



*GROWTH &  
EFFICIENCY*

Focusing on lucrative products  
to build a high-earnings structure

2001  
Annual Report

# Profile

## *Creating the Future*

Toagosei's corporate philosophy is to contribute through its chemical business to the lives and welfare of as many people as possible. The Company's operations concentrate on the creation of high-value-added products in its three areas of core competence — chloralkali, acrylics, and adhesives. In addition, Toagosei is developing a range of promising new businesses based on innovative technologies. At the same time, Toagosei and its group companies are committed to the unending search for ways to mitigate environmental degradation and improve people's living standards as a means of realizing the dream of a society underpinned by recycling and the use of renewable resources. Our goal is to make the name of Toagosei widely known as a trustworthy, value-creating enterprise that makes a vital contribution to the well-being of society as a whole.

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### Forward-looking statements:

Various forward-looking statements have been included within this Report based on current forecasting and in accordance with anticipated business and corporate expectations, and actual results could potentially differ because of presently unforeseen circumstances.

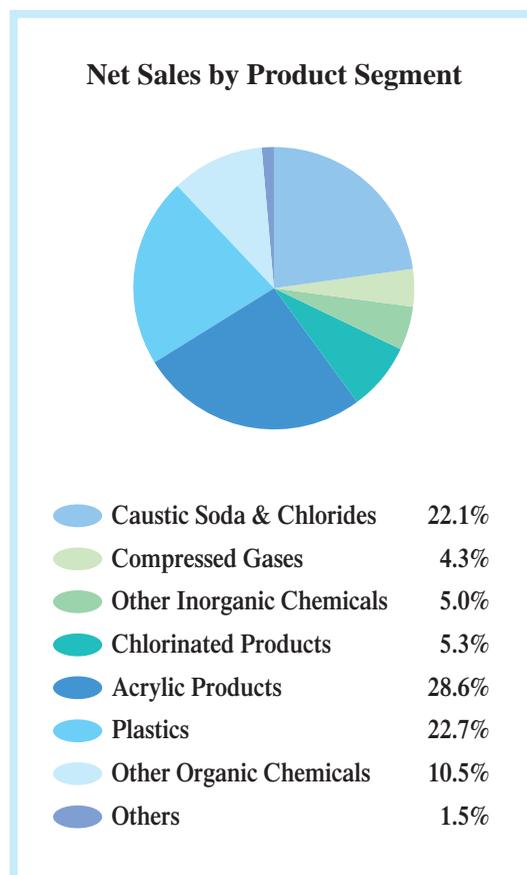
# Financial Highlights

Toagosei Co., Ltd. and Consolidated Subsidiaries Years ended December 31, 2001, 2000 and 1999

Consolidated Basis	Millions of yen			Thousands of U.S. dollars (Note 1)	01/00 Change (%)
	2001	2000	1999	2001	
Net sales .....	<b>¥135,583</b>	¥145,246	¥150,822	<b>\$1,027,533</b>	-6.7
Operating income .....	<b>5,663</b>	6,001	5,738	<b>42,918</b>	-5.6
(Loss) income before income taxes and minority interests .....	<b>(3,540)</b>	2,927	5,552	<b>(26,828)</b>	-220.9
Net (loss) income .....	<b>(3,384)</b>	(247)	2,069	<b>(25,646)</b>	N.A.
Per share of common stock (in yen and dollars):					
Net (loss) income (Note 2).....	<b>(12.67)</b>	(0.93)	7.75	<b>(0.10)</b>	N.A.
Cash dividends applicable to the year .....	<b>6.00</b>	6.00	6.00	<b>0.05</b>	N.A.
Total assets .....	<b>177,148</b>	187,923	196,289	<b>1,342,539</b>	-5.7
Shareholders' equity .....	<b>75,175</b>	80,268	81,731	<b>569,724</b>	-6.3

Notes 1: U.S. dollar amounts are translated from yen, for convenience only, at the rate of ¥131.95=\$1.00.

2: Net income per share is computed based on the weighted average number of shares of common stock outstanding during each year.



# Interview with President Fukuzawa

## Growth and Efficiency Seen as Key to Improving Group Earning Power

The Toagosei Group is pushing boldly ahead with wide-scale management and administrative reforms aimed at building a more solid, highly competitive business base. From fiscal 2002, the Group initiated a new medium-term business plan as a vital first step in achieving the baseline reforms needed for greater business success. In an interview with President Fukuzawa, we asked him about the Company's fiscal 2001 performance, the success of Group reforms, and the new medium-term business plan. Here is what he had to say.

Bunshiro Fukuzawa  
*President and Representative Director*



### Performance Hindered by Worsening Conditions

**Q** *Firstly, could you give us your impressions of the Group's performance in fiscal 2001?*

**A** As you are aware, the collapse of the IT bubble in 2001 and the economic slowdown that began with the U.S. and spread worldwide led to serious declines in corporate earnings and capital investments, all of which weighed heavily upon the already embattled Japanese economy. The chemical industry was far from immune to these conditions, with sharp falls in production and shipping from a growing supply and demand gap, rising raw materials costs and deflation having a combined dampening effect on corporate earnings throughout the industry.

While we tried our best to avoid it, the Group's performance also suffered under these severe economic conditions, with declines noted in both revenue and earnings. Not only were sales lower in the majority of the Group's product lines, but the subsequent reduction in revenue caused by

withdrawal from the unprofitable polyvinyl chloride business also had a substantial effect on consolidated net sales, pulling them down to ¥135,583 million (US\$1,027 million), a drop of 6.7% from the previous term. As one might expect, this decline in net sales dragged earnings lower, with operating income falling 5.6% from the previous term to ¥5,663 million (US\$42 million). And finally, with an extraordinary loss of ¥8,436 million resulting from changes in retirement benefit accounting, the Group recorded a total net loss for the term under review of ¥3,384 million (US\$25 million) on a consolidated basis.

After seeing efforts to reduce fixed expenditures prove insufficient to cover this loss in earnings, it has become obvious that countermeasures to handle this situation were less than adequate. I have now become well aware that the responsibility for overcoming these difficulties, and in the process creating a stronger Toagosei Group, rests squarely upon my shoulders.



### Preparing the Management Base for Better Growth

**Q** *What sort of results has the Group witnessed from the series of reforms enacted last year?*

**A** Naming 2001 as the year that would mark a bold new start for the Group, we did indeed push ahead with building a solid management base capable of sustainable growth. The aim throughout was to tackle the Group structure as a whole, rather than individual problems within it; to reconsider the way things were being done and thereby achieve faster decision-making and improved Group efficiency. In short, we set out to create an environment that was more amenable to the long-term growth of the Group.

To that end, in April of last year, we introduced an executive officer system into the Group organizational structure, and also moved to further unify Group management. Clarifying general and executive management in this way not only increased Group decision-making capabilities, but also seems to have resulted in a system in which cross division scrutiny of all business matters can now take place. In addition to changes like these, we have also encouraged administrative reforms by promoting business process re-engineering (BPR), introduced enterprise resource planning (ERP), and strategically redesigned the Group's entire core information systems infrastructure. Concerning Group products, we have nearly completed a strategic withdrawal from all of our least profitable product lines.

With emphasis firmly placed on strengthening consolidated management, we are directing efforts throughout the Toagosei Group towards the development of a management style best suited to the Group's particular corporate model and needs. For example, we continue to move ahead with halting unprofitable investments in V-Tech Corp., D.S.T. Micronics Co., Ltd. and other loss-making subsidiaries. Through ongoing management base adjustments like these, I am making it abundantly clear to the entire Group that we will waste no time in turning this Company around and making it into the high-earnings enterprise that it should be.

### The Start of the 3-Year Medium-Term Business Plan

**Q** *Toagosei initiated a new medium-term business plan from 2002. What are the plan's objectives and what kind of performance figures do you hope to achieve?*

**A** Until recently, we championed the slogan "Selectivity and Focus" as a guide for choosing more promising research lines and for withdrawing from unprofitable businesses, which in turn greatly enhanced the quality of Group business. Yet it is over the next three years that successful results are sure to become most evident, a conviction we believe is best expressed in the Group's newest slogan, "Growth and Efficiency."

At this point, there is widespread realization that the Japanese economy is not as competitive as it once was. China and Southeast Asian countries are steadily closing what was once a formidable economic gap. Considered with the decline of the Japanese population itself, set to undergo negative growth as early as 2007, GDP is not expected to revisit anything approaching its past growth. It has now become abundantly clear to everyone that the way things were done in the past simply no longer works for the social and economic realities of today.

#### Targets of New Medium-Term Management Plan (Fiscal 2004)

##### Business Scale:

Consolidated net sales: ¥150.0 billion

##### Profitability:

Consolidated operating income: ¥ 13.0 billion  
(ratio of operating income to net sales: 8.7%)

Consolidated net income: ¥ 5.5 billion

EPS (consolidated basis): ¥ 20.0

##### Capital Efficiency:

ROA (consolidated basis): 2.5%  
(Ratio of net income to total assets on a consolidated basis)



Amidst these dire conditions, the Toagosei Group will focus the Company's resources in pursuit of growth for its distinctive business and improving the efficiency of all business segments, while moving boldly ahead with implementing a plan of action that places a strong emphasis on earnings. As for performance figures, the aim is to achieve net sales of ¥150 billion, operating income of ¥13 billion, net income of ¥5,500 million, earnings per share of ¥20 and ROA of 2.5% by the final year of the plan in fiscal 2004.

#### Powerful Development of 3 Basic Strategies

**Q** *What basic strategies will help to achieve the objectives of the plan?*

**A** There are three strategies. The first is to complete the transition to a high functionality, high-earnings business structure. This will mean maintaining stable earnings from pre-existing business lines while extending the global reach of high value-added products in electronics, environment & amenities and other new business domains to form a rock-solid base for continued growth. At the same time, we also expect advances in the purity of current products and continuing downstream development to become large business advantages for the Company.

The second strategy is the steadfast promotion of effective business activities. In detail, this means promoting management that is fast, flexible and places strong emphasis on shareholder value by optimizing use of the core information system the Company brought online in January of this year, as well as strengthening corporate governance Group-wide. Introducing effective ERP measures will certainly lead to more streamlined inventories. But we believe it will also be possible to achieve a more flexible, more productive workforce and to improve Group financial position through strategic asset reduction as well. Regarding personnel, we plan to thoroughly integrate a system of performance-linked evaluation over the next 2 to 3 years, in addition to engaging in

more effective distribution of personnel expenses and overall reduction in labor costs.

The third basic strategy is consolidated management. By continuing to push ahead with finding the management style best suited for the Toagosei Group, we will bring focus to productivity through strategic plant closures, centralize Group clerical work, move to eliminate interest-bearing debt, better manage business segment performance (ROA management), and gain control over a number of other hard-to-manage loose ends that have affected prior business performance.

#### Management Where Business and Environmental Policies Merge

**Q** *What is your perspective on environmental problems and what measures do you have in place for dealing with them?*

**A** Today, it is almost impossible to conceive of business management that does not seriously take environmental issues into account. The sustainable growth of any business largely depends on its commitment to actively tackling environmental problems, but a well-formed environmental policy is also part of a company's responsibility to society at large.

As a player in the chemical industry, the Toagosei Group has come this far by enthusiastically promoting a policy of "responsible care" in all of its activities. Maintaining a pleasant, livable environment is one of the Group's fundamental business policies, which is why consideration for the natural environment and safety are fully incorporated into the life cycle of all Toagosei products, from the initial stages of development to post-consumer disposal.

As for definitive measures, we demonstrate the importance the Group places on its symbiotic relationship with local communities by: 1. practicing energy conservation,



working to reduce CO2 emissions and reducing environmental impact wherever possible, 2. continuing to manufacture and develop products that are environmentally sound, and 3. enacting measures to increase worker safety, by making information on environmental preservation and safety widely available through “The Environmental Report” and other Toagosei publications. And while Toagosei has successfully produced a number of products that have a lower impact on the environment, consumer-use adhesive *Aron Alpha* (Krazy Glue in the U.S.) and construction-use product *Aron Coat*, in particular, have been selected to carry the environmental seal of approval in recognition of the ecological soundness of these two products.

From the start of fiscal 2000, environmental accounting was also introduced throughout the Group, the results of which were made public in conjunction with a comprehensive environmental awareness program. This program has included tours of Toagosei factories, local volunteer clean-up drives and other events showcasing Toagosei’s contributions to community-wide environmental awareness. In the days ahead, we will strive to bolster the Group’s environmentally sound practices, while doing the best we can in fulfilling the Group’s role as a responsible corporate citizen.

#### Building a Strong Earnings Structure

**Q** *In closing, could you tell us your forecast for fiscal 2002 performance and give a few words to the Company’s investors and shareholders?*

**A** Although demand in the IT sector has gradually begun to pick up again, the market is still not very robust, with earning power still restrained by an industry-wide drop in demand for chemical products and excessive production capacity. Against this backdrop, severe operating conditions are likely to continue for some time to come.

Despite these conditions, we will pour every bit of effort the Group can muster into achieving the goals laid out in the

new medium-term business plan. In particular, we are working hard to increase ROE and earnings per share in a move that will raise the price of Toagosei stock and bring the Company closer to meeting the high expectations of its shareholders. Currently, with the future of the economy as yet uncertain, net sales for fiscal 2002 are likely to stand at ¥133 billion, with net income of ¥800 million on a consolidated basis. Sales will likely decline, but earnings should be back in the black after one-off expenses, with priority given to building a reinforced earnings structure for the Group.

Taking a look back, from the high-level of growth in the 1960s to the collapse of the bubble in the 1990s, the Japanese economy appeared to many as a sort of rising escalator – reaching the top required nothing more than getting on and waiting to arrive. Now, the direction of that escalator has reversed. Getting to the top this time is going to mean climbing with all one’s might against the downward movement of the economy. The severity of operating conditions has undoubtedly increased, but we at the Toagosei Group are fully aware of what emerging on top is going to require, and we now stand ready to commit all of the Group’s diverse strengths to making it there.

In closing, I would like to thank all of Toagosei’s shareholders, investors and other stakeholders, and ask for their continued understanding and support throughout fiscal 2002 and beyond.

Bunshiro Fukuzawa,  
*President and Representative Director*

# The New Medium-Term Management Plan in Fiscal 2002

Last year, we radically changed corporate governance policies at Toagosei. We clearly delineated policy-making by management and executive duties, and transformed both the Company's managerial and organizational structure. At the same time, we moved to implement administrative reforms like the promotion of business process reengineering (BPR) and the introduction of enterprise resource planning (ERP), to emerge a winner in this severe business environment.

Based on this aim, we enacted in fiscal 2002 a new medium-term management plan, scheduled to conclude in fiscal 2004. And while the current fiscal year was considered the first of a bold new direction for the Company, fiscal 2002 will be known as one in which this plan begins to deliver on its objectives, as we carry out over the next three years a decisive plan of action designed to yield definitive results.

## Growth & Efficiency

### Fundamental Philosophy and Objectives

1. To get back to basics at Toagosei by carrying out business activities in line with our corporate philosophy – to use the chemicals business to improve the lives and welfare of as many people in as many ways as possible.
2. To advance a highly regarded, distinctive chemical manufacturing business that will establish the Toagosei Group as an indispensable corporate entity.

### Fundamental Strategies

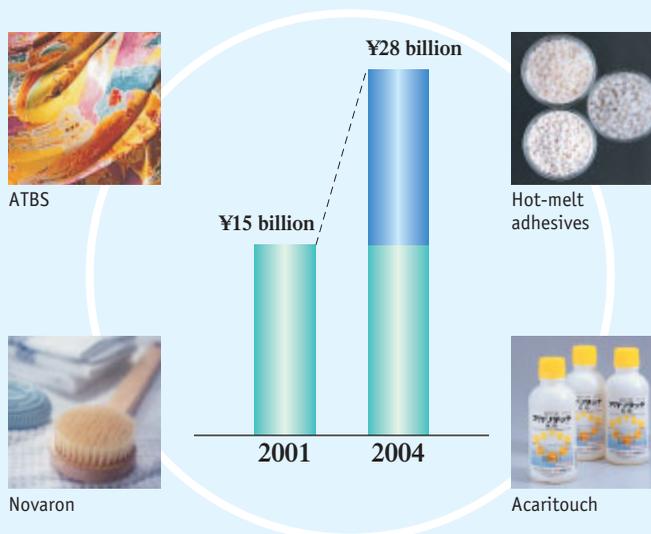


### Transformation of Business Structure Focused on High-Performance and High-Value-Added Products

Emphasis here is placed on maintaining stable earnings from existing business, while encouraging the development of distinctive, high-performance and high-value-added products for electronics, environment & amenities, and other growth markets.

By the final year of the new management plan, previously marketed and new products in the above-mentioned growth fields are expected to yield combined net sales of ¥28,000 million (US\$233 million), an increase of ¥13,000 million compared to fiscal 2001 figures. High-purity inorganic, acrylic, and new plastic products are certain to account for the majority of these sales.

### Sales Targets for New Products (Fiscal 2004)



## Planned points of focus in each business area are as follows.

### Chloralkali Products

- Placing top priority on maintaining stable revenues from the chloralkali business, we seek to reinforce the sales system for local product markets – with a renewed emphasis on profits and market share – while pushing ahead with the discovery of new sources of demand for chlorine products
- Build up development capacities for high-purity products and greater value-added metal recycling activities to improve profitability
- In industrial gases, augment profit-focused production and marketing systems through superior specialization tailored to local markets and the development of new customer sources

### Acrylic Products

- We will enhance the overall growth of this business by thoroughly integrating upstream, midstream and downstream applications, all backed by distinctive technology and cost competitiveness; we will also pool the domestic and overseas capabilities of the Toagosei Group to broaden the range of end-user products we offer
- In acrylic monomers, we will establish the ability of the business to sustain the cost competitiveness of its downstream products, while earmarking a greater portion of the monomers produced for in-house consumption
- Move ahead with advancing the full-scale market expansion of Uniform Functional Oligomer (UFO) polymers as well as the development and broad marketing of more distinctive, high-performance products
- Accelerate the pace of cost reductions and the overseas growth of *Aronix*; establish the Company's position as a manufacturer of oxetane and other comprehensive light-curable resins

- In polymer flocculants, gain improved profitability through technology development and cost reductions, and encourage better growth overseas to enhance the structure of this business
- Pay close attention to improving the profitability of the Group's interests in its joint-venture business in Singapore

### Specialty Chemicals

- In adhesives, move ahead with ongoing and speedier product development while achieving the best global marketing, production and packaging materials procurement possible
- In construction materials, develop new products and growth to meet demand in the expanding repair and upkeep market
- Encourage development of the latest in fine inorganic products

### Plastics

- Further enhance the Company's presence in plumbing, electric power distribution, environmental preservation and nursing care-oriented fields
- Avoid dependency on the earnings capacity of the plastic pipe couplings business by placing greater emphasis on new product development

### Bioscience and New Business Planning & Development

- Concentrate management resources on electronics and environment & amenities as strategic operational domains, develop current seeds to foster the emergence of new high-performance, high-earning businesses
- Accelerate the pace of market expansion for environmentally sound agrochemicals and new product development

## Promoting Efficiency in Business Activities

Setting the business and organizational enhancements enacted in April 2001 as a new starting line, we are moving ahead with additional steps to increase operational efficiency. To achieve this, we have adopted dramatic improvements that surpass the scope of the framework utilized by the Company to date.

- Greatly enhanced corporate governance  
Promoting advanced, speedier business activities and shareholder value-focused management through the SAP Company R/3 system (known in-house as ALICE) introduced in January 2002, while encouraging greater information sharing between management and executives to achieve a more flexible management system
- Reevaluating and improving the efficiency of production and marketing systems
- Increasing motivation through a merit-based personnel system in line with the changing operational environment, while implementing a performance-linked mindset at every level for more effective distribution of labor costs and overall labor cost reductions of ¥1,200 million, or 5%

- Reducing product and raw material inventories; reducing distribution and raw material costs by ¥2,300 million, or 10%
- Enacting measures to reduce overall assets focused on more efficient use of real estate by consolidating and eliminating Company-held facilities

## Full Integration of Group Management

Stepping up corporate management that optimizes the entire Toagosei Group

- Examining and activating optimal production bases within the Group
- Making human resource activities, including recruitment, within the Company more flexible
- Centralizing clerical duties within the Group
- Formulating a Cash Management System (CMS) for the Group; moving ahead with the reduction of interest-bearing liabilities Group-wide and improving fund operation efficiency
- Taking progressive steps to promote ALICE Group-wide
- Pushing ahead with performance management for each distinct business segment, involving ROA as a benchmark

# Chloralkali Products

## Consolidated sales:

¥44,419 million (fiscal 2001 performance) to

¥46,500 million (fiscal 2004 target)

## From Advanced Industry to Agriculture – Providing Society with the Raw Materials for a Diverse Array of Products

Commodity chemicals comprise one of the main business concerns of the Toagosei Group. Utilizing a level of expertise that is among the highest in the industry, Toagosei produces caustic soda, caustic potassium and other inorganic chemicals indispensable to the manufacturing sector, as well as fertilizers, pesticides, industrial-use gases and a wide range of other products; contributing to the health and prosperity of society as a whole by providing industry with an array of useful products. To ensure uninterrupted supply, Toagosei establishes efficient, integrated production and distribution systems near areas where demand is greatest, strengthening the overall cost competitiveness of its products. And from July 2002, the Toagosei business base is set to grow stronger still, when Tsurumi Soda Co., Ltd., engaged in the manufacture and sale of caustic soda, becomes a wholly owned subsidiary. We expect this latest move to improve management efficiency while more closely aligning research, production and sales objectives Group-wide.



Caustic soda is used in the manufacture of paper and synthetic fibers, and as the chief raw material for soap. Caustic soda is valuable for its ability to regulate the pH factor in many manufacturing processes.

From here on, business growth is sure to be marked by concerted efforts to optimize Group strengths, as well as the development of purer, more distinctive caustic soda and high-grade ferric chloride products suitable for applications in the IT industry, a new market the Toagosei Group will be actively exploring in the days ahead.

In industrial gases (excluding specialty gases), Toa Techno-Gas Co., Ltd. continues to build a more pronounced local presence in the Tokai (Nagoya and surrounding areas) and Hokuriku (Toyama and surrounding areas) regions, with further expansion of local operations expected over the medium-to-long term. Over the same time frame, maintenance services for medical gas equipment should also develop into a new growth field in which Toagosei aims to establish a solid foothold.

## Toagosei Group Challenges for 2002

- In the chloralkali business, greater specialization geared to local markets while engaging in the sale of ultra-pure and higher-value-added products

## Group Companies Involved

1. **Tsurumi Soda Co., Ltd.:** Manufacture & sale of caustic soda and chlorine products
2. **Toa Techno-Gas Co., Ltd.:** Manufacture & sale of industrial gases, including oxygen and nitrogen



Our highly efficient electrolysis facilities.



Sulfuric acid production facilities at the Company's Nagoya Plant. Sulfuric acid, which is Toagosei's earliest product, forms the raw material for a wide variety of chemical products.

# Acrylic Products

Consolidated sales:

¥35,840 million (fiscal 2001 performance) to

¥43,500 million (fiscal 2004 target)

## From Raw Materials to Basic Components – Acrylic Business Makes Presence Felt on the Global Market

From acrylic monomers, which Toagosei commercialized for the first time in Japan, to polymers, the Group is firmly committed to promoting the growth of its acrylic business. We have recently enhanced the range of acrylic polymers in line with a global production plan, with a subsequent increase also expected in in-house monomer consumption from its current 26% to 34% by 2004. The Group will make every effort to capitalize on this important opportunity to greatly augment its existing earnings base.

The first step of this task was to make optimal use of the Group's monomer production plant in strategically located Singapore. Combining the plant's capacity with that of the factory in Nagoya has allowed Toagosei to achieve a production system that is ready to meet coming global demand.

In downstream developments, one of the most important business concerns will be the challenge of applying Uniform Functional Oligomer (UFO) technology, a technique for producing low-cost, high-grade materials without the use of solvents or catalysts, to the manufacture of products that are more eco-friendly. Through UFO technology, we hope to



*Aron Floc* is an acrylic polymer flocculant used to purify water through coagulation of pollutants, thus contributing to a healthier life.



The super-absorbent resin *Aron Zap* is ideal for disposable diapers, sanitary napkins, and so on. It is also used for anti-condensation ceiling materials, and in the fields of agrochemicals, civil engineering, building construction, and food processing, among others.

market *Arufon* as a plastic modifier and sealant, alongside *Aqurie*, a concrete additive that protects against erosion, while using the technology to further develop a new line of environmentally friendly products.

In other acrylic product topics, we are proud to report that *Aronix*, a UV-curable resin the Group began producing in Taiwan last year, now occupies the top share of that product category in Japan. Oxetane, a safe, highly versatile cationic UV-curable monomer, has recently begun to receive market attention as well. With the top share of the light-curable acrylic resin market in sight, we will continue designing a line of distinctive products as Toagosei pushes ahead in promoting the growth of this important business segment.

## Toagosei Group Challenges for 2002

- Promote improved efficiency in acrylic manufacturing at the joint-venture plant in Singapore
- Continue development of *Arufon* as a sealant and explore other potential applications

## Group Companies Involved

1. **Oita Chemical Co., Ltd.:** Manufacture of acrylic acid and acrolein (raw material for acrylic acid)
2. **Nihon Junyaku Co., Ltd.:** Manufacture & sale of acrylic polymers
3. **Toagosei Asia Pte Ltd.:** Sale of acrylic esters
4. **Singapore Acrylic Ester Pte Ltd.:** Manufacture of acrylic esters
5. **Taiwan Toagosei Co., Ltd.:** Sale of Aronix
6. **Toa-Jet Chemical Co., Ltd.:** Manufacture of Aronix



The adhesive product *Aron Tack* has a wide range of applications, including adhesive tape and labels.

# Specialty Chemicals

## Consolidated sales:

¥14,569 million (fiscal 2001 performance) to  
¥16,700 million (fiscal 2004 target)

## Applying Basic Chemicals Expertise in Pursuit of Specialty Chemicals

In the adhesives business, the Company has a well-established niche on the global market, due in large part to the success of long-selling consumer-use instant adhesive *Aron Alpha* (Krazy Glue in the U.S.). Currently, we are working to uncover new market demand by developing innovative functions and expanded applications for *Aron Alpha*, while simultaneously establishing filling plants in the United States and China. The latter is expected to strengthen Toagosei's sales capacity in increasingly influential East Asian markets as the next most promising market after the industrialized nations.

Pertaining to the industrial use of *Aron Alpha*, the combined product lines, research capabilities, sales channels and information resources of Toagosei and Aron Ever-Grip Limited have led to closer ties between customers and the companies, resulting in both noticeable market expansion and improved earnings. From here on, we will continue to research new *Aron Alpha* applications and accelerate the pace of development for Aron Alpha-based materials, while

The *Aron Alpha* series, sold under the names of *Krazy Glue* in North America and *Cyanolit* in Europe, is a wide lineup of over 200 products tailored to specific uses. Toagosei is continuing to expand the market for this series by developing new products such as the one-drop push-button type for household use.



A silver-based antimicrobial agent, *Novaron* shows long-lasting effectiveness against a wide range of bacteria, and is attracting great interest for use in textiles, plastic products, paints and so on. *Novaron* has proved popular overseas as well as in Japan.



*Aron Wall* is a water-resistant, rubber-type acrylic resin for use in coating the walls of buildings. As the industry's first weather-resistant coating material for application to external walls, this product is racking up strong sales.

placing greater emphasis than before on developing solvent-free, environment-friendly adhesive products.

Spanning the range of organic and inorganic materials, Toagosei puts its unique technical expertise to work in developing a wide variety of distinctive products displaying a high degree of functionality. Recently, we have turned our attention to developing products with improved antimicrobial agents, including *Novaron*, a fast-selling product used with antibacterial plastics and fibers; *Kesumon*, a deodorizer; and *Cavinon*, a product that prevents mildew, in addition to *IXE*, an ingredient in adhesives used to affix integrated circuit (IC) chips, *Aron Powder*, a weather and corrosion-resistant powdered paint ideal for use on windshield wipers, and a variety of other practical use products. *Aron Powder*, in fact, continues to gain ground as a specialized product in the automotive field, and is well on the way to becoming a high earnings business in its own right.

## Toagosei Group Challenges for 2002

- Optimize adhesive production bases worldwide
- Consolidate *Aron Alpha* packaging to unify overall brand image

## Group Companies Involved

1. Toagosei America Inc.: Manufacture & sale of instant adhesives and other chemicals
2. Elmer's & Toagosei: Sale of instant adhesives
3. Toagosei Hong Kong Ltd.: Manufacture & sale of instant adhesives
4. Toagosei (Zhuhai) Ltd.: Manufacture & sale in China of instant adhesives
5. Aron Packaging Co., Ltd.: Filling & packaging of adhesives
6. Aron Ever-Grip Ltd.: Manufacture of industrial-use adhesives
7. Toa Kenso Co., Ltd.: Contractor specializing in construction-use products

## Plastics

**Consolidated sales:**

**¥30,388 million (fiscal 2001 performance) to  
¥34,500 million (fiscal 2004 target)**

### Optimal Plastics Technology for Maximum Benefit to Society

Currently, the manufacture and sale of plumbing and household-use products is chiefly conducted through Aron Kasei Co., Ltd. and two other Group companies. Aron Kasei, with its philosophy of “Better Living Through Plastics for the Benefit of All,” is currently involved in the following four promising business fields.

The first two fields, water supply & sewer pipes and electrical & telecommunications line casings, are vital to improving the quality of the living environment and building the infrastructure of an advanced information society. In water supply & sewer pipes, the Company was well ahead of others in developing various original products, including small diameter couplings and manholes, while receiving praise for its highly effective piping system. In electrical & telecommunications line casings, eyeing the rapid development of Japan’s own information superhighway, Aron Kasei has been busy developing its original Aron FE pipe system and other protective casings for this important field.

Toagosei contributes to the enrichment of people’s lives through environmentally friendly, value-added plastic products, such as those for the bathroom and for nursing care use.



In environmental preservation, a field that has become a dominant theme in consumer goods globally, Aron Kasei is pushing ahead with the development of PET bottle recycling systems and other eco-friendly consumer-use products in accordance with Japan’s recyclable packaging law and similar legal changes.

Additionally, in preparation for the demands of Japan’s rapidly aging society, Aron Kasei is heavily involved in the design and manufacture of portable toilets, bathroom handles, shower chairs and other products uniquely suited for use in the nursing care field. By adding an ever-expanding sales channel base to Aron Kasei’s already impressive research and development capabilities, the company is aiming to take its business activities yet another successful step forward.

#### Toagosei Group Challenges for 2002

- Keep close watch on Japan’s progressively aging society to prepare a complete range of nursing care products
- In plumbing, ensure a steady source of revenues through the spread of distinctive joints and couplings

#### Group Companies Involved

1. Aron Kasei Co., Ltd.: Manufacture of synthetic resin molded products

## Other Businesses (Bioscience & New Business Lines)

**Consolidated sales:**

**¥10,367 million (fiscal 2001 performance) to  
¥8,800 million (fiscal 2004 target)**

### Bioscience – Where Nature and Toagosei Technology Meet

In the field of bioscience, *Kaligreen*, an eco-friendly pesticide used both as a plant nutrient and to eliminate powdery mildew, is now currently available in six countries, including Japan and the United States. With special concern for human safety and the natural environment in mind, the Company focused on using a food additive to develop *Acaritouch*, a pest control product for eliminating dust mites.



*Acaritouch* is an environmentally friendly anti-mite agent incorporating a fatty acid ester that is so safe it is used in food additives.



The fungicide *Kaligreen*, which is not harmful to the health or the environment, exhibits the twin functions of antibacterial agent and fertilizer.

#### Toagosei Group Challenges for 2002

- Boost sales of in-house developed agrochemical *Kaligreen* in the U.S. market

# Toagosei at a Glance

Toagosei achieved net sales of ¥135,583 million (US\$1,027 million) on a consolidated basis, of which chemical product sales accounted for ¥133,521 million, with sales from other businesses contributing the remaining ¥2,062 million. The Group's chemical product businesses are divided into the seven divisions detailed below.

## Business Review

### Caustic Soda & Chlorides



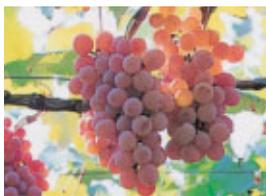
Caustic soda sales, thanks to steady shipments resulting from marketing focus on Nagoya and its neighboring areas, rose slightly over the previous year. Inorganic chloride sales, despite favorable sodium hypochlorite performance, declined in comparison with the previous business term, reflecting weak shipments of liquid chlorine and ferric chloride. Price reductions, prompted by an imbalance in demand for hydrochloric acid, also contributed to this decline. Total sales of caustic soda and chlorides decreased ¥3,234 million, or 9.8% year-on-year, to ¥29,916 million (US\$226 million).

### Compressed Gases



Compressed gas sales, though steady overall during the first half of the term, suffered from a fall in demand from the crucial semiconductor, ceramics, steel and chemical industries in the latter half of the term, dropping ¥428 million, or 6.8% year-on-year, to ¥5,871 million (US\$44.4 million).

### Other Inorganic Chemicals



Ammonium sulfate sales were lower overall due to weaker domestic and overseas shipments. Sulfuric acid sales were also down, due to a combination of sluggish demand and price reductions. In other inorganic chemicals, though price reductions had a negative effect, shipments increased. Sales ended the term moderately higher than the previous year. Total sales of other inorganic chemicals decreased ¥381 million, or 5.4%, to ¥6,728 million.

As a result, total sales of inorganic chemicals came to ¥42,516 million (US\$322 million), a decline of 8.7%, or ¥4,044 million from the previous year.

### Chlorinated Products



Chlorine organic solvent sales, despite steady shipments domestically, were hurt by sluggish demand overseas, causing sales to decline. As of April 1, 2000, the Company handed over the vinyl chloride business to an equity-method affiliate. Thus, sales from that segment are not included in this year's results. Total sales of chlorinated products fell 35.9%, or ¥4,056 million, to ¥7,243 million (US\$54.8 million).

### Acrylic Products



Sales of acrylic acids and acrylic esters increased from the previous year due to favorable overseas shipments, despite sluggish shipments and declining prices in Japan. Intensifying competition led to an overall reduction in the price of acrylic polymer products. Shipments of acrylic polymers and water-resistant coating materials for the construction industry were down slightly, but favorable shipments of polymer flocculants, acrylic oligomers and civil engineering materials helped sales end the term marginally higher than the previous year. Total sales of acrylic products rose 1.5%, or ¥565 million, from the previous year to ¥38,729 million (US\$293 million).

### Plastics



In plumbing products, an overall increase in product shipments was countered by lower product prices, caused by reduced demand and intensifying competition, leaving sales virtually unchanged from the previous year. In the consumer products sector, favorable sales of newly-launched nursing care products could not offset declines in the sale of eco-friendly and household products. Stagnant consumer spending and increased pricing competition caused overall sales to end the term moderately lower. Total sales of plastics decreased 2.1%, or ¥666 million from the previous year, to ¥30,801 million (US\$233 million).

### Other Organic Chemicals



In adhesives, overseas shipments remained strong throughout the term, ending higher despite weaker demand from the United States following September 11. However, domestic shipments of both consumer and industrial adhesives failed to meet expectations, driving overall adhesive sales lower. Sales of other products ended the term lower, dragged down by sharp declines in the shipment of ion exchangers for the semiconductor industry. Declines were also noted in the shipment of silver-based anti-microbial agents. Sales of other organic chemicals decreased 9.4%, or ¥1,472 million, to ¥14,231 million.

Total sales of organic chemicals came to ¥91,005 million (US\$689 million), a year-on-year decline of 5.8%, or ¥5,630 million.

Main Products	Applications
Caustic soda	• Chemical fiber, pulp, dye, and pharmaceuticals
Liquid chlorine	• Bleaching and sterilizing
Synthetic hydrochloric acid	• Seasoning, dye, and pharmaceuticals
Sodium hypochlorite	• Bleaching and sterilizing
Caustic potash	• Alkali cells, dye, and pharmaceuticals
Oxygen	• Combustion enhancing gas of welding and cutting, Combustion enhancing gas of steel making process, Oxygen inhalation (and high pressure oxygen treatment) for medical use, Oxygen aeration for wastewater treatment, Oxygen-based pulp bleaching, and Fermentation in biotechnology
Nitrogen	• Quick freezing of foods, Atmospheric and purge gas for manufacture of semiconductors, Atmospheric gas of a furnace for heat treatment, Security of petrochemical plants, Leak test of plant maintenance, and Sperm freezing and preservation
Sulfuric acid	• Fertilizer, synthetic fiber, and inorganic chemicals
Ammonium sulfate	• Fertilizer
Potassium bicarbonate fertilizer	• Fertilizer
Ammonium sulfate with Magnesium sulfate	• Fertilizer
BT Wettable Powder	• Fungicide for lepidoptera (butterflies and moths)
Trichloroethylene	• Metal degreasing and cleaning, solvent, and raw material for Hydrofluorocarbon
1,1,1-trichloroethane	• Raw material for Hydrochlorofluorocarbon
Tetrachloroethylene	• Dry cleaning, metal degreasing and cleaning, solvent
Methylene chloride	• Metal degreasing and cleaning, solvent
Cyclohexanone	• Solvent
Acrylic esters	• Acrylic fibers, fiber processors, paints, pressure sensitive and other adhesives, leather processors, paper processors, and acrylic rubber
Acrylic acid	• Nonwoven cloth binders, flocculants, dispersants, paper processors, superabsorbent resin, and detergent builders
Polymer flocculants	• Treatment of various kinds of wastewater and dehydration of sludges
Special Monomers and Oligomers	• Raw material for paints, printing inks, coatings, and adhesives
Pipes & Couplings	• Rigid PVC pipes
Environmental Products	• Trash receptacles
Nursing Care Products	• Portable toilets, nursing care bath products
Cyanoacrylate Instant Adhesives	• For bonding rubber, plastic, metal, and wood in industrial and consumer uses
Silver-based antimicrobial agents	• Kitchen and bathroom equipment, building materials, and textiles
Antifungal agent	• Kitchen equipment, home appliances, and paints
Heat-resistant adhesives	• For bonding metal and ceramics used under elevated temperatures
Hot melt adhesives	• For bonding plastics, metals, and textiles For bonding difficult to bond plastic like polyethylene, polypropylene polyester, nylon

# Environmental Activities

## Strengthening Sustainable Practices Making Environmental Accounting Results Public

At Toagosei, we are making the public fully aware of our fundamental commitment to environmental preservation and workplace safety in our pledge to sustain a healthy natural environment and to incorporate concern for environmental preservation and worker safety at every stage in the products we make – from initial development to disposal. Along these lines, we have taken it upon ourselves to enact measures targeting the environment, safety and health as we tirelessly promote an ongoing program of responsible care activities.

By 1999, the Company’s four factories, including their respective research centers and marketing divisions, had already acquired ISO 14001 environmental management certification. Every year since then, we have continued to implement internal inspections of our practices, in addition to inspections carried out regularly by external organizations, as part of ongoing efforts to maintain and upkeep that certification. From 2000, we introduced environmental accounting as a new addition to these efforts. Gaining a solid handle of the precise costs and effects of environmental preservation activities serves as a useful benchmark for making these activities more effective. We are then able to make these results available to the public, either as part of Toagosei’s *Environmental Report* or on the Company’s website (<http://www.toagosei.co.jp>).

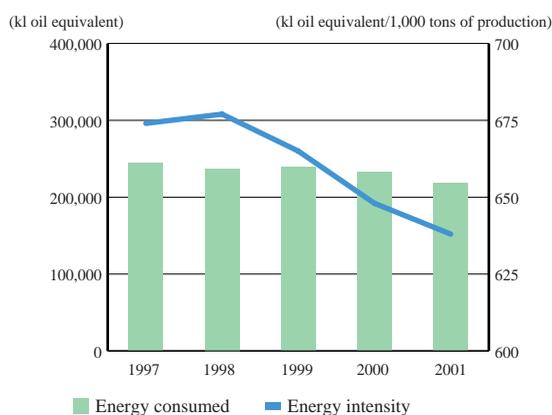
Reduction of environmental impact, environmentally sound technology & product development, and public access to environmental information form the three vital elements

of environmental preservation and conservation practices at Toagosei. In reducing environmental impact, beginning with energy conservation and CO<sub>2</sub> emission reduction measures, we are achieving steady success in preventing air and water pollution, reducing wasteful production and reducing in-house production of environmentally harmful substances.

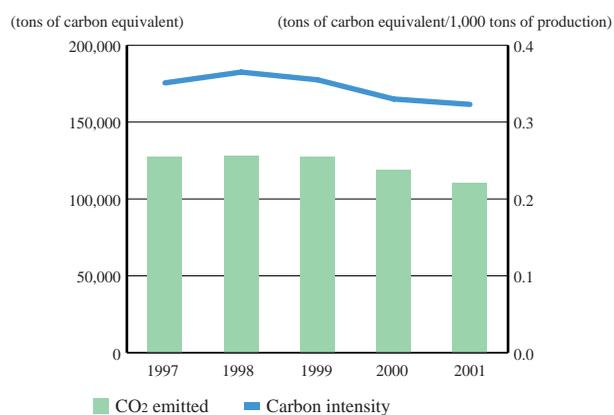
Where environmentally sound technology and product development are concerned, beginning with solvent-free, UV-curable resin *Aronix* used in paints, printer ink and various coatings, and *Aron Floc*, an acrylic polymer flocculant for purifying polluted water, Toagosei has produced and marketed a wide range of products in this field. And in 2001, we succeeded in bringing to market new products *Aqurie*, an eco-friendly, solvent-free coating to prevent erosion in concrete for waterworks and other places where environmental hormones and volatile organic solvents cannot be used, and *Acaritouch*, a pesticide using well-known food additive propylene glycol fatty acid monoester, as its main ingredient. Additionally, the Company’s *Aron Alpha* (known as *Krazy Glue* in North America and *Cyanolit* in Europe) and construction products have already been recognized as eco-friendly, with both products bearing the Eco-mark seal of approval.

Outside of these efforts, adopting coexistence with local communities as a major theme, Toagosei continues to sponsor sports outings and organize tours of Company-owned factories, as well as volunteer community clean-up and other environmental preservation activities, while striving to actively fulfill Toagosei’s role as a reputable corporate citizen.

**Energy Conservation at Toagosei**



**CO<sub>2</sub> Emissions**



# Research & Development

## Focus on Core Competencies for Achieving Faster Commercialization

Toagosei has four laboratories for its three main business divisions, and two additional research facilities that carry out research of common interest to all divisions. With an emphasis on the electronics and environment & amenities fields as the basis of R&D activities, we are bolstering the development of new technology for downstream fields, while an ongoing transition to higher performance is leading to even better value-added products, contributing heavily to overall business growth.

At the Macromolecular Material Research Laboratory, we are placing more emphasis on developing downstream polymer products, taking advantage of our full range of monomers. Specifically, this means gaining optimal use of Uniform Functional Oligomer (UFO) technology to give rise to a bevy of new functions for polymers, leading to the development of a broad range of high-performance materials including plastic modifiers of all types. Acrylic oligomers, which are used for light-curable material and have long been developed at Toagosei, particularly polyimido-acrylate derivatives, are undergoing notable growth in the electronics field, and will continue to be the subject of intense research from here on.

At the Commodity Chemicals Laboratory, we are developing technologies to produce improved purity chemicals such as triethoxysilane, chlorine, and caustic potash to expand our existing lineup of products, which includes high-purity ferric chloride.

At the Specialty Chemicals Laboratory, we are deepening Toagosei's excellent in-house expertise in the fundamental technologies underlying instant adhesive *Aron Alpha*, hot-melt adhesives and visible light-curable adhesives, stepping up the growth of these products in the field of electronics. In anti-bacterial agents, deodorizers and anti-mildew cleansers, we are currently aiming to utilize the increased diversity of organic and inorganic compounds, the key materials used in these amenity-oriented business fields, to broaden the scope of potential applications for these materials.

At the Corporate Research Laboratory, “unique,” “niche,” and “hybrid” are the keywords in mind as we push forward with research and development for the creation of future businesses. In detail, we are attempting to develop hybrid materials using the acrylics, oxetanes and specialized silane that Toagosei has available to uncover new market applications, including use as photo-resists for semiconductors and as light-curable materials for optical components in the field of electronics. Moreover, in biosciences, we are working to optimize the potential of Toagosei's world-renowned bio-informatics technology, where we hope to utilize to maximum effect the capability of this technology to analyze gene replication and distribution information, to make significant contributions to the field of medical technology.



## Board of Directors and Corporate Auditors



*Left to right: (Front row) Katsutoshi Yamada, Bunshiro Fukuzawa, and Sakou Suzuki  
(Back row) Akihiko Yamadera, Takeo Nakajima, Akio Arisawa, and Hideki Kato*

### *President and Representative Director*

Bunshiro Fukuzawa

### *Vice President and Representative Director*

Sakou Suzuki

### *Directors*

Takeo Nakajima  
Akihiko Yamadera  
Akio Arisawa  
Hideki Kato  
Katsutoshi Yamada

### *Corporate Auditors*

Motoyuki Kitajima  
Manabu Terao  
Takeyoshi Ono  
Takeo Kagao

(As of March 31, 2002)

## Six-Year Selected Data

Toagosei Co., Ltd. and Consolidated Subsidiaries Years ended December 31

Consolidated Basis	Millions of yen (except per-share data)					
	2001	2000	1999	1998	1997	1996
<b>For the fiscal year:</b>						
Net sales .....	¥135,583	¥145,246	¥150,822	¥145,896	¥159,396	¥157,666
(Loss) income before income taxes and minority interests .....	(3,540)	2,927	5,552	2,690	5,790	9,230
Net (loss) income .....	(3,384)	(247)	2,069	254	1,824	3,220
<b>Per-share data:</b>						
Per share of common stock:						
Net (loss) income .....	(12.67)	(0.93)	7.75	0.95	6.67	11.87
Cash dividends applicable to the year.....	6.00	6.00	6.00	6.00	6.00	6.00
<b>At year-end:</b>						
Total assets.....	177,148	187,923	196,289	203,788	190,782	188,248
Shareholders' equity .....	75,175	80,268	81,731	80,664	80,999	85,857
Number of employees .....	2,872	3,097	3,341	3,387	3,050	3,164

# Management's Discussion and Analysis

## Operating Environment and Financial Strategy

During the term under review, economic sluggishness in the United States and the rest of the world caused first exports and then production in Japan to decline, leading to lower corporate earnings and capital investments. With consumer spending weak as a result of a worsening employment situation, the Japanese economy retreated even further during the term.

In the chemical industry, against this backdrop of economic stagnation, declines in production and products shipped from a worsening supply and demand environment, as well as increased inventories and falling product prices, all caused economic conditions to remain unrelentingly harsh throughout the term.

At the parent Company and the entire Toagosei Group, in a bid to handle an operating environment of this kind, we are augmenting Toagosei's core competencies and stepping up cost reduction measures. From there, we are pushing ahead with implementing a corporate officer system and establishing a supply chain management center – part of efforts to promote management reforms that will lead to improved white collar productivity. At the same time, where the Company's financial strategy is concerned, we

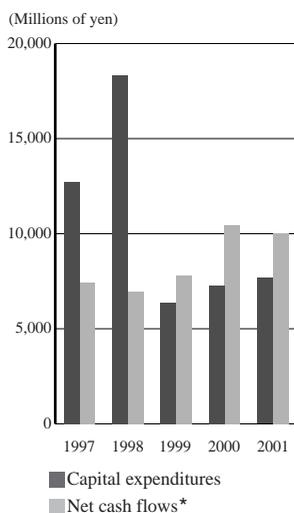
are enacting better distribution and control of labor costs, reduction in product and raw material inventories, and cost reductions. This is in addition to implementing measures to reduce total assets by selling off Company-held real estate. Together, these efforts will lead to improvements in the effective use of capital and raise Toagosei's overall profitability. In a financial strategy of this kind, strong emphasis will be placed on ROE as a business indicator, with greater attention paid to addressing ways to raise it consistently higher.

## Liquidity and Capital Resources

### Financial Position

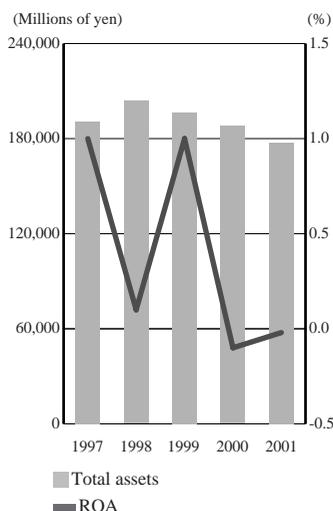
At the close of fiscal 2001, total assets were down ¥10,775 million, or 5.7% from the previous term, ending at ¥177,148 million (US\$1,342 million). From an asset standpoint, a drop in current assets is held as the reason behind this decline. Among current assets, a fall primarily in the sale of commodity chemical products led to trade receivables ¥6,884 million lower than at the previous term-end. Sharp declines were also noted in marketable security holdings, although this was mainly attributable to the introduction of new accounting standards regarding

**Capital expenditures & net cash flows**

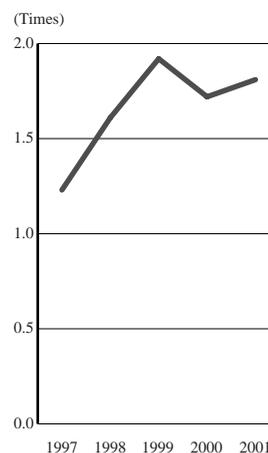


\*Net cash flow figures from 1997 to 1999 are on a non-consolidated basis.

**Total assets & ROA**



**Current ratio**



financial instruments, under which the Company reclassified some marketable securities previously calculated as part of current assets as investment securities. Nonetheless, we were able to maintain a healthy state of liquidity during the term under review, with the current ratio standing at 182.2%, up 9.8 percentage points from 172.4% in the previous year. Moreover, any consideration of that decline in assets must also take into account the switching of foreign currency translation adjustments from calculation as part of assets to a part of shareholders' equity, due to revision in accounting standards for foreign currency and foreign currency-denominated assets. Conversely, redemption of corporate bonds and a reduction in retained earnings due to posting a net loss for the term are considered the primary reasons for declines in liabilities and shareholders' equity, respectively.

The equity ratio fell 0.3 percentage points to end the term marginally lower at 42.4%, mainly due to decline in retained earnings despite total asset reduction. Moreover, the property, plant & equipment turnover ratio – an indicator of asset efficiency – dropped from 1.83 in the previous year to 1.73. ROA and ROE also ended the term lower year-on-year.

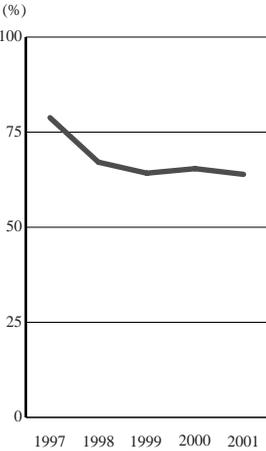
**Cash Flows**

Net cash provided by operating activities declined 9.6% from the previous term's ¥12,598 million to ¥11,384 million (US\$86 million). While provision for the reserve of retirement benefits and decrease in trade receivables caused cash inflows to increase, this was offset even more by declines in income before income taxes, trade payables and inventories, leading to net cash inflows ¥1,214 million (US\$9 million) lower year-on-year for the term under review.

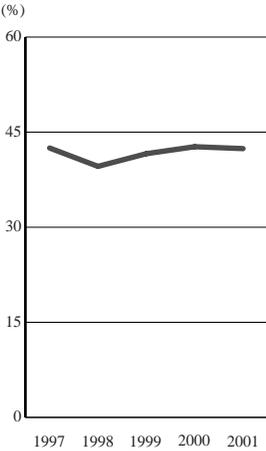
Net cash used in investing activities increased to ¥7,653 million (US\$58 million) from ¥5,708 million in the previous year. While collection of short-term loans took place during the term, this was not sufficient to counterbalance the high level of expenditures for acquisition of property, plant & equipment and non-repetition of proceeds from sale of these items, as was the case in the previous year. As a result, net cash outflow increased ¥1,945 million.

Regarding cash flows from financing activities, net cash outflows decreased to ¥4,448 million (US\$34 million) for the term under review, from ¥8,040 million for the previous year. This is largely attributable to the issuance of

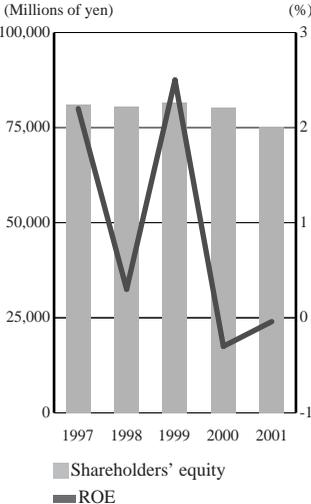
**Ratio of property, plant & equipment to long-term capital**



**Ratio of shareholders' equity**



**Shareholders' equity & ROE**



refunding bonds and loans for the redemption of corporate bonds, as well as to compensate for decline in net cash inflow from operating activities and increase in net cash outflows in investing activities. As a result, net cash outflows declined ¥3,592 million.

Combined, the above resulted in a balance of cash and cash equivalents at the end of the fiscal year under review of ¥10,015 million (US\$76 million), or ¥427 million less than the previous term-end.

## Results of Operations

### Net Sales

For the fiscal year ended December 2001, net sales stood at ¥135,583 million (US\$1,028 million), a year-on-year decline of 6.7% on a consolidated basis. Strategic transfer of the polyvinyl chloride business, paired with a reduction in the quantity of product shipments and falling prices, are thought to be the primary culprits driving this decline. By product segment, sales in commodity chemicals were ¥44,419 million (down 12.1% year-on-year); sales in acrylic products came to ¥35,840 million (down 3.6%); sales in specialty chemicals amounted to ¥14,569 million (down 5.5%); sales in plastics were ¥30,388 million (down

2.8%); and sales in other products totaled ¥10,367 million (down 4.4%).

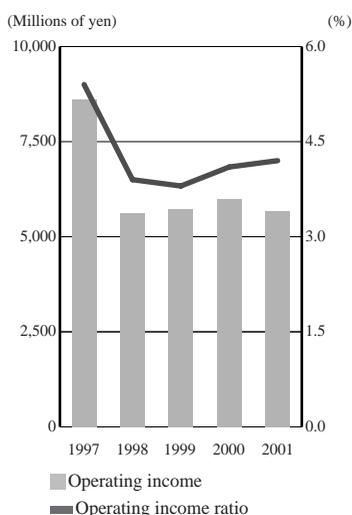
### Earnings

Thanks to effective measures to control labor costs, the gross profit margin improved by 0.2 percentage points year-on-year to end at 27.5%. While similar steps were taken to reduce selling, general and administrative expenses, costs incurred in the adoption of a new information system ran counter to those effects, leading to a rise in the ratio of selling, general and administrative expenses to net sales of 0.1 percentage points to 23.3%. These results combined to produce operating income on a consolidated basis of ¥5,663 million (US\$43 million), a year-on-year decline of 5.6%, although the ratio of operating income to net sales rose 0.1 percentage points to 4.2% for the term.

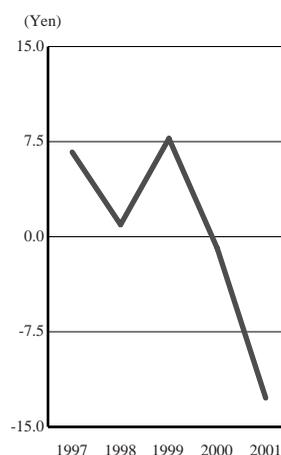
In terms of operating income at major companies, the parent Company and Toa Techno-Gas, to whom the Company transferred its industrial gas business, both witnessed year-on-year increases in income, with Aron Kasei and Tsurumi Soda Co. ending the term with income lower than the previous year.

In a segmented breakdown of the main products

Operating income & ratio as a percentage of net sales



Net income (loss) per share



factoring into the ratio of operating income to net sales, commodity chemicals was 0.4 percentage points lower year-on-year at 6.5%, specialty chemicals was up 0.2 percentage points at 15.1% and plastics declined 0.8 percentage points to 8.3%. In acrylic products, while this segment continues to operate at a loss, the effects of ongoing efforts to streamline operations led to a 0.9 percentage point improvement to a ratio of operating loss to net sales of 2.7%. The amount of combined sales accounted for by specialty chemicals and plastics, both with high income ratios, increased 1 percentage point to 33.2% of divisional sales, improving the ratio of operating income to net sales for the term under review.

Regarding expenses, net other expenses rose ¥6,130 million year-on-year to ¥9,203 million. This was attributable to the application of retirement benefit accounting standards, which resulted in the recording of a loss for the lump-sum amortization of shortfall arising from these procedures in the amount of ¥8,436 million. This was in addition to a loss recorded from valuation of investment securities and golf club memberships due to the application of new accounting standards for financial instruments. The above results combined in a net loss for the term of ¥3,384 million (US\$25 million), ¥3,136 million larger than the previous term.

## Outlook

The Japanese economy in 2002 is facing little prospect of improvement in the nation's employment situation, a fact that will continue to constrain personal earnings and disposable income, making a much-needed recovery in consumer spending as unattainable as ever. Considered alongside worsening corporate earnings and declining capital investment forecasts, operating conditions are expected to grow even more severe as the year progresses.

In the chemical industry, soft market conditions and production overcapacity due to sluggish domestic and overseas demand are already widely forecast to result in weaker earning power industry-wide. Amid all this, we at Toagosei are tackling business process reengineering, transforming our management structure and reconstituting our core information systems to reform the way business is done at the Company. Our efforts will allow Toagosei to make a positive contribution to society as a firmly positioned, distinctive chemical manufacturer while outfitting the Company with the business base necessary to help it sustain growth in spite of harsh operating conditions. With "Transformation of Business Structure Focused on High-Performance and High-Value-Added Products," "Promoting Efficiency in Business Activities," and "Full Integration of Group Management" as the medium-term challenges at hand, we plan to involve the entire Toagosei Group in a concerted effort to meet them.

In light of all the above factors, we forecast performance in 2002 that will include net sales of ¥130,000 million, operating income of ¥4,100 million and net income of ¥100 million.

# Financial Statements

## Consolidated Balance Sheets

Toagosei Co., Ltd. and Consolidated Subsidiaries Years ended December 31

	Millions of yen		Thousands of U.S. dollars (Note 3)
	2001	2000	2001
<b>Assets</b>			
<b>Current assets:</b>			
Cash and cash equivalents .....	¥ 10,015	¥ 10,442	\$ 75,900
Time deposits and marketable securities (Notes 4 and 6) .....	145	11,256	1,099
Receivables:			
Notes and accounts receivable:			
Unconsolidated subsidiaries and affiliates .....	406	1,175	3,077
Trade .....	42,059	48,174	318,750
Deferred tax assets (Note 8) .....	349	464	2,645
Advances to and loans receivable from unconsolidated subsidiaries and affiliates .....	6,534	5,981	49,519
	49,348	55,794	373,991
Allowance for doubtful receivables .....	(150)	(226)	(1,137)
	49,198	55,568	372,854
Inventories (Note 5) .....	14,511	13,393	109,973
Other current assets .....	1,495	1,602	11,330
<b>Total current assets</b> .....	<b>75,364</b>	<b>92,261</b>	<b>571,156</b>
<b>Property, plant and equipment (Note 6):</b> .....	<b>240,528</b>	<b>236,798</b>	<b>1,822,872</b>
Accumulated depreciation .....	<b>(162,073)</b>	<b>(157,579)</b>	<b>(1,228,291)</b>
	<b>78,455</b>	<b>79,219</b>	<b>594,581</b>
<b>Investments and other assets:</b>			
Investments in and advances to unconsolidated subsidiaries and affiliates .....	13,054	7,634	98,931
Investments in securities (Notes 4 and 6) .....	2,773	2,380	21,016
Deferred tax assets (Note 8) .....	2,019	834	15,301
Other assets .....	5,483	4,493	41,554
	23,329	15,341	176,802
<b>Translation adjustments</b> .....	<b>—</b>	<b>1,102</b>	<b>—</b>
<b>Total</b> .....	<b>¥177,148</b>	<b>¥187,923</b>	<b>\$1,342,539</b>

See accompanying notes to consolidated financial statements.

	Millions of yen		Thousands of U.S. dollars (Note 3)
	2001	2000	2001
<b>Liabilities and shareholders' equity</b>			
<b>Current liabilities:</b>			
Short-term bank loans (Note 6) .....	¥ 7,610	¥ 4,705	\$ 57,673
Current portion of long-term debt (Note 6) .....	2,437	12,450	18,469
Commercial paper .....	4,000	4,000	30,315
Payables:			
Unconsolidated subsidiaries and affiliates .....	1,698	438	12,869
Trade .....	17,117	21,047	129,724
Notes payable for acquisition of property, plant and equipment .....	274	578	2,077
Other .....	5,579	5,436	42,281
	<u>24,668</u>	<u>27,499</u>	<u>186,951</u>
Accrued expenses .....	1,188	2,254	9,003
Accrued income taxes (Note 8) .....	602	1,428	4,562
Deferred tax liabilities (Note 8) .....	38	—	288
Other current liabilities .....	820	1,208	6,214
<b>Total current liabilities</b> .....	<u>41,363</u>	<u>53,544</u>	<u>313,475</u>
<b>Long-term liabilities:</b>			
Long-term debt (Note 6) .....	40,611	35,436	307,776
Deferred tax liabilities (Note 8) .....	645	1,218	4,888
Accrued retirement benefits for employees (Note 7) .....	4,170	1,617	31,603
Accrued retirement benefits for directors .....	421	813	3,190
Other long-term liabilities .....	1,692	1,721	12,823
	<u>47,539</u>	<u>40,805</u>	<u>360,280</u>
<b>Minority interests in consolidated subsidiaries</b> .....	13,071	13,306	99,060
<b>Shareholders' equity (Notes 9 and 15):</b>			
Common stock, ¥50 par value:			
Authorized — 467,650,000 shares			
Issued:			
2001 — 267,129,768 shares .....	20,886	—	158,295
2000 — 267,129,768 shares .....	—	20,886	—
Capital surplus .....	15,623	15,623	118,401
Retained earnings .....	38,840	43,857	294,346
Unrealized holding gains on securities .....	512	32	3,880
Translation adjustments .....	(365)	—	(2,766)
Less treasury stock, at cost .....	(321)	(130)	(2,432)
	<u>75,175</u>	<u>80,268</u>	<u>569,724</u>
<b>Contingent liabilities (Note 10)</b>			
<b>Total</b> .....	<u>¥177,148</u>	<u>¥187,923</u>	<u>\$1,342,539</u>

## Consolidated Statements of Operations and Retained Earnings

Toagosei Co., Ltd. and Consolidated Subsidiaries Years ended December 31

	Millions of yen		Thousands of U.S. dollars (Note 3)
	2001	2000	2001
Net sales.....	¥135,583	¥145,246	\$1,027,533
Cost of sales.....	98,327	105,590	745,184
Gross profit .....	37,256	39,656	282,349
Selling, general and administrative expenses.....	31,593	33,655	239,431
Operating income .....	5,663	6,001	42,918
Other income (expenses):			
Interest and dividend income .....	376	512	2,850
Interest expense .....	(1,243)	(1,429)	(9,420)
Gain (loss) on sales and disposal of property, plant and equipment .....	317	(191)	2,402
Gain on contribution of securities to retirement benefit trust .....	2,145	—	16,256
Equity in losses of affiliates .....	(1,476)	(712)	(11,186)
Amortization of net retirement benefit obligation at transition.....	(8,436)	—	(63,933)
Other, net .....	(886)	(1,254)	(6,715)
(Loss) income before income taxes and minority interests.....	(3,540)	2,927	(26,828)
Income taxes (Note 8):			
Current.....	2,078	2,879	15,749
Deferred .....	(2,164)	65	(16,400)
	(86)	2,944	(651)
Minority interests in earnings of consolidated subsidiaries.....	70	(230)	531
Net loss.....	(3,384)	(247)	(25,646)
Retained earnings at beginning of the year .....	43,857	45,222	332,376
Cumulative effect of adoption of tax-effect accounting .....	—	526	—
Cash dividends paid .....	(1,599)	(1,603)	(12,118)
Directors' bonuses.....	(38)	(41)	(288)
Adjustment to retained earnings for merger of consolidated subsidiaries.....	3	—	22
Retained earnings at end of the year .....	¥ 38,839	¥ 43,857	\$ 294,346
		Yen	U.S. dollars (Note 3)
Amounts per share:			
Net loss .....	¥(12.67)	¥(0.93)	\$(0.10)
Cash dividends .....	6.00	6.00	0.05

See accompanying notes to consolidated financial statements.

# Consolidated Statements of Cash Flows

Toagosei Co., Ltd. and Consolidated Subsidiaries Years ended December 31

	Millions of yen		Thousands of U.S. dollars (Note 3)
	2001	2000	2001
<b>Operating activities:</b>			
Income (loss) before income taxes and minority interests.....	¥ (3,540)	¥ 2,927	\$ (26,828)
Depreciation and amortization .....	9,932	10,551	75,271
Decrease (increase) in provision for doubtful receivables.....	(72)	157	(546)
Provision for retirement benefits.....	2,553	—	19,348
Book value of securities contributed to retirement benefit trust .....	2,282	—	17,294
Decrease in other provisions .....	(831)	(264)	(6,297)
Interest and dividend income .....	(376)	(512)	(2,850)
Interest expense .....	1,243	1,429	9,420
Foreign currency exchange loss .....	328	74	2,486
Gain on sales of marketable securities .....	(16)	(76)	(121)
Equity in losses of affiliates .....	1,477	712	11,194
Gain on sales of property, plant and equipment.....	(1,008)	(1,079)	(7,639)
Gain on sales of investments in securities.....	(474)	(684)	(3,592)
Loss on disposal of property, plant and equipment.....	691	1,270	5,237
Unrealized loss on securities.....	631	112	4,782
Loss on devaluation of memberships at golf clubs .....	134	329	1,015
Receivables .....	7,030	1,071	53,278
Inventories.....	(969)	1,567	(7,344)
Payables .....	(2,792)	(1,665)	(21,159)
Other.....	(471)	399	(3,570)
Director's bonuses.....	(57)	(60)	(432)
	<u>15,695</u>	<u>16,258</u>	<u>118,947</u>
Interest and dividend received.....	382	512	2,895
Interest paid.....	(1,268)	(1,399)	(9,610)
Income taxes paid.....	(3,425)	(2,773)	(25,957)
<b>Net cash provided by operating activities.....</b>	<b>11,384</b>	<b>12,598</b>	<b>86,275</b>
<b>Investing activities:</b>			
Acquisitions of time deposits.....	129	255	978
Withdrawal of time deposits .....	0	(249)	0
Purchases of marketable securities.....	(98)	(249)	(743)
Proceeds from sales of marketable securities.....	80	615	606
Purchases of investments in securities .....	(561)	(3,141)	(4,251)
Proceeds from sales of investments in securities .....	584	1,065	4,426
Acquisition of shares of consolidated subsidiaries .....	0	(200)	0
Purchases of property, plant and equipment .....	(8,307)	(7,163)	(62,956)
Proceeds from sales of property, plant and equipment .....	1,008	7,396	7,639
Increase in short-term loans .....	(425)	(5,322)	(3,221)
Long-term loans made.....	(139)	(13)	(1,053)
Collection of long-term loans.....	536	647	4,062
Other, net.....	(460)	651	(3,486)
<b>Net cash used in investing activities.....</b>	<b>(7,653)</b>	<b>(5,708)</b>	<b>(57,999)</b>
<b>Financing activities:</b>			
Increase (decrease) in short-term bank loans .....	2,766	(3,448)	20,962
Increase in commercial paper .....	—	1,500	—
Proceeds from long-term loans.....	2,300	800	17,431
Repayment of long-term loans .....	(2,541)	(5,162)	(19,257)
Proceeds from issuance of bonds.....	5,000	—	37,893
Redemption of bonds.....	(10,000)	—	(75,786)
Proceeds from issuance of shares to minority shareholders .....	0	203	0
Purchases of treasury common stock.....	(186)	(129)	(1,410)
Cash dividends to shareholders .....	(1,787)	(1,804)	(13,543)
<b>Net cash used in financing activities.....</b>	<b>(4,448)</b>	<b>(8,040)</b>	<b>(33,710)</b>
Effect of exchange rate changes on cash and cash equivalents .....	290	409	2,198
Net decrease in cash and cash equivalents .....	(427)	(741)	(3,236)
Cash and cash equivalents at beginning of the year .....	10,442	11,183	79,136
Cash and cash equivalents at end of the year.....	<u>¥10,015</u>	<u>¥10,442</u>	<u>\$ 75,900</u>

See accompanying notes to consolidated financial statements.

# Notes to Consolidated Financial Statements

Toagosei Co., Ltd. and Consolidated Subsidiaries December 31, 2001

## 1. Basis of Preparation

Toagosei Co., Ltd. (the "Company") and its domestic subsidiaries maintain their books of account in conformity with the financial accounting standards of Japan, and its foreign subsidiaries maintain their books of account in conformity with those of the countries of their domicile.

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, 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.

## 2. Summary of Significant Accounting Policies

### Principles of Consolidation and Accounting for Investments in Unconsolidated Subsidiaries and Affiliates

In accordance with a revised accounting standard for consolidation which became effective January 1, 2001, the accompanying consolidated financial statements for the years ended December 31, 2001 and 2000 include the accounts of the Company and significant companies controlled directly or indirectly by the Company. Significant companies over which the Company exercises substantial 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 difference at the dates of acquisition between the cost and the underlying net equity of investments in consolidated subsidiaries and companies accounted for by the equity method is being amortized by the straight-line method over a period of five years.

### Foreign Currency Translation

Revenue and expense accounts of three foreign consolidated subsidiaries are translated at the rate of exchange in effect at the balance sheet date, and, except for the components of shareholders' equity, the balance sheet accounts are also translated into yen at the same exchange rate. The components of shareholders' equity are translated at the historical exchange rates.

A revised accounting standard for foreign currency translation became effective January 1, 2001. The effect of the adoption of this revised standard was to increase loss before income taxes and minority interest by ¥71 million (\$538 thousand) for the year ended December 31, 2001. Due to a change effective the year ended December 31, 2001 in the regulations relating to the presentation of translation adjustments, the Company has presented translation adjustments as a component of shareholders' equity and minority interests in consolidated subsidiaries (instead of as a component of assets or liabilities) in its consolidated financial statements for the year ended December 31, 2001.

### Cash Equivalents

All highly liquid investments with a maturity of three months or less when purchased are considered cash equivalents.

### Securities

Until the year ended December 31, 2000, listed securities had been stated at the lower of cost (determined by the moving average method) or market. Securities other than listed securities had been stated at cost determined by the moving average method.

A new accounting standard for financial instruments, which became effective January 1, 2001, requires that securities be classified into three categories: trading, held-to-maturity or 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 unrealized holding gain or loss, net of the applicable income taxes, included directly in shareholders' equity. Non-marketable securities classified as other securities are carried at cost. Cost of securities sold is determined by the moving average method.

As of January 1, 2001, 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 accounted for the securities at December 31, 2001 in accordance with the new standard referred to above. As a result, marketable securities of ¥8,734 million (\$66,192 thousand), which had been included in marketable securities, were reclassified to investments in securities as of January 1, 2001.

The effect of the adoption of this new standard for financial instruments was to decrease loss before income taxes and minority interests by ¥1,510 million (\$11,444 thousand) for the year ended December 31, 2001.

### Inventories

Inventories are stated at cost determined by the average method.

### Property, Plant and Equipment

Depreciation of property, plant and equipment is computed principally by the straight-line method over the estimated useful lives of the respective assets, except for five consolidated subsidiaries for which depreciation is computed by the declining-balance method over the estimated useful lives of the respective assets.

### Income Taxes

In accordance with a new accounting standard for income taxes which became effective January 1, 2000, deferred tax assets and liabilities have been recognized in the consolidated financial statements for the years ended December 31, 2001 and 2000 with respect to the differences between financial reporting and the tax bases of the assets and liabilities, and were measured using the enacted tax rates and laws which will be in effect when the differences are expected to reverse.

Until the year ended December 31, 1999, tax-effect accounting had not been adopted by the Company. The effect of this change was to increase net loss by ¥64 million and retained earnings by ¥460 million for the year ended December 31, 2000.

**Research and Development Expenses**

Research and development expenses are charged to income as incurred.

A new accounting standard for research and development costs become effective the fiscal year ended December 31, 2000. However, the adoption of this new standard had no effect on the consolidated statement of operations and retained earnings for the year ended December 31, 2000.

**Leases**

Noncancelable lease transactions are accounted for as operating leases (whether such leases are classified as operating 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.

**Retirement Benefits**

The Company and six consolidated subsidiaries have non-contributory funded pension plans covering substantially all employees which have replaced the prior employee retirement allowances plans. Until the year ended December 31, 2000, accrued retirement benefits for employees of three consolidated subsidiaries were principally stated at the maximum amount allowable for income tax purposes, which was 40% of the amount which would be required to be paid if all eligible employees terminated their employment voluntarily at the balance sheet date. Three other consolidated subsidiaries recorded 100% of their liability, less the fund balance of their non-contributory funded pension plans.

In accordance with a new accounting standard for retirement benefits which became effective January 1, 2001, accrued retirement benefits for employees at December 31, 2001 have been provided mainly at an amount calculated based on the retirement benefit obligation and the fair value of the pension plan assets as of December 31, 2001, as adjusted for the unrecognized net retirement benefit obligation at transition and unrecognized actuarial gain or loss. The retirement benefit obligation is attributed to each period by the straight-line method over the estimated years of service of the eligible employees. The net retirement benefit obligation at transition was fully charged to income for the year ended December 31, 2001 except for that of one consolidated subsidiary which is being amortized over a period of 4 years by the straight-line method.

Actuarial gain and loss are amortized in the year following the year in which the gain or loss is recognized primarily by the straight-line method over the average remaining years of service of the employees (15 years). Actuarial gain and loss of two consolidated subsidiaries are amortized by the straight-line method over a period (5 years and 10 years, respectively) which is shorter than the average remaining years of service of the employees.

The effect of the adoption of the new standard for retirement benefits was to increase loss before income taxes and minority interests by ¥7,670 million (\$58,128 thousand) for the year ended December 31, 2001.

In addition, directors and statutory auditors of the Company and certain consolidated subsidiaries are customarily entitled to lump-sum payments under the unfunded retirement plans. The provision for retirement benefits for these officers has been made at estimated amounts.

**Derivative Financial Instruments**

The Company has entered into various derivative financial instruments in order to manage certain risks arising from adverse fluctuations in foreign currency exchange rates and interest rates. In accordance with the new accounting standard for financial instruments which became effective January 1, 2001, derivative financial instruments are carried at fair value with any changes in unrealized gain or loss charged or credited to operations, except for those which meet the criteria for deferral hedge accounting under which unrealized gain or loss is deferred as an asset or liability. Receivables and payables hedged by qualified forward foreign exchange contracts are translated at the corresponding foreign exchange contract rates.

**Appropriation of Retained Earnings**

Under the Commercial Code of Japan (the "Code"), the appropriation of retained earnings with respect to a given financial period is made by resolution of the shareholders at a general meeting held subsequent to the close of such financial period. The accounts for that period do not, therefore, reflect such appropriations. See Note 15.

**Amounts per Share**

The computation of net income or loss per share is based on the weighted average number of shares of common stock outstanding during each year.

Cash dividends per share represent the cash dividends declared as applicable to the respective years together with the interim cash dividends paid.

### 3. U.S. Dollar Amounts

The translation of yen amounts into U.S. dollar amounts is included solely for convenience, as a matter of arithmetic computation only, at the rate of ¥131.95 = \$1.00, the approximate exchange rate at December 31, 2001. The translation should not be construed as a representation that yen have been, could have been, or could in the future be, converted into U.S. dollars at the above or any other rate.

### 4. Securities

(a) Information regarding marketable securities classified as other securities as of December 31, 2001 is as follows:

	Millions of yen			Thousands of U.S. dollars		
	Acquisition cost	Carrying value	Unrealized gain (loss)	Acquisition cost	Carrying value	Unrealized gain(loss)
Securities whose carrying value exceeds their acquisition cost:						
Stock .....	¥ 5,115	¥ 7,896	¥2,779	\$38,765	\$59,841	\$21,061
Bonds:						
Government bonds.....	100	100	—	758	758	—
Corporate bonds.....	149	151	2	1,129	1,144	15
Others .....	84	98	13	636	743	99
Subtotal.....	<u>5,448</u>	<u>8,245</u>	<u>2,794</u>	<u>41,288</u>	<u>62,486</u>	<u>21,175</u>
Securities whose acquisition cost exceeds their carrying value:						
Stock .....	4,139	2,495	(1,644)	31,368	18,908	(12,459)
Bonds:						
Government bonds.....	174	174	—	1,319	1,319	—
Corporate bonds.....	292	256	(36)	2,213	1,940	(273)
Others .....	50	40	(10)	379	303	(76)
Subtotal.....	<u>4,655</u>	<u>2,965</u>	<u>(1,690)</u>	<u>35,279</u>	<u>22,470</u>	<u>(12,808)</u>
Total.....	<u>¥10,103</u>	<u>¥11,210</u>	<u>¥1,104</u>	<u>\$76,567</u>	<u>\$84,956</u>	<u>\$ 8,367</u>

(b) Sales of securities classified as other securities amounted to ¥583 million (\$4,418 thousand) with gain of ¥474 million (\$3,592 thousand) for the year ended December 31, 2001.

(c) The redemption schedule for securities with maturity dates classified as other securities is summarized as follows:

	Millions of yen		
	Due in one year or less	Due after one year through five years	Due after five years through ten years
Government bonds .....	¥ —	¥260	¥ —
Corporate bonds .....	150	300	100
Other debt securities.....	—	30	—
Total.....	<u>¥150</u>	<u>¥590</u>	<u>¥100</u>
	Thousands of U.S. dollars		
	Due in one year or less	Due after one year through five years	Due after five years through ten years
Government bonds .....	\$ —	\$1,970	\$ —
Corporate bonds .....	1,137	2,274	758
Other debt securities.....	—	227	—
Total.....	<u>\$1,137</u>	<u>\$4,471</u>	<u>\$758</u>

(d) The book values and related aggregate market values at December 31, 2000 of current and noncurrent marketable securities included in marketable securities and investments in securities are summarised as follows:

	Millions of yen	
	Book value	Market value
Marketable securities.....	¥11,124	¥18,260
Investments in securities .....	¥ 1,228	¥ 2,755

## 5. Inventories

Inventories at December 31, 2001 and 2000 consisted of the following:

	Millions of yen		Thousands of
	2001	2000	U.S. dollars
Merchandise and finished products .....	¥ 9,497	¥ 9,078	\$ 71,974
Semi-finished goods .....	735	675	5,570
Goods in transit.....	—	14	—
Work in process.....	403	347	3,054
Raw materials and supplies .....	3,876	3,279	29,375
	<u>¥14,511</u>	<u>¥13,393</u>	<u>\$109,973</u>

## 6. Short-Term Bank Loans and Long-Term Debt

Short-term bank loans, principally unsecured, were notes payable to banks bearing interest at 0.9 per cent. and 1.5 per cent. per annum at December 31, 2001 and 2000, respectively.

Long-term debt at December 31, 2001 and 2000 is summarized as follows:

	Millions of yen		Thousands of
	2001	2000	U.S. dollars
2.45% yen bonds due 2001.....	¥ —	¥10,000	\$ —
1.90% yen bonds due 2003.....	10,000	10,000	75,786
2.25% yen bonds due 2004.....	10,000	10,000	75,786
1.35% yen bonds due 2006.....	5,000	—	37,894
Loans with collateral from banks, insurance companies and others .....	18,048	17,886	136,779
	<u>43,048</u>	<u>47,886</u>	<u>326,245</u>
Less: current portion.....	(2,437)	(12,450)	(18,469)
	<u>¥40,611</u>	<u>¥35,436</u>	<u>\$307,776</u>

Assets pledged as collateral for short-term bank loans and long-term debt at December 31, 2001 and 2000 were as follows:

	Millions of yen		Thousands of
	2001	2000	U.S. dollars
Property, plant and equipment, at net book value .....	¥42,100	¥42,157	\$319,060
Marketable securities and investments in securities.....	4,764	5,845	36,105
	<u>¥46,864</u>	<u>¥48,002</u>	<u>\$355,165</u>

The aggregate annual maturities of long-term debt subsequent to December 31, 2001 are summarized as follows:

For the year ending December 31,	Millions of yen	Thousands of U.S. dollars
2002.....	¥ 2,437	\$ 18,469
2003.....	19,501	147,791
2004.....	12,209	92,527
2005.....	1,538	11,656
2006.....	5,590	42,365
2007 and thereafter.....	1,773	13,437
	<u>¥43,048</u>	<u>\$326,245</u>

## 7. Retirement Benefit Plans

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

The following table sets forth the funded and accrued status of the plans, and the amounts recognized in the consolidated balance sheet as of December 31, 2001 for the Company's and the subsidiaries' defined benefit plans:

	Millions of yen	Thousands of U.S. dollars
Retirement benefit obligation.....	¥(17,121)	\$(129,754)
Plan assets at fair value.....	9,730	73,740
Unfunded retirement benefit obligation.....	(7,391)	(56,014)
Unrecognized net retirement benefit obligation at transition.....	796	6,033
Unrecognized actuarial gain or loss.....	2,425	18,378
Accrued retirement benefits.....	<u>¥ (4,170)</u>	<u>\$ (31,603)</u>

The components of retirement benefit expenses for the year ended December 31, 2001 are outlined as follows:

	Millions of yen	Thousands of U.S. dollars
Service cost.....	¥ 833	\$ 6,313
Interest cost.....	497	3,767
Expected return on plan assets.....	(191)	(1,448)
Amortization of net retirement benefit obligation at transition.....	8,436	63,933
Amortization of actuarial gain or loss.....	22	167
Total.....	<u>¥9,597</u>	<u>\$72,732</u>

The assumptions used in accounting for the above plans were as follows:

	March 31, 2001
Discount rates.....	Mainly 3.0%
Expected return on plan assets.....	Mainly 3.0%

## 8. Income Taxes

The Company and its domestic consolidated subsidiaries are subject to a number of taxes based on earnings, i.e. corporation tax, inhabitants' taxes and enterprise tax, which, in the aggregate, resulted in statutory tax rates of approximately 41.7 per cent. for 2001 and 2000, respectively.

The effective tax rate reflected in the consolidated statement of operations and retained earnings for the year ended December 31, 2000 differs from the statutory tax rate for the following reasons:

Statutory tax rate .....	41.7%
Effect of:	
Permanent difference – entertainment expense.....	8.5
Permanent difference – dividend income.....	(3.0)
Inhabitants' taxes per capita.....	2.8
Amortization of excess of cost over net assets acquired.....	4.0
Equity in losses of affiliates .....	14.6
Valuation allowance.....	24.2
Different tax rates applied to income of foreign consolidated subsidiaries.....	9.7
Other, net.....	(1.9)
Effective tax rate.....	<u>100.6%</u>

Significant components of the deferred tax assets and liabilities held by the Company and its consolidated subsidiaries as of December 31, 2001 and 2000, respectively, were as follows:

	Millions of yen		Thousands of U.S. dollars
	2001	2000	2001
Deferred tax assets:			
Valuation loss on securities.....	¥ 423	¥1,080	\$ 3,206
Elimination of unrealized profit.....	1,492	1,291	11,307
Accrued severance indemnities.....	3,682	736	27,905
Accrued enterprise tax.....	32	156	242
Allowance for doubtful receivables .....	80	129	606
Accrued bonuses .....	50	113	379
Net operating loss carryforwards .....	2,065	2,327	15,650
Others .....	505	309	3,827
	<u>8,329</u>	<u>6,141</u>	<u>63,122</u>
Valuation allowance.....	(2,146)	(2,959)	(16,263)
Total deferred tax assets .....	<u>6,183</u>	<u>3,182</u>	<u>46,859</u>
Deferred tax liabilities:			
Reserve under special Taxation Measures Law .....	(2,458)	(2,328)	(18,628)
Undistributed earnings of overseas partnerships.....	(668)	(719)	(5,063)
Gain on contribution of securities to retirement benefit trust .....	(895)	—	(6,783)
Valuation difference on other securities.....	(469)	—	(3,554)
Other.....	(8)	(55)	(61)
Total deferred tax liabilities.....	<u>(4,498)</u>	<u>(3,102)</u>	<u>(34,089)</u>
Net deferred tax assets.....	<u>¥1,685</u>	<u>¥ 80</u>	<u>\$12,770</u>

**9. Capital Surplus and Retained Earnings** In accordance with the Commercial Code of Japan, the Company has provided a legal reserve, which is included in retained earnings. The Code provides that neither capital surplus nor the legal reserve is available for dividends, but both may be used to reduce or eliminate a deficit by resolution of the shareholders or may be transferred to common stock by resolution of the Board of Directors.

**10. Contingent Liabilities** At December 31, 2001, the Company and consolidated subsidiaries had the following contingent liabilities:

	Millions of yen	Thousands of U.S. dollars
Trade notes receivable and export bills discounted .....	¥ 170	\$ 1,288
Guarantees of indebtedness .....	4,509	34,172
	<u>¥4,679</u>	<u>\$35,460</u>

**11. Research and Development Expenses** Research and development expenses included in selling, general and administrative expenses and manufacturing costs for the year ended December 31, 2001 and 2000 were ¥5,371 million (\$40,705 thousand) and ¥6,036 million, respectively.

**12. Leases** The following pro forma amounts represent the acquisition cost, accumulated depreciation and net book value of leased property as of December 31, 2001 and 2000, which would have been reflected in the consolidated balance sheets if finance lease accounting had been applied to the finance lease transactions currently accounted for as operating leases:

	Millions of yen		Thousands of U.S. dollars
	2001	2000	2001
Acquisition cost:			
Machinery and equipment .....	¥2,229	¥2,161	\$16,893
Other assets .....	251	—	1,902
	<u>¥2,480</u>	<u>¥2,161</u>	<u>\$18,795</u>
Accumulated depreciation:			
Machinery and equipment .....	¥1,251	¥1,271	\$ 9,481
Other assets .....	39	—	295
	<u>¥1,290</u>	<u>¥1,271</u>	<u>\$ 9,776</u>
Net book value:			
Machinery and equipment .....	¥ 978	¥ 890	\$ 7,412
Other assets .....	212	—	1,607
	<u>¥1,190</u>	<u>¥ 890</u>	<u>\$ 9,019</u>

Lease payments relating to finance lease transactions accounted for as operating leases amounted to ¥439 million (\$3,327 thousand) and ¥420 million, which were equal to the depreciation expense of the leased assets computed by the straight-line method over the respective lease terms for the years ended December 31, 2001 and 2000, respectively.

Future minimum lease payments (including the interest portion thereon) subsequent to December 31, 2001 for noncancelable operating leases and finance lease transactions accounted for as operating leases are summarized as follows:

Year ending December 31,	Millions of yen		Thousands of U.S. dollars	
	Operating leases	Finance leases	Operating leases	Finance leases
2002 .....	¥ 8	¥ 409	\$ 61	\$3,100
2003 and thereafter .....	27	781	204	5,919
Total .....	<u>¥35</u>	<u>¥1,190</u>	<u>\$265</u>	<u>\$9,019</u>

### 13. Derivative Transactions

The Company utilizes derivative financial instruments for the purpose of hedging its exposure to adverse fluctuations in foreign currency exchange rates and interest rates, but does not enter into such transactions for speculation or trading purposes.

The Company is exposed to credit loss in the event of nonperformance by the counterparties to the derivative financial instruments, but any such loss would not be material because the Company enters into transactions only with financial institutions with high credit ratings. The notional amounts of the derivative financial instruments do not necessarily represent the amounts exchanged by the parties and, therefore, are not a direct measure of the Company's risk exposure in connection with derivative financial instruments.

As of December 31, 2001, the disclosure of fair value information for derivatives has been omitted since all derivatives have been accounted for as hedges.

Summarized below are the notional amounts and the estimated fair value of the derivative transactions outstanding at March 31, 2000:

#### (1) Currency related transactions

	Millions of yen		
	Notional amount	Fair value	Unrealized gain (loss)
Options			
Call options, purchased:			
US\$.....	¥288	¥14	¥17
(Premium) .....	—	(—)	
Total .....	<u>¥288</u>	<u>¥14</u>	<u>¥17</u>

#### (2) Interest related transactions

	Millions of yen		
	Notional amount	Fair value	Unrealized gain (loss)
Interest rate swaps:			
Receive/fixed and pay/floating .....	¥ 300	¥ 13	¥ 13
Receive/floating and pay/fixed .....	2,950	(51)	(51)
Total .....	<u>¥3,250</u>	<u>¥(37)</u>	<u>¥(37)</u>

### 14. Segment Information

The Company and its consolidated subsidiaries are primarily engaged in the manufacture and sales of products in the chemical industry segment in Japan. As net sales, operating income and total assets from the chemical business of the Company and its consolidated subsidiaries constituted more than 90% of the consolidated totals for both the years ended December 31, 2001 and 2000, the disclosure of business segment information has been omitted.

The disclosure of geographical segment information has also been omitted as net sales and total assets of the foreign operations constituted less than 10% of the consolidated totals for both the years ended December 31, 2001 and 2000.

Overseas sales of the Company and its consolidated subsidiaries constituted less than 10% of the consolidated net sales for both the years ended December 31, 2001 and 2000.

### 15. Subsequent Event

The following appropriations of retained earnings of the Company, which have not been reflected in the accompanying consolidated financial statements for the year ended December 31, 2001, were approved at a shareholders' meeting held on March 28, 2002:

	Millions of yen	Thousands of U.S. dollars
Cash dividends – ¥3.00 (\$0.023) per share .....	<u>¥797</u>	<u>\$6,040</u>

# Report of Certified Public Accountants



**Certified Public Accountants**  
11hiya Kokusai Bldg.  
2-2-3, Uchisaiwai-cho,  
Chiyoda-ku, Tokyo 100-0011  
C.P.C. Box 1196, Tokyo 100-8641

Phone 03 3503-1100  
Fax 03 3503-1197

The Board of Directors  
Toagosei Co., Ltd.

We have examined the consolidated balance sheets of Toagosei Co., Ltd. and consolidated subsidiaries as of December 31, 2001 and 2000, and the related consolidated statements of operations and retained earnings and cash flows for the years then ended, all expressed in yen. Our examinations 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 financial position of Toagosei Co., Ltd. and consolidated subsidiaries at December 31, 2001 and 2000, and the results of their operations and their cash flows for the years then ended in conformity with accounting principles and practices generally accepted in Japan applied on a consistent basis.

As described in Note 2 to the consolidated financial statements, Toagosei Co., Ltd. and consolidated subsidiaries have adopted new accounting standards for employees' retirement benefits, financial instruments and foreign currency translation effective the year ended December 31, 2001, and for consolidation, research and development expenses and tax-effect accounting effective the year ended December 31, 2000 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 December 31, 2001 are presented solely for convenience. Our examination 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 3 to the consolidated financial statements.

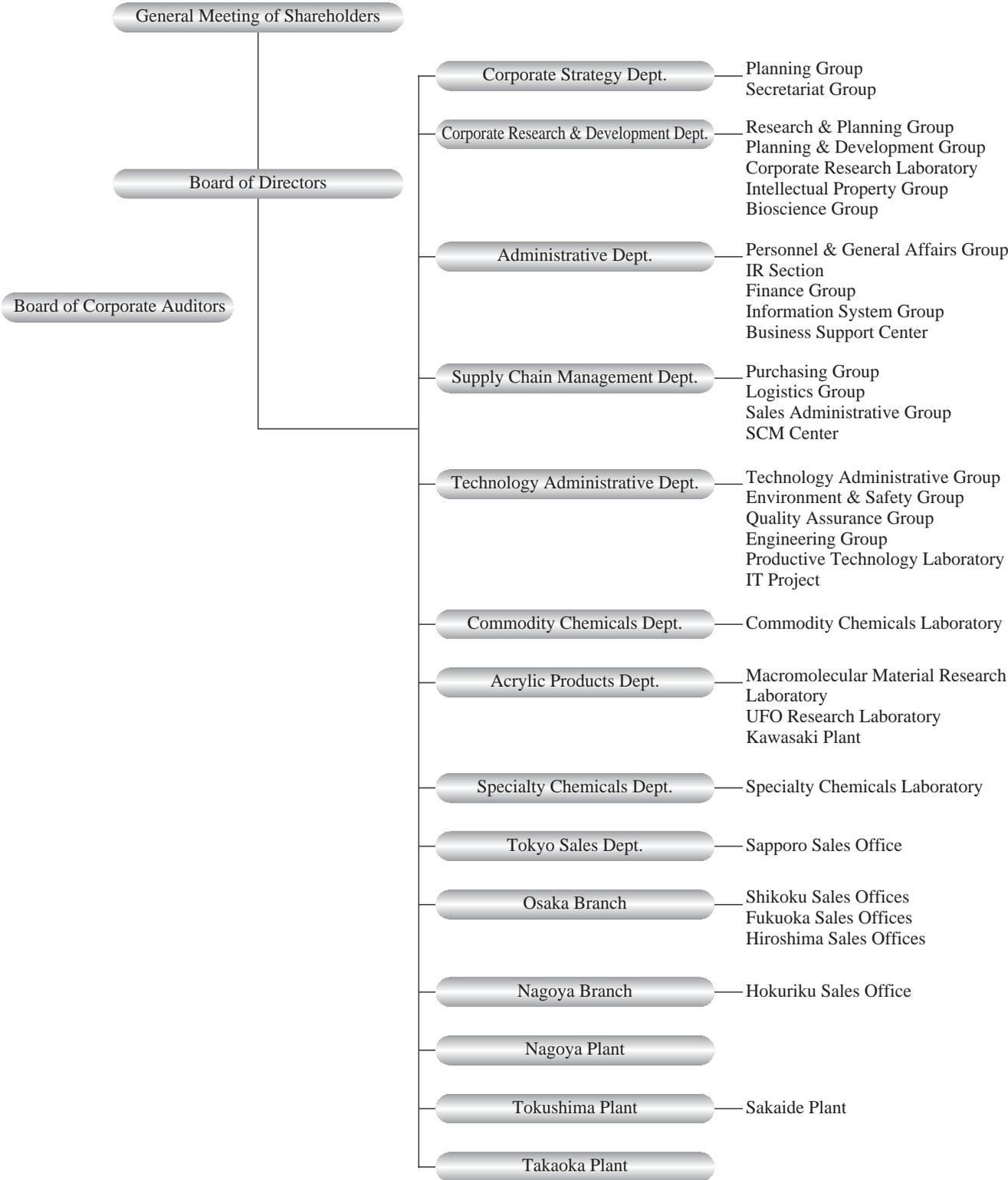
A handwritten signature in black ink that reads "Shin Nihon &amp; Co." in a cursive, flowing script.

March 28, 2002

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

# Corporate Data

## Organization (As of April 1, 2002)



## Directory

### Domestic Network

#### Head Office

1-14-1, Nishi-Shimbashi, Minato-ku, Tokyo  
105-8419, Japan  
Tel: 03-3597-7215 Fax: 03-3597-7217

#### Osaka Branch

3-6-2, Hirano-machi, Chuo-ku, Osaka  
541-0046, Japan  
Tel: 06-6203-3171 Fax: 06-6203-6870

#### Nagoya Branch

1-16-30, Meieki-minami, Nakamura-ku,  
Nagoya 450-0003, Japan  
Tel: 052-541-1181 Fax: 052-581-1817

#### Toyama Sales Office

5-13, Sakurabashi-dori, Toyama 930-0004,  
Japan  
Tel: 0764-42-2311 Fax: 0764-41-3690

#### Takamatsu Sales Office

3, Kajiyamachi, Takamatsu, Kagawa 760-  
0028, Japan  
Tel: 087-825-2671 Fax: 087-822-1276

#### Fukuoka Sales Office

2-14-2, Tenjin, Chuo-ku, Fukuoka 810-0001,  
Japan  
Tel: 092-721-1902 Fax: 092-721-1914

#### Hiroshima Sales Office

11-10, Motomachi, Naka-ku, Hiroshima  
730-0011, Japan  
Tel: 082-228-5430 Fax: 082-227-6737

#### Nagoya Plant

17-23, Showacho, Minato-ku, Nagoya  
455-0026, Japan  
Tel: 052-611-9804 Fax: 052-612-5733

#### Tokushima Plant

575-1, Nakashima, Kawauchicho, Tokushima  
771-0188, Japan  
Tel: 088-665-2111 Fax: 088-665-3867

#### Takaoka Plant

2-1-3, Fushiki, Takaoka, Toyama 933-0195,  
Japan  
Tel: 0766-44-7401 Fax: 0766-44-7410

#### Sakaide Plant

2-4-1, Showacho, Sakaide, Kagawa 762-0004,  
Japan  
Tel: 0877-46-3161 Fax: 0877-45-4727

#### Nagoya Research & Development Institute

1-1, Funamicho, Minato-ku, Nagoya  
455-0027, Japan  
Tel: 052-611-9901 Fax: 052-611-1693

#### Tsukuba Research Laboratory

2, Okubo, Tsukuba, Ibaraki 300-2611, Japan  
Tel: 0298-65-2600 Fax: 0298-65-2610

### Principal Overseas Subsidiaries

#### Toagosei Hong Kong Ltd.

Room 1111 11/FL, Kwong Sang Hong  
Centre, 151-153 Hoi Bun Road Kwun Tong,  
Kowloon, Hong Kong  
Tel: 852-27631086 Fax: 852-27631798

#### Toagosei America Inc.

650 Shawan Falls Drive, Suite 205, Dublin,  
OH 43017, USA  
Tel: 614-718-3855 Fax: 614-718-3866

#### Toagosei Asia Pte Ltd

1 Robinson Road, #21-02 AIA Tower  
Singapore 048542  
Tel: 65-4385411 Fax: 65-4385422

## Principal Subsidiaries and Affiliates (As of December 31, 2001)

Name of Company	Line of Business	Our Share (%)	Capital (¥ in millions)
Tsurumi Soda Co., Ltd.	Manufacture & sale of chemical products	61.5	¥2,080
Aron Kasei Co., Ltd.	Manufacture & sale of synthetic resin molded products	61.1	¥4,220
Toagosei Asia Pte Ltd	Sale of chemical products	100.0	US\$62,713,000
Aron Ever-Grip Ltd.	Manufacture & sale of adhesives	100.0	£223,000
Oita Chemical Co., Ltd.	Manufacture of chemical products	90.0	¥450
Toagosei America Inc.	Manufacture & sale of chemical products; technological research	100.0	US\$6,100,000
Nihon Junyaku Co., Ltd.	Manufacture & sale of chemical products	97.6	¥351
Kyoei Co., Ltd.	Sale of chemical products	100.0	¥100
Toa Logistics Co., Ltd.	Product distribution	100.0	¥16
Toa Kakoki Co., Ltd.	Construction & repair of chemical facilities	100.0	¥50
Toa Techno-Gas Co., Ltd.	Manufacture & sale of industrial gases	100.0	¥40
Toa Estate Co., Ltd.	Real estate sales agency and real estate management	100.0	¥30
Toa Kogyo Co., Ltd.	Product distribution	100.0	¥25
Aron Packaging Co., Ltd.	Filling and packaging of adhesives	100.0	¥10
Singapore Acrylic Ester Pte Ltd	Manufacture of chemical products	75.0	US\$60,571,000
Sansei Shoji Co., Ltd.	Sale of chemical products	61.5	¥20
V-Tech Corp.* <sup>1</sup>	Manufacture & sale of chloralkali products	—	—
D.S.T. Micronics Co., Ltd.* <sup>1</sup>	Manufacture & sale of precision components for CRTs	—	—
Chubu Ekisan Co., Ltd.* <sup>1</sup>	Manufacture & sale of industrial gases	30.0	¥480
Elmer's & Toagosei CO.* <sup>2</sup>	Sale of adhesives	50.0	US\$33,660,000

\*<sup>1</sup> Equity-method affiliates

\*<sup>2</sup> Borden Toagosei Co. changed its name to Elmer's & Toagosei Co. on July 19, 2001.

## Investor Information

### Established

March 1942

### Common Stock

Authorized: 467,650,000 shares

Issued: 267,129,768 shares

Capital: ¥20,886 million

Number of shareholders: 36,554

Listings: Common stock listed on the exchanges in Tokyo, Osaka, Nagoya and Fukuoka

### Transfer Agent of Common Stock

The Chuo Mitsui Trust and Banking Co., Ltd.  
3-33-1, Shiba, Minato-ku, Tokyo 105-8574

### Certified Accountants

Shin Nihon & Co.

Hibiya Kokusai Bldg., 2-2-3, Uchisaiwai-cho  
Chiyoda-ku, Tokyo 100-0011

### Major Shareholders

	(%)
Sumitomo Mitsui Banking Corp.	4.51
The Tokai Bank, Ltd.	4.22
The Industrial Bank of Japan, Ltd.	3.78
Japan Trustee Services Bank, Ltd. (Trust account)	2.75
The Chuo Mitsui Trust & Banking Co., Ltd.	2.41
The Mitsubishi Trust & Banking Corp. (Trust account)	2.15
The Tokio Marine & Fire Insurance Co., Ltd.	2.13
Employee Shareholders' Committee	2.12
Aioi Insurance Co., Ltd.	2.07
Mitsui Mutual Life Insurance Co.	1.96

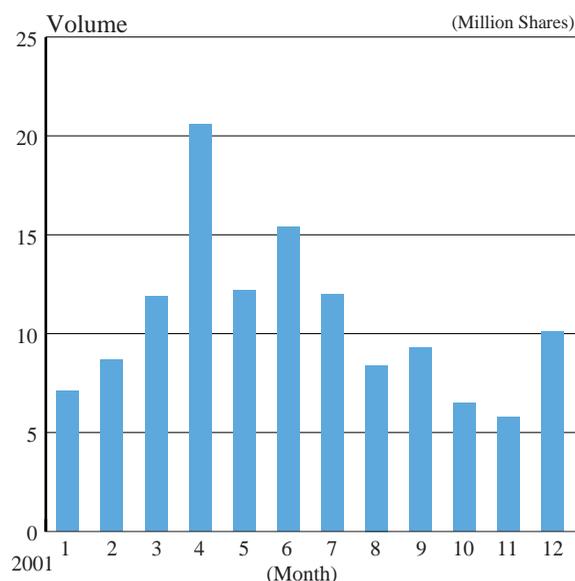
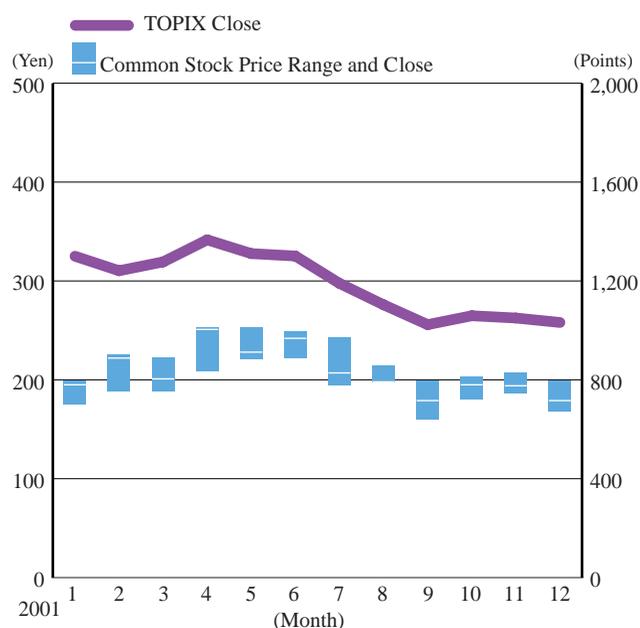
Note: The Tokai Bank, Ltd. merged with The Sanwa Bank, Ltd. to form UFJ Bank Ltd. on January 15, 2002. Following the merger of The Industrial Bank of Japan, Ltd. with The Fuji Bank, Ltd. and The Dai-Ichi Kangyo Bank, Ltd. on April 1, 2002, the ownership of the shares was transferred to Mizuho Holdings, Inc.

(As of December 31, 2001)

### Stock Price Range & Trading Volume

(Tokyo Stock Exchange)

	1997	1998	1999	2000	2001
High	¥496	¥290	¥283	¥300	¥253
Low	¥161	¥160	¥156	¥153	¥160
TOPIX Close (Dec. 31)	1,203	1,086	1,722	1,283	1,032





1-14-1, Nishi-Shimbashi, Minato-ku,

Tokyo 105-8419, Japan

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