businesses and expects annual sales growth of approximately 30%. Consolidated sales in the pharmaceutical products business were ¥9 billion in fiscal 2001, and the Company's forecasts are ¥11 billion for fiscal 2002 and ¥30 billion for fiscal 2005.



Rendering of Ube Industries' third pharmaceutical products manufacturing plant



Pharmaceuticals made with Ube Industries' pharmaceutical products



Polyimide film UPILEX®

**Specialty Products** •• Shipments of polyimide were down due to curtailed demand in IT-related industries. Polyimide films are used in a wide variety of products, including the driving mechanisms of mobile phone LCDs, notebook computers, and computer displays. In addition, the greater diffusion of chip-size packages (CSPs) used in miniature electronic devices is expected to lead to increased growth in demand.

The flagship polyimide film UPILEX®-S has an especially high market share as a substrate in LCD-related LSI-mounting applications, and the Company has a near global monopoly for polyimide used in the manufacture of tapeautomated bonding materials. The Company has commercialized and started supplying nonadhesive-type flexible copper-clad laminate (CCL) to meet rising demand, which is a result of the increasingly smaller and thinner electronic devices currently being produced. This nonadhesive-type flexible CCL, UPISEL®, is expected to become a major product alongside UPILEX®. Ube-Nitto Kasei Co., Ltd., is manufacturing the product at a continuous laminating facility in its Gifu factory.

Shipments in the battery materials business, which comprises separators and electrolytes for lithium-ion batteries, were up in fiscal 2001. The Company's electrolytes are highly regarded in the market for their functionality. The Company signed an exclusive production contract with Sumitomo Seika Chemicals Co., Ltd., boosting production capacity 1.5 times. The Company's separators have also been well received in the market, and related manufacturing facilities are operating close to full capacity.

In other operations, Ube-Nitto Kasei and Meiwa Kasei Industries, Ltd., are expanding their sales in fiber-optic applications and semiconductor sealants, respectively.



Nonadhesive-type flexible CCL UPISEL®-D (thin-film type)

## **BUSINESS HIGHLIGHTS**

# Construction Materials

#### Background to Fiscal 2001 Business Results and Current-Term Outlook

**Cement** •> Major cost reductions were realized from such rationalization measures as the expanded utilization of industrial waste as raw materials or fuel in the cement manufacturing process. Ube-Mitsubishi Cement Corporation, the marketing arm for the Company's cement output, is working not just at price correction but also at various distribution and cost-rationalization measures as well as strengthening cooperation with Sumitomo Osaka Cement Co., Ltd., for specialty cement consignment production.

The joint venture with Mitsubishi Materials has been an effective tool for rationalization, as it has led to reduced selling and distribution costs as well as lower labor expenses at Ube-Mitsubishi Cement. Efforts to reduce distribution costs are aimed primarily at cutting transportation costs. This is done by managing shipping schedules more efficiently, avoiding shipping complications, and cutting service station handling fees and unit transportation costs through reciprocal shipments.

Additionally, Ube-Mitsubishi Cement Research Institute Corporation was established in October 1999 to raise the efficiency and expand the scope of R&D efforts while eliminating overlap in this crucial area. This new

Rationalization ¥7.5 billion	Projected rat	tionalization		
Promote the reuse of industrial waste	effects	(* 12001)		
Streamline the production department	(Compared to fiscal 200) Fiscal 2002 ¥2.5 bi			
<ul> <li>Optimal production system: Revise the</li> </ul>	Fiscal 2003	¥5.0 billion		
current system to meet demand trends	Total	¥7.5 billion		
Provision for loss (fiscal 2002):				
For the future disposal of the Kanda Cem	nent Factory's	Number 1		
Kiln (currently idle)				

#### Mode of Operation

.1

Construction Materials Segment 

 In-house company/spin-off (internal company system; autonomous operation in anticipation of a complete spin-off in the future)

#### **Basic Strategy:**

Ube Industries has a marketing and R&D integration agreement with Mitsubishi Materials Corporation in its cement business. The Company actively promotes resource recycling and cost reductions by reusing industrial waste as raw materials and fuel.

By reorganizing its operating structure and developing new businesses, the Company will expand profits in this segment.

#### Achievements in Fiscal 2001:

In the Construction Materials segment, domestic demand for cement and building materials dropped off, but, with the addition of such consolidated subsidiaries as Ube Construction Materials Sales Co., Ltd., sales rose to ¥189.0 billion, up ¥1.2 billion from the previous period. We worked to substantially reduce costs by reusing industrial waste as raw materials and fuel in the cement manufacturing process, but, due to a steep rise in the price of fuel coal, operating income fell to ¥7.4 billion, down ¥2.2 billion from the previous year.

#### **Principal Products:**

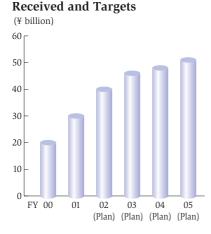
Cement, clinker, ready-mixed concrete, limestone, building materials



**Construction Materials** 

The new suspension preheater kiln at the Ube Cement Factory

Amounts of Industrial Waste



organizational structure allows both companies to utilize their personnel more efficiently and accelerate R&D by leveraging both companies' technological information and know-how.

Energy & Environment

Responsible Care

Research & Development

The joint venture is constructing an optimal framework for the production of a soil stabilizer and the consignment production of specialty cement as well as moving aggressively forward with efforts to incorporate industrial waste into its production processes using the technologies made available by the two parent firms.

However, the Company suspended studies related to the integration of its production activities with Mitsubishi Materials in April 2002.

Ube Industries' Cement Production Rationalization Plan

Ube Industries is currently reviewing its production system and promoting cost-cutting measures, keeping the Number 1 Kiln at its Kanda Cement Factory idle since fiscal 1998. The five kilns at the Ube, Isa, and Kanda cement factories represent an annual production capacity of 12 million tons, but the idling of the Kanda Number 1 Kiln has reduced cement production capacity 2 million tons annually, or one-sixth of total capacity.

The Company met its goal of reducing the number of manufacturing personnel 20% between fiscal 1998 and fiscal 2001 as a part of cost-cutting efforts. In addition to the sewage sludge treatment facility at the Isa Cement Factory, a facility to feed industrial waste into the kiln at the Kanda Cement Factory was installed in March 2002 as a part of efforts to expand the use of industrial waste. Yamaguchi Eco-Tech Corporation, a joint-venture company set up with Tokuyama Corp., was established in July 2001 to promote the use of ash from incinerated urban waste in cement production. Yamaguchi Eco-Tech began operations in April 2002. The project has been given central importance as part of a zero-emissions project in Yamaguchi Prefecture. This project enables the effective recycling of ash from incinerated urban waste and will improve recycling rates in Yamaguchi Prefecture. In addition, the reduction of landfill prolongs the useful lives of current landfill sites-a substantial and tangible contribution toward protecting the environment. As a part of efforts to reuse more fuel-use waste, a new facility to process waste from tires and plastic was installed at the Ube Factory in March 2000.

These various facilities helped the Company to increase profits approximately ¥4 billion in the cement manufacturing business by the end of fiscal 2001.

Integrating the Company's affiliated suppliers of ready-mixed concrete, involving disposing of some subsidiaries and restructuring the remaining ones, has helped its cement business thoroughly revise its profit structure and improve performance. As a result of these rationalization measures, the Company's cement subsidiaries were reduced from 41 to 18 by the end of the year under review.

**Building Materials** •• Performance in the building materials business was improved through the specialization of our housing products as well as rationalization efforts.

The previous production system for small-lot diversified products will be revamped, and the Company will devote more resources to the following areas: lime-related operations; building materials operations, especially in self-leveling materials and plaster materials; and waterproof materials operations, while making efforts to improve profits by promoting the reorganization of the operational structure and developing new businesses.

Sales of the interior wall construction product *Yasashii Kabe* (tender wall) doubled from the previous year. The product allows for superior interior amenities and functionality and is effective in preventing so-called sick house syndrome. Strong demand is anticipated for this material as an interior wall and ceiling material for homes, condominiums, hospitals, nursing homes, and museum storage areas.



Yamaguchi Eco-Tech factory



Application of Quick Ceramic Flow technology



Interior wall construction material Yasashii Kabe

# **BUSINESS HIGHLIGHTS**

# Machinery & Metal Products

#### **Basic Strategy:**

To build on its activities in the United States, the Company will strengthen its profitability by establishing production, marketing, and after-sales service operations in the People's Republic of China. We will also market differentiated equipment developed using proprietary technology, strengthen and expand our service and software business, and enter new areas, such as downstream parts business. Ube Industries will develop and strengthen aluminum wheels as one of its core products, with the aim of becoming one of the top-three global suppliers.

#### Achievements in Fiscal 2001:

In the Machinery & Metal Products segment, sales were down ¥4.8 billion, to ¥90.0 billion, but operating income rose ¥0.4 billion, to ¥3.5 billion, thanks to the promotion of rationalization measures. Orders for midsize die-casting machines, hydraulic injection-molding machines, and bridges decreased, but overall orders remained high, as a result of increased orders for large electric injection-molding machines, bulk handling systems, and water screening equipment. The aluminum wheel business is performing well under the Company's wholly owned subsidiary, UBE Automotive, and the new aluminum wheel plant in Ontario, Canada, began operating in March 2002.

#### **Principal Products:**

Die-casting machines, injectionmolding machines, bulk handling systems, bridges, aluminum wheels

#### Background to Fiscal 2001 Business Results and Current-Term Outlook

**Ube Machinery Corporation, Ltd.** •• Ube Machinery aims to be an "inspiring company, offering consistent value to customers and stockholders, and forming a global network through collaboration with staff as well as society at large." Ube Machinery's operations are customer-oriented, and it is involved not just in marketing but also development, design, manufacturing, and after-sales services.

The Technical Development Center, for instance, is not only involved in the development and joint development of products adapted to customer needs but has also been "opened" to clients. Rather than supplying machines as independent products, Ube Machinery offers a complete package of services, including process technologies and system software services. This has been made possible by synergy-creating alliances between seven of the Group's companies as well as the expansion of manufacturing, marketing, and after-sales services globally through its overseas bases. This helps Ube Machinery provide comprehensive customer services.

As a part of its globalization efforts, Ube Machinery set up a wholly owned subsidiary, Ube Machinery (Shanghai) Ltd., on July 1, 2001, to provide production, marketing, and after-sales services in China. Ube Machinery's marketing goal is to establish itself in the three main world markets: Japan, China, and other parts of Asia; the United States; and Europe.

**Heavy Machinery** •> The heavy machinery business was affected by reduced capital investment in the automotive industry, but all-electric injection-molding machines performed well in the domestic market and orders increased. Exports of extrusion presses to the United States and China rose, but orders for midsize die-casting machines dwindled, owing to intensified competition.

The Company sells all-electric injection-molding machines with clamping forces of 650 tons, 850 tons, 1,000 tons, and 1,400 tons. These machines are highly regarded for their remarkable energy efficiency and stable performance, and sales in Japan and other Asian markets have been strong. In addition, the development of an all-electric injection-molding machine with a clamping force of 1,800 tons, the largest of its kind in the world, has been completed. The launch of a new product—an electric Dieprest Molding machine that incorporates the Dieprest Molding Process, a process that dramatically reduces deformation during molding by integrating the outermost layer, such as a fabric or foam sheet—has led to a dramatic increase in inquiries.

An in-mold coating process where surface coating can be carried out simultaneously with injection molding has been developed in cooperation with Dai Nippon Toryo Co., Ltd. This process reduces coating costs dramatically and is also environment-friendly, as the coating agents used do not include organic solvents. As part of our business strategy for global development, we have licensed Wuxi Grand Tech Machinery Group Co., Ltd., for the use of hydraulic injection-molding machine technology.

In the die-casting business, we have received five overseas orders for the New Rheocasting Machine, which utilizes the semisolid-molding process. In the semisolid-molding process, semisolid light metal is slowly fed into a molding machine, allowing the attainment of strength comparable to refined products by ensuring the uniformity of the raw material. In the near future, we anticipate this technology will be actively used in casting high-quality automobile parts where safety is an important factor.

Aiming to be a "total system supplier," the Company provides customers with a range of die-casting services, including consulting, system design, diecast designing, casting tests and prototyping, initial training, after-sales services, and maintenance services.

**Industrial Machinery and Bridges** •> In the industrial machinery and bridges business, shipments for large projects were strong despite reduced spending in the public sector and lower capital investment from the private sector. Business conditions in this area are becoming increasingly severe, but, owing to improved results, we are planning the early launch of new products and new businesses.

In the industrial machinery business, the upright roller mill—the RS Mill which manufactures high-quality aggregate, was launched last year, and seven orders have been received. The RS Mill has received high praise from customers for its performance. Raw mill and slag mill inquiries have risen, owing to a strong Chinese cement market and a boom in the construction of cement production facilities. As part of our development efforts in China, we are strengthening our operations at Ube Machinery (Shanghai) and have established a new overseas sales group.

In the conveyor system business, customers have praised the new rollerless conveyer for such environment-friendly features as superior noise reduction and dust-dampening effects. The Company aims to increase conveyor sales by offering a full lineup, from small models with loading capacities of 100 tons an hour to large models with loading capacities of 5,000 tons an hour.

Our dust-extraction devices, which are installed at coolant facilities, command the top share of the market in electrical power-related industries, and we will manufacture a debris filter that removes waste from circulating water

Completion ceremony at the UBE Automotive North America Sarnia Plant



All-electric injection-molding machine with the world's largest clamping force— 1,800 tons





Signing ceremony for the technology provision agreement with Wuxi Grand Tech Machinery Group



Tsunoshima Bridge, Yamaguchi Prefecture



Aluminum wheels



UBE Automotive North America Sarnia Plant

pipes with technology obtained from E. Beaudrey et Cie of France, expanding into the manufacture of comprehensive dust extraction systems.

In the bridge business, orders for new bridges were down due to shrinking capital investment in the public sector, but we are actively pursuing the expansion of sales with the addition of bridge renovation services.

Ube Machinery uses industrial technology gained through many years of rich experience to create innovative products and has developed a fullfledged total manufacturing system (TMS) with other cooperative companies. The establishment of the TMS has already resulted in orders for the manufacture of gasified fusing furnaces, boilers, and air preheaters. In the future, the Company expects a rise in inquiries and orders, owing to strengthened costcompetitiveness and the optimization of cooperatives.

**Aluminum Wheels** •• Shipments of aluminum wheels were strong and financial results have strengthened.

The Company's aluminum wheels are manufactured using its proprietary Squeeze Casting Process<sup>®</sup>; boast high strength, high ductility, and excellent surface gloss with industry-leading lightness; and have been highly praised by automobile manufacturers worldwide.

Ube Industries separated the aluminum wheel business from Ube Machinery and integrated it with the Company's new wholly owned subsidiary UBE Automotive on July 1, 2001. To respond quickly and accurately to customers seeking global strategic partnerships from suppliers, UBE Automotive has become the customer contact window integrating the UBE Group's aluminum wheel production and engineering capabilities. UBE Automotive coordinates the operations of its three manufacturing operations in Japan, the United States, and Canada to improve their productivity as well as capital efficiency.

Current production facilities are at U-Mold Co., Ltd. (annual production capacity of 2.4 million wheels), in Ube City, Yamaguchi Prefecture, and UBE Automotive North America Mason Plant Inc. (annual production capacity of 1.4 million wheels) in Ohio, United States. In addition, the brand-new UBE Automotive North America Sarnia Plant Inc. (annual production capacity of 1.2 million wheels) in Ontario, Canada, has completed the first phase of construction and is up and running.

The Company aims to raise the annual production capacity of the Sarnia Plant by an additional 1.0 million wheels by 2005, making the UBE Automotive Group the third largest global supplier of aluminum wheels. The Company is expanding into the European market as part of its efforts to create a global trilateral framework, comprising Japan, North America, and Europe.

Ube Industries aims to establish the foundation of this business as one of its core businesses to further increase profits.

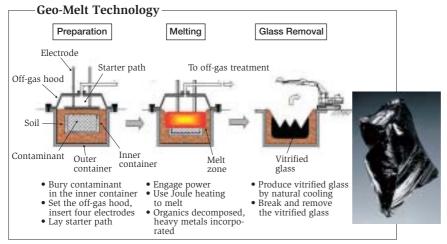
# Energy & Environment

#### Background to Fiscal 2001 Business Results and Current-Term Outlook

**Environmental Business** • In fiscal 2001, sales climbed in tandem with business gained from an already-awarded gasification project, and earnings rose compared with the previous year, thanks to reductions in fixed costs.

The Company plans to expand its operations in recycling chemical materials from plastic waste and other organic waste, which are conducted at EUP, a partnership with Ebara. The Company uses a new gasification process to convert plastic waste, which is collected in compliance with Japan's Containers and Packaging Recycling Law (fully enacted in 2000), into raw materials for such chemical products as ammonia and methanol. This process does not require separating out the polyvinyl chloride from plastic waste in advance. It is also environment-friendly; dioxins are not emitted in the process and it enables the reuse of slag generated in cement manufacturing. The pressurized two-stage gasification facility is operating with a 30-ton-aday capacity, and in April 2002 the Company commenced construction on a 65-ton-a-day capacity addition to the current facility to meet increasing demand for plastic recycling in the future. With the enactment of legislation promoting the recycling of plastic waste from used home appliances and shredding residue from scrapped cars, the Company is keeping a close eye on trends in the recycling market and aims to expand recycling activities using new state-of-the-art EUP technology.

The Company employs a promising new technology, the Geo-Melt vitrification system, which detoxifies and remediates difficult-to-dispose-of hazardous materials and contaminated soil by transforming them into a vitreous state by the Joule heat of an electrical current. This process renders land,



#### Geo-Melt process and vitrified soil

#### **Basic Strategy:**

Ube Industries considers its energy business, which is based on coal and electricity, a key part of the Group's operations. Our decision to begin supplying wholesale electric power in the independent power producer (IPP) market from 2004 will help us further by providing a reliable supply of power and a solid source of revenues.

In its environmental business, the Group will expand its plastic waste recycling activities through Ebara-UBE Process (EUP), a partnership with Ebara Corp., and will create other environmental businesses by taking advantage of synergies within the Group.

#### Achievements in Fiscal 2001:

Consolidated sales in this segment rose ¥2.6 billion, to ¥16.4 billion, with strong sales in the environmental business, but operating income fell ¥0.5 billion, to ¥1.7 billion, due to a decrease in the volume of coal marketed.

#### **Principal Products:**

Environmental systems, coal, electric power



EUP's pressurized two-stage gasification process facility



Artificial sand manufactured using fly ash—Z-sand and its trial facility



Inauguration of the UBE Power Center's power generation plant

soil, and waste contaminated by such organochlorine compounds as dioxins and PCBs and/or heavy metals harmless and was put to practical use for the first time in Japan to treat the waste of a deconstructed incinerator contaminated with high levels of dioxin. Furthermore, in order to expand its application to encompass agricultural chemical detoxification, where R&D has been conducted on a national project level due to the Persistent Organic Pollutants (POPs) Treaty, the Company is currently conducting vitrification tests to expand development into this business field.

**Coal Business** •• Earnings decreased slightly compared with the previous term due to a substantial decrease in the volume of coal in storage.

The main strengths of this business include the operation of the Okinoyama Coal Center, in Ube City, Yamaguchi Prefecture, which handles the largest volume of steaming coal in Japan, and the steady supply of products secured by capital participation in Coal and Allied Industries Ltd., a major mining company in Australia. Another strength lies in the Company's management of its own R&D capabilities, which provide technologically oriented user services related to coal combustion and optimal uses for coal ash. The Company is leveraging these strengths to build a large and secure customer base that will support a stable earnings structure.

Every year, optimal uses for coal ash increase. A mass production trial facility for Z-sand, whose principal raw material is fly ash, was established in April 2002 at the Okinoyama Coal Center, and experiments at the facility have begun. Z-sand is less expensive to produce than other artificial sand, can be treated in the same way that natural sand and soil are, and can be used in a wide variety of civil engineering projects. Thus, we expect a large volume of this recyclable environment-friendly product to be used.

**Electric Power Business** •> Earnings were not changed largely from the previous fiscal year.

The Company entered the IPP market with the establishment of UBE Power Center Co., Ltd., and plans to begin supplying wholesale electric power to Chugoku Electric Power Co., Inc., from March 2004. A groundbreaking ceremony marking the start of plant construction was held in October 2001.

# **BUSINESS HIGHLIGHTS**

# Responsible Care



#### For a Better Environment, Safety, and Health

For the UBE Group, working toward a safe and clean environment is a basic management issue. The Group believes that to grow and prosper as an enterprise, it is essential to proactively work toward the safety and health of its employees, operate its facilities with safety always in mind, and act responsibly toward the local community in terms of preserving the environment and contributing to a safe living habitat. We are ever concerned with the safety and health of the people who use our products as well as environmental problems, as typified by the energy shortage issue.

In the coming years, the Company will fulfill its social responsibilities through a wide range of Responsible Care activities.

In the "New 21•UBE" three-year management plan, which began in fiscal 2001, environmental measures are a major management policy issue and are addressed as a corporate goal under the slogan "Realize a management structure that puts the environment first." Priority areas are:

- Reducing industrial waste and seeking to create a production cycle that reuses all resources
- Implementing global environment protection activities
- Continuing to reduce hazardous chemical emissions in compliance with Japan's Pollutant Release and Transfer Register (PRTR) Law

We have also released an environmental report to communicate our environmental policies to all our stakeholders.

The UBE Group also announced its progress in Responsible Care at the Third Yamaguchi District Dialogue for Responsible Care held in June 2002 in Ube City, Yamaguchi Prefecture. The Japan Responsible Care Council sponsored the dialogue.

#### Management Structures ••

The UBE Group has established the Group Environment and Safety Committee, which is composed of senior management, and all Group companies have set up segment Environment and Safety committees, which encompass each segment. These committees stipulate the basic guidelines for safety and health, disaster prevention, environmental preservation, and product safety as well as develop and implement specific plans and targets on the basis of the above guidelines.

**ISO 14001** → As part of efforts to steadily enhance environmental protection, the Group is setting up an environmental management system (EMS) based on ISO 14001. As of August 2001, the Company had acquired certification for all its facilities as well as 11 Group member companies, including 4 overseas companies, and is currently acquiring certification for other Group member companies.



Yamaguchi District Japan Responsible Care Council Meeting

#### **Global Warming Prevention**

In January 2001, we set ourselves the target of reducing emissions of greenhouse gases 6% compared with 1990 levels by 2010 as part of the Environmental Protection 2010 Project. In March 2001, the UBE Group Committee for Global Warming Prevention was established to oversee and implement this policy.

In the future, we intend to implement reduction measures as well as address domestic and overseas trends by taking such measures as obtaining third-party verification.

#### Environmental Accounting ->

In fiscal 1999, we adopted environmental accounting, one of the frameworks for regularly evaluating the suitability of our environmental preservation activities, and, as of fiscal 2000, 12 Group companies had adopted environmental accounting.

In the year under review, the Group invested ¥2.09 billion in pollution control measures and incurred other environment-related expenses totaling ¥9.34 billion, while saving ¥6.07 billion, mainly through energy conservation.

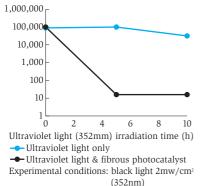
## **BUSINESS HIGHLIGHTS**

# Research & Development



Dioxin decomposition experiment using fibrous photocatalyst

#### Effect of Fibrous Photocatalyst on Destruction of *E. Coli* (Number of surviving *E. coli*)



#### **R&D** Activities

The R&D activities of the UBE Group are carried out by the Company's main R&D offices, the Business Creation & Development Division, and the R&D divisions of the various segments.

The Group's main R&D offices are located in Yamaguchi and Chiba prefectures, where the main focus is on R&D in the area of chemicals and plastics. Other areas of research include process development for industrialization, prototype manufacturing, and production technology improvement.

The Business Creation & Development Division, which is under the direct supervision of the president, was created to discover and nurture potential new core business areas.

In addition, each of the Group's segments has R&D divisions for the various businesses under them, which undertake research for commercialization, product development, and product quality improvement. In the cement business, Ube Industries has integrated its R&D division with that of Mitsubishi Materials and established a joint facility called the Ube-Mitsubishi Cement Research Institute. The Company has 852 research staff, comprising 7% of its total workforce.

#### Achievements in Fiscal 2001

The Group's R&D expenditures in fiscal 2001 totaled ¥12.9 billion, and the following is an outline of the major research topics and results attained in each segment.

**Chemicals & Plastics** → R&D expenditures for this segment totaled ¥10 billion, and research was undertaken for the development of ultra-heat-resistant inorganic materials for the aerospace industry and pharmaceutical products mainly for the immune, digestive, and circulatory systems as well as for the strengthening and further advancement of existing businesses.

Major achievements in fiscal 2001 included the industrialization of nonadhesive-type flexible CCL as well as the development of antiallergenic agents and antihypertensive agents.

**Construction Materials** → Total R&D expenditures for this segment were ¥1.6 billion. Research topics included the development of new soil stabilizers, concrete-related technologies and products, technology for the utilization of industrial waste as raw materials in the production of cement, and uses for calcium carbonate and magnesium hydroxide.

Major achievements in fiscal 2001 included the development and commercialization of cement for use in board products as well as the development and commercialization of an environment-friendly soil stabilizer. Machinery & Metal Products → R&D expenditures for this segment totaled ¥0.5 billion. Research was undertaken for the development of technologies for molding and casting high-quality aluminum in its semisolid state, technologies for the simultaneous coating and molding of plastic products within metal molds, and the development and commercialization of molded plastic products manufactured using our high-performance all-electric injection-molding machine.

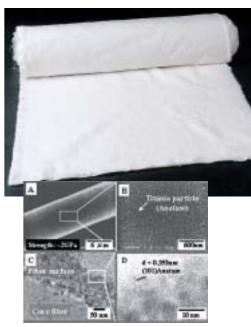
Major achievements in fiscal 2001 included working with customers to promote the development and commercialization of products created using the semisolid-molding process, the in-mold coating process, and the Dieprest Molding Process.

**Energy & Environment** •> R&D expenditures in this segment amounted to ¥0.3 billion. Research topics included better transportation and storage of coal, diverse new uses for coal, technologies for the effective use of coal ash in civil engineering projects, a system for the two-stage pressurized gasification of plastic waste from containers and packaging material, and vitrification and remediation technologies for industrial waste and contaminated soil that contain heavy metals and such organochlorine compounds as dioxin.

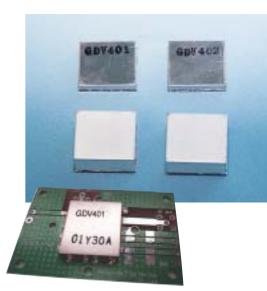
Major achievements in fiscal 2001 included the first on-site vitrification of dioxin-contaminated waste in Japan. The waste was rendered harmless using our Geo-Melt system.

#### Promoting Business Creation and the Development of Future Core Businesses

Ube Industries established a Business Creation & Development Division in July 2000 to nurture and promote potential future core businesses. These include: (1) dielectric ceramic elements for mobile communications, (2) polyimide-based electric components that enable the commercialization of circuit board products, (3) new fibers that function as photocatalysts, (4) fuel cell materials, and (5) solar cells. In the communications equipment materials business, we established Yokowo-Ube Giga Devices Co., Ltd., in May 2001 to develop, manufacture, and sell competitively priced, high-performance parts for mobile phones and other high-frequency communications devices. In this regard, we have succeeded in obtaining orders for our voltage-controlled oscillator (VCO) from several major communications equipment manufacturers. In addition, we were the first in the world to successfully develop a fibrous photocatalyst incorporating high-strength titania (TiO<sub>2</sub>) fiber with a nanoscale surface structure that decomposes organic materials that come into contact with its surface when exposed to light. This development was announced in the March 2002 edition of the British science journal, Nature. This fiber has received overwhelming market response, and we expect that it will lead to future development in the area of environmental pollutant cleanup.



Fibrous photocatalyst



VCO developed by Yokowo-UBE Giga Devices

## **CONSOLIDATED FIVE-YEAR SUMMARY**

UBE INDUSTRIES, LTD. AND CONSOLIDATED SUBSIDIARIES For the years ended March 31

	N	lillions of yen, e	except per sha	re and other da	ata
	2002	2001	2000	1999	1998
RESULTS OF OPERATIONS:					
Breakdown of net sales*:					
Chemicals & Plastics	¥231,069	¥227,109	¥211,423	¥ —	¥ —
Construction Materials	189,045	187,836	197,125	—	_
Machinery & Metal Products	90,025	94,837	79,753		_
Energy & Environment	16,412	13,816	13,440	—	_
Other Businesses	10,997	11,409	13,036	—	_
Net sales	537,548	535,007	514,777	537,712	625,41
Cost of sales	439,971	427,151	413,528	434,987	489,358
Selling, general and administrative expenses	79,981	79,336	78,738	90,284	108,518
Operating income	17,596	28,520	22,511	12,441	27,54
Income before income taxes and minority interest	5,412	13,618	11,875	4,635	16,28
Net income	1,002	7,911	10,514	2,969	4,439
FINANCIAL POSITION:					
Assets:					
Total current assets	¥294,159	¥311,412	¥339,239	¥380,446	¥390,61 <sup>-</sup>
Total property, plant and equipment, net	422,271	352,338	375,941	395,361	412,588
Total investments and other assets	103,783	117,125	120,907	128,075	109,724
Total assets	820,213	780,875	836,087	903,882	912,923
Liabilities and stockholders' equity:					
Total current liabilities	388,253	362,890	397,345	445,676	484,225
Total long-term liabilities	314,681	304,707	329,857	342,683	313,804
Minority interest	20,332	18,933	19,463	18,469	21,47
Total stockholders' equity	96,947	94,345	89,422	97,054	93,423
GENERAL:					
Per share data (yen):					
Net income, primary**	¥ 1.20	¥ 9.48	¥ 12.65	¥ 3.57	¥ 5.34
Cash dividends	_	3.00	3.00	2.50	5.00
Stockholders' equity	115.78	112.67	107.59	116.79	112.4
Other data:					
Operating income as a percentage of net sales (%)	3.3	5.3	4.4	2.3	4.4
Return on stockholders' equity (%)	1.0	8.6	11.3	3.1	4.9
Return on total assets (%)	0.1	1.0	1.2	0.3	0.8
Shares of common stock issued (thousands)	845,828	845,828	837,857	837,857	837,85
Number of consolidated subsidiaries	83	81	84	81	8
Number of stockholders	78,199	74,973	74,787	76,648	76,458
Number of employees	11,983	11,834	12,107	12,691	14,46

\* Effective from the year ended March 31, 2001, the Company has changed its segmentation to the following: "Chemicals & Plastics," "Construction Materials," "Machinery & Metal Products," "Energy & Environment" and "Other Businesses" due to the adoption of a consolidated business strategy, which enables the continuous disclosure of business conditions.

\*\* Net income, primary, per share is based on the weighted-average number of shares of common stock outstanding during the respective fiscal year.



#### **OPERATING ENVIRONMENT**

The U.S. and Asian economies decelerated due to such factors as a slump in IT-related industries and the September 11 terrorist attacks in the United States. In Japan, demand was sluggish amid lackluster personal consumption and substantially decreased capital investment, deflationary trends persisted, and international competition intensified, leading to a rapid worsening of the Japanese economy.

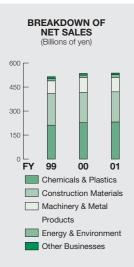
#### **MAJOR POLICIES**

Against this backdrop, in the first year of its "New 21•UBE" consolidated medium-term management plan, the UBE Group worked on the following areas: (1) focusing its managerial resources on core businesses to expand income, (2) strengthening the international competitiveness of fundamental businesses, and (3) creating a management system based on international standards.

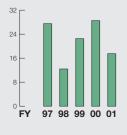
In response to the severe economic climate, the Company sold nonperforming assets to shrink interest-bearing debt and carried out comprehensive cost reductions to lower raw material, distribution, labor, and other costs.

#### PERFORMANCE

- Consolidated net sales rose 0.5%, to ¥537.5 billion (US\$4,042 million).
- Operating income decreased 38.3%, to ¥17.6 billion (US\$132 million), as a result of declines in the Southeast Asian and European caprolactam markets, reduced shipments of specialty products to IT-related industries, and a falloff in domestic demand for cement.
- Net income fell 87.3%, to ¥1.0 billion (US\$8 million).
- Primary net income per share amounted to ¥1.20 (US\$0.009).
- The payment of cash dividends was suspended for the year.







#### SEGMENT REVIEW

#### **Chemicals & Plastics**

- Sales rose 1.7%, to ¥231.1 billion (US\$1,737 million).
- Operating income fell 69.3%, to ¥3.6 billion (US\$27 million), due to such factors as the declines in Southeast Asian and European caprolactam markets and the reduction in shipments of specialty products for use in IT-related industries.

#### **Construction Materials**

- Sales rose 0.6%, to ¥189.0 billion (US\$1,421 million).
- Operating income fell 22.9%, to ¥7.4 billion (US\$56 million), as efforts to reduce costs by expanding the use of industrial waste as raw materials and fuel in the cement manufacturing process were thwarted by a steep rise in the price of fuel coal.

#### Machinery & Metal Products

- Sales fell 5.1%, to ¥90.0 billion (US\$677 million).
- Operating income increased 13.5%, to ¥3.5 billion (US\$26 million), due to effective rationalization measures.

#### **Energy & Environment**

- Sales rose 18.8%, to ¥16.4 billion (US\$123 million).
- Operating income fell 21.9%, to ¥1.7 billion (US\$13 million), due to a decrease in the volume of coal in storage.

#### **Other Businesses**

- Sales dropped 3.6%, to ¥11.0 billion (US\$83 million).
- Operating income fell 25.1%, to ¥1.5 billion (US\$11 million).

- Total assets climbed 5.0%, to ¥820.2 billion (US\$6,167 million), as a result of increased tangible fixed assets, which more than offset the sale of marketable securities.
- Total current assets dropped 5.5%, to ¥294.2 billion (US\$2,212 million).
- Total property, plant and equipment, net, and total investments and other assets combined rose 12.1%, to ¥526.0 billion (US\$3,955 million).
- Total liabilities increased 5.3%, to ¥702.9 billion (US\$5,285 million).
- Total stockholders' equity increased 2.8%, to ¥96.9 billion (US\$729 million), partly owing to a change in accumulated foreign currency translation adjustments.
- As a result of the above factors, return on stockholders' equity dropped from 8.6% to 1.0%, and return on total assets fell from 1.0% to 0.1%.

#### **CASH FLOWS**

- Net cash provided by operating activities amounted to ¥36.4 billion (US\$274 million).
- Net cash used in investing activities totaled ¥29.2 billion (US\$220 million), due primarily to a climb in capital investment.
- Net cash used in financing activities amounted to ¥14.4 billion (US\$108 million), although debt levels rose.
- Debt climbed ¥37.1 billion, to ¥521.0 billion (US\$3,918 million), compared with the previous fiscal year-end.
- As a result of the above factors, cash and cash equivalents at the end of the year dropped ¥0.4 billion, to ¥45.6 billion (US\$343 million), compared with the previous fiscal year-end.





# **CONSOLIDATED BALANCE SHEETS**

UBE INDUSTRIES, LTD. AND CONSOLIDATED SUBSIDIARIES March 31, 2002 and 2001

	Millions	Thousands of U.S. dollars (Note 1)	
ASSETS	2002	2001	2002
Current assets:			
Cash and cash equivalents	¥ 45,599	¥ 45,996	\$ 342,850
Time deposits	1,983	2,798	14,910
Securities (Note 3)	43	26	323
Receivables (Note 6):			
Trade notes and accounts	143,491	153,268	1,078,880
Other	12,414	22,953	93,338
Allowance for doubtful receivables	(1,266)	(2,515)	(9,519)
Inventories (Note 4)	82,016	78,565	616,662
Deferred tax assets (Note 12)	5,480	5,363	41,203
Other current assets	4,399	4,958	33,075
Total current assets	294,159	311,412	2,211,722

#### Property, plant and equipment (Note 6):

Land	93,474	92,875	702,812
Buildings and structures	263,955	255,681	1,984,624
Machinery and equipment	620,685	552,165	4,666,805
Construction in progress	22,832	7,571	171,669
Accumulated depreciation	(578,675)	(555,954)	(4,350,940)
Total property, plant and equipment, net	422,271	352,338	3,174,970

#### Investments and other assets:

Total assets	¥820,213	¥780,875	\$6,167,015
Total investments and other assets	103,783	117,125	780,323
Allowance for doubtful receivables	(8,907)	(7,930)	(66,971)
Other non-current assets	30,405	28,219	228,609
Long-term deferred tax assets (Note 12)	9,516	7,650	71,549
Long-term loans receivable	6,279	5,664	47,211
Investment securities (Notes 3 and 6)	66,490	83,522	499,925

See accompanying notes.

	Million	s of yen	Thousands of U.S. dollars (Note 1)
LIABILITIES AND STOCKHOLDERS' EQUITY	2002	2001	2002
Current liabilities:			
Short-term loans payable (Notes 5 and 6)	¥164.710	¥147,304	\$1,238,421
Current maturities of long-term debt (Notes 5 and 6)		65,668	583,865
Payables:			
Trade notes and accounts	89,474	93,122	672,737
Other	26,093	25,584	196,188
Accrued expenses	5,924	6,871	44,541
Accrued income taxes	4,576	5,408	34,406
Other current liabilities	19,822	18,933	149,037
Total current liabilities	388,253	362,890	2,919,195
Long-term liabilities:			
Long-term debt less current maturities (Notes 5 and 6)	278,664	270,893	2,095,218
Accrued retirement benefits (Note 16)	9,673	9,331	72,729
Long-term deferred tax liabilities (Note 12)	1,524	2,273	11,459
Other long-term liabilities	24,820	22,210	186,617
Total long-term liabilities	314,681	304,707	2,366,023
Minority interest	20,332	18,933	152,872
Contingent liabilities (Note 7)			
Stockholders' equity (Note 8):			
Common stock, without par value:			
Authorized—3,300,000,000 shares			
lssued—845,828,704 shares at March 31, 2002 and 2001	43,564	43,564	327,549
Capital surplus	9,605	9,605	72,218
Revaluation surplus on assets	620	_	4,662
Retained earnings	38,838	41,409	292,015
Unrealized gain on holdings of other marketable securities	9,724	9,474	73,113
Accumulated foreign currency translation adjustments	(3,822)	(8,121)	(28,737
	98,529	95,931	740,820
Treasury stock, at cost	(1,582)	(1,586)	(11,895
Total stockholders' equity	96,947	94,345	728,925

**CONSOLIDATED STATEMENTS OF INCOME** 

UBE INDUSTRIES, LTD. AND CONSOLIDATED SUBSIDIARIES For the years ended March 31, 2002 and 2001

	Millior	ns of yen	U.S	usands of S. dollars Note 1)
	2002	2001		2002
Net sales	¥537,548	¥535,007	\$4,	041,714
Cost of sales	439,971	427,151	3,	308,053
Gross profit	97,577	107,856		733,661
Selling, general and administrative expenses	79,981	79,336		601,360
Operating income	17,596	28,520		132,301
Other income (expenses):				
Interest and dividend income	1,270	3,125		9,549
Amortization of consolidation differences	_	103		_
Interest expenses	(12,457)	(12,161)		(93,662)
Equity in losses of unconsolidated subsidiaries and affiliated companies	(991)	(1,939)		(7,451)
Other, net (Note 10)	(6)	(4,030)		(45)
	(12,184)	(14,902)		(91,609)
Income before income taxes and minority interest	5,412	13,618		40,692
Income taxes (Note 12):				
Current	8,140	7,611		61,203
Deferred	(4,158)	(1,350)		(31,263)
	3,982	6,261		29,940
Minority interest	(428)	554		(3,218)
Net income	¥ 1,002	¥ 7,911	\$	7,534
				S. dollars
		Yen	1)	Note 1)
Per share:				
Net income:				
Primary	¥ 1.20	¥ 9.48	\$	0.009
Diluted	_	8.78		_
Cash dividends applicable to the period	_	3.00		_

See accompanying notes.

# **CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**

UBE INDUSTRIES, LTD. AND CONSOLIDATED SUBSIDIARIES For the years ended March 31, 2002 and 2001

	Number of	Ν	/lillions of ye	n
	shares of common stock (thousands)	Common stock	Capital surplus	Retained earnings
Balance at March 31, 2000	837,857	¥43,165	¥9,083	¥38,257
Issue of new shares resulting from an equity swap	7,971	399	522	
Increase in earnings due to exclusion of consolidated subsidiaries Increase in earnings due to inclusion of affiliated	—		—	5
companies of equity method			_	190
Increase in earnings due to merger of consolidated subsidiaries	—			6
Cash dividends at ¥3.00 per share	—			(2,507
Bonuses to directors and statutory auditors	—			(78
Decrease in earnings due to inclusion of consolidated subsidiaries	—			(1
Decrease in earnings due to exclusion of affiliated				
companies of equity method	_			(20
Decrease in earnings due to changes in shareholding ratio of				
consolidated subsidiaries and affiliated companies of equity method	_			(1,922
Decrease in earnings due to reversal of revaluation reserve				
of an affiliated company of equity method in Thailand	_			(432
Net income for the year	_		_	7,911
Balance at March 31, 2001	845,828	43,564	9,605	41.409
Increase in earnings due to exclusion of consolidated subsidiaries	_			12
Increase in earnings due to exclusion of affiliated				
companies of equity method	_	_	_	287
Increase in earnings due to changes in shareholding ratio of				
consolidated subsidiaries and affiliated companies of equity method	_	_	_	35
Cash dividends at ¥3.00 per share	_	_	_	(2,531
Bonuses to directors and statutory auditors	_	_	_	(82
Decrease in earnings due to inclusion of consolidated subsidiaries	_	_	_	(473
Decrease in earnings due to merger of consolidated subsidiaries	_	_	_	(200
Decrease in earnings due to inclusion of affiliated				(200
companies of equity method	_	_	_	(1
Transfer to revaluation surplus of assets	_		_	(620
Net income for the year	_	_	_	1,002
Balance at March 31, 2002	845,828	¥43,564	¥9,605	¥38,838
	040,020	++0,00+	+3,003	+00,00

	Thousands	Thousands of U.S. dollars (N		
	Common stock	Capital surplus	Retained earnings	
Balance at March 31, 2001	\$327,549	\$72,218	\$311,346	
Increase in earnings due to exclusion of consolidated subsidiaries	_	_	90	
Increase in earnings due to exclusion of affiliated companies of equity method	_	_	2,158	
Increase in earnings due to changes in shareholding ratio of				
consolidated subsidiaries and affiliated companies of equity method	_	_	263	
Cash dividends at \$0.02 per share	_	_	(19,030)	
Bonuses to directors and statutory auditors	_	_	(616)	
Decrease in earnings due to inclusion of consolidated subsidiaries	_	_	(3,556)	
Decrease in earnings due to merger of consolidated subsidiaries	_	_	(1,504)	
Decrease in earnings due to inclusion of affiliated companies of equity method	_	_	(8)	
Transfer to revaluation surplus of assets	_	_	(4,662)	
Net income for the year	_		7,534	
Balance at March 31, 2002	\$327,549	\$72,218	\$292,015	

	Millions of yen	Thousands of U.S. dollars (Note 1)
Unrealized gain on holdings of other marketable securities: Balance at March 31, 2001 Net change during the year	¥ 9,474 <b>250</b>	\$71,233 <b>1,880</b>
Balance at March 31, 2002	¥9,724	\$73,113
Accumulated foreign currency translation adjustments: Balance at March 31, 2001 Net change during the year	¥(8,121) <b>4,299</b>	\$(61,060) <b>32,323</b>
Balance at March 31, 2002	¥(3,822)	\$(28,737)

**CONSOLIDATED STATEMENTS OF CASH FLOWS** 

UBE INDUSTRIES, LTD. AND CONSOLIDATED SUBSIDIARIES For the years ended March 31, 2002 and 2001

	N 4111 -		Thousands ( U.S. dollars
	Millions		(Note 1)
	2002	2001	2002
Cash flows from operating activities:			
Income before income taxes and minority interest	¥ 5,412	¥13,618	\$ 40,692
Depreciation and amortization	31,011	29,574	233,165
Interest and dividend income	(1,270)	(3,125)	(9,549
Interest expenses	12,457	12,161	93,662
Gain on sale of property, plant and equipment, net	(3,705)	(9,740)	(27,857
Gain on sale of investment securities	(3,153)	(6,434)	(23,707
Decrease in receivables	11,421	8,860	85,872
Decrease (increase) in inventories	545	(5,492)	4,098
Decrease in payables	(10,505)	(5,155)	(78,98
Other, net	13,570	8,674	102,030
Subtotal	55,783	42,941	419,421
Interest and dividends received	1,953	3,425	14,684
Interest payment	(12,640)	(12,180)	(95,038
Income tax payment		(3,913)	(60,910
Other, net	(611)	1,733	(4,593
Net cash provided by operating activities	36,384	32,006	273,564
Cash flows from investing activities:			
Proceeds from sale of property, plant and equipment	18,019	30,289	135,48 <sup>.</sup>
Acquisition of property, plant and equipment		(32,647)	(349,729
Proceeds from sale of securities	425	(32,047)	3,19
Proceeds from sale of investment securities	8,475	13,576	63,722
Acquisition of securities	(7,933)	(9,706)	(59,647
Increase (decrease) in loans receivable	428	(448)	3,218
Others, net	(2,129)	1,067	(16,007
Net cash (used in) provided by investing activities	(29,229)	2,259	(219,767
Cash flows from financing activities:			
Proceeds from long-term borrowings	39,768	27,884	299,008
Proceeds from long-term bonds	7,000	14,000	52,632
Repayments of long-term borrowings		(61,405)	(575,429
Repayments of long-term bonds	(180)	(- , ) 	(1,353
Net increase (decrease) in short-term loans payable	20,296	(34,701)	152,602
Cash dividends paid		(2,699)	(35,234
Others, net	(56)	167	(421
Net cash used in financing activities		(56,754)	(108,195
		109	6 90/
Effect of exchange rate changes on cash and cash equivalents	917	408	6,894
Net decrease in cash and cash equivalents	(6,318)	(22,081)	(2,985
Adjustment due to change in consolidation scope	5,921		44,519
Cash and cash equivalents at beginning of the year	45,996	68,077	345,835

See accompanying notes.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

UBE INDUSTRIES, LTD. AND CONSOLIDATED SUBSIDIARIES For the years ended March 31, 2002 and 2001

1. Basis of Presenting (a) Ube Industries, Ltd. (the "Company") and its consolidated subsidiaries maintain their accounting records **Financial Statements** and prepare their financial statements in accordance with accounting principles and practices generally accepted and applied in Japan. The accompanying consolidated financial statements have been compiled from the consolidated financial statements prepared by the Company as required under the Securities and Exchange Law of Japan and, accordingly, have been prepared in accordance with accounting principles and practices generally accepted in Japan, which may differ in certain material respects from accounting principles and practices generally accepted in countries and jurisdictions other than Japan. Certain modifications have been made to the accompanying financial statements in order to present them in a form which is more familiar to readers outside Japan. (b) The accompanying financial statements are expressed in Japanese yen and, solely for the convenience of the reader, have been translated into U.S. dollars at ¥133=US\$1, the approximate rate of exchange on March 31, 2002. The translation should not be construed as a representation that Japanese yen have been, could have been, or could in the future be converted into U.S. dollars at the above or any other rate. 2. Significant Accounting (a) Basis of Consolidation and Accounting for Investments in Unconsolidated Subsidiaries and Affiliates Policies The accompanying consolidated financial statements include the accounts of the Company and significant companies controlled directly or indirectly by the Company. Significant 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. All significant intercompany balances and transactions have been eliminated in consolidation. The excess of cost over underlying net assets at fair value at the date of acquisition is amortized over a period of 5 to 20 years on a straight-line basis. Investments in companies which are not consolidated or accounted for by the equity method are carried at cost. (b) Accounting for Income Taxes Deferred tax assets and liabilities are determined based on the differences between financial reporting and the tax bases of the assets and liabilities and are measured using the enacted tax rates and laws which will be in effect when the differences are expected to reverse. (c) Securities Until the year ended March 31, 2000, marketable securities and investment securities were stated principally at cost determined by the moving-average method. A new accounting standard for financial instruments, which became effective April 1, 2000, requires that securities be classified into three categories: trading, held-to-maturity and other securities. Under the new standard, trading securities are carried at fair value and held-to-maturity securities are carried at amortized cost. Marketable securities classified as other securities are carried at fair value with changes in the unrealized holding gain or loss, net of the applicable income taxes, included directly in stockholders' equity. Non-marketable securities classified as other securities are carried at cost. Cost of securities sold is determined by the moving-average method. As of April 1, 2000, the Company and its consolidated subsidiaries assessed their intent to hold their investments in securities and classified their investments as "held-to-maturity securities" or "other securities" and have accounted for the securities at March 31, 2002 and 2001 in accordance with the new standard referred to above. (d) Derivatives and Hedge Accounting If derivative financial instruments are used as hedges and meet certain hedging criteria, the Company and its consolidated subsidiaries defer the recognition of gains or losses resulting from changes in the fair value of the derivative financial instruments until the related losses or gains on the hedged items are recognized. Additional information on derivatives is presented in Note 13. (e) Allowance for Doubtful Receivables The allowance for doubtful receivables is provided for by the Company and its consolidated subsidiaries at an amount estimated with reference to individual uncollectible accounts plus an amount calculated by a historical rate determined based on the actual uncollectible amounts incurred in prior years. (f) Inventories Inventories are stated at cost principally determined by the weighted-average method. (g) Property, Plant and Equipment Property, plant and equipment is stated at cost. Depreciation of property, plant and equipment is computed principally by the straight-line method for the Company and by the declining-balance method for consolidated subsidiaries at rates based on the estimated useful lives of the respective assets, ranging from 2 to 75 years for buildings and structures and from 2 to 25 years for machinery and equipment.

#### (h) Leases

Noncancelable lease transactions are accounted for as operating leases (whether such leases are classified as operating leases or finance leases) except that lease agreements which stipulate the transfer of ownership of the leased assets to the lessee are accounted for as finance leases.

(i) Research and Development Costs

Research and development costs are charged to income when incurred.

#### (j) Foreign Currency Translation

In accordance with a revised accounting standard for foreign currency translation which became effective April 1, 2000, current and non-current monetary accounts denominated in foreign currencies are translated into yen at the current rates. Foreign currency denominated revenues and expenses are translated at the spot exchange rate on the closing date, and any translation difference is accounted for as a profit or loss for the term.

#### (k) Accrued Retirement Benefits

In accordance with a new accounting standard for retirement benefits which became effective April 1, 2000, accrued retirement benefits for employees of the Company and its consolidated subsidiaries at March 31, 2002 and 2001, have been provided principally at an amount calculated based on the retirement benefit obligation and the fair value of the pension plan assets as of the balance sheet dates.

Net retirement benefit obligation at transition worth ¥36,496 million (US\$274,406 thousand) is being amortized principally over 13 years.

Prior service cost is being amortized as incurred mainly by the declining-balance method over 5–13 years, which is shorter than the average remaining years of the employees.

Actuarial gain or loss is being amortized in the year following the year incurred mainly by the decliningbalance method over 10–13 years, which is shorter than the average remaining years of the employees.

The effect of the adoption of the new standard for retirement benefits was to decrease income before income taxes and minority interest by ¥5,423 million for the year ended March 31, 2001.

#### (I) Net Income per Share

Primary net income per share is based on the weighted-average number of shares of common stock outstanding during the respective fiscal years.

Diluted net income per share is based on the weighted-average number of shares of common stock outstanding during the respective fiscal years and assuming the conversion of convertible notes.

#### (m) Employees' Bonus Allowance

Employees' bonus allowance is maintained at an amount estimated based on the bonus to be paid subsequent to the balance sheet date.

(n) Cash and Cash Equivalents

Cash and cash equivalents comprise cash on hand, demand deposits and short-term investments. Short-term investments included here are readily convertible into cash, exposed to insignificant risk of changes in value and mature or become due within three months of the date of acquisition.

#### (o) Appropriation of Retained Earnings

Cash dividends, transfer to legal reserve and bonuses to directors and statutory auditors are recorded in the financial year in which the proposed appropriation of retained earnings is approved by the Board of Directors and/or the stockholders.

(p) Directors and Statutory Auditors' Retirement Benefits

Until the fiscal year ended March 31, 2000, the Company and its consolidated subsidiaries had charged directors and statutory auditors' retirement benefits on a cash basis.

Effective from the fiscal year ended March 31, 2001, the Company and its four consolidated subsidiaries provided for retirement allowances for directors and statutory auditors determined based on their internal regulations for their provision. As a result, income before income taxes decreased ¥1,214 million compared with the previous method.

#### **3. Securities**

#### Securities and investment securities at March 31, 2002 and 2001 consisted of the following:

	Millions of yen		Thousands o U.S. dollars	
	2002	2001	2002	
Securities, at cost:				
Bonds and other	¥43	¥26	\$323	
	¥43	¥26	\$323	
Investment securities, at cost:				
Unconsolidated subsidiaries and affiliated companies	¥24,216	¥40,159	\$182,075	
Other	42,274	43,363	317,850	

¥66,490¥83,522\$499,925Information regarding marketable securities classified as held-to-maturity debt securities and other securities as of March 31, 2002 and 2001 were as follows:

(a) Marketable Held-to-Maturity Debt Securities

		Millions of yen			
		2001			
	Carrying Value	Fair Value	Unrealized Gain (Loss)		
Securities whose fair value exceeds their carrying value:					
Government bonds	¥—	¥—	¥—		
Corporate bonds	—	_	_		
Others	25	25	0		
Total	¥25	¥25	¥Ο		

There were no marketable held-to-maturity debt securities for the year ended March 31, 2002.

#### (b) Marketable Other Securities

	Millions of yen					
	<b>2002</b> 2001					
	Acquisition Costs	Carrying Value	Unrealized Gain (Loss)	Acquisition Costs	Carrying Value	Unrealized Gain (Loss)
Securities whose carrying value exceeds their acquisition cost:						
Stock	¥10,622	¥29,734	¥19,112	¥14,763	¥32,052	¥17,289
Debt securities	51	52	1	42	45	3
Other	_	_	_	_	_	—
Subtotal Securities whose acquisition cost exceeds their carrying value:	10,673	29,786	19,113	14,805	32,097	17,292
Stock	7,061	4,983	(2,078)	3,905	3,042	(863)
Debt securities	2,075	2,012	(63)	10	10	0
Other	1,026	719	(307)	1,205	926	(279)
Subtotal	10,162	7,714	(2,448)	5,120	3,978	(1,142)
Total	¥20,835	¥37,500	¥16,665	¥19,925	¥36,075	¥16,150

	Thousands of U.S. dollars			
	2002			
	Acquisition	Carrying	Unrealized	
	Costs	Value	Gain (Loss)	
Securities whose carrying value				
exceeds their acquisition cost:				
Stock	\$ 79,865	\$223,564	\$143,699	
Debt securities	383	391	8	
Other	_	_	_	
Subtotal	80,248	223,955	143,707	
Securities whose acquisition cost				
exceeds their carrying value:				
Stock	53,090	37,466	(15,624)	
Debt securities	15,602	15,128	(474)	
Other	7,714	5,406	(2,308)	
Subtotal	76,406	58,000	(18,406)	
Total	\$156,654	\$281,955	\$125,301	

Sales amounts of securities classified as other securities and the related aggregate gain and loss for the years ended March 31, 2002 and 2001 were summarized as follows:

Millions of yen						Thousands of U.S. dollars		
2002			2001			2002		
Sales Amount	Aggregate Gain	Aggregate Loss	Sales Amount	Aggregate Gain	Aggregate Loss	Sales Amount	Aggregate Gain	Aggregate Loss
¥2,319	¥843	¥25	¥13,926	¥7,352	¥452	\$17,436	\$6,338	\$188

Other securities without market value at March 31, 2002 and 2001 mainly consisted of the following:

	Millior	is of yen	Thousands of U.S. dollars
	2002	2001	2002
Held-to-Maturity Debt Securities:			
Commercial paper	¥3,999	¥ 3,287	\$30,068
Other	_	76	_
Subtotal	3,999	3,363	30,068
Other Securities:			
Non-listed equity securities	4,527	4,924	34,038
Other	290	2,337	2,180
Subtotal	4,817	7,261	36,218
Total	¥8,816	¥10,624	\$66,286

#### 4. Inventories

Inventories at March 31, 2002 and 2001 were as follows:

	Million	s of yen	Thousands of U.S. dollars
	2002	2001	2002
Finished goods	¥34,245	¥33,105	\$257,481
Work in process	27,849	26,927	209,391
Raw materials and supplies	19,922	18,533	149,790
	¥82,016	¥78,565	\$616,662

### 5. Short-Term Loans Payable and Long-Term Debt

Short-term loans payable represented short-term notes and bank overdrafts, with interest rates principally at 0.900% and 0.648% per annum at March 31, 2002 and 2001, respectively. Long-term debt at March 31, 2002 and 2001 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2002	2001	2002
1.77% notes due 2003	¥ 5,000	¥ 5,000	\$ 37,594
2.41% notes due 2005	5,000	5,000	37,594
2.35% notes due 2005	7,000	7,000	52,632
2.66% notes due 2006	7,000	7,000	52,632
1.43% notes due 2006	7,000	_	52,632
1.25% convertible notes due 2005, convertible			
at ¥422 per share	19,908	19,999	149,684
1.40% convertible notes due 2008, convertible			
at ¥422 per share	19,911	20,000	149,707
Loans principally from banks and insurance companies:			
Secured, at 0.80% to 5.54%, maturing through 2013	168,760	179,889	1,268,872
Unsecured, at 0.77% to 7.75%, maturing through 2036	116,739	92,673	877,736
	356,318	336,561	2,679,083
Less current maturities	77,654	65,668	583,865
	¥278,664	¥270,893	\$2,095,218

The annual maturities of long-term debt subsequent to March 31, 2002 are as follows:

Year ending March 31	Millions of yen	Thousands of U.S. dollars
2003	¥77,654	\$583,865
2004	73,373	551,677
2005	59,499	447,361
2006	53,906	405,308
2007 and thereafter	91,886	690,872

Note: The Company received funding from the Government Pension Investment Fund to provide employees with loans to obtain housing. The outstanding balance of these employee loans was ¥2,487 million (\$18,699 thousand). With the exception of these loans, unsecured long-term debts have various maturities, the latest being 2019.

#### 6. Pledged Assets

The assets pledged as collateral for short-term and long-term borrowings, guarantees and borrowings of affiliated companies at March 31, 2002 were as follows:

	Millions of yen	I housands of U.S. dollars
Assets pledged as collateral:		
Trade notes receivable	¥ 1,601	\$ 12,038
Trade accounts receivable	616	4,632
Property, plant and equipment, at net book value	231,646	1,741,699
Investment securities	6,588	49,533
	¥240,451	\$1,807,902

#### 7. Contingent Liabilities

At March 31, 2002, the Company and its consolidated subsidiaries were contingently liable as follows:

	Millions of yen	Thousands of U.S. dollars
As endorser of trade notes discounted or endorsed	¥ 5,018	\$ 37,729
As guarantor of indebtedness principally of unconsolidated		
subsidiaries and affiliated companies	24,186	181,850

The guaranteed amount includes similar commitments of ¥15,786 million (US\$18,692 thousand).

#### In accordance with the Commercial Code of Japan (the "Code"), the Company has provided a legal reserve, 8. Stockholders' Equity which was included in retained earnings. The Code provides that an amount equal to at least 10% of the amount to be disbursed as a distribution of earnings be appropriated to the legal reserve until the total of such reserve and the additional paid-in capital account equals 25% of the common share account. The Code provides that neither additional paid-in capital nor the legal reserve is available for dividends, but both may be used to reduce or eliminate a deficit by resolution of the stockholders or may be transferred to common shares by resolution of the Board of Directors. On October 1, 2001, an amendment (the "Amendment") to the Code became effective. The Amendment provides that if the total amount of additional paid-in capital and the legal reserve exceeds 25% of the amount of common shares, the excess may be distributed to stockholders either as a return of capital or as dividends subject to the approval of the stockholders. In addition, the Amendment eliminates the stated par value of the Company's outstanding shares, which resulted in all outstanding shares having no par value as of October 1, 2001. The amendment also provides that all share issuances after September 30, 2001 will be of shares with no par value. Prior to the date on which the Amendment came into effect, the Company's shares had a par value of ¥50. 9. Research and Research and development costs, all of which were included in selling, general and administrative expenses **Development Costs** for the years ended March 31, 2002 and 2001 comprised the following: Thousands of Millions of yen U.S. dollars 2002 2001 2002 Research and development costs..... ¥12,923 ¥12,777 \$97,165 10. Other Income (Expenses) Other income (expenses)—other, net, for the years ended March 31, 2002 and 2001 comprised the following: Thousands of Millions of yen U.S. dollars 2002 2002 2001 Gain on sale of securities, net ...... ¥3,156 ¥ 6,434 \$23,729 Gain on sale of property, plant and equipment, net ..... 3,705 9,740 27,857 (1,843)(11, 617)(27,323) (10.219)Early retirement incentive payments to employees ..... (829) (6,233) (429) Amortization of unrecognized transition amount under retirement benefit accounting..... (4, 676)Other, net ..... (859) (3,037)(6,458) ¥ ¥ (4,030) (45) (6) \$ **11. Supplementary Cash** The following is a summary of the transferred assets and liabilities, the relevant acquiring prices and the net cash flows from acquisition of stock of Thai Synthetic Rubbers Co., Ltd. in the year ended March 31, 2002. **Flow Information** Thousands of Millions of yen U.S. dollars Current assets ..... ¥1,562 \$11,744 Fixed assets ..... 8,570 64,436

Current liabilities	(2,884)	(21,684)
Long-term liabilities	(4,443)	(33,406)
Consolidation adjustment	(164)	(1,233)
Minority interest in consolidated subsidiary	(754)	(5,669)
Foreign currency translation adjustment	(603)	(4,534)
Acquiring price of stock	1,284	9,654
Cash and cash equivalents held by subsidiary	(224)	(1,684)
Net cash flow	¥1,060	\$ 7,970

#### 12. Income Taxes

Income taxes applicable to the Company comprise corporation, enterprise and inhabitants' taxes which, in the aggregate, resulted in a statutory tax rate of approximately 41.7% for the years ended March 31, 2002 and 2001.

The effective tax rate reflected in the statements of income for the years ended March 31, 2002 and 2001 differs from the statutory tax rate for the following reasons.

	Perce	ntage
	2002	2001
Statutory tax rate	41.7%	41.7%
Effect of:		
Permanently nondeductible expenses	6.1	2.9
Loss carried forward without deferred tax assets	18.5	25.8
Investment valuation loss of consolidated subsidiaries and affiliates	(7.7)	(2.6)
Reserve for doubtful receivables of consolidated subsidiaries and affiliates	(3.1)	(31.4)
Investment profit/loss of affiliated companies of equity method	7.6	5.9
Permanently nontaxable items including income dividends	(25.7)	(4.7)
Effect of elimination of income dividends through consolidation procedures	35.3	4.6
Other	0.9	3.8
Effective tax rate	73.6%	46.0%

The significant components of deferred tax assets and liabilities as of March 31, 2002 and 2001 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2002	2001	2002
Deferred tax assets:			
Accrued bonuses	¥ 1,565	¥ 1,591	\$ 11,767
Retirement allowances	3,366	3,183	25,308
Loss carried forward	9,291	8,964	69,857
Intercompany profit	24,323	24,508	182,880
Other	4,998	3,584	37,579
Total deferred tax assets	43,543	41,830	327,391
Valuation allowance	(9,107)	(9,579)	(68,474)
Total deferred tax assets Deferred tax liabilities:	34,436	32,251	258,917
Reserve under Special Taxation Measures Law	(12,038)	(14,835)	(90,511)
Unrealized gain on holdings of other marketable securities	(7,175)	(6,676)	(53,947)
Other	(1,751)	—	(13,166)
Total deferred tax liabilities	(20,964)	(21,511)	(157,624)
Net deferred tax assets	¥13,472	¥10,740	\$101,293

# 13. Derivative Financial

Instruments

The Company and certain consolidated subsidiaries have entered into derivative transactions in order to manage certain risks arising from adverse fluctuations in foreign currency exchange rates and in interest rates. In accordance with a new accounting standard for financial instruments which became effective April 1, 2000, derivative financial instruments are carried at fair value with changes in unrealized gain or loss charged or credited to income, except for those which meet the criteria for deferral hedge accounting under which unrealized gain or loss is deferred as an asset or a liability. Receivables and payables hedged by qualified forward foreign exchange contracts are translated at the corresponding foreign exchange contract rates. Summarized below are the notional amounts and the estimated fair value of the derivative transactions outstanding at March 31, 2002 and 2001.

(a) Currency-Related Transactions

	Millions of yen					
		2002			2001	
	Notional Amount	Fair Value	Unrealized Gain (Loss)	Notional Amount	Fair Value	Unrealized Gain (Loss)
Forward exchange contracts:						
Sell:						
US\$	¥ —	¥—	¥—	¥3,244	¥3,434	¥(190)
Buy:						
US\$	_	_	_	368	372	4
Currency swaps:						
Receive/US\$ and pay/¥	2,590	(3)	(3)	—	_	
Total			¥ (3)			¥(186)

	Thousands of U.S. dollars			
		2002		
	Notional	Fair Value	Unrealized	
	Amount		Gain (Loss)	
Currency swaps:				
Receive/US\$ and pay/¥	\$19,474	\$(23)	\$(23)	
Total			\$(23)	

Note: The notional amounts of the forward exchange contracts and currency swaps presented above exclude those entered into to hedge receivables and payables denominated in foreign currencies which have been translated and are reflected at the corresponding contracted rates in the accompanying consolidated balance sheets.

(b) Interest-Related Transactions

	Millions of yen			
		2001		
	Notional Amount	Fair Value	Unrealized Gain (Loss)	
Interest rate swaps:				
Receive/floating and pay/fixed	¥48,273	¥(1,961)	¥(1,961)	
Receive/fixed and pay/floating	2,000	(59)	(59)	
Options:				
Caps purchased	2,000	_	_	
(Premium)	(0)	0	0	
Total			¥(2,020)	

There were no interest-related transactions for the year ended March 31, 2002.

## 14. Segment Information

The operations of the Company and its consolidated subsidiaries for the years ended March 31, 2002 and 2001 are summarized by product group as follows:

			Ν	Aillions of yen			
Year ended	Chemicals	Construction	Machinery &	Energy &	Other	Elimination	
March 31, 2002	& Plastics	Materials	Metal Products	Environment	Businesses	& Corporate	Consolidated
Sales:							
Outside customers Intersegment sales	¥231,069	¥189,045	¥ 90,025	¥16,412	¥10,997	¥ —	¥537,548
and transfers	630	3,688	1,745	6,908	1,059	(14,030)	_
	231,699	192,733	91,770	23,320	12,056	(14,030)	537,548
Identifiable operating							
cost	228,119	185,289	88,296	21,606	10,602	(13,960)	519,952
Operating income	¥ 3,580	¥ 7,444	¥ 3,474	¥ 1,714	¥ 1,454	¥ (70)	¥ 17,596
Assets	¥324,393	¥262,006	¥111,572	¥60,515	¥30,005	¥31,722	¥820,213
Depreciation of fixed assets	14,234	10,261	4,616	874	1,026	_	31,011
Acquisition of fixed assets	15,288	8,901	12,287	10,791	1,383	_	48,650

	Millions of yen						
	Chemicals	Construction	Machinery &	Energy &	Other	Elimination	
Year ended March 31, 2001	& Plastics	Materials	Metal Products	Environment	Businesses	& Corporate	Consolidated
Sales:							
Outside customers Intersegment sales	¥227,109	¥187,836	¥94,837	¥13,816	¥11,409	¥ —	¥535,007
and transfers	532	3,868	1,471	6,493	1,520	(13,884)	_
	227,641	191,704	96,308	20,309	12,929	(13,884)	535,007
Identifiable operating							
cost	215,993	182,051	93,247	18,115	10,987	(13,906)	506,487
Operating income	¥ 11,648	¥ 9,653	¥ 3,061	¥ 2,194	¥ 1,942	¥ 22	¥ 28,520
Assets Depreciation of	¥282,469	¥276,051	¥96,062	¥38,953	¥44,323	¥43,017	¥780,875
fixed assets Acquisition of	12,021	10,793	4,515	1,012	1,233	_	29,574
fixed assets	13,261	9,099	3,793	1,515	4,075	_	31,743

	Thousands of U.S. dollars						
Year ended	Chemicals	Construction	Machinery &	Energy &	Other	Elimination	
March 31, 2002	& Plastics	Materials	Metal Products	Environment	Businesses	& Corporate	Consolidated
Sales:							
Outside							
customers	\$1,737,361	\$1,421,391	\$676,880	\$123,398	\$ 82,684	\$ —	\$4,041,714
Intersegment sales							
and transfers	4,737	27,729	13,120	51,940	7,963	(105,489)	_
	1,742,098	1,449,120	690,000	175,338	90,647	(105,489)	4,041,714
Identifiable operating					,		
cost	1,715,181	1,393,150	663,880	162,451	79,715	(104,964)	3,909,413
Operating							
income	\$ 26,917	\$ 55,970	\$ 26,120	\$ 12,887	\$ 10,932	\$ (525)	\$ 132,301
Assets	\$2,439,045	\$1,969,970	\$838,887	\$455,000	\$225,602	\$238,511	\$6,167,015
Depreciation of							
fixed assets	107,023	77,150	34,707	6,571	7,714	_	233,165
Acquisition of							
fixed assets	114,947	66,925	92,383	81,135	10,399	_	365,789

Geographic segment information was not shown for the year ended March 31, 2001, as aggregate sales outside Japan were less than 10% of the consolidated sales for the year ended March 31, 2001, and aggregate total assets outside Japan were less than 10% at March 31, 2001.

The operations of the Company and its consolidated subsidiaries for the year ended March 31, 2002 by geographic area were as follows:

	Millions of yen					
Year ended March 31, 2002	Japan	Other Area	Elimination & Corporate	Consolidated		
Sales:						
Outside customers	¥461,621	¥ 75,927	¥ —	¥537,548		
Intersegment sales and transfers	16,785	882	(17,667)	—		
	478,406	76,809	(17,667)	537,548		
Costs and expenses	463,429	73,948	(17,425)	519,952		
Operating income	¥ 14,977	¥ 2,861	¥ (242)	¥ 17,596		
Assets:						
Total assets	¥664,114	¥127,983	¥28,116	¥820,213		

	Thousands of U.S. dollars				
Year ended		Other	Elimination		
March 31, 2002	Japan	Area	& Corporate	Consolidated	
Sales:					
Outside customers	\$3,470,835	\$570,879	\$ —	\$4,041,714	
Intersegment sales and transfers	126,203	6,632	(132,835)		
	3,597,038	577,511	(132,835)	4,041,714	
Costs and expenses	3,484,429	555,999	(131,015)	3,909,413	
Operating income	\$ 112,609	\$ 21,512	\$ (1,820)	\$ 132,301	
Assets:					
Total assets	\$4,993,338	\$962,279	\$211,398	\$6,167,015	

"Other Area" consists principally of the United States, Germany, Spain and Thailand.

Overseas operations, which represent sales to customers outside Japan, of the Company and its consolidated subsidiaries totaled ¥125,930 million (US\$942,782 thousand) and ¥123,601 million for the years ended March 31, 2002 and 2001, respectively.

#### 15. Leases

#### (a) Finance Leases

The following pro forma amounts represent the acquisition costs, accumulated depreciation and net book value of the leased property as of March 31, 2002 and 2001 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	
At March 31	2002	2001	2002	
Acquisition costs:				
Machinery and equipment	¥2,263	¥ 2,410	\$17,015	
Other assets	7,082	8,690	53,248	
	¥9,345	¥11,100	\$70,263	
Accumulated depreciation:				
Machinery and equipment	¥1,323	¥ 1,411	\$ 9,947	
Other assets	3,906	4,952	29,369	
	¥5,229	¥ 6,363	\$39,316	
Net book value:				
Machinery and equipment	¥ 940	¥ 999	\$ 7,068	
Other assets	3,176	3,738	23,879	
	¥4,116	¥ 4,737	\$30,947	

Lease payments relating to finance leases accounted for as operating leases amounted to ¥2,099 million (US\$15,782 thousand) and ¥2,134 million, which were equal to the depreciation expenses of the leased assets computed by the straight-line method over the lease terms, for the years ended March 31, 2002 and 2001, respectively.

Future minimum lease payments (including the interest portion thereon) subsequent to March 31, 2002 for finance leases accounted for as operating leases are summarized as follows:

Year ending March 31	Millions of yen	Thousands of U.S. dollars
2003	¥1,633	\$12,278
2004 and thereafter	2,483	18,669
Total	¥4,116	\$30,947

#### (b) Operating Leases

Future minimum lease payments subsequent to March 31, 2002 for noncancelable operating leases are summarized as follows:

Year ending March 31	Millions of yen	Thousands of U.S. dollars
2003	¥ 61	\$ 459
2004 and thereafter	206	1,549
Total	¥267	\$2,008
		. ,

#### 16. Accrued Retirement Benefits

The Company and its domestic consolidated subsidiaries have noncontributory tax-qualified pension plans and lump-sum retirement benefit plans as defined benefit plans.

	Millions of yen		Thousands of U.S. dollars
	2002	2001	2002
Projected benefit obligations:			
Present value of projected benefit obligations	¥74,596	¥73,771	\$560,872
Plan assets at fair value	(31,059)	(31,841)	(233,526)
Unrecognized transition amount	(26,911)	(29,470)	(202,338)
Unrecognized actuarial cost	(7,324)	(3,604)	(55,068)
Unrecognized prior service cost	371	466	2,789
Prepaid pension cost	_	1	_
Accrued retirement benefits recognized in balance sheets	¥ 9,673	¥ 9,323	\$ 72,729

Note: Accrued retirement benefits in the accompanying consolidated balance sheets include retirement benefits for executive officers of ¥8 million for the year ended March 31, 2001.

	Millions of yen		Thousands of U.S. dollars	
	2002	2001	2002	
Expense (income) of accrued retirement benefits:				
Service cost	¥3,650	¥ 3,350	\$27,444	
Interest cost	2,170	2,105	16,316	
Expected return on plan assets	(993)	(986)	(7,466)	
Amortization of unrecognized prior service cost	(95)	(7)	(714)	
Amortization of unrecognized actuarial cost	548	_	4,120	
Amortization of unrecognized transition amount	2,538	7,026	19,082	
Expense of accrued retirement benefits	¥7,818	¥11,488	\$58,782	

	Percentage	
	2002	2001
Assumptions used in accounting for the above plans were as follows:		
Discount rate	2.8-3.5%	3.5%
Expected rate of return on plan assets	2.0–3.5	2.0–3.5

17. Related Party Transactions	The Company sold goods for resale in the amount of ¥36,998 million (US\$278,180 thousand) and ¥39,591 mil- lion to Ube-Mitsubishi Cement Corporation (UMCC), its affiliate accounted for by the equity method, for the years ended March 31, 2002 and 2001, respectively. Selling prices were negotiated in accordance with the amounts after deducting UMCC's selling costs and logistics costs from its net sales.
18. Subsequent Events	<ul> <li>(a) The consolidated subsidiary Ube Corp. USA Inc. sold off its share of the consolidated subsidiary ATC Inc. to Mitsui Chemicals America, Inc. on May 1, 2002. Gains from the sale were \$17.5 million and the percentage of equity after the sale was 0%.</li> <li>(b) At the general stockholders' meeting of the Company held on June 27, 2002, no appropriations of retained earnings for the year ended March 31, 2002 were approved.</li> </ul>

# REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS ON THE CONSOLIDATED FINANCIAL STATEMENTS

The Board of Directors Ube Industries, Ltd.

We have audited the consolidated balance sheets of Ube Industries, Ltd. and consolidated subsidiaries as of March 31, 2002 and 2001, and the related consolidated statements of income, stockholders' equity and cash flows for the years then ended, all expressed in Japanese yen. Our audits were made in accordance with auditing standards, procedures and practices generally accepted and applied in Japan and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying consolidated financial statements, expressed in yen, present fairly the consolidated financial position of Ube Industries, Ltd. and consolidated subsidiaries at March 31, 2002 and 2001, 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 consistently applied during the period subsequent to the change, with which we concur, made as of April 1, 2000, in the method of accounting for directors' and statutory auditors' retirement benefits as discussed in Note 2 (p) to the consolidated financial statements.

As described in Note 2 to the consolidated financial statements, Ube Industries, Ltd. and consolidated subsidiaries have adopted new accounting standards for retirement benefits, financial instruments and foreign currency transactions effective the year ended March 31, 2001 in the preparation of their consolidated financial statements.

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended March 31, 2002 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 to the consolidated financial statements.

Shin Nihon & Co.

Tokyo, Japan June 27, 2002

See Note 1 to the consolidated financial statements which explains the basis of preparing the consolidated financial statements of Ube Industries, Ltd. and consolidated subsidiaries under Japanese accounting principles and practices.



# DIRECTORS

Chairman of the Board Maomi Nagahiro

President and Representative Director Kazumasa Tsunemi

Senior Managing Directors Kazuo Wada Masayuki Asano Hiroyuki Koike Toshio Wakabayashi Yukuo Suzuki Tadaaki Hirano

Managing Directors Mitsuru Wada Kazuhiko Okada

# **EXECUTIVE OFFICERS**

Chief Executive Officer Kazumasa Tsunemi\*

# **Senior Managing Executive Officers**

Toshio Nagasawa Masayuki Asano\* Hiroyuki Koike\* Kazuhiko Mitsui Hiroaki Tamura Toshio Wakabayashi\*

## **Managing Executive Officers**

Ryusuke Nakamura Mitsuru Wada\* Yasuhisa Chiba Atsushi Okada Takashi Matsumoto Isao Tamura Kazuhiko Okada\*

# **Executive Officers**

Koji Kihira Nobuyuki Takahashi Akinori Furukawa Katsumasa Harada Masaki Kashibe Kazuma Sekiya Kenichi Abe Michio Takeshita

# **AUDITORS**

Hideo Yamamoto Tadashi Yamamoto Yoichi Yamada Koichi Fukuda

\* Concurrently holds post of director

44 • ORGANIZATION CHART

Corporate Auditors	s Corporate Auditors	' Office	
	Chemicals & Plastics Segment	Segment Management & Administration Dept.	
		Procurement & Logistics Dept.	
		Polyolefins & Chiba Petrochemical Factory	
		Synthetic Rubber Div.	
		Engineering Plastics Div.	
		Fine Chemicals & API Div.	Nishioki Factory
		Production Center	Sakai Factory
		Production & Technology Center	Ube Chemical Factory
			UNO Project
			PAL Project
			Business Revival Project
Chairman			Sakai Land Activation Project
President			Sapporo Area Office
	Construction Materials Segment	Planning & Control Dept.	Tohoku Area Office
		Cement & Building Materials Div.	- Nagoya Branch
		Cement Production Center	Osaka Branch
	<ul> <li>Machinery &amp; Metal</li> <li>Products Segment</li> </ul>	Machinery Div.	Hiroshima Branch
	Enguna & Enginement Comment	Aluminum Wheel Div.	Kyushu Branch
	Energy & Environment Segment	Planning & Control Dept.	
		Power Div.	
		Environmental Business Div.	
	Auditing Dept.		
	Investor Relations & Public Relations Dept.		
	Corporate Planning & Administration Dept.		
	Finance Dept.		
	Personnel Dept.		
	General Affairs Dept.		
	Purchasing Dept.		
	Ube Group Shared Service Center		
	Environment & Safety Dept.		
	Ube Corporate Services Dept.		
	Ube Industries Central Hospital		
	Corporate Research & Development	Planning & Control Dept.	
	Business Creation & Development	Intellectual Property Dept.     Pharmachemical Affairs Dept.	
		Ube Research Laboratory	
		Polymer Research Center	(As of July 1, 2002

**MAJOR CONSOLIDATED SUBSIDIARIES AND AFFILIATES** 

(As of March 31, 2002)

#### <CONSOLIDATED SUBSIDIARIES>

Company Name	Business	Capital*	Voting Rights (%)	Phone	Fax
Ube Film, Ltd.	Manufacture and sales of plastic-film products	¥379	72.76	(0836) 88-0111	(0836) 89-0005
Ube Cycon, Ltd.**	Manufacture and sales of ABS resins and ABS polymer compounds	¥1,080	64.47	(03) 5419-6300	(03) 5419-6314
ATC Inc.***	Manufacture and sales of plastic composite materials in North America	US\$4.1 million	60	(615) 244-8994	(615) 244-8997
Meiwa Kasei Industries, Ltd.	Manufacture and sales of phenolic resins, UMC nylon, and others	¥99	99.52	(0836) 22-9211	(0836) 29-0100
Thai Synthetic Rubbers Co., Ltd.	Manufacture and sales of polybutadiene	1,106 million baht	73.1	(662) 678-5450	(662) 678-6627
Ube Ammonia Industry, Ltd.	Manufacture and sales of ammonia, carbon dioxide, argon, oxygen, and nitrogen	¥4,000	50.63	(0836) 31-5858	(0836) 34-0472
Productos Quimicos del Mediterraneo, S.A.	Manufacture and sales of caprolactam, ammonium sulfate, and 1,6- hexanediol	B 34.265 million	100	(34) 964-738000	(34) 964-280013
Thai Caprolactam Public Co., Ltd.	Manufacture of caprolactam	6,755 million baht	86.31	(662) 678-5450	(662) 678-5480
Ube Nylon (Thailand) Ltd.	Manufacture and sales of nylon 6	414 million baht	100	(662) 678-5450	(662) 678-5486
Ube Agri-Materials, Ltd.	Manufacture and sales of compound fertilizers, seeding soil, and garden fertilizers	¥490	100	(0836) 31-2155	(0836) 31-2158
Ube America Inc.	Sales of UBE Group products in North and South America as well as materials purchasing	US\$0.52 million	100	(212) 813-8300	(212) 826-0454
Ube Electronics, Ltd.	Manufacture and sales of satellite-broadcast receiving equipment and dielectric ceramic elements for mobile communications	¥350	100	(0837) 52-2900	(0837) 52-2880

Construction Materials							
Company Name	Business	Capital*	Voting Rights (	%) Phone	Fax		
Ube Shipping & Logistics, Ltd.	Domestic shipping, harbor transportation, shipping-agent services, and customs clearing	¥665	81.28	(0836) 34-1181	(0836) 34-1183		
Kanto Ube Holdings Co., Ltd.	Sales of cement and aggregates as well as accounting for subsidiary	¥2,018	100	(03) 5759-7715	(03) 5759-7732		
Daikyo Kigyo Co., Ltd.	Manufacture and sales of ready-mixed concrete and concrete secondary products	¥34	58.82	(0191) 25-3161	(0191) 25-4163		
Hagimori Industries, Ltd.	Production and sales of ready-mixed concrete and concrete piles as well as transportation	¥282	62.51	(0836) 31-1678	(0836) 21-4554		
Ube Board Co., Ltd.	Manufacture and sales of boards, corrugated sheets, and OA flooring as well as related responsibilities	¥490	100	(0836) 22-0251	(0836) 22-0271		
Ube Construction Materials Sales Co., Ltd.	Sales of ready-mixed concrete, building materials, and others	¥490	98.13	(03) 5487-3560	(03) 5487-3567		
Ube Material Industries, Ltd.	Production and sales of seawater magnesia, magnesium hydroxide, quicklime, slaked lime, and others	¥4,047	55.42	(0836) 31-0156	(0836) 21-9778		
Yamaishi Metal Co., Ltd.	Manufacture and sales of metal powders, including magnesium and aluminum	¥50	73.17	(03) 3552-0301	(03) 3555-8280		

Company Name	Business	Capital*	Voting Rights (%)	Phone	Fax
Ube Machinery Corporation, Ltd.	Manufacture and sales of casting machines, injection-molding machines, extrusion presses, crushing machines, pulverizing machines, cranes, conveyors, bridges, steel structures and other industrial machinery, and other nonferrous metal products	¥6,700	100	(0836) 22-0072	(0836) 22-6457
Ube Techno Eng Co., Ltd.	Service and maintenance of industrial machinery and equipment; manufacture and sales of automation and environment machinery	¥130	100	(0836) 34-5080	(0836) 34-0666
Ube Steel Co., Ltd.	Manufacture and sales of cast iron and steel products and recycling machinery	¥1,000	100	(0836) 35-1300	(0836) 35-1331
Fukushima, Ltd.	Manufacture and sales of marine, industrial, and recycling machinery	¥490	100	(0245) 34-3146	(0245) 33-8318
Ube Machinery Inc.	Service, sale, assembly, and maintenance for metal processing and injection-molding machinery in North America	US\$4.45 million	100	(734) 741-7000	(734) 741-7017
Ube Machinery (Shanghai) Ltd.	Service, sale, assembly, and maintenance for metal processing and injection-molding machinery in China	US\$1.4 million	100	(021) 5820-2050	(021) 5820-512
UBE Automotive, Ltd.	Sale of aluminum automobile wheels	¥2,805	100	(03) 5419-6295	(03) 5419-6219
UBE Automotive North America Mason Plant Inc.	Manufacture of aluminum automobile wheels in North America	US\$37.5 million	100	(513) 459-1760	(513) 459-7060
UBE Automotive North America Sarnia Plant, Inc.	Manufacture of aluminum automobile wheels in North America	C\$65.383 million	100	(519) 542-8262	(519) 542-3666
UBE Automotive North America L.L.C.	Sales of aluminum automobile wheels in North America	US\$0.25 million	100	(513) 459-1760	(513) 459-7060
U-Mold Co., Ltd.	Manufacture of aluminum automobile wheels	¥950	100	(0836) 33-3215	(0836) 33-2366
Energy & Environment					
Company Name	Business	Capital*	Voting Rights (%)	Phone	Fax
Ube C&A Co., Ltd.	Sales of imported steaming coal from Australia, Indonesia, and China	¥490	75.5	(03) 5419-6331	(03) 5419-6332
UBE Power Center Co., Ltd.	Wholesale of electricity	¥1,500	70.0	(0836) 31-2642	(0836) 31-2799
Other Businesses					
Company Name	Business	Capital*	Voting Rights (%)	Phone	Fax
Ube International (U.S.A.), Inc.	Investment and financial services for affiliated companies in North America	US\$5 million	100	(212) 813-8330	(212) 826-0454
Ube Corp. USA Inc.	Holding company of affiliated companies in North America	US\$49.9 million	100	(212) 813-8300	(212) 826-0454

# <EQUITY-METHOD AFFILIATES>

Company Name	Business	Capital*	Voting Righ	ts (%) Phone	Fax
Ube-Mitsubishi	Sales of cement and soil-stabilizing cement	¥8,000	50	(03) 3435-2650	(03) 3435-2665
Cement Corporation					

53 Other Equity-Method Affiliates

\* Capital is stated in millions of yen, unless otherwise indicated.
\*\* Ube Cycon, Ltd., was merged with Mitsubishi Rayon Co., Ltd., to form UMG ABS, Ltd., on April 1, 2002.
\*\*\* On May 1, 2002, ATC, Inc., was transferred to Mitsui Chemicals America, Inc.

#### Date of Establishment: 1897

#### **Common Stock:**

(As of March 31, 2002)

Authorized: 3,300 million shares Issued: 845,828,704 shares (¥43,564 million)

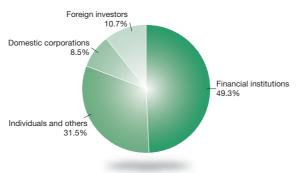
#### Transfer Agent and Register:

UFJ Trust Bank Ltd.

#### Number of Stockholders: 78,199

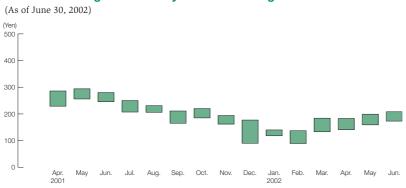
*Independent Certified Public Accountants:* Shin Nihon & Co.

#### **Breakdown of Stockholders**



#### Stock Price Range on the Tokyo Stock Exchange

STOR INFORMATION



# Network

# **Domestic Offices**

Tokyo Head Office Seavans North Bldg., 1-2-1, Shibaura, Minato-ku, Tokyo 105-8449, Japan Phone: +81 (3) 5419-6110 Fax: +81 (3) 5419-6230

#### **Ube Head Office**

1978-96, Kogushi, Ube, Yamaguchi 755-8633, Japan Phone: +81 (836) 31-1111 Fax: +81 (836) 21-2252

# Overseas Offices (Sales & Representative) Ube America Inc. 55 East 59th Street, New York, NY 10022, U.S.A. Phone: +1 212-813-8300 Fax: +1 212-826-0454

#### Ube Corporation Europe, S.A.

Poligon El Serrallo, Grao de Castellon 12080, Spain Phone: +34 964-738065 Fax: +34 964-738074

#### Ube Europe GmbH

Immermann Hof, Immermannstr. 65B, 40210 Düsseldorf, Germany Phone: +49 211-178830 Fax: +49 211-3613297

#### Ube Singapore Pte., Ltd.

150 Beach Road, 20-05 Gateway West, Singapore 189720 Phone: +65 6291-9363 Fax: +65 6293-9039

#### Ube (Hong Kong) Ltd.

Rooms 1405-12, Sun Hung Kai Centre, 30 Harbour Road, Hong Kong, S.A.R., People's Republic of China Phone: +852 2877-1628 Fax: +852 2877-1262

#### Ube (Shanghai) Ltd.

Rooms 2315-16, Bank of China Tower, 200 Yincheng Road, Pudong New Area, Shanghai 200120, People's Republic of China Phone: +86 21-5037-2288 Fax: +86 21-5037-2266



# UBE INDUSTRIES,LTD.

## **Tokyo Head Office**

Seavans North Bldg., 1-2-1, Shibaura, Minato-ku, Tokyo 105-8449, Japan Phone: +81 (3) 5419-6110 Fax: +81 (3) 5419-6230

# Ube Head Office

1978-96, Kogushi, Ube, Yamaguchi 755-8633, Japan Phone: +81 (836) 31-1111 Fax: +81 (836) 21-2252 URL: http://www.ube-ind.co.jp