

*Creating Business, Value and Profit*



ANNUAL REPORT 1999

# TOAGOSEI AT A GLANCE



## CAUSTIC SODA & CHLORIDES

Caustic soda sales increased year-on-year owing to brisk shipments despite lower prices caused by intensifying competition and easing supply/demand conditions as a result of high-level production to meet increasing demand for chlorine.

Inorganic chloride sales showed a moderate

increase over the previous year because of favorable shipments of ferric chloride after a recovery of supply/demand conditions and favorable shipments of liquid chlorine.

Total sales of caustic soda and chlorides rose 1.3 percent year-on-year to ¥33.2 billion.



## COMPRESSED GASES

Compressed gas sales decreased 7.3 percent year-on-year to ¥494 million as a result of reduced shipments in the central Japan area, a major market for the category, and lower prices.



## OTHER INORGANIC CHEMICALS

Despite sluggish shipments to overseas markets, sales of ammonium sulfate increased from the previous year, supported by a strong domestic performance.

Sulfuric acid sales decreased slightly, suffering from reductions in shipment volume and product price.

Total sales of other inorganic chemicals were ¥7.4 billion, a decrease of ¥567 million, or 7.1 percent year-on-year.



## CHLORINATED PRODUCTS

Sales of vinyl chloride products increased from the previous year, led by expanded shipments to overseas markets and strong shipments during the second half of the term to the domestic market.

Supported by increased overseas demand, chlorine

organic solvents experienced solid shipments but failed to surpass sales from a year earlier.

Total sales of chlorinated products were ¥18.8 billion, a decrease of ¥176 million, or 0.9 percent year-on-year.



## ACRYLIC PRODUCTS

Sales of acrylic acids and acrylic esters increased from the year before, thanks to a recovery in both domestic and overseas demand.

Sales of acrylic polymer products also increased, due to healthy shipments of acrylic oligomers, polymer flocculants and acrylic polymers. However,

there was a general trend toward price declines and a decrease in shipments of water-resistant coatings to the construction industry.

Total sales of acrylic products rose 4.5 percent from the previous year to ¥36.8 billion.



## PLASTICS

Despite lower prices, sales of plumbing products increased from the previous year owing to brisk shipments in the strategic areas of sewage, power and telecommunications.

In the household products sector, total sales increased due to solid performance in such strategic

fields as nursing goods and rubbish containers, whereas shipments of automotive supplies were sluggish.

Total sales of plastics increased ¥1.6 billion, or 5.3 percent year-on-year to ¥31.0 billion.



## OTHER ORGANIC CHEMICALS

Slow shipments of consumer adhesives were more than offset by brisk shipments of industrial adhesives for the domestic market, resulting in a year-on-year jump in total adhesive sales.

Sales of other products showed significant year-on-year growth due to healthy shipments of inorganic ion

exchangers for the semiconductor industry and efforts to restructure unprofitable areas.

Total sales of other organic chemicals were ¥15.2 billion, an increase of ¥2.6 billion, or 21.0 percent year-on-year.

# FINANCIAL HIGHLIGHTS

Toagosei Co., Ltd. Years ended December 31, 1999, 1998 and 1997

	Millions of yen			Thousands of U.S. dollars (Note 1)	99/98
	1999	1998	1997	1999	% change
<b>Non-Consolidated Basis</b>					
Net sales	¥ 94,614	¥ 96,933	¥107,647	\$ 923,965	-2.4
Operating income	2,764	1,983	3,780	26,992	+39.4
Income before income taxes	3,064	1,160	2,226	29,992	+164.1
Net income	1,824	740	1,346	17,813	+146.5
Per share of common stock (in yen and dollars):					
Net income (Note 2)	6.82	2.77	4.93	0.07	+146.2
Cash dividends applicable to the year	6.00	6.00	6.00	0.06	N.A.
Total assets	141,138	147,197	137,675	1,378,301	-4.1
Shareholders' equity	68,363	67,365	68,253	667,607	+1.5
<b>Consolidated Basis</b>					
Net sales	¥150,822	¥145,896	¥159,396	\$1,472,871	+3.4
Operating income	5,738	5,617	8,600	56,035	+2.2
Income before income taxes and minority interests	5,552	2,690	5,790	54,219	+106.4
Net income	2,069	254	1,824	20,205	+714.6
Per share of common stock (in yen and dollars):					
Net income (Note 2)	7.75	0.95	6.67	0.08	+715.8
Cash dividends applicable to the year	6.00	6.00	6.00	0.06	N.A.
Total assets	196,289	203,788	190,782	1,916,885	-3.7
Shareholders' equity	81,731	80,664	80,999	798,154	+1.3

Notes 1: U.S. dollar amounts are translated from yen, for convenience only, at the rate of ¥102.40=\$1.00.

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

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# INTERVIEW WITH PRESIDENT FUKUZAWA

*The difficult business environment continued in 1999. Despite this, Toagosei's consolidated net sales and net income for fiscal 1999, ended December 31, 1999, improved remarkably compared with the previous year. Could you detail the main factors behind this improved business performance?*

Consolidated net sales rose 3.4 percent year-on-year to ¥150.8 billion, operating income increased to ¥5.7 billion and net income surged 714.6 percent to ¥2.0 billion. The increase in consolidated sales was due to contributions from Singapore Acrylic Ester Pte Ltd, which is now accounted for as a consolidated subsidiary, and Aron Ever-Grip Ltd., a subsidiary acquired last year. The income growth was primarily from gains on the sale of idle property and a reduction in fixed expenses.

*Fiscal 1999 was the first year of Toagosei's new mid-term management plan. Please describe the Company's progress toward attaining the objectives of the plan and the contributions this progress has made to business results.*

The new plan comprises three main objectives: reorganize business structure; improve earnings; and raise management efficiency. These were also parts of the previous plan; however, the new mid-term management plan intends to speed up these measures and build a business structure that can respond flexibly to changes in the business environment. To use our limited management resources effectively for the Toagosei group, we have concentrated our efforts on all stages of selected businesses, including decisions on R&D subjects. We are focusing on the core businesses of chloralkali, acrylics and adhesives. In addition, along with strengthening and expanding these businesses, we are developing high-value-added products through the application of Toagosei's original technologies and are enhancing the productivity of plant operations to strengthen our competitiveness.

In the key chloralkali segment, we are focusing on reducing logistical costs by developing markets closer to the site of operations. This has contributed to improved profit margins at plants.



*Bunshiro Fukuzawa, President*

A major managerial issue has been the restructuring of the PVC business. The issue has almost been resolved through a joint venture with Mitsubishi Chemical Corporation.

The next important issue to tackle is how to best direct the course of the acrylics and adhesive businesses for better results in the coming years.

In the acrylics business, we are shifting from a focus on monomers to the production of higher-value-added products. In this regard, we expect the new acrylic polymer called solid-grade oligomer (SGO) to play a leading role. In addition, we constructed an SGO pilot plant in 1999 and plan to initiate commercial production by the end of 2000. The plant will have annual production capacity of 100,000 tons on a 100 percent solid basis. SGO can be continuously produced under high pressure, which leads to higher production efficiency and thus stronger price competitiveness. Moreover, the SGO polymer does not require the use of organic solvents, making it environmentally friendly. The promising SGO business is expected to become the core of our acrylics business with annual sales of ¥10 billion in the future.

For the monomer business, achieving economies of scale is vital to procuring materials at competitive prices. This is one reason why we initiated a joint venture with Sumitomo Chemical

in Singapore. We have also begun studies, with some good results, on manufacturing monomers from propane rather than propylene.

In the adhesive business, we are developing marketing and business operations together with Aron Ever-Grip Ltd. that respond to the needs of customers. Through these efforts, we intend to increase our focus on automotive, electronics and housing industries. The markets for *Aron Alpha* have been saturated in advanced countries, so we are set to strengthen marketing in other countries. We will also enhance the product quality and product efficiency of our adhesives. We are aiming to reduce production costs for cyanoacrylate based monomers by 50 percent, and the prospects for achieving this goal are good. This achievement would further strengthen the price competitiveness of our adhesives.

*Under the new management plan, capital investment has been made in the Singapore plant. Could you describe the current status of this plant?*

The Singapore plant started operations in April 1999. Initially, there were some teething problems, but the plant has been operating smoothly. In addition, despite intensifying price competition, which led to considerably lower product prices, we are hopeful of a recovery in market conditions. In the mid-term view, we expect the East Asian nations to recover from their economic slump, gradually reshaping market conditions for the better. Plant operations are going as planned, so once market conditions improve, the Singapore plant will be able to contribute more to business results in fiscal 2000.

*You said that the restructuring of the Company's vinyl chloride business has been completed with the establishment of a joint venture between Toagosei and Mitsubishi Chemical. What specific benefits do you expect from this alliance?*

The joint venture with Mitsubishi Chemical, named V-Tech Corporation, started operations on April 1, 2000. The new company was established with capital of ¥6 billion and is 60 percent owned by Mitsubishi Chemical and 40 percent owned by Toagosei. Its head office is in Tokyo, and there is a marketing division in Osaka to cover western Japan.

The joint venture has plants in Kawasaki, Mizushima and Yokkaichi. With a workforce of 160, the company aims to achieve annual vinyl chloride sales of ¥35 billion. The immediate effect of the joint venture will be significant cost reductions as a result of streamlined logistics and fewer product types. In addition, the consolidation of the current 15 vinyl chloride producers into five groups should improve market conditions. Although the joint venture is expected to remain in the red through fiscal 2000, we anticipate it turning into the black in fiscal 2001.

*Please describe your outlook and targets for fiscal 2000.*

Our profit estimates assume that the current severe operating environment will continue in fiscal 2000. Continued efforts will be made to create an operating structure that is immune to external factors and to ensure profitability irrespective of economic growth. If the mid-term plan is successfully carried out, the Company's financial position will improve remarkably. By streamlining production processes and reducing fixed expenses, we are trying to lower our break-even point. This effort has produced excellent results compared to the previous year.

*Finally, please describe Toagosei's involvement in environmental issues, which are of increasing importance in connection with the social responsibilities of corporate citizens. Also, what are your views on investor relations activities for investors and shareholders?*

Toagosei takes environmental protection seriously. All our plants have attained ISO 14000 series certification. The introduction of environmental accounting and reporting is under consideration. For investor relations activities, we will continue to promote information disclosure to keep our management transparent to both investors and shareholders, based on our total respect for them.



Bunshiro Fukuzawa  
President and Representative Director



## Chloralkali Products



## Adhesives

# Creating Business

*Building on its expertise in commodity chemicals such as caustic soda, chlorine and acrylic esters, Toagosei has efficiently deployed its research and development resources to create value-added products in such fields as acrylic polymers, adhesives, agriculture and biotechnology. The Company has also concluded strategic mergers and acquisitions to strengthen its acrylic polymer and adhesives businesses. The Company is also developing new product applications in high-growth industries and is expanding sales in overseas countries.*

## Acrylic Products



## New Business



# VALUE AND PROFIT

## *Improving Management Efficiency*

Toagosei has established specific criteria for each investment such as profitability and rate of return. For example, the Company is keeping capital expenditures within cash flow and rationalization investments are to be recovered within half the depreciation period. In addition, the Company plans to reduce total assets and will reexamine each investment individually, writing off poorly performing assets and implementing speedier collection of accounts receivable.

## *Increasing Productivity*

Toagosei is aggressively promoting innovation to boost productivity of both labor and equipment. The Company has established the Productive Technology Laboratory with the dual aims of refining production technologies to improve competitiveness and expediting the commercialization of its products.

## *Comprehensive Management of Objectives*

The new plan comprises three main objectives: reorganize business structure; improve earnings; and raise management efficiency. To use its management resources effectively, the Company has concentrated its efforts on the core businesses of chloralkali products, acrylic products and adhesives. In addition, to strengthen and expand these businesses, the Company is developing high-value-added products such as the environmentally friendly solid-grade oligomer (SGO).

## *Focus on ROE and Responsible Care Program*

A key goal at Toagosei is to raise the Company's non-consolidated return on equity through streamlining operations and raising the profitability of its product portfolio.

In addition, Toagosei also promotes its Responsible Care (RC) campaign, which focuses on environmental conservation, safety and hygiene in the workplace, and disaster prevention.

## *Chloralkali Products*

Toagosei is the industry leader in production technology for caustic soda and caustic potash. These chemicals have become an integral part of the local regions in which they are produced. Accordingly, Toagosei is strengthening its business structure and marketing close to its manufacturing operations, while continuing cost-cutting efforts for greater competitiveness. Produced along with caustic soda, chlorine is effectively used in the production of liquid chlorine, sodium hypochlorite, hydrochloric acid and iron chloride.

To enhance environmental protection, Toagosei studies ways to increase markets for excess chlorine. In cooperation with our customers, we are creating new chloride businesses.



In April 2000, a polyvinyl chloride (PVC) joint venture between Toagosei and Mitsubishi Chemical initiated operations. This venture is designed to establish cost-effective systems for producing and marketing PVC products by improving both material procurement and the corporate structure. Efforts are under way to expand the PVC market. The venture will attempt to improve profitability with such measures as consolidating product types and procuring materials at lower cost.

In its agricultural chemical business, Toagosei developed *Carborich*, a fertilizer for leaf tobacco and fruit trees; *Kaligreen*, an agricultural fungicide especially effective for the control of mildew; and other innovative products. We continue to explore new possibilities, such as a biological pesticide that kills only harmful insects with no environmental damage, and study ways to boost profitability.

## Improving the Profitability of Caustic Soda



Caustic soda and chlorides are used extensively as basic chemicals for producing paper pulp, pharmaceuticals and synthetic fibers. However, to weather the poor economic conditions, the Company is taking measures to improve profitability, including concentrated marketing close to manufacturing operations, and plans to boost productivity at its Nagoya and Tokushima plants. In addition, the Company is working to minimize the cost of electrolysis by introducing a cogeneration system.

## Acrylic Products

Toagosei is determined to build a solid foundation for expanding its acrylic businesses, which consist of acrylic monomers, acrylic polymers and polymer flocculants. To achieve this goal, efforts are under way to improve cost competitiveness and profitability, to create new products and technologies and to strengthen our presence in overseas markets.

### Acrylic Monomers

Acrylic monomers, particularly acrylic acid and acrylic esters, have a broad range of industrial applications. As basic materials, they can be used to modify acrylic fibers and various resins or to



produce pressure sensitive adhesives, paints, super absorbent resins for disposable diapers and polymer flocculants for wastewater treatment. Demand for acrylic monomers keeps growing as customers, typically the automobile, housing, fiber and paper industries, continue to expand their markets. To meet the increasing demand for acrylic acid and acrylic esters, Toagosei launched a joint venture with Sumitomo Chemical in March 1999 in Singapore, which has been operating smoothly. The plant has made a core production base through which we can expand our international presence and boost international competitiveness. Currently, the plant suffers from a global oversupply of acrylic acid and esters and plans for profitable returns are behind schedule. However, demand is expected to rise in the coming years, and the Singapore plant will play a significant role in expanding the market for our acrylic products into neighboring countries.

### Acrylic Polymers/Polymer Flocculants

Toagosei's accumulated polymer technologies have created innovative products such as *Aronix*, a UV-curable resin, and *Aron Floc*, a polymer flocculant. To boost earnings from the entire acrylic business, we are placing greater emphasis on developing higher-value-added polymer products. Such promising polymers include the oxetane and SGO products, for which we are concentrating resources for early commercialization.

Toagosei's acrylic monomer manufacturing facility in Singapore makes it possible to acquire a supply of the raw materials for polymer production in Asia. This capability places Toagosei in an advantageous position; and together with the Company's polymer technologies that have been cultivated over many years, the Company is establishing a manufacturing system at the Singapore plant to prepare for an expected growth in Asian demand.

The Singapore plant will pave the way for global expansion.



The Singapore plant for acrylic acid and esters, which began operations in the spring of 1999, has enabled Toagosei to purchase materials on its own in the Asian market. This has led to another plan for an acrylic polymer manufacturing facility in Southeast Asia, which is expected by mid-2000.

## Adhesives

Subsequent to the establishment of Aron Ever-Grip Ltd. (Formerly ACI Japan Ltd.) in 1998, Toagosei aggressively expanded its market among industrial users. With its technological and marketing advantages, Toagosei is keen to arouse demand for its industrial adhesives in overseas markets and is enlarging the manufacturing facilities of Toagosei (Zhuhai) Ltd. in China and Crazy Glue Co. of the United States. In two years, the Company's adhesive business is expected to reach ¥20 billion in consolidated sales.

Toagosei's *Aron Alpha*, a cyanoacrylate based adhesive, is a global long-selling adhesive used extensively for bonding plastics, rubber, metals, wood and other similar and dissimilar materials. It is



available in more than 200 types to meet specific requirements for a range of applications including automobiles, precision instruments, circuit boards and medical equipment.

Toagosei continues to extend the *Aron Alpha* product line by introducing innovative and differentiated products. The Company focuses its R&D efforts on the adhesive and its containers to stimulate potential demand and create new needs among consumers. *Aron Alpha* has expanded the domestic consumer market with the addition of new products. Recent additions are the easy-to-use *Aron Alpha PetitPen*, which has less skin adhesion making it more friendly for women and children and *Aron Alpha High Speed EX*, which bonds porous materials like ceramics and has an easy-to-dispense squeeze-type container. These new products are marketed with timely and effective TV and other media campaigns and these efforts are expected to produce a further leap in sales.

Toagosei also addresses a wide range of industrial adhesive requirements with sophisticated industrial adhesives such as *Arontite*, an anaerobic adhesive used to help fasten nuts and bolts that cures chemically when applied to a small gap between metals; *Aron Ceramic*, an adhesive effective in bonding metals and ceramics at elevated temperatures; *Aron Melt PES* and *Aron Melt PPET*, which are adhesives specially developed for difficult-to-bond materials such as nylon fibers, polyethylene and polypropylene.

Toagosei aims to lead the world market in cyanoacrylates.



Toagosei aims to establish internationally competitive cyanoacrylate base monomer production technologies and is studying the feasibility from a cost and quality perspective of these technologies. Through these efforts, Toagosei expects to keep the adhesives business growing as one of the Company's core businesses.

## *New Business*

To raise the ratio of higher-margin specialty chemical sales, Toagosei has a number of promising new products it intends to commercialize. One such product is oxetane resin, which Toagosei in a world's first has been commercializing since developing it in 1998. As a cation-type UV curable resin, oxetane resins feature lower viscosity and higher coating processability than the epoxy resins used in UV curable coatings. Owing to their excellent curing features, oxetane resins have been used for can coatings and flexo inks in Japan and Western countries. Together with the development of *Aronix*, which enjoys the highest acclaim for radical-type UV curable resins in Japan, the Company is accelerating the development of oxetane resins as cation-type UV curable resins for a range of



applications. One of these applications will be for electronic materials. By tapping into the promising Western markets, the Company aims to boost sales of oxetane resins not only for UV curing operations but for thermosetting applications in which larger sales are expected.

Toagosei's other promising brands include *Cavinon*, an antifungal agent, and *Novaron*, an inorganic antimicrobial agent that has seen increasing demand due to a growing interest in antimicrobial products following media coverage of Methicillin-Resistant *Staphylococcus aureus* (MRSA) infections in hospitals. After a careful review of the marketing strategies for these inorganic products, Toagosei launched them in Europe in 1999 and also plans to market them in the United States.

Toagosei plans to increase the range of its products for the construction and civil engineering industries. In this sector, the Company will shift its focus to the businesses that can best exploit its advanced acrylic technologies, thus enhancing the profitability of the sector as a whole. For the construction material business, Toagosei will lessen its reliance on existing brands. Rather, it will aggressively seek new business opportunities, while restructuring its marketing force to stimulate product development efforts.

**Toagosei aims to be the Asian leader in the solid-grade oligomer (SGO) business.**



Since the 1998 alliance with U.S.-based Johnson Polymer, Toagosei has concentrated its resources on R&D efforts on SGO polymers and will continue extensive capital investment to establish this area as a key part of its acrylic business, a promising field for the Company in Singapore and other Asian markets.

The SGO technology eliminates the use of solvents and initiators and offers the twin benefits of lowering manufacturing costs, due to shorter reaction time, and improving environmental safety. The technology also allows the use of acrylic nitrile and styrene, making the SGO polymer easily customizable to produce higher-margin specialty chemicals and widening its potential as a new business model.

## ***Environmental Initiatives***

Toagosei's corporate philosophy is to "share happiness with as many people as possible through chemical businesses." The Company stresses the importance of human resource development and the creation of safe and healthy working environments that motivate employees.

As a part of its efforts to maintain both an awareness of environmental safety and a healthy environment, the Company prepared Practical Guidelines for Environmental Protection to educate its employees on environmentally correct practices in all product phases, from development through disposal.



The primary objectives of the Guidelines are as follows:

1. To ensure that continued Company growth is harmonious with the global environment, utilizing vigorous conservation and improvement efforts.
2. To eliminate accidents and disasters, thus ensuring an optimal working environment that motivates employees and enhances their health.

Detailed goals are set to raise environmental consciousness among employees, including the following:

- Five safety-related goals to eliminate disasters and accidents.
- Annual practice goals, such as for the prevention of operational mistakes.
- Annual safety goals to eliminate disasters due to the absence or overwork of employees or the lack of help from partner businesses.
- Environmental conservation goals for saving energy, reducing waste, recycling and voluntary control of materials that cause environmental burdens. These goals are monitored on a regular basis.

Toagosei also promotes the Responsible Care (RC) campaign, led by its Environmental Committee, under which

- The Environmental Conservation Promotion Committee reviews the RC results related to environmental conservation.
- The Safety Promotion Committee reviews the RC results related to the safety and hygiene of the workplace.
- The Disaster-Prevention Committee examines the safety and environmental soundness of new and modified manufacturing facilities.

**Toagosei's organized efforts for environmental conservation**



**Toagosei has been aggressive in its efforts to acquire ISO 14001 certification, the international standards for environmental management. In April 1999 Toagosei's Tokushima plant acquired the certification, and now all four of the Company's plants are ISO 14001 compliant—the culmination of efforts to build production systems that guarantee product safety and environmental soundness.**

## Making Productivity Globally Competitive

**T**oagosei aggressively promotes process innovations that boost the productivity of equipment and enhance labor productivity. Through improving the productivity of both labor and equipment, the Company has targeted an overall productivity boost for adhesives.

Amid mounting pressure to reduce marginal profits due to a drop in prices, the increases in productivity and reductions in fixed expenses achieved by Toagosei significantly improve the Company's earnings power. Toagosei will continue promoting such measures to establish a strong operating structure that can maintain profitability even when the economic growth rate is zero.

In 1999, Toagosei established the Productive Technology Laboratory at its Nagoya Plant with the dual aim of restructuring production technologies to make them internationally competitive and expediting the commercialization of its products. At the Productive Technology Laboratory cross-disciplinary teams are organized with personnel from the Nagoya Research & Development Institute, Factory Technology Development Department and Engineering Department. Teams work on specified research projects for a designated timeframe. However, when target technologies are complete, teams are



disbanded and members are reassigned to begin work on new projects.

Through the team approach, the Laboratory intends to gather opinions from three perspectives: chemical (the four laboratories), engineering (Engineering Department) and production control (the Factory Technology Development Department) and integrate them to enhance the efficiency of research activities and achieve world-leading production technologies in the twenty-first century.

These efforts to boost productivity have so far been concentrated in the Company's core businesses: adhesives, oligomers, polymers and chloralkali

products. Although these areas will continue to be the primary source of earnings, the Company will gradually extend productivity reforms to other business areas.

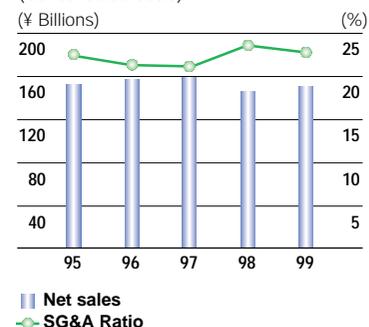


### Increasing the Marginal Income Ratio

To build a strong operating structure immune to market conditions, the Company is striving to improve its marginal income ratio through cost-cutting efforts such as innovating production technologies and careful assessment of investment and loan programs based on their profitability. To ensure a

sound financial position, the Company maintains its capital investment within cash flow and allocates its management resources effectively to carefully selected new and existing businesses.

**Net Sales and SG&A Ratio**  
(Consolidated basis)



## *Sophisticated Management for Greater Corporate Value*

**T**oagosei's management policy can be expressed as "selection and concentration."

The Company maximizes its profits by concentrating management resources in select advantageous businesses. By adopting the selection-and-concentration approach throughout all phases of its business activities, including R&D decisions, the Company aims to build a strong management structure that enables early and appropriate responses to changing business environments.

While focusing on its three core businesses—chloralkali, acrylics, and adhesives—the Company will also develop higher-value-added specialty products using its original technologies.

In particular, the Company anticipates annual sales of ¥10 billion in the near future for a range of new



products it has been developing using solid-grade oligomer (SGO) technology, which helps lower manufacturing costs and improve environmental safety.

The polyvinyl chloride (PVC) business, which operates in a highly competitive market with a tough supply/demand environment, was split off in April 2000 to establish a joint venture with Mitsubishi Chemical Corporation. The new arrangement should provide a competitive edge by enabling labor cutbacks, reducing production costs via a raw material-to-final product production line and boosting production capacity with plants at three strategic locations in Japan.

Those products that are least cost-competitive eventually have to be

withdrawn from the market. The Company's most important task for cost-cutting is workforce reduction. The mid-term management plan that began in fiscal 1999, seeks a 15 percent overall workforce reduction in three years. The targeted reductions apply to all of the Company's divisions including production, marketing, R&D and administration. The plan also promotes the implementation of a merit-based wage system to replace the seniority-based system and to match labor costs to productivity.

By emphasizing consolidated results and ensuring that the group's management policies and strategies are shared among its members, Toagosei strives to make managerial decisions that are optimal for the group's overall growth and profitability.

### **Alliance with Mitsubishi Chemical Corporation**

Mitsubishi Chemical and Toagosei established a joint venture, V-Tech Corporation, in April 2000 by integrating both companies' PVC businesses. The new company is 60 percent owned by Mitsubishi Chemical and 40 percent by Toagosei. The joint venture is the outcome of a manufacturing alliance that was initiated in 1998; since then, Mitsubishi and Toagosei have jointly handled product sales and logistical cost

reductions in an effort to restructure both companies' PVC businesses. The joint venture intends to maximize these restructuring efforts by combining production and sales functions and forming a unified system covering monomers and polymers.

We expect first-year sales of about ¥35 billion and the business will be in the black shortly thereafter.



## Market-Oriented R&D Efforts

To enhance global competitiveness, it is important to develop innovative products faster than our competitors. The rapid selection and concentration of research subjects are essential to match our new business strategy.

To maximize the effects of its R&D activities, the Company attempts to reflect market and customer needs in its R&D efforts and develop innovative products by better adjusting the organization to ensure good communication between the research and marketing divisions.

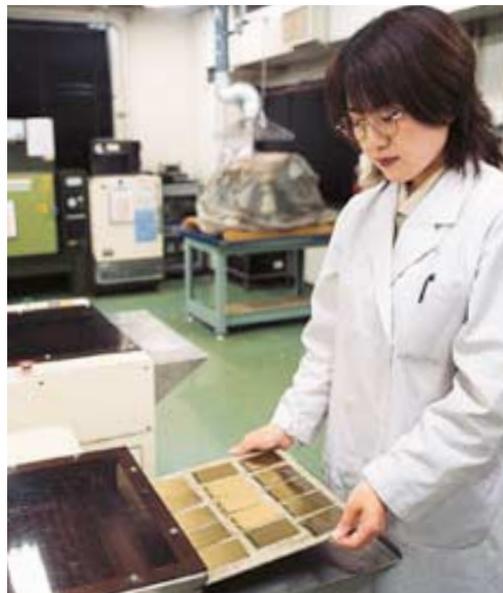
These activities are carried out at the Productive Technology Laboratory, New Product Planning & Development Laboratory, Macromolecular Material Research Laboratory, Advanced Material Research Laboratory and Tsukuba Research Laboratory. These laboratories have their own subjects of research to develop new products. The



Company launched the Future Business Directions Project in March 1999, which is an effort to study new businesses from a long-term perspective. The project is under the direct control of the president and will assume a leading role in the selection of and concentration of resources to new businesses that are highly likely to enhance Toagosei's strengths.

As we enter the twenty-first century, Toagosei's R&D efforts are focused on the field of bioscience. In fact, the Company's remarkable R&D results have led to the development of many agricultural chemicals.

For example, the Company has begun marketing a nonpolluting pesticide in Japan. The pesticide, which does not harm humans or livestock, contains crystalline proteins created by microorganisms. In addition, *Kaligreen*, which contains potassium bicarbonate as its active ingredient, is a product enjoying growing sales, and the Company plans to enhance the product's profitability by expanding its marketing from Japan and the United States to Latin America and Australia.



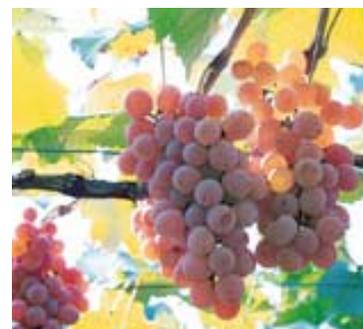
The Company also intends to market a new anti-mite agent to be used as a food additive.

In addition, the Company has already marketed a cancer diagnostic for women and is promoting a project to develop anticancer drugs (anti-angiogenic agents) with fewer side effects than current drugs. For this project, the Company has entered into an alliance with a biopharmaceutical venture in the United States.

## Successful Specialty Chemicals

*Kaligreen* is a fungicide that effectively kills powdery mildew and botrytis. The active ingredient potassium bicarbonate is so safe it can be used as a food additive and molds and fungi are unlikely to develop resistance to *Kaligreen*. Another benefit of *Kaligreen* is that elemental potassium works as a

fertilizer to promote the growth of vegetables after serving its original purpose of killing fungi. This revolutionary effect is expected to generate growing demand worldwide.



# BOARD OF DIRECTORS AND AUDITORS

## **President**

Bunshiro Fukuzawa\*

## **Vice President**

Sakou Suzuki\*

## **Senior Managing Director**

Torao Nishimura\*

## **Managing Directors**

Kunio Nakamura

Sadahiko Ando

Kimitoshi Azuma

Shigeyuki Yamamura

## **Directors**

Motoyuki Kitajima

Manabu Terao

Shigeaki Fuseya

Takeo Nakajima

Akihiko Yamadera

Yasushi Funaki

Akio Arisawa

Toyohiko Kitano

## **Auditors**

Isao Soematsu

Makoto Fujishima

Takeyoshi Ono

Takero Kagao

*\*Representative Director*



Seated, left to right: **Sakou Suzuki**, **Bunshiro Fukuzawa** and **Torao Nishimura**  
Standing, left to right: **Kunio Nakamura**, **Sadahiko Ando**, **Kimitoshi Azuma** and **Shigeyuki Yamamura**

(As of March 30, 2000)

# SIX-YEAR SELECTED DATA

Toagosei Co., Ltd. Years ended December 31

<b>Non-Consolidated Basis</b>	Millions of yen (except per-share data)					
	1999	1998	1997	1996	1995	1994
<b>For the fiscal year:</b>						
Net sales	¥ 94,614	¥ 96,933	¥107,647	¥105,143	¥105,892	¥105,464
Income before income taxes	3,064	1,160	2,226	5,045	10,748	4,650
Net income	1,824	740	1,346	2,760	4,778	2,790
<b>Per-share data:</b>						
Per share of common stock:						
Net income	6.82	2.77	4.93	10.17	18.65	11.35
Cash dividends applicable to the year	6.00	6.00	6.00	6.00	6.00	7.00
<b>At year-end:</b>						
Total assets	141,138	147,197	137,675	136,407	147,808	134,602
Shareholders' equity	68,363	67,365	68,253	73,614	60,530	57,560
Number of employees	1,518	1,612	1,647	1,705	1,782	1,820
<b>Consolidated Basis</b>						
<b>For the fiscal year:</b>						
Net sales	¥150,822	¥145,896	¥159,396	¥157,666	¥153,124	¥149,907
Income before income taxes and minority interests	5,552	2,690	5,790	9,230	12,927	7,482
Net income	2,069	254	1,824	3,220	3,399	2,330
<b>Per-share data:</b>						
Per share of common stock:						
Net income	7.75	0.95	6.67	11.87	13.27	9.48
Cash dividends applicable to the year	6.00	6.00	6.00	6.00	6.00	7.00
<b>At year-end:</b>						
Total assets	196,289	203,788	190,782	188,248	198,869	177,729
Shareholders' equity	81,731	80,664	80,999	85,857	72,274	67,538
Number of employees	3,341	3,387	3,050	3,164	3,206	3,090

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

# MANAGEMENT'S DISCUSSION AND ANALYSIS

## Financial Strategy

At Toagosei we have established concrete benchmarks for capital expenditure and are strategically carrying out financial management. For example, the Company's policy is to keep capital investment within free cash flow and to recover rationalization investments within half the depreciation period. In addition, the Company plans to reduce total assets and will reexamine each investment individually, writing off poorly performing assets and implementing speedier collection of accounts receivable.

Toagosei procures and manages the funds across the entire group in order to maintain a healthy consolidated cash flow. Furthermore, the funds necessary for each of Toagosei's subsidiaries are procured under the most favorable terms by the parent company.

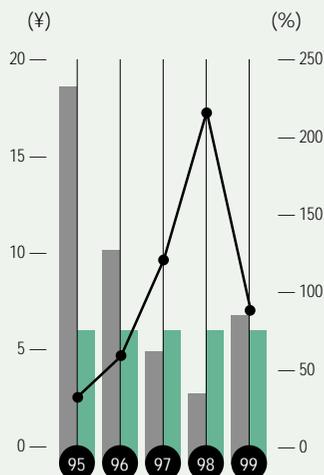
## Non-Consolidated Income Analysis

Net sales for the year ended December 31, 1999 decreased 2.4 percent to ¥94.6 billion. This decrease reflected a drop in product prices, although the sales volume of most products was favorable. Cost of sales was ¥71.8 billion and, as a result, gross profit fell from ¥23.2 billion to ¥22.7 billion in 1999. The gross profit margin was 24.0 percent. Selling, general and administrative expenses decreased 6.0 percent to ¥19.9 billion helped by a reduction in transport and personnel expenses. As a result, operating income increased 39.4 percent to ¥2.7 billion and income before income taxes increased 164.1 percent to ¥3.0 billion. As a result of Toagosei's policies aimed at enhancing

### Net Income per Share, Cash Dividends per Share and Payout Ratio (Yen; %) (Non-consolidated basis)

■ Net Income per Share  
■ Cash Dividends per Share  
— Payout Ratio

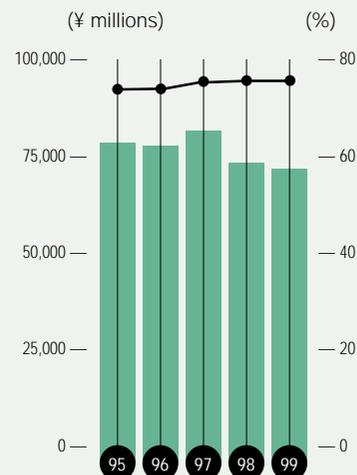
	Income per Share	Dividends per Share	Payout Ratio
<b>95</b>	18.65	6.00	32.2%
<b>96</b>	10.17	6.00	59.0%
<b>97</b>	4.93	6.00	121.7%
<b>98</b>	2.77	6.00	216.6%
<b>99</b>	6.83	6.00	87.9%



### Cost of Sales and Cost of Sales Ratio (Millions of yen; %) (Non-consolidated basis)

■ Cost of Sales  
— Cost of Sales Ratio

	Cost of Sales	Cost of Sales Ratio
<b>95</b>	78,465	74.1%
<b>96</b>	78,008	74.2%
<b>97</b>	81,721	75.9%
<b>98</b>	73,688	76.0%
<b>99</b>	71,866	76.0%



profitability, the Company's break-even point was ¥82.4 billion, the same low level as nine years ago.

Net income for the period increased 146.5 percent to ¥1.8 billion and net income per share was ¥6.82. Cash dividends remained stable at ¥6.00 per share.

### Non-Consolidated Liquidity and Capital Resources

Decreases in notes and accounts receivable were the principal factors in the 3.6 percent decrease in current assets to ¥62.3 billion as of the end of 1999. Current liabilities decreased 23.3 percent to ¥28.7 billion mainly due to the repayment of commercial paper. As a result, the current ratio increased from 1.7 times to 2.2 times. On the other hand, due to an increase in net income, net cash provided by operating activities increased 70.6 percent to ¥12.2 billion.

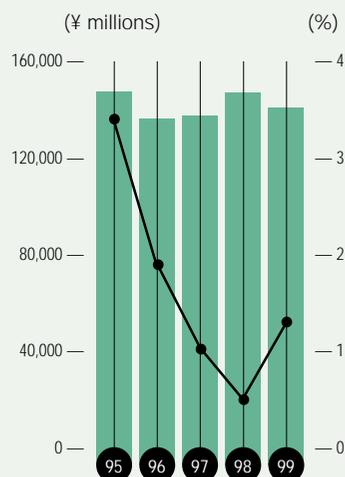
Net cash used in investing activities was ¥3.2 billion. This included ¥2.4 billion invested in plant and equipment, which was for an expansion at the Nagoya Plant.

Net cash used in financing activities was ¥8.0 billion. The Company used cash to pay-down commercial paper outstanding. However, at the end of the year net cash increased by ¥865 million to ¥4.6 billion.

#### Total Assets & ROA (Millions of yen; %) (Non-consolidated basis)

■ Total Assets  
— ROA

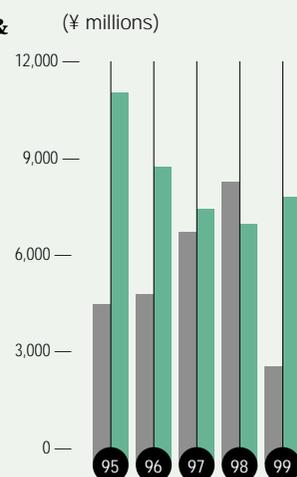
	Total Assets	ROA
<b>95</b>	147,808	3.4%
<b>96</b>	136,407	1.9%
<b>97</b>	137,675	1.0%
<b>98</b>	147,197	0.5%
<b>99</b>	141,138	1.3%



#### Capital Expenditures & Net Cash Flow (Millions of yen) (Non-consolidated basis)

■ Capital Expenditures  
■ Net Cash Flow

	Capital Expenditures	Net Cash Flow
<b>95</b>	4,485	11,059
<b>96</b>	4,753	8,744
<b>97</b>	6,703	7,415
<b>98</b>	8,265	6,962
<b>99</b>	2,496	7,802



## Non-Consolidated Financial Position

Total assets decreased 4.1 percent to ¥141.1 billion primarily because of efforts to reduce fixed assets. Return on assets improved from 0.5 percent the previous year to 1.3 percent, reflecting higher net income. Long-term liabilities increased to ¥44.0 billion compared to ¥42.3 billion the previous year due to an increase in total long-term debt. Total shareholders' equity increased ¥1 billion to ¥68.3 billion due to an increase in retained earnings. Return on equity was 2.7 percent. The debt-to-equity ratio, the sum of current liabilities and long-term debt divided by shareholders' equity, was 1.1 times, compared to 1.2 times the previous year.

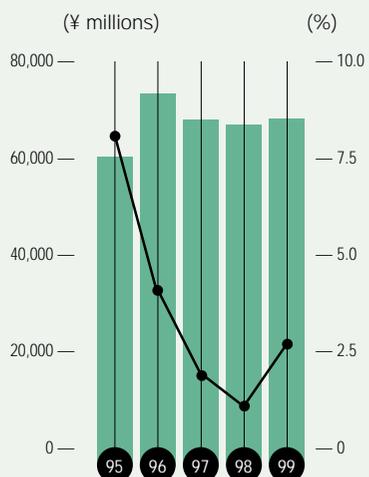
## Consolidated Income Analysis

Consolidated net sales increased 3.4 percent to ¥150.8 billion. This result reflected increased shipments, the start of operations at the Singapore plant and a strengthening in the adhesives business. However, gross profit fell slightly to ¥40.2 billion due to a drop in product prices and a slight increase in costs. The gross profit margin fell to 26.7 percent. Selling, general and administrative expenses were ¥34.4 billion, which resulted in a 2.2 percent increase in operating income to ¥5.7 billion. The operating margin was 3.8 percent.

Consolidated net income increased dramatically to ¥2.0 billion, an eight-fold increase due to a sell-off of idle property. Net income per share was ¥7.75.

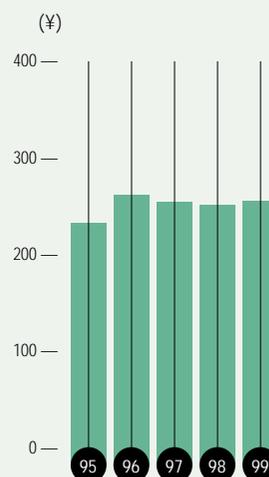
### Shareholders' Equity & ROE (Millions of yen; %) (Non-consolidated basis)

	Shareholders' Equity	ROE
<b>95</b>	60,530	8.1%
<b>96</b>	73,614	4.1%
<b>97</b>	68,253	1.9%
<b>98</b>	67,365	1.1%
<b>99</b>	68,363	2.7%



### Shareholders' Equity per Share (Yen) (Non-consolidated basis)

	Shareholders' Equity per Share
<b>95</b>	234
<b>96</b>	263
<b>97</b>	256
<b>98</b>	252
<b>99</b>	256



## Consolidated Financial Position

Current assets decreased slightly to ¥92.2 billion, a drop of ¥2.3 billion over the previous year. The primary reason for this was a decrease in notes and accounts receivable. With an increase in payables that was offset by a reduction in short-term bank loans, current liabilities decreased by about ¥10 billion. This resulted in an improvement in the current ratio to 1.9 times from 1.6 times in the previous year.

Total assets decreased ¥7.4 billion to ¥196.2 billion due to efforts to reduce fixed assets and improve asset utilization. Return on assets was 1.0 percent. Long-term liabilities increased from ¥52.4 billion in the previous year to ¥53.6 billion due to an increase in long-term bank loans. Shareholders' equity was ¥81.7 billion due to an increase in retained earnings. Return on equity was 2.5 percent. The debt-to-equity ratio, the sum of current liabilities and long-term debt divided by shareholders' equity, was 1.19 times, compared to 1.31 times a year earlier.

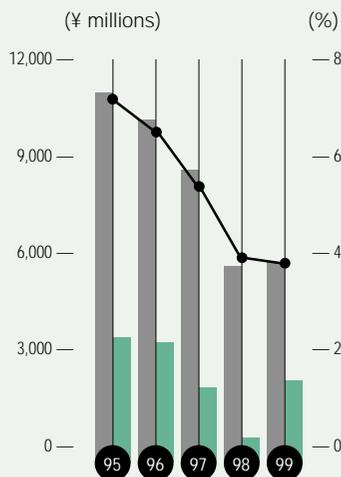
As part of Toagosei's executive and employee incentive plan, a stock option system was announced at the March 2000 annual general meeting as means for executives and employees to acquire shares. Through the introduction of this stock option system, Toagosei expects to inculcate a sense of management and business from a shareholders' perspective in its managers and employees.

### Profitability

(Millions of yen; %)  
(Consolidated basis)

■ Operating Income  
■ Net Income  
— Operating Margin

	Operating Income	Net Income	Operating Margin
<b>95</b>	11,033	3,399	7.2%
<b>96</b>	10,181	3,220	6.5%
<b>97</b>	8,600	1,824	5.4%
<b>98</b>	5,617	254	3.9%
<b>99</b>	5,738	2,069	3.8%

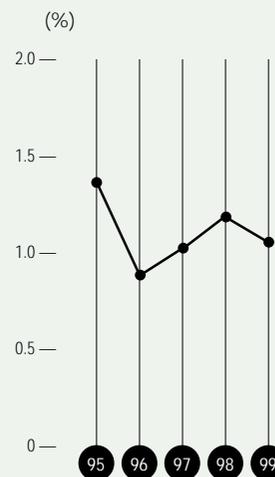


### Debt/Equity Ratio

(%)  
(Consolidated basis)

Debt/Equity Ratio

<b>95</b>	1.37%
<b>96</b>	0.89%
<b>97</b>	1.03%
<b>98</b>	1.18%
<b>99</b>	1.06%



# NON-CONSOLIDATED BALANCE SHEETS

Toagosei Co., Ltd. December 31, 1999 and 1998

Assets	Millions of yen		Thousands of U.S. dollars (Note 2)
	1999	1998	1999
<b>Current assets</b>			
Cash	¥ 4,677	¥ 3,812	\$ 45,674
Time deposits and short-term investments	795	1,096	7,764
Marketable securities (Notes 3 and 5)	10,584	11,186	103,359
Receivables:			
Notes and accounts receivable:			
Subsidiaries and affiliates	4,721	4,346	46,104
Trade	24,950	27,646	243,652
Advances to and loans and other receivables from subsidiaries and affiliates	6,579	6,608	64,248
	36,250	38,600	354,004
Allowance for doubtful receivables	(180)	(316)	(1,758)
	36,070	38,284	352,246
Inventories (Note 4)	8,066	8,851	78,770
Other current assets	2,108	1,435	20,586
<b>Total current assets</b>	<b>62,300</b>	<b>64,664</b>	<b>608,399</b>
<b>Property, plant and equipment</b> (Notes 5 and 8)			
Land	13,645	13,742	133,252
Buildings and structures	38,375	38,118	374,756
Machinery and equipment	95,843	95,285	935,966
Construction in progress	837	1,542	8,174
	148,700	148,687	1,452,148
Accumulated depreciation	(96,823)	(93,671)	(945,537)
	51,877	55,016	506,611
<b>Investments and other assets</b>			
Investments in and advances to subsidiaries and affiliates (Note 3)	21,830	21,676	213,183
Investments in securities (Notes 3 and 5)	1,435	1,544	14,014
Other assets	3,696	4,297	36,094
	26,961	27,517	263,291
<b>Total</b>	<b>¥141,138</b>	<b>¥147,197</b>	<b>\$1,378,301</b>

See accompanying notes to non-consolidated financial statements.

<b>Liabilities and Shareholders' Equity</b>	Millions of yen		Thousands of U.S. dollars (Note 2)
	<b>1999</b>	1998	<b>1999</b>
<b>Current liabilities</b>			
Short-term bank loans (Note 5)	¥ 4,363	¥ 4,363	\$ 42,608
Current portion of long-term debt (Note 5)	1,416	1,019	13,828
Commercial paper	2,500	12,000	24,414
Payables:			
Subsidiaries and affiliates	2,539	2,483	24,795
Trade	10,069	10,328	98,330
Notes payable for acquisition of property, plant and equipment	792	1,005	7,734
Other	4,187	4,446	40,889
	<u>17,587</u>	<u>18,262</u>	<u>171,748</u>
Accrued expenses	1,349	1,320	13,174
Accrued income taxes (Note 9)	1,138	14	11,113
Other current liabilities	402	532	3,926
<b>Total current liabilities</b>	<u>28,755</u>	<u>37,510</u>	<u>280,811</u>
<b>Long-term liabilities</b>			
Long-term debt (Note 5)	43,097	41,347	420,869
Retirement allowances (Note 10)	343	415	3,350
Other long-term liabilities	580	560	5,664
	<u>44,020</u>	<u>42,322</u>	<u>429,883</u>
<b>Shareholders' equity</b> (Notes 6 and 14)			
Common stock, ¥50 par value:			
Authorized — 467,650,000 shares			
Issued:			
1999 — 267,129,768 shares	20,886	—	203,965
1998 — 267,129,768 shares	—	20,886	—
Capital surplus	15,623	15,623	152,568
Legal reserve	3,660	3,570	35,742
Retained earnings	28,194	27,286	275,332
	<u>68,363</u>	<u>67,365</u>	<u>667,607</u>
<b>Contingent liabilities</b> (Note 12)			
<b>Total</b>	<u>¥141,138</u>	<u>¥147,197</u>	<u>\$1,378,301</u>



# NON-CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

Toagosei Co., Ltd. Years ended December 31, 1999 and 1998

	Thousands of common shares	Millions of yen			
		Common stock	Capital surplus	Legal reserve	Retained earnings
<b>Balance at December 31, 1997</b>	267,130	¥ 20,886	¥ 15,623	¥ 3,402	¥ 28,342
Net income	—	—	—	—	740
Cash dividends	—	—	—	—	(1,603)
Transfer to legal reserve	—	—	—	168	(168)
Directors' bonuses	—	—	—	—	(25)
<b>Balance at December 31, 1998</b>	267,130	20,886	15,623	3,570	27,286
Net income	—	—	—	—	1,824
Cash dividends	—	—	—	—	(801)
Transfer to legal reserve	—	—	—	90	(90)
Directors' bonuses	—	—	—	—	(25)
<b>Balance at December 31, 1999</b>	<u>267,130</u>	<u>¥20,886</u>	<u>¥15,623</u>	<u>¥3,660</u>	<u>¥28,194</u>

	Thousands of U.S. dollars (Note 2)			
	Common stock	Capital surplus	Legal reserve	Retained earnings
<b>Balance at December 31, 1998</b>	\$ 203,965	\$ 152,568	\$ 34,863	\$ 266,465
Net income	—	—	—	17,812
Cash dividends	—	—	—	(7,822)
Transfer to legal reserve	—	—	879	(879)
Directors' bonuses	—	—	—	(244)
<b>Balance at December 31, 1999</b>	<u>\$203,965</u>	<u>\$152,568</u>	<u>\$35,742</u>	<u>\$275,332</u>

See accompanying notes to non-consolidated financial statements.

# NON-CONSOLIDATED STATEMENTS OF CASH FLOWS

Toagosei Co., Ltd. Years ended December 31, 1999 and 1998

	Millions of yen		Thousands of U.S. dollars (Note 2)
	1999	1998	1999
<b>Operating activities</b>			
Net income	¥ 1,824	¥ 740	\$ 17,813
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	5,978	6,222	58,379
Gain on sales of marketable securities	(375)	(435)	(3,662)
Unrealized loss on securities	182	1,170	1,777
Gain on sales and disposal of property, plant and equipment	(3,026)	(312)	(29,551)
Provision for loss on investments in subsidiaries and affiliates	2,325	—	22,705
(Reversal of) provision for retirement allowances	(72)	98	(703)
Other	4	(4)	39
Changes in operating assets and liabilities:			
Receivables	3,575	2,780	34,912
Inventories	785	(373)	7,666
Other current assets	748	(817)	7,305
Payables, other than notes payable for acquisition of property, plant and equipment, and accrued expenses	(732)	(2,051)	(7,149)
Accrued income taxes	1,124	(60)	10,977
Other current liabilities	(130)	201	(1,270)
<b>Net cash provided by operating activities</b>	<b>12,210</b>	<b>7,159</b>	<b>119,238</b>
<b>Investing activities</b>			
Decrease in time deposits and short-term investments	301	336	2,939
Decrease in marketable securities	795	673	7,764
Purchases of property, plant and equipment	(2,410)	(9,713)	(23,535)
Proceeds from sales and disposal of property, plant and equipment	2,126	787	20,762
Increase in investments in and advances to subsidiaries and affiliates	(3,937)	(8,732)	(38,447)
Increase in investments in securities	(1)	(33)	(10)
Increase in other assets	(153)	(1,281)	(1,494)
<b>Net cash used in investing activities</b>	<b>(3,279)</b>	<b>(17,963)</b>	<b>(32,021)</b>
<b>Financing activities</b>			
Increase in short-term bank loans	—	200	—
Decrease (increase) in commercial paper	(9,500)	3,000	(92,773)
Proceeds from issuance of bonds	—	20,000	—
Redemption of bonds	—	(18,592)	—
Proceeds from long-term loans	3,262	9,987	31,855
Repayment of long-term loans	(1,022)	(864)	(9,981)
Cash dividends and directors' bonuses	(826)	(1,627)	(8,066)
Increase (decrease) in other long-term liabilities	20	(196)	195
<b>Net cash provided by (used in) financing activities</b>	<b>(8,066)</b>	<b>11,908</b>	<b>(78,770)</b>
<b>Net increase in cash</b>	<b>865</b>	<b>1,104</b>	<b>8,447</b>
<b>Cash at beginning of the year</b>	<b>3,812</b>	<b>2,708</b>	<b>37,227</b>
<b>Cash at end of the year</b>	<b>¥ 4,677</b>	<b>¥ 3,812</b>	<b>\$ 45,674</b>
<b>Supplemental disclosures of cash flow information:</b>			
Cash paid during the year for:			
Interest	¥ 1,169	¥ 857	\$ 11,416
Income taxes	76	521	742

See accompanying notes to non-consolidated financial statements.

# NOTES TO NON-CONSOLIDATED FINANCIAL STATEMENTS

Toagosei Co., Ltd. December 31, 1999

## 1. Summary of Significant Accounting Policies

### Basis of Preparation:

Toagosei Co., Ltd. (the "Company") maintains its accounting records and prepares its financial statements in accordance with accounting principles and practices generally accepted in Japan. The accompanying non-consolidated financial statements have been prepared in accordance with accounting principles and practices generally accepted in Japan and have been compiled from the financial statements prepared by the Company as required under the Securities and Exchange Law of Japan. Accordingly, the accompanying non-consolidated financial statements are not intended to present the financial position, results of operations and cash flows in accordance with accounting principles and practices generally accepted in countries and jurisdictions other than Japan. The Company has prepared non-consolidated statements of cash flows for the purpose of inclusion in these non-consolidated financial statements, although such statements are not currently required in Japan.

### Inventories:

Inventories are stated at cost determined by the average method.

### Property, Plant and Equipment:

Property, plant and equipment is stated on the basis of cost.

Depreciation of property, plant and equipment is computed by the straight-line method over the estimated useful lives of the respective assets as prescribed by the Corporation Tax Law of Japan. Significant renewals and additions are capitalized at cost. Maintenance and repairs are charged to income as incurred.

### Marketable Securities and Investments in Securities:

Listed securities are stated at the lower of cost (determined by the moving average method) or market. Securities other than listed securities are stated at cost or less.

### Income Taxes:

Income taxes are calculated on taxable income and charged to income on an accrual basis. Deferred income taxes pertaining to timing differences between financial and tax reporting are not provided.

### Research and Development Expenses:

Research and development expenses are charged to income as incurred.

### Retirement Allowances and Pension Plans:

Until June 30, 1988, the Company had an unfunded employee retirement allowances plan. Effective July 1, 1988, the Company instituted a non-contributory funded pension plan covering all employees which has replaced the prior employee retirement allowances plan. Under the pension plan, employees are entitled to an annuity or a lump-sum payment at the time of termination, the amount of which is determined on the basis of length of service, approximate rate of pay at the time of termination and certain other factors.

Costs with respect to the employee pension plan are funded and accrued at an amount determined actuarially. Past service cost at the inception of the non-contributory pension plan is being funded over approximately 9 years.

In addition, directors and statutory auditors are customarily entitled to lump-sum payments under an unfunded retirement allowances plan. The provision for retirement allowances for these officers has been made at an estimated amount.

### 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 Company are accounted for as finance leases.

### Amounts Per Share:

The computation of basic net income per share is based on the weighted average number of shares of common stock outstanding during each year. Diluted net income per share is computed based on the weighted average number of shares of common stock outstanding during each year after giving effect to the dilutive potential of the common stock to be issued upon the conversion of convertible bonds. No diluted net income per share for the year ended December 31, 1998 is presented because the effect of such conversion was anti-dilutive.

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

## 2. 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 ¥102.40=\$1.00, the approximate exchange rate at December 31, 1999. 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.

## 3. Marketable and Investment Securities

The book and related aggregate market values of current and noncurrent marketable securities included in marketable securities, investments in and advances to subsidiaries and affiliates, and investments in securities at December 31, 1999 and 1998 are summarized as follows:

	Millions of yen			
	1999		1998	
	Book value	Market value	Book value	Market value
Marketable securities.....	<u>¥10,584</u>	<u>¥19,361</u>	<u>¥10,986</u>	<u>¥14,673</u>
Investments in securities, including investments in subsidiaries and affiliates.....	<u>¥ 3,372</u>	<u>¥11,933</u>	<u>¥ 3,482</u>	<u>¥10,411</u>
	Thousands of U.S. dollars			
	1999			
	Book value	Market value		
Marketable securities.....	<u>\$103,359</u>	<u>\$189,072</u>		
Investments in securities, including investments in subsidiaries and affiliates....	<u>\$ 32,930</u>	<u>\$116,533</u>		

#### 4. Inventories

Inventories at December 31, 1999 and 1998 were composed of the following:

	Millions of yen		Thousands of U.S. dollars
	1999	1998	1999
Finished goods.....	<u>¥5,770</u>	¥6,466	<u>\$56,348</u>
Semi-finished goods .....	<u>504</u>	576	<u>4,922</u>
Work in process .....	<u>9</u>	14	<u>88</u>
Raw materials and supplies.....	<u>1,783</u>	<u>1,795</u>	<u>17,412</u>
	<u>¥8,066</u>	<u>¥8,851</u>	<u>\$78,770</u>

#### 5. 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, 1999 and 1998, respectively.

Long-term debt at December 31, 1999 and 1998 is summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	1999	1998	1999
2.45% yen bonds due 2001.....	<u>¥10,000</u>	¥10,000	<u>\$ 97,656</u>
1.90% yen bonds due 2003.....	<u>10,000</u>	10,000	<u>97,656</u>
2.25% yen bonds due 2004.....	<u>10,000</u>	10,000	<u>97,656</u>
Loans with collateral from banks, insurance companies and others .....	<u>14,513</u>	<u>12,366</u>	<u>141,729</u>
	<u>44,513</u>	<u>42,366</u>	<u>434,697</u>
Less: Current portion .....	<u>(1,416)</u>	<u>(1,019)</u>	<u>(13,828)</u>
	<u>¥43,097</u>	<u>¥41,347</u>	<u>\$420,869</u>

Assets pledged as collateral for short-term bank loans and long-term debt at December 31, 1999 and 1998 were as follows:

	Millions of yen		Thousands of U.S. dollars
	1999	1998	1999
Property, plant and equipment, at net book value.....	<u>¥29,834</u>	¥31,550	<u>\$291,348</u>
Marketable securities and investments in securities .....	<u>6,214</u>	<u>3,507</u>	<u>60,683</u>
	<u>¥36,048</u>	<u>¥35,057</u>	<u>\$352,031</u>

The aggregate annual maturities of long-term debt subsequent to December 31, 1999 are summarized as follows:

For the year ending December 31	Millions of yen	Thousands of U.S. dollars
2000 .....	¥ 1,416	\$ 13,828
2001 .....	11,077	108,174
2002 .....	928	9,062
2003 .....	18,128	177,031
2004 .....	11,239	109,756
2005 and thereafter.....	<u>1,725</u>	<u>16,846</u>
	<u>¥44,513</u>	<u>\$434,697</u>

#### 6. Shareholders' Equity

In accordance with the Commercial Code of Japan, the Company has provided a legal reserve as an appropriation of retained earnings. The Code provides that neither the capital surplus, consisting principally of additional paid-in capital, nor the legal reserve is available for dividends, but both may be used to reduce or eliminate a deficit by resolution of the shareholders or may be transferred to stated capital (common stock) by resolution of the Board of Directors.

#### 7. Research and Development Expenses

Research and development expenses included in selling, general and administrative expenses for the years ended December 31, 1999 and 1998 were as follows:

	Millions of yen		Thousands of U.S. dollars
	1999	1998	1999
	<u>¥4,667</u>	¥4,714	<u>\$45,576</u>

#### 8. Depreciation

Depreciation charged to income for the years ended December 31, 1999 and 1998 was as follows:

	Millions of yen		Thousands of U.S. dollars
	1999	1998	1999
	<u>¥5,114</u>	¥5,481	<u>\$49,941</u>

#### 9. Income Taxes

Income taxes applicable to the Company comprise corporation, inhabitants' and enterprise taxes, which, in the aggregate, resulted in statutory tax rates of approximately 47% and 51% for 1999 and 1998, respectively. The effective tax rates reflected in the accompanying non-consolidated statements of income differ from the statutory tax rate primarily due to the effect of timing differences in the recognition of certain income and expenses for tax and financial reporting purposes and the effect of permanent nondeductible expenses.

#### 10. Retirement Allowances and Pension Plans

The charges to income for pension cost and retirement allowances for the years ended December 31, 1999 and 1998 were as follows:

	Millions of yen		Thousands of U.S. dollars
	1999	1998	1999
Retirement allowances .....	<u>¥ 78</u>	¥ 105	<u>\$ 762</u>
Pension cost .....	<u>1,235</u>	1,280	<u>12,061</u>

The assets of the pension plan at June 30, 1999 were ¥4,023 million (\$39,287 thousand).

## 11. Leases

The following pro forma amounts represent the acquisition cost, accumulated depreciation and net book value of leased property as of December 31, 1999 and 1998, which would have been reflected in the 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
	1999	1998	1999
Acquisition cost:			
Machinery and equipment.....	<u>¥1,169</u>	<u>¥1,552</u>	<u>\$11,416</u>
Accumulated depreciation:			
Machinery and equipment.....	<u>¥ 711</u>	<u>¥ 894</u>	<u>\$ 6,943</u>
Net book value:			
Machinery and equipment.....	<u>¥ 458</u>	<u>¥ 658</u>	<u>\$ 4,473</u>

Lease payments relating to finance lease transactions accounted for as operating leases amounted to ¥277 million (\$2,705 thousand) and ¥285 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, 1999 and 1998, respectively.

Future minimum lease payments (including the interest portion thereon) subsequent to December 31, 1999 for finance lease transactions accounted for as operating leases are summarized as follows:

Year ending December 31	Millions of yen	Thousands of U.S. dollars
2000 .....	<u>¥189</u>	<u>\$1,846</u>
2001 and thereafter .....	<u>269</u>	<u>2,627</u>
Total .....	<u>¥458</u>	<u>\$4,473</u>

## 12. Contingent Liabilities

At December 31, 1999, the Company had the following contingent liabilities:

	Millions of yen	Thousands of U.S. dollars
Guarantees of indebtedness.....	<u>¥6,893</u>	<u>\$67,314</u>
Export bills discounted.....	<u>2</u>	<u>20</u>
	<u>¥6,895</u>	<u>\$67,334</u>

## 13. Derivative Transactions

The Company has entered into foreign exchange contracts to reduce its exposure to adverse fluctuations in foreign exchange rates relating to receivables and payables denominated in foreign currencies. Forward exchange contracts to sell U.S. dollars amounted to ¥936 million at December 31, 1998, and the related market value of these contracts based on forward rates was ¥891 million at December 31, 1998. These amounts, however, exclude contracts entered into to hedge receivables and payables denominated in foreign currencies which have been translated and reflected at the corresponding contracted rates in the accompanying balance sheets.

In addition, the Company has entered into interest rate swap agreements to reduce its interest expense or reduce its exposure to adverse fluctuations in interest rates relating to loans and bonds payable. The total notional amounts of these interest rate swap agreements at December 31, 1999 and 1998 were ¥3,000 million (\$29,297 thousand) and ¥3,000 million, respectively, all of which related to swap positions whose terms extend more than one year subsequent to the balance sheet date. Net unrealized (loss) gain related to these agreements at December 31, 1999 and 1998 amounted to (¥15 million (\$146 thousand)) and ¥76 million, respectively.

## 14. Subsequent Event

The following appropriations of retained earnings, which have not been reflected in the accompanying non-consolidated financial statements for the year ended December 31, 1999, were approved at a shareholders' meeting held on March 30, 2000:

	Millions of yen	Thousands of U.S. dollars
Cash dividends — ¥6.00 (\$0.059) per share .....	<u>¥1,603</u>	<u>\$15,654</u>
Transfer to legal reserve.....	<u>170</u>	<u>1,660</u>
	<u>¥1,773</u>	<u>\$17,314</u>

## Report of Certified Public Accountants

### The Board of Directors Toagosei Co., Ltd.

We have examined the non-consolidated balance sheets of Toagosei Co., Ltd. as of December 31, 1999 and 1998, and the related non-consolidated statements of income, shareholders' equity, 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 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 non-consolidated financial statements, expressed in yen, present fairly the financial position of Toagosei Co., Ltd. at December 31, 1999 and 1998, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles and practices generally accepted in Japan applied on a consistent basis.

The U.S. dollar amounts in the accompanying non-consolidated financial statements with respect to the year ended December 31, 1999 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 2 to the non-consolidated financial statements.

*Showa Ota & Co.*

# CONSOLIDATED BALANCE SHEETS

Toagosei Co., Ltd. and Consolidated Subsidiaries December 31, 1999 and 1998

Assets	Millions of yen		Thousands of U.S. dollars (Note 2)
	1999	1998	1999
<b>Current assets</b>			
Cash and time deposits	¥ 12,006	¥ 12,994	\$ 117,246
Marketable securities (Note 3)	11,217	11,969	109,541
Receivables:			
Notes and accounts receivable:			
Unconsolidated subsidiaries and affiliates	1,505	1,586	14,697
Trade	48,707	49,929	475,654
Advances to and loans receivable from unconsolidated subsidiaries and affiliates	579	702	5,655
	50,791	52,217	496,006
Allowance for doubtful receivables	(248)	(411)	(2,422)
	50,543	51,806	493,584
Inventories	14,941	15,051	145,908
Other current assets	3,500	2,708	34,180
<b>Total current assets</b>	<b>92,207</b>	<b>94,528</b>	<b>900,459</b>
<b>Property, plant and equipment</b> (Note 3)	<b>245,680</b>	<b>240,773</b>	<b>2,399,219</b>
Accumulated depreciation	(158,790)	(151,451)	(1,550,684)
	86,890	89,322	848,535
<b>Investments and other assets</b>			
Investments in and advances to unconsolidated subsidiaries and affiliates	4,053	7,419	39,580
Investments in securities (Note 3)	2,701	2,809	26,377
Other assets	8,682	9,510	84,785
	15,436	19,738	150,742
Translation adjustments	1,756	200	17,149
<b>Total</b>	<b>¥196,289</b>	<b>¥203,788</b>	<b>\$1,916,885</b>

See accompanying notes to consolidated financial statements.

<b>Liabilities and Shareholders' Equity</b>	Millions of yen		Thousands of U.S. dollars (Note 2)
	<b>1999</b>	1998	<b>1999</b>
<b>Current liabilities</b>			
Short-term bank loans (Note 3)	¥ 8,045	¥ 8,788	\$ 78,564
Current portion of long-term debt	2,993	2,646	29,228
Commercial paper	2,500	12,000	24,414
Payables:			
Unconsolidated subsidiaries and affiliates	285	1,144	2,783
Trade	22,643	21,655	221,123
Notes payable for acquisition of property, plant and equipment	1,139	2,605	11,123
Other	5,076	5,857	49,571
	29,143	31,261	284,600
Accrued expenses	2,344	2,414	22,891
Accrued income taxes	1,926	705	18,809
Other current liabilities	1,004	754	9,805
<b>Total current liabilities</b>	<b>47,955</b>	<b>58,568</b>	<b>468,311</b>
<b>Long-term liabilities</b>			
Long-term debt (Note 3)	48,919	47,184	477,725
Retirement allowances	2,452	3,017	23,945
Other long-term liabilities	2,309	2,242	22,549
	53,680	52,443	524,219
<b>Minority interests in consolidated subsidiaries</b>	<b>12,923</b>	<b>12,113</b>	<b>126,201</b>
<b>Shareholders' equity</b> (Note 7)			
Common stock, ¥50 par value:			
Authorized—467,650,000 shares			
Issued:			
1999—267,129,768 shares	20,886	—	203,965
1998—267,129,768 shares	—	20,886	—
Capital surplus	15,623	15,623	152,568
Retained earnings	45,222	44,155	441,621
Less treasury stock, at cost	(0)	(0)	(0)
	81,731	80,664	798,154
<b>Contingent liabilities</b> (Note 4)			
<b>Total</b>	<b>¥196,289</b>	<b>¥203,788</b>	<b>\$1,916,885</b>

# CONSOLIDATED STATEMENTS OF INCOME AND RETAINED EARNINGS

Toagosei Co., Ltd. and Consolidated Subsidiaries Years ended December 31, 1999 and 1998

	Millions of yen		Thousands of U.S. dollars (Note 2)
	1999	1998	1999
Net sales	¥150,822	¥145,896	\$1,472,871
Cost of sales	110,616	105,524	1,080,234
<b>Gross profit</b>	<b>40,206</b>	40,372	<b>392,637</b>
Selling, general and administrative expenses	34,468	34,755	336,602
<b>Operating income</b>	<b>5,738</b>	5,617	<b>56,035</b>
Other income (expenses):			
Interest and dividend income	561	534	5,479
Interest expense	(1,447)	(1,305)	(14,131)
Unrealized loss on securities	—	(1,470)	—
Gain on sales and disposal of property, plant and equipment	2,935	306	28,662
Equity in losses of affiliates	(1,036)	(966)	(10,117)
Other, net	(1,199)	(26)	(11,709)
<b>Income before income taxes and minority interests</b>	<b>5,552</b>	2,690	<b>54,219</b>
Income taxes	3,328	1,981	32,500
<b>Income before minority interests</b>	<b>2,224</b>	709	<b>21,719</b>
Minority interests in earnings of consolidated subsidiaries	(155)	(455)	(1,514)
<b>Net income</b>	<b>2,069</b>	254	<b>20,205</b>
Retained earnings at beginning of the year	44,155	44,490	431,201
Adjustment to retained earnings for inclusion in consolidation or the equity method of accounting for subsidiaries and affiliates	(131)	1,084	(1,279)
Cash dividends paid	(801)	(1,602)	(7,822)
Directors' bonuses	(70)	(71)	(684)
<b>Retained earnings at end of the year</b>	<b>¥ 45,222</b>	<b>¥ 44,155</b>	<b>\$ 441,621</b>
Amounts per share:			
Net income	¥ 7.75	¥ 0.95	\$ 0.08
Cash dividends	6.00	6.00	0.06

See accompanying notes to consolidated financial statements.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Toagosei Co., Ltd. and Consolidated Subsidiaries December 31, 1999

## 1. Summary of Significant Accounting Policies

The accompanying consolidated financial statements of Toagosei Co., Ltd. (the "Company") and its consolidated subsidiaries are prepared on the basis of the same accounting policies as those discussed in Note 1 to the non-consolidated financial statements except for the following policies:

### Basis of Preparation

The Company and its domestic subsidiaries maintain their accounting records and prepare their financial statements in accordance with accounting principles and practices generally accepted in 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 prepared in accordance with accounting principles and practices generally accepted in Japan and have been compiled from the consolidated financial statements prepared by the Company as required under the Securities and Exchange Law of Japan. Accordingly, the accompanying consolidated financial statements are not intended to present the consolidated financial position and results of operations in accordance with accounting principles and practices generally accepted in countries and jurisdictions other than Japan.

Due to a change effective the year ended December 31, 1999 in the regulations relating to the presentation of amortization of excess of cost over net assets acquired and equity in losses of affiliates in the consolidated statement of income and retained earnings, as well as certain accounts including the legal reserve in the consolidated balance sheet, the corresponding amounts in the prior years' consolidated financial statements have been reclassified to conform to the current year's presentation.

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

The accompanying consolidated financial statements include the accounts of the Company and its significant subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Investments in unconsolidated subsidiaries and affiliates (companies owned 20% to 50%) not accounted for by the equity method are substantially carried at cost.

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.

Translation differences are presented as "Translation adjustments" in the accompanying consolidated financial statements.

### 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 six consolidated subsidiaries for which depreciation is computed by the declining-balance method over the estimated useful lives of the respective assets.

### Retirement Allowances and Pension Plans:

The Company and seven consolidated subsidiaries have non-contributory funded pension plans covering substantially all employees which have replaced the prior employee retirement allowances plans. The liability for retirement allowances of one of these consolidated subsidiaries represents the unamortized balance of the previously accrued liability at the inception of the non-contributory pension plan. The liability for retirement allowances of four of the consolidated subsidiaries is principally stated at the maximum amount allowable for income tax purposes, which is 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 record 100% of their liability, less the fund balance of their non-contributory funded pension plan.

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 allowances for these officers has been made at estimated amounts.

### 2. 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 ¥102.40=\$1.00, the approximate exchange rate at December 31, 1999. 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.

### 3. Pledged Assets

Assets pledged as collateral for the Company's and its consolidated subsidiaries' obligations at December 31, 1999 and 1998 were as follows:

	Millions of yen		Thousands of U.S. dollars
	1999	1998	1999
Property, plant and equipment, at net book value.....	¥50,238	¥53,570	\$490,605
Marketable securities and investments in securities .....	6,247	3,548	61,006
	<u>¥56,485</u>	<u>¥57,118</u>	<u>\$551,611</u>

### 4. Contingent Liabilities

At December 31, 1999, the Company and its consolidated subsidiaries had the following contingent liabilities:

	Millions of yen	Thousands of U.S. dollars
Trade notes receivable and export bills discounted .....	¥ 219	\$ 2,139
Guarantees of indebtedness .....	4,300	41,992
	<u>¥4,519</u>	<u>\$44,131</u>

### 5. Leases

The following pro forma amounts represent the acquisition cost, accumulated depreciation and net book value of leased property as of December 31, 1999, which would have been reflected in the consolidated balance sheets if financial lease accounting had been applied to the finance lease transactions currently accounted for as operating leases:

Year ending December 31	Millions of yen	Thousands of U.S. dollars
Acquisition cost: Machinery and equipment ....	¥1,599	\$15,615
Accumulated depreciation:		
Machinery and equipment.....	929	9,072
Net book value: Machinery and equipment.....	<u>¥ 670</u>	<u>\$ 6,543</u>

Lease payments relating to finance lease transactions accounted for as operating leases amounted to ¥363 million (\$3,545 thousand) and ¥368 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, 1999 and 1998, respectively.

Future minimum lease payments (including the interest portion thereon) subsequent to December 31, 1999 for finance lease transactions accounted for as operating leases are summarized as follows:

Year ending December 31	Millions of yen	Thousands of U.S. dollars
2000 .....	¥ 276	\$ 2,695
2001 and thereafter .....	<u>394</u>	<u>3,848</u>
	<u>¥ 670</u>	<u>\$ 6,543</u>

## 6. 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, 1999 and 1998, 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, 1999 and 1998.

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, 1999 and 1998.

## 7. Subsequent Event

See Note 14 to the non-consolidated financial statements.

### Report of Certified Public Accountants

#### The Board of Directors Toagosei Co., Ltd.

We have examined the consolidated balance sheets of Toagosei Co., Ltd. and its consolidated subsidiaries as of December 31, 1999 and 1998, and the related consolidated statements of income and retained earnings 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 its consolidated subsidiaries at December 31, 1999 and 1998, and the results of their operations for the years then ended in conformity with accounting principles and practices generally accepted in Japan applied on a consistent basis.

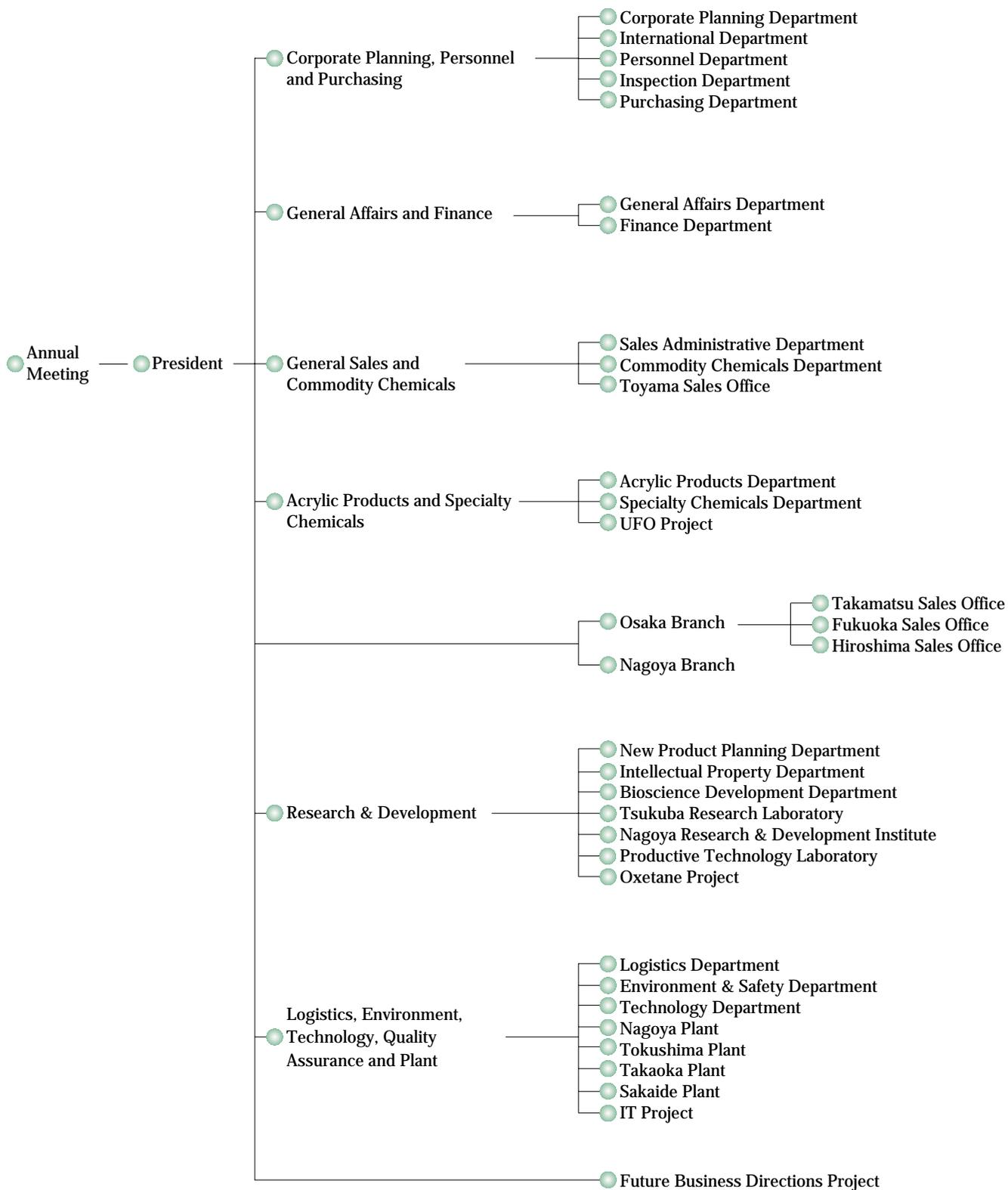
The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended December 31, 1999 are presented solely for convenience. Our examination also included the translation of yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 2 to the consolidated financial statements.

*Showa Ota & Co.*

March 30, 2000

# CORPORATE DATA

## Organization (As of March 30, 2000)



## Directory

### Domestic Network

#### Corporate Headquarters

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

#### Osaka Branch

3-6-2, Hiranomachi, 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 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 933-0195, Japan  
Tel: (0766) 44-7401  
Fax: (0766) 44-7410

#### Sakaide Plant

2-4-1, Showacho, Sakaide 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 300-2611, Japan  
Tel: (0298) 65-2600  
Fax: (0298) 65-2610

### 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, 1999)

Name of Company	Line of Business	Our Share (%)	Capital (Million yen)
Aron Kasei Co., Ltd.	PVC pipes, plates, plastic moldings	61.1	4,220
Tsurumi Soda Co., Ltd.	Caustic soda, chlorides	61.5	2,080
Oita Chemical Co., Ltd.	Acrylic acid, acrolein	90	1,500
Kawasaki Organic Chemical Co., Ltd.	Polyvinyl chloride	80	1,000
Nihon Junyaku Co., Ltd.	Food additives, fine industrial and laboratory chemicals	96	351
Toa Kogyo Co., Ltd.	Transportation, operation of filling stations	100	25
Toa Kakoki Co., Ltd.	Construction and repair of chemical facilities	100	50
Toa Estate Co., Ltd.	Real estate management	100	30
Chubu Ekisan Co., Ltd.	Liquid oxygen, nitrogen, and argon; nitrogen gas	30	480
D.S.T. Micronics Co., Ltd.	Precision electronic parts for CRTs	30	4,500
Kyoei Co., Ltd.	Sales of chemical products	100	100
Toagosei America Inc.	Sales of chemical products	100	US\$6,100,000
Toagosei Hong Kong Ltd.	Sales of chemical products	100	HK\$10,988,000
Toagosei Asia Pte Ltd	Sales of chemical products	100	S\$52,912,350
Borden-Toagosei Co.*	Adhesives	—	—
Singapore Acrylic Ester Pte Ltd	Manufacturing and sales of chemical products	75	S\$47,501,880
Aron Ever-Grip Ltd.	Sales of chemical products	100	£223,000

\* Joint-venture company with Borden Inc.

## Investor Information

### Corporate Headquarters

1-14-1, Nishi-Shimbashi, Minato-ku, Tokyo 105-8419

Tel: (03) 3597-7215

Fax: (03) 3597-7217

Internet: <http://www.toagosei.co.jp/>

### Established

March 1942

### Common Stock

Authorized: 467,650,000 shares

Issued: 267,129,768 shares

Capital: ¥20,886 million

Number of shareholders: 30,468

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.

1-7-1, Kyobashi, Chuo-ku, Tokyo 104-8345

### Certified Accountants

Showa Ota & Co. (From April 1, 2000, the company name changed to Century Ota Showa & Co.)

Hibiya Kokusai Bldg., 2-2-3, Uchisaiwai-cho

Chiyoda-ku, Tokyo 100-0011

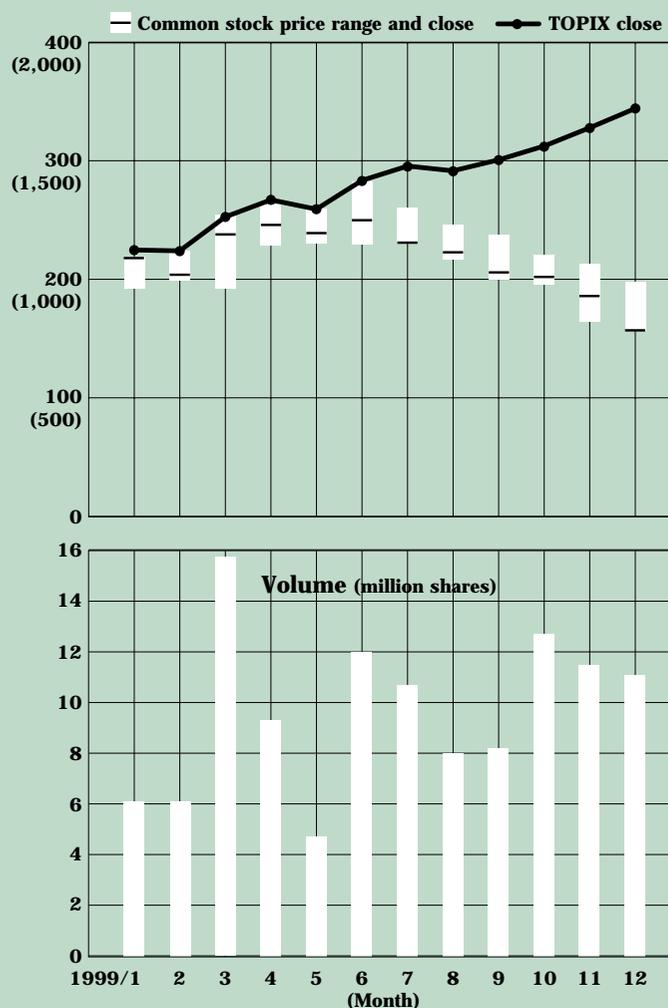
### Major Shareholders and Their Holdings

	(percent)
The Sakura Bank, Limited .....	4.25
The Tokai Bank, Limited.....	4.22
The Sumitomo Trust & Banking Company, Limited .....	3.80
The Industrial Bank of Japan, Limited.....	3.78
Mitsui Mutual Life Insurance Company.....	3.71
The Chiyoda Mutual Life Insurance Company.....	2.43
The Tokio Marine and Fire Insurance Company, Limited....	2.13
Chiyoda Fire & Marine Insurance Company, Limited.....	2.07
Employee Shareholders' Committee .....	1.75
Mitsui & Co., Ltd.....	1.70

(As of December 31, 1999)

### Stock Price Range & Trading Volume (Tokyo Stock Exchange)

	1995	1996	1997	1998	1999
High	¥605	¥611	¥496	¥290	¥283
Low	¥371	¥400	¥161	¥160	¥156
TOPIX Close (Dec. 31)	1,578	1,470	1,203	1,086	1,722





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