

Toray Group is an integrated chemical industry group aiming to be a global top company in advanced materials based on the firm belief that, "as the foundation of products, materials have the power to bring about fundamental transformations in society."

# "Innovation by Chemistry"

We are constantly striving to create new value in each of our businesses—
Fibers & Textiles, Performance Chemicals, Carbon Fiber Composite Materials, Environment & Engineering, and Life Science—which are all founded on our core technologies: organic synthetic chemistry, polymer chemistry, biotechnology, and nanotechnology.

#### **CORPORATE PHILOSOPHY**

Contributing to society through the creation of new value with innovative ideas, technologies and products

#### **CORPORATE MISSIONS**

For our customers	To provide new value to our customers through high-quality products and superior services
For our employees	To provide our employees with opportunities for self development in a challenging environment
For our stockholders	To provide our stockholders with dependable and trustworthy management
For society	To establish ties and develop mutual trust as a responsible corporate citizen

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# Cautionary statement with respect to forward-looking statements

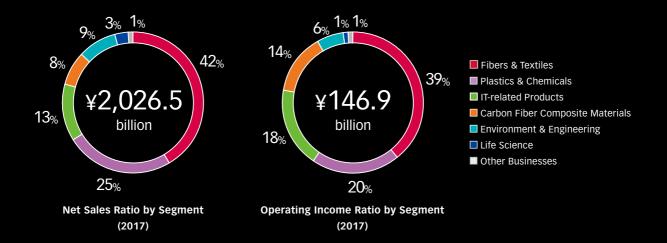
Descriptions of predicted business results, projections and business plans contained in this annual report are based on forecasts and assumptions regarding the future business environment made at the present time. This annual report is not a guarantee of the Company's future business performance.



Toray aims to be a corporate group with high value for all stakeholders and seeks to use the power of chemistry to address social issues worldwide while guided by our corporate philosophy of "contributing to society through the creation of new value with innovative ideas, technologies and products."

#### **Financial Highlights**

Toray Industries, Inc. and Consolidated Subsidiaries Years ended March 31

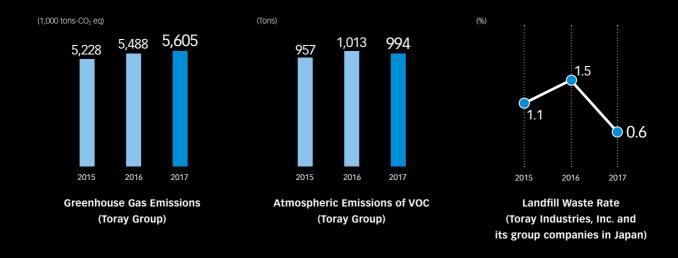


			Billions of yen	Millions of U.S. dollars*1
Years ended March 31	2015	2016	2017	2017
For the year:				
Net sales	¥2,010.7	¥2,104.4	¥2,026.5	\$18,061
Operating income	123.5	154.5	146.9	1,309
Net income attributable to owners of parent	71.0	90.1	99.4	886
Cash flows from operating activities	141.3	196.1	174.0	1,550
Cash flows used in investing activities	(140.7)	(154.4)	(135.2)	(1,205)
Free cash flows	0.6	41.7	38.7	345
Cash flows from financing activities	(10.0)	(77.6)	(18.0)	(161)
Capital expenditures	124.9	136.6	152.0	1,355
Depreciation and amortization	81.5	91.2	89.1	794
R&D expenditure	59.5	58.8	59.2	528
At year-end:	V0.057.0	VO 070 4	V2 00 ( 0	****
Total assets	¥2,357.9	¥2,278.4	¥2,396.8	\$21,362
Net assets	1,080.8	1,024.9	1,100.2	9,805
Per share of common stock (in yen and U.S. dollars):				
Net income attributable to owners of parent:				
Basic	¥44.33	¥56.38	¥62.17	\$0.55
Diluted	44.28	56.31	62.10	0.55
Cash dividends	11.00	13.00	14.00	0.12
Net assets	616.70	591.50	638.64	5.69
Ratios (%):				
Operating income to net sales	6.1	7.3	7.2	
Equity ratio	41.8	41.5	42.6	
ROA	5.5	6.7	6.3	
ROE	7.7	9.3	10.1	
Debt/equity ratio (times)	0.71	0.74	0.70	

<sup>\*1</sup> U.S. dollar amounts have been converted from yen at the exchange rate of ¥112.2=US\$1, the approximate exchange rate prevailing on March 31, 2017.

#### Non-financial Highlights

Toray Industries, Inc. and Consolidated Subsidiaries Years ended March 31

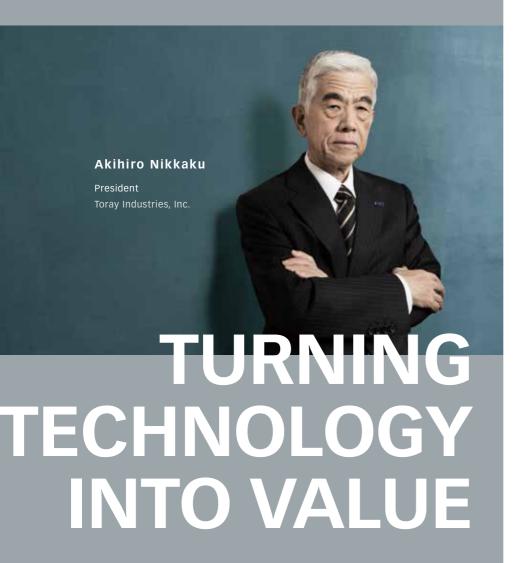


Years ended March 31	2015	2016	2017
Number of employees—consolidated	45,789	45,839	46,248
Male		32,629	33,274
Female		13,210	12,974
Percentage of women in management positions—non-consolidated* <sup>2</sup> (%)	8.3	8.7	8.9
Employment rate for the handicapped—non-consolidated*3 (%)	2.1	2.1	2.2
Index of Environmental Impact			
Greenhouse gas emissions—Toray Group (1,000 tons-CO <sub>2</sub> eq)	5,228	5,488	5,605
Atmospheric emissions of VOC—Toray Group (tons)	957	1,013	994
Atmospheric emissions (SOx)—Toray Group (tons)	3,658	3,192	3,374
Water emissions (BOD)—Toray Group (tons)	935	973	927
Water emissions (COD)—Toray Group (tons)	2,462	2,475	2,403
Landfill waste rate— Toray Industries, Inc. and its group companies in Japan (%)	1.1	1.5	0.6
Facility investment in safety, health, accident prevention, and environmental preservation projects—Toray Group (billions of yen)	10.34	11.60	11.22
Social contribution expenditure—consolidated basis (billions of yen)*4	1.2	1.5	1.6

<sup>\*2</sup> As of end April each year

<sup>\*3</sup> As of end June each year

<sup>\*4</sup> Social contribution expenditure consists of the amount of expenditure for academics, science research, education; art, culture, sports; community social welfare, international exchange; environmental preservation; and disaster relief and other activities.



"Innovation by Chemistry" expresses our drive to become a global top company in advanced materials, with chemistry at our core.

# Toray's Performance in Fiscal 2016

We would like to express our sincere appreciation for the continuous support and understanding of our stockholders and investors.

In fiscal 2016 (the year ended March 31, 2017), the global economy, on the whole, maintained its recovery. The Japanese economy also continued on a gradual recovery track.

Under such circumstances, Toray Group, based on the Medium-term Management Program, "Project AP-G 2016," which spans the three years from fiscal 2014 to fiscal 2016, implemented a growth strategy focused on taking advantage of growth business fields, pursuing business expansion in growth countries and regions, and further bolstering its competitiveness in accordance with the program. As for foreign exchange rates, the yen remained stronger against the U.S. dollar and other major currencies compared with a year earlier, resulting in declines in net sales and profits at overseas subsidiaries when converted into yen.

As a result, consolidated net sales for fiscal 2016 declined 3.7% compared with the same period of the previous fiscal year to ¥2,026.5 billion. Operating income decreased 4.9% to ¥146.9 billion, and ordinary income fell 4.3% to ¥143.7 billion. Net income attributable to owners of parent increased by 10.3% to ¥99.4 billion.

#### Promotion of Long-term Corporate Vision and Medium-term Management Program

Toray Group established a ten-year, long-term corporate vision, "AP-Growth TORAY 2020" (Vision 2020) in 2011, aiming to be

a corporate group that continually increases revenues and profits and that provides high value for all stakeholders. "Vision 2020" sets our sights on sustainably increasing revenue and profit, as we aim to have consolidated net sales of ¥3 trillion, operating income of ¥300 billion and ROE of 13% around 2020.

As the first stage of "Vision 2020," we established "Project AP-G 2013," a three-year medium-term management program starting in fiscal 2011. We followed this with our second stage, "Project AP-G 2016," from fiscal 2014.

Under "Project AP-G 2016," we focused on growth business fields—Green Innovation Business Expansion (GR) Project and Life Innovation Business Expansion (LI) Project—and growing in growth countries and regions—Asia, Americas, Developing Countries Business Expansion (AE-II) Project.

Combined with the Total Cost Reduction (TC-III) Project, for bolstering competitiveness, the entire Toray Group is moving forward jointly on these four projects.

#### Review of "Project AP-G 2016"

Our GR Project aims to expand busi-

nesses in fields that contribute to resolving global environmental, resource, and energy issues. We have steadily expanded this business, taking net sales from ¥463.1 billion in fiscal 2013 to ¥628.2 billion in fiscal 2016. We had important progress in the aircraft field, in which we signed a long-term, comprehensive supply contract for carbon fiber prepreg with The Boeing Company in November 2015. We have started joint development under a new framework and have decided to build new, integrated production facilities for carbon fiber prepreg in South Carolina, United States

Meanwhile, in the automotive industry, Toray started supplying carbon fiber components for fuel cell vehicles, in November 2014, to Toyota Motor Corporation and, in April 2016, to Honda Motor Co., Ltd. We expect this sector to grow in the future.

As the demand for lithium battery separators increases in the battery materials field, we are following increased capacity in Japan from September 2015 with additional production capabilities in the Republic of Korea.

In the water-treatment membrane field, we contribute to solving water resource issues. We received orders for

our hollow fiber ultrafiltration membrane modules, in April 2015, from the Republic of Korea's largest membrane filtration water purification facility and, in December 2015, from a water filtration facility in Thailand, which is the largest such facility in Southeast Asia.

In our LI Project, we have been working to improve quality of health-care, ease burdens on medical professionals, and contribute to health and longevity.

We have steadily increased our net sales from ¥119.6 billion in fiscal 2013 to ¥195.5 billion in fiscal 2016. In the advanced materials field, demand for PP spunbond for hygiene products is rapidly increasing in Asia, and we have continued to strengthen our production capacity in our plants in the Republic of Korea, China, and Indonesia. Thus, Toray has built a strong supply network as a main supplier of PP spunbond in Asia.

In the pharmaceutical and medical devices field, we obtained approval of an additional indication for our oral antipruritus drug REMITCH® (a registered trademark of Torii Pharmaceutical Co., Ltd.), as well as approval in February 2017 to start clinical trials of our new cancer drug TRK-950.

In the AE-II Project, we have worked

#### Long-term Corporate Vision and Medium-term Management Program

#### **Long-term Corporate Vision**

AP-Growth TORAY 2020 (Vision 2020)

#### Medium-term Management Program

#### **AP-G 2013**

Reform and Proactive Management

A New Growth Track

#### **AP-G 2016**

Innovation and Proactive Management

Implementation of Growth Strategy

2011 April 2014 April 2017 April 2019 March

#### **AP-G 2019**

Innovation and
Proactive Management
To Achieve the Vision 2020 Goals

to open new markets and expand our business by organically strengthening collaboration with Toray Group's overseas bases, resulting in steadily increasing net sales from ¥809.3 billion in fiscal 2013 to ¥919.6 billion in fiscal 2016. In this period, Toray established a new joint-venture water treatment company in China, Toray WBD Membrane Technology (JS) Co., Ltd., in June 2016. In the Americas, Toray established a resin compounding company in Mexico in October 2014. In March 2016, we expanded large tow carbon fiber capacity, and decided to build a new integrated plant for airbag fibers and fabrics in July 2016.

In our TC-III Project we have been thoroughly reducing variable and fixed costs while pursuing production process innovation and total operational cost reduction in sales and marketing. We thus reduced cost by a total of ¥194.9 billion over the three years from fiscal 2014 to fiscal 2016.

#### Aiming for Sustainable Medium- to Long-term Growth

In February 2017, Toray formulated the new Medium-term Management Pro-

gram, "Project AP-G 2019." It follows "Project AP-G 2016" as the third stage of "Vision 2020," which covers the period from fiscal 2017 to fiscal 2019. With "Innovation and Proactive Management" as its overarching theme, "Project AP-G 2019" is for completing our ongoing initiatives while also enhancing initiatives to create new revenue sources for increasing our corporate value and supporting sustainable growth from 2020 onwards. (For more information on "Project AP-G 2019," please see pages 9–18.)

# Toray Management Style and Sustainability

Our corporate philosophy of "contributing to society through creating new value with innovative ideas, technologies and products," is the basis for our strong belief that "technology changes materials and materials change society." Vital in creating new value is management from a long-term perspective. Developing materials takes time and accumulated technology; as such, it also requires unwavering management in the long term. To achieve unwavering, farsighted management it is vital to be faithful to the fundamentals, work to

be the best we can be, and do what should be done.

People-centric management is also important. To this end, we are investing in human resource development based on the concept that the success or failure of a company is decided by its people—employees shape its destiny.

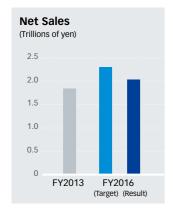
Valuing human resources is an aspect in which Japanese management excels. At Toray Group, we are not only managing in this style in Japan but in our entire global operations.

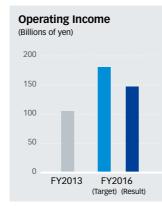
We hold a medium- to long-term view of our environment and have a solid grasp on our situation, which allows us to do what should be done and address the issues we need to in advance of our global competitors. We are growing sustainably as we face our next step, and continue to be a corporate group that provides high value to our stockholders, and all our stakeholders. We hope you share our long-term vision and we ask for your continued support.

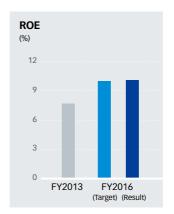
September 2017 Akihiro Nikkaku

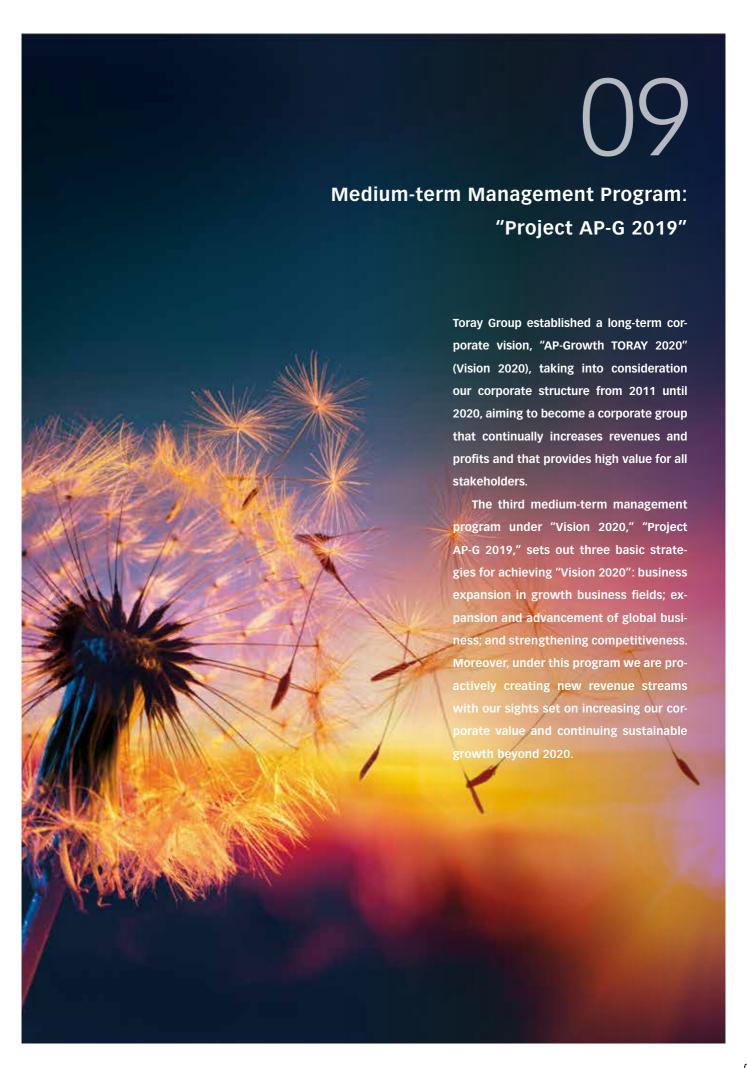
Akihiro Vikkden

#### Targets and Results of Medium-term Management Program: Project AP-G 2016











Innovation and Proactive Management—
To Achieve the "Vision 2020" Goals

#### **BASIC STRATEGIES**

**01** Business Expansion in Growth Business Fields

Contribute to resolving global environmental issues and energy and resources issues

**→** Expansion of Green Innovation Businesses

Please see pages 12-13

Target net sales in fiscal 2019:

¥900.0 billion

Improve quality of healthcare, ease burden on medical professionals, and contribute to health and longevity

Expansion of Life Innovation Businesses

Please see pages 14-15.

Target net sales in fiscal 2019:

¥270.0 billion

#### **KEY INITIATIVES**

**01** New Business Creation

Toray will create new businesses with revenues of

¥1 trillion in the 2020s.

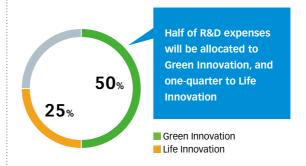
In order to make sources of earnings for the next growth stage, we will identify several large-scale themes that will lead to the creation of new business domains in the 2020s, and accelerate product development and business formation by allocating the resources selectively.

#### **02** R&D and Intellectual Property

Toray will invest a total of

¥220 billion in R&D

over three years from the start of fiscal 2017.



Financial Targets	FY2016 (Actual)
Net Sales	¥ <b>2,026.5</b> billion
Operating Income	¥ <b>146.9</b> billion
Operating Income to Net Sales	7.2%
ROA (Operating Income/Total Assets)	6.3%
ROE (Net Income/ Owners' Equity)	10.1%

(Target)
¥ <b>2,700.0</b> billion
¥ <b>250.0</b> billior
9%
about 9%

about **12**%

#### **Dividend Policy**

Aim for sustainable dividend increase linked to business performance

Guideline of D/E Ratio
Below 1

\*Exchange rate assumption: ¥100/US\$

02 Expansion and Advancement of Global Business

Expand business globally by capturing profit opportunities in growth countries and regions

Please see pages 16-17.

Target net sales in fiscal 2019:

¥1,500.0 billion

03 Strengthening Competitiveness

Pursue total cost reduction, and strengthen corporate structure, and sales and marketing

Please see page 18

Target cost reductions fiscal 2017-fiscal 2019:

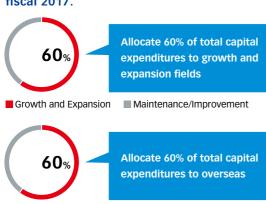
¥220 billion

#### **03** Capital Investment

Toray will make a total of

Overseas Japan

¥500 billion in capital investment in the three years from the start of fiscal 2017.



#### **04** M&A and Business Alliances

To increase and to complement growth of existing businesses, Toray will proactively utilize M&A and business alliances as means to adjust to the changing business environment and to attain sustainable growth.

#### **05** Human Resources

Toray will develop leaders at management level for the next generation, and secure and develop core human resources who will exhibit "strong operational competency" at the frontlines.

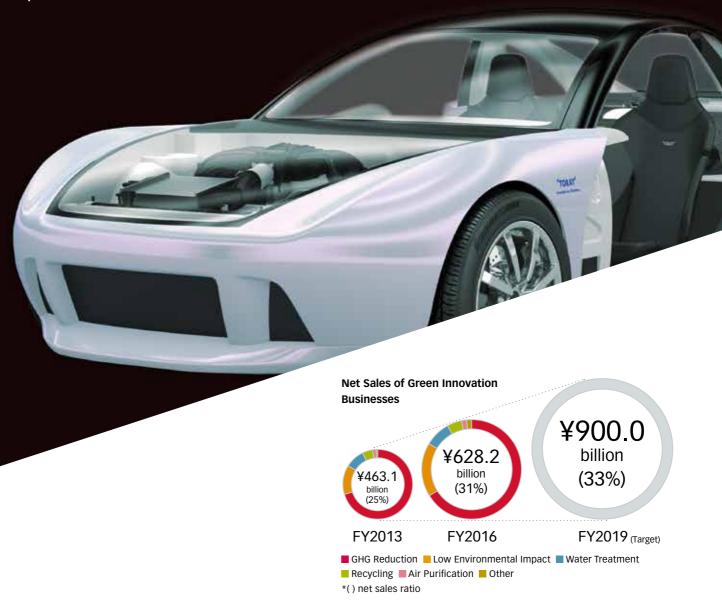
# 3 BASIC STRATEGIES 01

#### **Business Expansion in Growth Business Fields**

# **Expansion of Green Innovation Businesses**

Toray Group's Green Innovation businesses contribute to society by providing solutions to issues such as the global environment, energy and resources, as well as supporting the Group's sustainable growth. In this field, we are seizing various opportunities for business growth such as reducing greenhouse gas (GHG) emissions, decreasing environmental impact, water treatment, recycling, and air purification.

We will further expand our businesses in this field by prioritizing investment of business resources such as capital investment and R&D in existing large business themes. In the fields such as renewable energy and environmentally friendly vehicles we will contribute to solving social issues by creating and supplying advanced materials. As a result, we will achieve greater profits. Moreover, we will continue with our environmental management initiative of lifecycle management (LCM), which considers environmental impacts throughout the entire lifecycle of products and services.





#### **Main Business Fields**

#### **GHG Reduction**

Carbon fiber for aircraft, automobiles, wind-turbine blades, pressure vessels, etc.

Separators for lithium-ion secondary batteries

#### Low Environmental Impact

Non-halogen flame retardant material TORAY WATERLESS PLATE®

#### **Water Treatment**

Water treatment membranes such as RO, MBR, MF/UF membranes

Home water purifiers

#### Recycling

Regeneration-type recycling, circulation-type recycling Material, chemical recycling

#### Air Purification

Dust-collecting filters Air filters

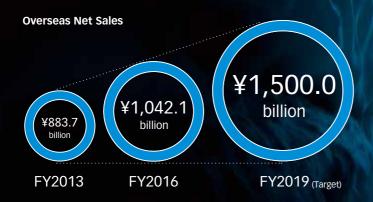






# **Expansion and Advancement of Global Business**

In the United States and Europe there is increasing demand for advanced materials in industries such as automotive and energy fields. Meanwhile, noticeable trends in China and other emerging countries are improvements in their standard of living associated with rising income levels and strengthening of environmental regulations. We will expand our business globally by capturing profit opportunities by foreseeing such trends in growth countries and regions.





# 3 BASIC STRATEGIES 03

## **Strengthening Competitiveness**

We will strengthen our competitiveness by pursuing total cost reduction, and strengthening our corporate structure, and sales and marketing.

We aim to reduce costs by a total of ¥220 billion in three years from fiscal 2017 under the current Medium-term Management Program, "Project AP-G 2019."

# PURSUE TOTAL COST REDUCTION, AND STRENGTHEN CORPORATE STRUCTURE AND SALES AND MARKETING

TOTAL COST

- Promote Total Cost Reduction (TC) Project on a group-wide basis
   Activities of variable cost reduction (annual target at over 3.6%)
- Control fixed costs through P-ratio\* accounting method (P-ratio of under 0.96 each fiscal year)
- For innovation of production process, identify themes by category in terms of "innovative cost reduction," "large-scale total cost reduction," and "capacity increase of existing facilities" to achieve reduction effects by more than ¥50 billion in three years
- \* P (Performance) ratio = fixed cost growth rate/marginal profit growth rate Target: less than 1.0 or monitored by division under budget

STRENGTHENING CORPORATE STRUCTURE

- Clarify issues of companies and businesses with profitability problems, and gather Toray Group's collective efforts to improve revenue and profit
  - → Options include reducing or withdrawing from businesses with limited growth potential or excessive competition
- Manage the Group's assets effectively and expand revenue and profit

STRENGTHENING SALES AND MARKETING

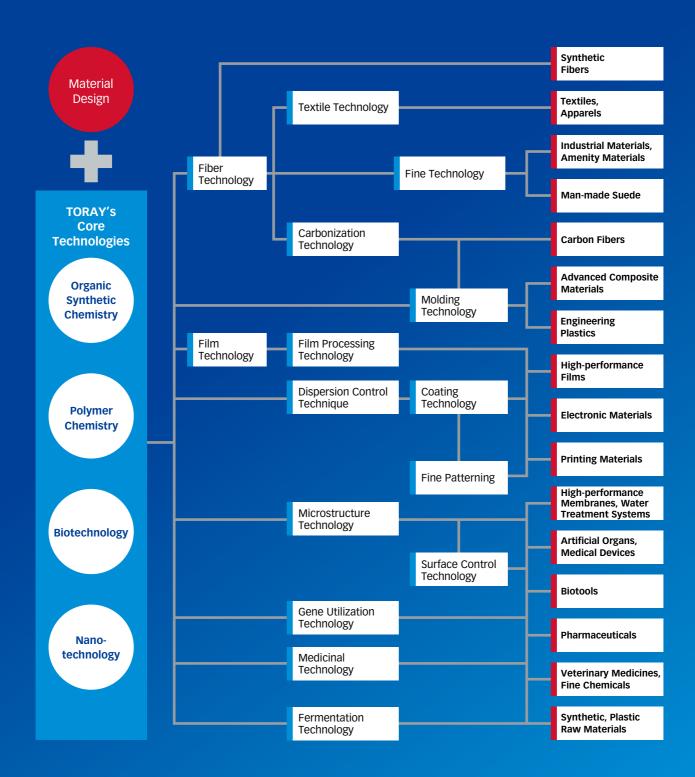
- Sales and marketing lead the way in building a profit-making system in cooperation with production, the technology and R&D departments, and external partners
- ► Maximize revenue and profit of existing businesses through improvement in price policies, distribution systems and brand initiatives

# **Founded on Technology and Knowledge** Since its founding, Toray has carried out R&D on advanced materials based on the firm conviction that "research and technical development provide the key to building the Toray of tomorrow." Materials have a low profile because they are hidden in the final product, but history attests to the fact that advanced materials have created next-generation industries. For example, the invention of synthetic polymers sparked the creation of numerous industries including today's synthetic fiber and plastic industries. Similarly, the discovery of semiconductors led to transistors, large-scale integrated circuits, and the modern IT industry. Today, a new aircraft industry is developing thanks to the advent of carbon fiber composite materials. Without technological and materials innovation, we cannot solve essential problems. We at Toray will continue creating innovative materials that help solve many of the world's social and economic challenges.

#### Toray's Technical Fields

#### **Fusing Core Technologies to Develop Advanced Materials**

Toray Group's core technologies are "organic synthetic chemistry," "polymer chemistry," "biotechnology" and "nanotechnology." Based on these, we are working toward greater depth and fusion of fundamental technologies such as polymerization, yarn-making, fibers application processing, film processing, and organic synthesis, while expanding our operations from fibers and textiles to films, chemicals, and plastic resins. We are also creating advanced materials and developing businesses in the fields of electronics & information materials, carbon fiber composite materials, pharmaceuticals, medical devices, and water treatment.





#### Fiscal 2016 Topics

# **Development of TORAYCA® Prepreg** for Next-generation Aerospace Applications

We at Toray have developed the world's highest performance prepreg (resin-impregnated carbon fiber sheet), TORAYCA®, which has 30% improved tensile strength and impact resistance compared with conventional materials, for next-generation aerospace applications. Toray has been supplying the aerospace industry with high-performance TORAYCA® 3900 series prepregs, particularly for primary aircraft structures, for more than 20 years. We have now developed a high-performance thermosetting matrix resin series, including the 3940 matrix resin, which solves a difficult trade-off problem and combines a high level of elasticity and toughness. A new composite material of this matrix resin and the world's highest strength carbon fiber, TORAYCA® T1100G provides an improved tensile strength and impact resistance of 30% over conventional materials, and greatly improves the mechanical properties such as compression strength and peel resistance. Depending on the type of application, there is a possible weight reduction of up to 20%. This is expected to further improve the efficiency and reliability of aircraft parts such as the main wing, fuselage and engine parts.

#### Technological Demonstration of Cellulosic Sugar-manufacturing System Using Membranes

Toray, in a joint venture with Mitsui Sugar Co., Ltd., has started a technological demonstration to manufacture cellulosic sugar—a raw material used for producing various biochemical products—from the bagasse (sugar cane biowaste) generated at sugar mills in Thailand. The technological demonstration is part of the research and technical development of a bioprocess using membranes that combines Toray's water treatment membrane and biotechnologies. The bioprocess using membranes is a technology enabling the production of high quality, low cost cellulosic sugar from inedible biomass. It also saves 50% energy in manufacturing by using water treatment membranes in the saccharification and refining processes.

## Commencement of Clinical Trial of Cancer Drug in the United States

Toray was allowed by the United States Food and Drug Administration (FDA) in February 2017 to commence a Phase I clinical trial of TRK-950, a therapeutic agent for solid cancer, the first such trial to be originated by Toray. TRK-950 is a monoclonal antibody preparation that recognizes and attacks cancer cells. Currently, we are promoting its global clinical development, including in Europe and the United States, seeking prompt marketing approval of a first-in-class cancer treatment drug.

#### **R&D Achievements by Segment**

#### Fibers & Textiles

We at Toray have developed a polyester textile, which is moderately bulky and stretchable with a smooth and flexible texture characteristic of ultra-fine micro-crimped fibers, using our innovative composite spinning technology NANODESIGN®. We are also working on product development of hitoe®, a functional material for vital signs monitoring, and have started a service for protecting workers by continually monitoring the biological information of the wearer.

#### **Plastics & Chemicals**

We have made a world-first innovation by developing a supertough polyamide material that is difficult to break, even under impact, and maintains its strength and rigidity. We achieved this by incorporating a movable cross-link structure in which the molecular bond can slide, enabling it to disperse applied force at the molecular level. Moreover, we have obtained approval to manufacture and market DORNER® to treat feline chronic kidney disease. This drug is the first of its kind in Japan and was developed utilizing much accumulated basic and clinical data for DORNER®.

#### **IT-related Products**

Toray has developed a waterless UV printing system using water-soluble inks, a very eco-friendly approach to printing as it uses no volatile organic solvents. The system is made possible through the use of a newly designed hydrophilic polymer and TORAY waterless plates. We also have been awarded the 63rd Okochi Memorial Production Prize (fiscal 2016) by the Okochi Memorial Foundation for our photosensitive polyimide for the insulating layer in an organic electro luminescence display.

#### **Carbon Fiber Composite Materials**

We have developed the world's highest performance TORAYCA® prepreg. We were awarded the 65th CSJ Award for Technical Development (fiscal 2016) by the Chemical Society of Japan for development of high performance CFRP with the use of epoxy resin NANOALLOY® technology applying reaction-induced phase separation.

#### **Environment & Engineering**

Toray, in collaboration with the University of Tokyo Institute for Solid State Physics, shed new light on water mobility in reverse osmosis (RO) membrane pores. This has opened the way for developing innovative energy saving RO membranes. Moreover, our development of highly functional RO membranes was awarded both the Minister of Economy, Trade and Industry Award and the Minister of the Environment Award at the 15<sup>th</sup> Green Sustainable Chemistry (GSC) Awards.

#### **Life Science**

Toray has commenced a Phase I clinical trial of TRK-950, a therapeutic agent for solid cancer, in the United States. In Japan, we have obtained manufacturing and marketing approval for OD tablets as an additional orally disintegrating tablet formulation of REMITCH® CAPSULES 2.5 µg, used for treating pruritus in hemodialysis and chronic liver disease patients.

- REMITCH® is a registered trademark of Torii Pharmaceutical Co., Ltd.

#### Research and Development Framework

#### **Technology Center: Our Headquarters for R&D**

The Technology Center is the headquarters for all of our research and technical development capabilities at Toray Group, and it serves as our international headquarters for R&D. By having so many experts from so many fields in one undivided R&D organization, the fusion of technologies gives birth to new technologies, and we can solve an issue in one business field by applying the entirety of our technical expertise from a range of fields. Moreover, we are building a framework to enable various advanced materials and technologies created for use in one field to be rapidly applied to other fields.

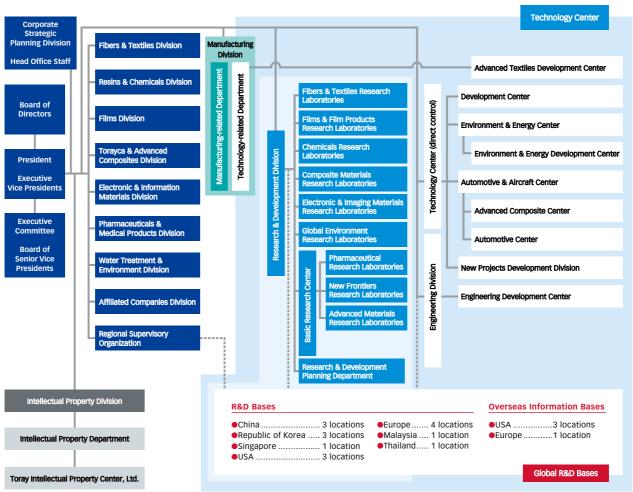
#### **Promoting Open Innovation**

We are promoting open innovation in collaboration with customers, business partners and external organizations at our Automotive & Aircraft Center, our base for developing advanced materials for automotive and aircraft application, and at our Environment & Energy Center, which is an organization for technological collaboration in the environmental and energy fields.

Our center for life innovations is our Life Innovation Business Strategic Planning Department, with offices in Kobe, Hyogo Prefecture, Japan and Minnesota, U.S. It works closely with the Technology Center and with domestic and international medical institutions, laboratories and medical equipment companies.



#### **Toray Group R&D Framework**



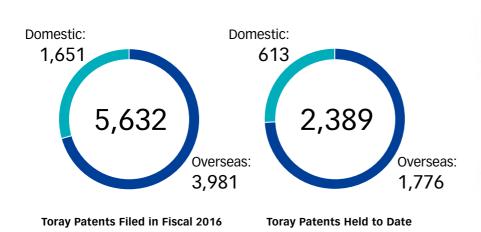
(As of June 2017)

#### **Intellectual Property**

The Toray Group recognizes intellectual property as an important management resource. Our intellectual property strategy takes a trilateral approach, organically coordinating with our R&D strategies and business strategies. While continuing to create innovative new materials and technologies, Toray Group will promote intellectual property strategies consisting of the four points below in order to build barriers to entry that will protect the results of our R&D and firmly maintain our technological advantages.

- 1. Further enhance the quality of patents
- 2. Construct a globally competitive patent portfolio
- 3. Protect the Company's technical advantages with effective measures including strategic patent applications
- 4. Cultivate personnel with deep knowledge of overseas intellectual property

Toray Group is currently stepping up patent applications and rights acquisitions and constructing a strong patent portfolio with a priority in the growth areas of the "Project AP-G 2019" medium-term management program's Green Innovation Business Expansion (GR) Project and Life Innovation Business Expansion (LI) Project. Moreover, with an aim of expanding and advancing our business globally, Toray Group is formulating and pursuing intellectual property strategies correlated with the business strategies and R&D strategies we are implementing globally with a focus on growth countries and regions.

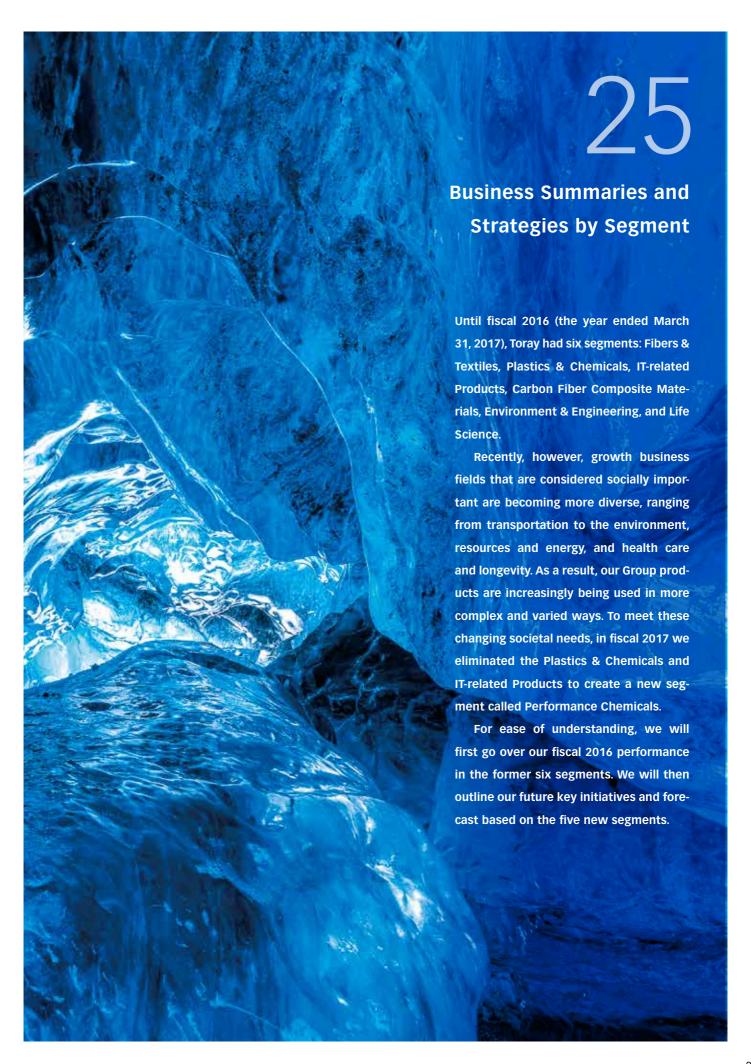


Toray publishes an annual Intellectual Property Report describing the intellectual property initiatives by the Toray Group.

#### The report is available for download at:

→ http://www.toray.com/ir/library/lib\_005.html







			(Billions of yell)
Years ended March 31	2015	2016	2017
Net sales	856.7	892.0	856.1
Operating income	55.6	68.9	66.8
Assets	705.5	680.9	722.1
Operating income to net sales	6.5%	7.7%	7.8%
ROA (Operating income/Assets)	8.4%	9.9%	9.2%
Capital expenditures	37.0	35.4	41.1

#### Results

In Japan, demand for apparel and industrial applications remained weak. Against this background, Toray Group strived to expand sales on the whole and worked to improve profitability by upgrading the business primarily through promotion of a business format that integrates fibers to textiles to final products and improving profitability through cost reduction. Overseas, mainly in apparel applications, business performance of some subsidiaries in Southeast Asia and other regions were affected by a slowdown in final demand in Europe and China. On the other hand, materials for automotive applications and hygiene products remained strong in general.

As a result, overall sales of Fibers & Textiles segment declined 4.0% to ¥856.1 billion from the previous year and operating income fell 3.1% to ¥66.8 billion.

**Toray to Start Airbag Nylon Fiber and Fabric Business in Mexico** 

Toray has decided to start an automobile airbag nylon fiber and fabric business at our Mexican subsidiary, Toray Advanced Textile Mexico, S.A. de C.V. (TAMX), TAMX will introduce production facilities with annual production capacity of about 10,000 tons of nylon fibers and fabrics for airbags by investing approximately ¥10 billion. Operations are set to begin in March 2018. Demand for airbag fabrics in the Americas is expected to continue growing significantly. This is creating increased demand for production of those fabrics in Mexico.

The establishment of the new production base in Mexico is in response to such growing demand by building an integrated production system for yarn to fabric in the Americas, which is one of the most prominent airbag fabric markets in the world, and capture the robust demand for airbag fabric around the world including in Asia and Europe.

**Toray to Enhance Production Capacity of High-performance Polypropylene Spunbond** Nonwoven Fabric in Republic of Korea

Toray has decided to enhance the production capacity of its highperformance polypropylene spunbond for hygiene products at Toray Advanced Materials Korea Inc. (TAK), which is Toray's Korean subsidiary. TAK will build an additional facility—to start operations in April 2018—with a production capacity of approximately 18,000 tons per year.

Demand for disposable diapers has been rapidly increasing in ASEAN member countries, India, and China, and major hygiene products manufacturers have been successively declaring plans to expand plants producing products for these countries. Accordingly, demand for PP spunbond, the main raw material of disposable diapers, is expected to grow, and there could be shortages in supply. Toray's PP spunbond is currently sold widely throughout Asia. The PP spunbond production facility being added at P.T. Toray Polytech Jakarta (TPJ) started operation in September 2016. Toray will continue to expand its business in emerging markets such as rapidly growing China, India, and ASEAN countries.

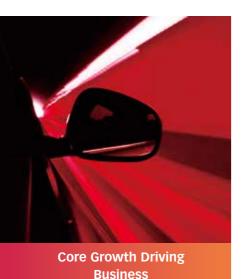
**Toray's Italian Subsidiary** to Enhance Production Capacity of Alcantara®

(Rillians of yen)

Toray has decided to increase production of luxury material Alcantara® at Alcantara S.p.A. The company plans to invest approximately ¥35 billion in a phased manner over the next five years, in response to the trend in demand, to roughly double the current production capacity.

Alcantara® has been adopted as automobile interior material primarily in luxury models due to its global brand recognition and a varied product lineup. Demand for use in electric vehicles is also expanding. Demand for Alcantara® is not limited to automobile interior application, with growing new demand for it as a material to decorate consumer electronics devices such as PCs and headphones. which is expected to lead to a shortfall in production capacity of the material in 2019. The decision to enhance production is in response to such robust demand.





**Plastics & Chemicals** 

			(billions of yell)
Years ended March 31	2015	2016	2017
Net sales	496.4	521.2	499.1
Operating income	23.9	29.4	33.8
Assets	562.1	524.6	542.0
Operating income to net sales	4.8%	5.6%	6.8%
ROA (Operating income/Assets)	4.5%	5.4%	6.2%
Capital expenditures	21.5	31.2	25.1

#### Results

In the resin business, shipment for automotive applications was strong in general, both in Japan and overseas. Besides automotive applications, Toray Group also promoted sales expansion of ABS and PPS resins. In the film business, while overseas demand for some applications in the U.S. and Europe was sluggish, the Group made efforts to expand sales of high value-added products in Asia and other regions, and the products for packaging applications performed strongly in Japan. Toray Group, despite many of the business's products being affected by price competition in Japan and abroad, strived to improve profitability of the business by focusing on sales expansion of high value-added products as well as on cost reduction.

As a result, overall sales of Plastics & Chemicals segment declined 4.2% to ¥499.1 billion from the previous year while operating income increased 15.0% to ¥33.8 billion.

#### Toray is Now the World's Largest PPS Resin Manufacturer

In July 2016, we held the completion ceremony for a new plant that produces polyphenylene sulfide (PPS) resin TORELINA® at our wholly owned Korean subsidiary Toray Advanced Materials Korea Inc. Moreover, by manufacturing sodium hydrogen sulfide (NaSH) and paradichlorobenzene (p-DCB), the two main raw materials for manufacturing PPS resin at the same plant, Toray intends to make it a cost competitive integrated manufacturing base producing everything from raw materials and polymers to compounds. The plant has a capacity to produce 8,600 tons of PPS resin annually, which, with our existing Tokai plant, will boost our annual production capacity of PPS resin to 27,600 tons.

Toray Group is a comprehensive PPS manufacturer, which offers PPS not only as compounds but also as films and fibers, and is the largest player in the field. With the establishment of the new production facility announced this time, the Group will pursue expansion of its compounds lineup into high-performance and environmentally friendly products, whose demand is expected to grow in the future, and further enhance its position as the world's numberone in the PPS resin field.

#### Toray to Increase Production Capacity of TORAYPEF® Polyolefin Foam at U.S. Subsidiary

We have decided to increase our production capacity of TORAY-PEF® polyolefin foam manufactured at our subsidiary, Toray Plastics (America), Inc. (TPA), in Rhode Island, TORAYPEF® is a polyolefin foam developed using Toray's proprietary manufacturing method with a wide range of uses including for automobile interiors, as insulation for consumer electronics, and as cushioning material for housing and civil engineering applications due to its excellent moldability, heat insulation, cushioning and moisturebarrier properties. We are investing about ¥4.0 billion to add a manufacturing facility with an annual production capacity of 3,000 tons, which will become operational in early 2018. With this, our total TORAYPEF® production capacity at TPA will increase significantly to 7,500 tons a year.

#### Veterinary Drug to Treat Chronic Kidney Disease in Cats Approved for Manufacture and Sale

Toray's new veterinary drug to treat chronic kidney disease in cats, RAPROS™, an oral prostacyclin (PGI<sub>2</sub>), attained approval for manufacture and sale on January 13, 2017, Kvoritsu Seivaku Corporation started sales in April this year. RAPROS™ is an oral prostacyclin (PGI<sub>2</sub>), with beraprost sodium as its active ingredient. It works to protect vascular endothelial cells. to widen blood vessels, to inhibit inflammatory cytokine production and has an antiplatelet effect. These pharmacological actions are thought to improve the ischemia and hypoxia of the kidney, and to help limit the deterioration in kidnev function and to improve clinical symptoms.

RAPROS™ is the first drug approved in Japan clinically proven to help limit the deterioration of kidney function. We believe this paves the way to provide encouraging treatment options for cats. We at Toray will continue to respond to veterinarians' unmet medical needs in caring for animals by developing new drugs.

TOPICS



**IT-related Products** 

			(Billions of yell)
Years ended March 31	2015	2016	2017
Net sales	248.0	251.1	254.4
Operating income	24.5	26.2	30.5
Assets	360.4	362.9	384.8
Operating income to net sales	9.9%	10.4%	12.0%
ROA (Operating income/Assets)	6.8%	7.2%	7.9%
Capital expenditures	16.3	29.8	32.4

#### Results

Among materials for flat panel displays, smartphone- and tablet terminal-related materials performed strongly with shipments for organic EL applications growing. Shipment of battery separator films for lithium-ion secondary batteries expanded reflecting demand growth. While many of the business's applications were affected by price competition, Toray Group strived to improve profitability of the business by focusing on sales expansion of high value-added products as well as on cost reduction.

As a result, overall sales of IT-related Products segment increased 1.3% to ¥254.4 billion from the previous year and operating income rose 16.7% to ¥30.5 billion.

# )PICS

Strengthening Group Structure for Separators for Lithium-ion Secondary Batteries

Toray decided to absorb Toray Battery Separator Film Co., Ltd. (Toray BSF), a wholly owned consolidated subsidiary that manufactures and markets separators for lithium-ion secondary batteries (LIB), effective April 1, 2017. In the LIB market, the business environment is significantly changing as the demand for electric vehicles is expected to grow rapidly in addition to the existing consumer electronics applications, which makes it even more important to have the ability to quickly respond to the growth and sophistication of functions of separators for LIB. Based on the recognition of these trends, Toray decided to absorb Toray BSF to strengthen the foundation of our Group structure to appropriately respond to the LIB separator business.

Toray's Printing-type CNT Semiconductor Achieves World's Highest Level of Carrier Mobility

In the field of semiconductor single-walled carbon nanotubes (CNTs), Toray's printing-type semiconductor achieved the world's highest level of carrier mobility (an index of mobility of carriers. such as electron holes and electrons, within the semiconductor) of 81 cm<sup>2</sup>/Vs. With this result, we became the world's first to show that it is possible to use printing technology to manufacture at low cost highly functional devices such as ultra-high frequency radio-frequency identification (UHF RFID) tags, IC tags with a long transmission distance, that are arguably vital in the IoT era.

Toray Develops World's First UV Printing System Free of Organic Solvents

Toray has developed a waterless UV printing system using watersoluble inks, an extremely ecofriendly approach to printing as it uses no volatile organic solvents. The system is made possible through the use of Toray's newly developed hydrophilic polymer and TORAY WATERLESS PLATE®. The developed waterless UV offset printing system can be cleaned with a water-based cleaning agent—as it contains no volatile organic solvents and the inks used are water soluble—thus reducing emissions and use of volatile organic solvents generated in the printing process. Furthermore, printing conditions such as temperature are greatly improved, significantly reducing generation of volatile organic compounds (VOCs).



TORAY WATERLESS PLATE®



**Composite Materials** 

(Rillions of ven) Years ended March 31 2015 2016 2017 158.4 186.2 Net sales 161.6 Operating income 26.2 36.1 24.0 Assets 429.5 461.0 436.8 Operating income to net sales 16.6% 19.4% 14.8% ROA (Operating income/Assets) 6.7% 8.3% 5.2% Capital expenditures 45.5 32.1 46.5

#### Results

In the Carbon Fiber Composite Materials segment, while the final demand for aircraft was strong, demand for carbon fiber intermediate products (prepreg) remained on a weak note, reflecting the inventory adjustment in the supply chain. Demand of products for compressed natural gas tank applications was slow due to the impact of the decline in crude oil prices. Meanwhile, shipment for wind turbine blade applications expanded on the back of growing demand.

As a result, overall sales of Carbon Fiber Composite Materials segment declined 13.2% to  $\pm$ 161.6 billion from the previous year and operating income fell 33.6% to  $\pm$ 24.0 billion.

TOPICS

Toray to Enhance Production Facilities of Large Tow Carbon Fiber

Toray has decided to enhance the production facilities for large tow carbon fiber at Zoltek Companies, Inc. By the end of 2017, Zoltek will begin increasing production capacity and will continue to do so until capacity at the Mexico plant is doubled to more than 10,000 tons per year. With this expansion, Zoltek's total global production capacity will grow to more than 20,000 tons per year from the current 15,000 tons.

This capacity expansion is a key move, as the demand for large tow carbon fiber is growing rapidly for industrial applications including wind turbine blades, and the industry is already experiencing a supply shortage, especially in Asia, led by China and India. While the current expansion in production capacity will address this surge in demand in the short term, usage of large tow carbon fiber is expected to increase exponentially in automobile structures in the future. In order to respond to this active demand, Toray plans to continue expanding carbon fiber production capacities at Zoltek and to establish a stable supply structure.

Toray to Establish Large-scale Production Facility for Fuel Cell Electrode Substrates at its Ehime Plant in Japan

Toray has decided to develop a new large-scale production facility at our Ehime Plant, Japan, for manufacturing carbon paper for the electrode substrates of fuel cell stacks. With a planned completion date of May 2018, we will build a cutting-edge facility—approximately five times the capacity of our current Shiga Plant—to efficiently produce carbon paper.

Toray's carbon paper for electrode substrates of fuel cell stacks has now been consecutively adopted for the fuel cell vehicle MIRAI, by Toyota Motor Corporation, and for the fuel cell vehicle CLARITY FUEL CELL, by Honda Motor Co., Ltd. Fuel cell vehicles are the ultimate in environmentally friendly driving, emitting no carbon dioxide, and mark a huge step towards building a hydrogen-based society. Currently, Japanese vehicle manufacturers are starting serious development of next-generation models. Moreover, demand for other applications, such as forklifts, is expected to increase. Therefore, we decided it was necessary to dramatically expand production capacity.



**Environment & Engineering** 

			(Billions of yen)
Years ended March 31	2015	2016	2017
Net sales	180.0	183.3	186.1
Operating income	8.0	9.6	9.9
Assets	204.2	193.8	204.3
Operating income to net sales	4.5%	5.2%	5.3%
ROA (Operating income/Assets)	3.9%	4.8%	4.8%
Capital expenditures	3.3	3.6	4.5

#### Results

In the water treatment business, although Toray Group continued to work on sales expansion of reverse osmosis membranes and other products, exports from Japan were affected by the further appreciation of the yen. Among domestic subsidiaries in the segment, pharmaceuticals-related plant construction and lithium-ion secondary battery-related machinery at an engineering subsidiary performed strongly.

As a result, overall sales of Environment & Engineering segment increased 1.5% to ¥186.1 billion from the previous year and operating income rose 3.3% to ¥9.9 billion.

#### **Toray Establishes New Company to Manufacture** and Sell Water Treatment Membranes in China

In June 2016, Toray established a new company, Toray WBD Membrane Technology (JS) Co., Ltd. (TWMT), in a joint venture with Jiangsu Water Business Doctor Environmental Technology Co., Ltd., a leading engineering company in the industrial wastewater field in China. TWMT plans to manufacture and sell water treatment membranes for use in membrane bioreactor (MBR) systems and rapidly expand its presence in the Chinese market with its proprietary membrane, MEMBRAY®.

Demand for MBRs for wastewater recycling is expected to increase in China on the back of tightening regulations for water quality and demand for use in solving water shortages—both byproducts of industrial development. Toray's water treatment membranes are the core of our Green Innovation business. We will continue to target large-scale orders for projects using our MEMBRAY® MBR membrane. In addition, we will accumulate further sales for our membranes that hold top-level market shares, namely our reverse osmosis membrane ROMEMBRA® and our UF membrane TORAYFIL®, which is used for applications such as treating river water.

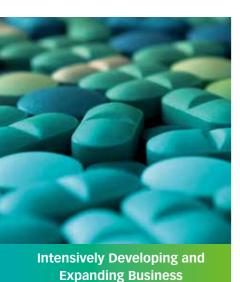
#### **Toray Celebrates** 30th Anniversary of **Household Water Purifier TORAYVINO®**

Toray's line of household water purifiers, TORAYVINO®, which reached its 30th anniversary this fiscal year since debuting in 1986 as a counter top water purifier, has expanded to meet the changing needs and lifestyles of customers to include faucet mounted and under-the-sink water purifiers, and pitchers and dechlorinating shower heads. In 2014, the line boasted total cumulative sales of 100 million units and filter cartridges. We will continue to provide delicious and safe water for everyone's family as the leading household water purifier manu-



Faucet mounted TORAYVINO®

#### 30



**Life Science** 

			(Billions of yell)
Years ended March 31	2015	2016	2017
Net sales	57.0	55.8	54.2
Operating income	4.1	3.1	2.1
Assets	82.9	83.3	79.7
Operating income to net sales	7.1%	5.5%	4.0%
ROA (Operating income/Assets)	5.1%	3.7%	2.7%
Capital expenditures	2.5	3.2	3.4

#### Results

In the pharmaceutical business, sales volume of pruritus treatment REMITCH® grew solidly, as the product received approval for an additional indication in 2015, while it was affected by the National Health Insurance drug price revision in April 2016. Shipment of natural-type interferon beta preparation FERON® and orally active prostacyclin derivative DORNER® remained sluggish due to the impact of alternative medicines and their generic drugs. In the medical devices business, shipment of dialyzers grew strongly in Japan and overseas.

As a result, overall sales of Life Science segment declined 3.0% to ¥54.2 billion from the previous year and operating income fell 30.0% to ¥2.1 billion.

### Toray Expands Range of Pruritus Treatment REMITCH®

In March 2017, Toray received approval to manufacture and market a new dosage form of REMITCH® CAPSULES 2.5 µg, an orally disintegrating tablet formulation (REMITCH® OD Tablets 2.5 µg). These new tablets can be taken with or without water. Therefore, it is expected to expand the options available to patients whose swallowing capabilities have deteriorated, such as the elderly, or those who have restrictions on water intake.

Also, in September 2016, we filed an additional indication of efficacy for REMITCH® CAPSULES 2.5 µg to treat pruritus (use only when sufficient efficacy is not obtained with the existing therapies or treatments) in peritoneal dialysis patients in Japan. By obtaining this indication—adding another option to available treatments—we expect to be able to greatly contribute to the treatment of pruritus in peritoneal dialysis patients.

#### Full-scale Release of New Dialysis Machine TC-R

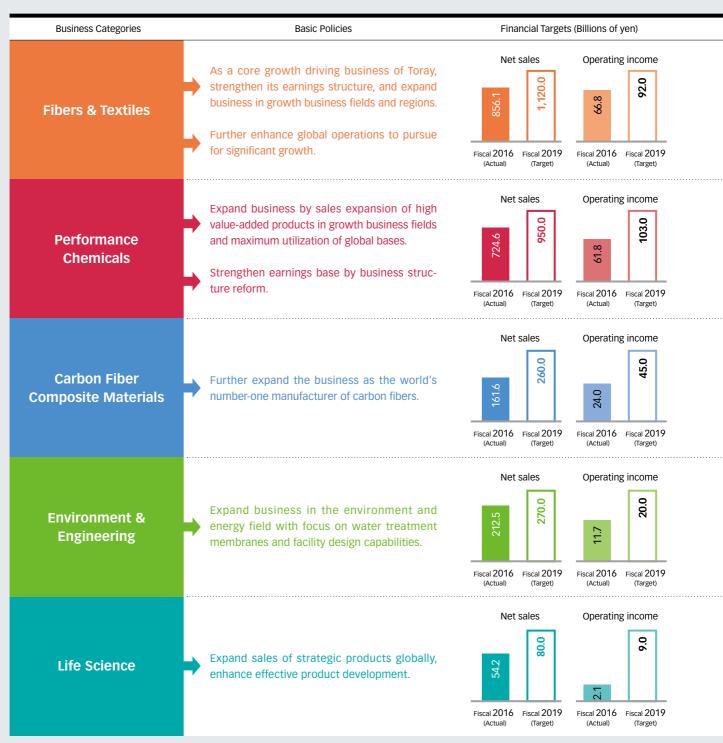
Toray has begun full-scale sale of its multi-patient dialysis machine TC-R in June 2016. TC-R achieves a new level in safety and comfort for dialysis treatments, meeting the high requirements of the medical industry for safety, dependability, operability, workability, functionality and cleaning of dialysate. Compared to previous Toray dialysate adjustment and supply capabilities, as well as dialysate cleaning capacity through its endotoxin retentive filter (ETRF).



TC-R

<sup>-</sup> REMITCH® is a registered trademark of Torii Pharmaceutical Co., Ltd.

The new segments, which apply from fiscal 2017, are categorized as follows. Fibers & Textiles is a Core Growth Driving Business. Newly created Performance Chemicals, which eliminated the former Plastics & Chemicals and IT-related Products, and Carbon Fiber Composite Materials are Strategically Expanding Businesses, while Environment & Engineering and Life Science are Intensively Developing and Expanding Businesses. Under this new five segment structure we will aim to sustainably grow revenue in each business. Moreover, while Performance Chemicals is basically a Strategically Expanding Business, chemicals and some resin products are Core Growth Driving Businesses.



Note: Fiscal 2016 results have been restated to conform with new segments.

Segment Changes

Business Categories	Former Segment	New Segments (from fiscal 2017)	
Core Growth Driving	Fibers & Textiles	Fibers & Textiles	
Businesses	Plastics & Chemicals	Performance Chemicals	
Strategically	IT-related Products	Performance Chemicals	
Expanding Businesses	Carbon Fiber Composite Materials	Carbon Fiber Composite Materials	
Intensively Developing and Expanding	Environment & Engineering	Environment & Engineering	
Businesses	Life Science	Life Science	

Basic Strategies Main Products

- Maintain and reinforce domestic business foundation and processing platform, and further strengthen business competitiveness
- Reinforce business foundation of its existing operations at overseas locations, and expand business in growth business fields and regions
- Strengthen Toray Group's global operations and create new business areas by developing and expanding business on multiple levels combining its strengths in diverse product lines, supply chain, and global sales
- Aim to achieve significant growth by the global fibers/textiles/final products integrated business format and SCM, reinforce value chain of strategic products, and expand new business areas

Filament yarns, staple fibers spun yarns, woven and knitted fabrics of nylon, polyester, acrylics and others; non-woven fabrics; ultramicrofiber non-woven fabric with suede texture; apparel products

#### **Resins, Chemicals Business**

 Allocate management resources and promote business expansion in growing businesses including PPS resin, resin compounds overseas and automotive materials

#### Films Business

- Invest in lithium-ion battery separator films and promote sales expansion through product development
- Reorganize manufacturing of PET film, increase value of existing products by utilizing global operations, and enhance sales expansion

#### **Electronic & Information Materials Business**

Expand sales of organic EL-related materials and accelerate technology development and commercialization
of products beyond the LCD display field

Resins and molded products, polyolefin foam, films and processed film products, raw materials for synthetic fibers and plastics, fine chemicals, veterinary medicine, electronic & information materials, graphic materials, etc.

#### Aerospace Applications

- Further strengthen existing partnerships
- Capture new programs

#### **Industrial Applications**

- Reinforce the overwhelming top position in the market by leveraging comprehensive strength with lineups of regular tow and large tow products
- Reinforce the overwhelming top position in the wind-turbine application market through strengthening alliances with major customers, supported by the cost competitiveness in large tow products
- Develop intermediate products/molding technology and enhance the supply chain to meet the full-scale expansion of demand for automotive applications

Carbon fibers, carbon fiber composite materials, and molded products from those materials

#### Water Treatment Business

- Expand business and improve revenue and profit in the membrane business
- Enhance new development of reverse osmosis membrane products and strengthen cost competitiveness
- Expand sales of UF membranes in China and the USA
- Strengthen business foundation in the water treatment system and plant business

#### **Engineering Business**

- Expand plant business and industrial machinery (in the environment and energy fields, and life science field)
- Make use of external resources in growth areas
- Strengthen cost competitiveness
- Accelerate overseas expansion

#### Pharmaceutical Business

- Expand sales of oral antipruritus drug, REMITCH®
- Create next-generation drug with new process
- Adjust management system associated with downsizing of existing pharmaceutical business

#### **Medical Devices Business**

- Expand sales of emergency and intensive care products
- Develop dialyzer products and expand sales in Japan and overseas
- Enhance expansion of bio-tools
- REMITCH® is a registered trademark of Torii Pharmaceutical Co., Ltd.

Comprehensive engineering; condominiums; industrial equipment and machinery; environment-related equipment; water treatment membranes and related equipment; materials for housing, building and civil engineering applications

Pharmaceuticals; medical devices

# **Sustainable Management System** We at Toray Group believe a company is a public institution for the public good. Therefore, we run our business based on a long-term perspective. The word "Chemistry" in our corporate slogan "Innovation by Chemistry" has two meanings. The obvious one is the science that forms the basis for the advanced materials that we supply. The other is rapport. We will work to realize a sustainable society by maintaining good rapport and cooperation with everyone involved with Toray—customers, employees, stockholders, business partners, and people in the local community. It is our mission to create a global group with high inherent value that is ready to take on global social issues related to our environment, resources and energy. Principal SRI indexes in which Toray is included DJSI Asia Pacific MSCI ESG Indexes • Ethibel Pioneer & Excellence Registers Morningstar Socially Responsible **Investment Index** • Euronext Vigeo World 120 Index SNAM Sustainability Indices (as of March 31, 2017)

#### **Sustainable Management System**

#### Toray Group's Sustainability

# Contributing to a Sustainable Society

The world is facing increasing challenges. We believe it is our public duty to help address social issues, such as increasing global warming, food and water scarcity due to population increases, sustainability of resources and energy, and uncertainty over security and health.

As the foundation of products, materials have the power to bring about fundamental transformations in society. We believe we can help realize a sustainable society and fulfill our social responsibilities in a way that is only possible for Toray: by producing original materials that bring new value to the world. This is based on our corporate philosophy of "contributing to society through the creation of new value with innovative ideas, technologies and products."

#### Social Role as a Manufacturer of Advanced Materials

Toray's carbon fiber composite materials are making aircraft and automobiles lighter. This is helping to drastically reduce CO<sub>2</sub> emissions and bringing low-carbon societies closer to becoming a reality. Toray's advanced materials can also make a major contribution to the renewable energy field, such as carbon fiber for wind turbine blades and battery separator films for lithium-ion secondary batteries.

To realize a recycling-oriented society we must overcome water resource issues. Our membrane separation technology, developed over many years, can help resolve water scarcity by enabling seawater desalination and wastewater treatment.

We are pushing forward with research and development to improve so-

ciety's health and welfare. We will thus maximize the utilization of our advanced materials and core technologies to wrestle with the rising costs of medical care and ageing populations.

Our role as a basic materials manufacturer is to constantly develop innovative materials for society. This will also drive our sustainable growth.

# Achieving Sustainable Corporate Growth

At Toray we want to grow sustainably and make significant progress with our advanced materials globally under our longterm corporate vision, "AP-Growth TORAY 2020" (Vision 2020). We have established a new medium-term management program, "Project AP-G 2019," starting in fiscal 2017 (year ending March 2018), as the third stage in achieving this long-term vision. One of the basic strategies of this is business expansion in growth business fields. Under this we are working on two group-wide projects, Green Innovation Business Expansion (GR) Project and Life Innovation Business Expansion (LI) Project. Through these we are working to solve critical issues relating to the global environment, resources, and energy, as well as to enhance the quality of medical care and contribute to health and longevity.

Sustainable growth is essential for a company to survive for more than a century. Numerous factors are needed to maintain sustainable growth. We must develop diverse human resources and partnerships, domestically and abroad, and maintain a competitive advantage based on proprietary technological capabilities and intellectual property strategies. It is also vital we, as members of society, maintain good relations with all stakeholders.

We, at Toray Group, will achieve sus-

tainable growth founded on principles. As a materials manufacturer, we will manage our Group based on trustworthiness, fairness, and transparency, while always maintaining thorough product safety and quality, and safety, accident prevention, and environmental preservation. This is because we believe that we are a public institution with a duty to make valuable contributions to society and the public good.

#### **Sustainable Management System**

Stakeholder Engagement

Toray Group has established Basic Policies to Promote Dialogue with Stakeholders. We are proactively communicating with various stakeholders in all aspects of our corporate activities.

## **Engaging with Shareholders and Investors**

The Group actively communicates with institutional investors and securities company analysts by providing information materials when requested and holding same-day results briefings when quarterly earnings are announced. The Group also provides a wide variety of information about management policy and strategy as well as financial and earnings information through its annual report, IR materials, and information pages on its website for stockholders and investors. In fiscal 2016, Toray held four results briefings and held 646 meetings with investors and analysts.

#### **Engaging with Customers**

Toray believes that the customer comes first. We closely communicate with our customers, mainly through our sales departments, and periodically conduct customer satisfaction surveys. The results of these surveys are shared internally at Board meetings and through inhouse newsletters as we strive to provide even higher quality customer service.

# **Engaging with Business Partners**

While providing materials and products as a manufacturer of advanced materials, Toray Group must engage in upstream management of its supply chains to better fulfill the needs of its customers, including the areas of production facilities and procured raw materials and resources. Accordingly, the Group has established its Basic Purchasing Policies to emphasize this approach and ensure fair purchasing practices.

Toray's Basic Distribution Policies emphasize environmental preservation and continuous work to improve quality and reduce environmental impact from transportation, together with fair and equitable transactions. Together with our business partners we are working toward more secure supply chain management.

#### **Engaging with Employees**

The Group communicates with employees through in-house newsletters, intranet, company-wide bulletin boards and other media. To share information and deepen understanding of management and business topics, messages from the President, Japanese, English, and Chinese versions of in-house newsletters, and explanations of management and business topics and projects are made available via all types of media.

# Engaging with the Mass Media

Toray recognizes that public relations and corporate communication activities have a role in fulfilling responsibilities for information disclosure as well as influencing public opinion. Accordingly, Toray's Corporate Communications Department reports directly to the president, and actively engages with a wide range of media organizations, acting as the public's point of contact with the Company. Based on Toray's Information Disclosure Principles, the department provides fair and impartial information, even if it may cast the Company in a bad light, in a timely and appropriate manner. In fiscal 2016, the Company issued 187 press releases and responded to 289 media requests for information.

## **Engaging with Local Communities**

Toray Group strives to engage in more active dialogue with nearby residents in a variety of settings, including participating in events sponsored by local governments and inviting local residents onto factory grounds for summer festivals.

Following the Toray Group Social Initiatives Policies, we aim for our social contribution activities to contribute to sustainable development while meeting the expectations of local communities. We are proactively improving science and technology in various countries. We contribute through our Toray Science Foundation in Japan and similar foundations in Malaysia, Thailand and Indonesia. We also actively promote sports in Asia by co-sponsoring the Shanghai International Marathon.

Nurturing Human Resources and Respecting Human Rights

#### Retaining and Nurturing Employees who Generate New Value

The success or failure of a company is decided by its people—employees shape its destiny. Guided by this concept, Toray Group considers securing and developing outstanding human resources as one of its most important tasks and a fundamental management priority. As part of future global business development, Toray Group will continue to secure and develop human resources that operate on a global level with a strong sense of commitment. Based on the following four goals, Toray Group is promoting human resource development.

- Development of fair-minded individuals who act with high ethical standards and a sense of responsibility
- Training of professionals with advanced expertise, technical skills and originality in problem solving
- Development of leaders who act with foresight and a sense of balance
- Development of leaders and professionals who can competently compete on a global level

To achieve these goals, Toray Group conducts various kinds of training programs tailored to each of the four goals. These programs are systematic and logically organized, and they are offered to employees of all levels working in every field in the Group. With a view to strengthening international operations, Toray Group has designed the training to improve management capabilities, sales performance, production technical skills, and specialized skills.

#### **Respect for Human Rights**

Toray Group believes that respect for human rights is a mandatory principle for corporate management, without which it would not be possible to engage in corporate activities while building positive relationships with stakeholders. Toray Group works to promote and raise awareness of human rights, and, in its Corporate Ethics and Legal Compliance Code of Conduct, outlines the importance of respecting human rights. Discrimination of any kind based on race, creed, skin color, gender, religion, nationality, language, physical characteristics, possessions, place of birth, or any other personal characteristic is strictly forbidden in every process—from recruiting and hiring to work placement, compensation, training, and retirement. In fiscal 2014, the Group expanded this commitment to address discrimination based on gender identification and sexual orientation.

Internationally, Toray Group takes stringent measures to comply with the related laws and regulations of each country in which it operates. Furthermore, the Group respects international standards including the United Nations Universal Declaration of Human Rights and the International Labour Organization's standards prohibiting all forced labor and child labor. Toray Group makes every effort to prevent it from becoming complicit in human rights abuses.

We hold human rights promotion campaigns annually, promoting a better understanding about preventing sexual harassment, power harassment and maternity harassment. The campaigns also address lesbian, gay, bisexual, and transgender (LGBT) issues (i.e., sexual minorities).

#### **Promoting Diversity**

Toray Group is committed to promoting employee diversity to help build thriving workplaces where each individual's abilities can flourish. We believe this is key to sustainable growth. We are employing personnel regardless of nationality not only at our Group companies around the world but also at our headquarters in Japan, in line with the trend of increasing globalization.

We are currently actively promoting female employees to managerial positions and improving the working conditions of our female employees. We are also expanding our employment of people with disabilities and re-employment of retirees (60 and older). Moreover, we are working to improve the work-life balance of our employees. We are improving and expanding our welfare and child care support systems, as well as reducing overtime hours and encouraging use of paid leave.

## **Environmental Management Initiatives**

# Promotion of LCM-based Environmental Management

To solve global environmental problems, it is vital that we address these problems across the entire life cycle of products and services. Thereby reducing their environmental footprint while also improving their economic and social value. To this end, Toray Group promotes lifecycle management (LCM).

This approach is the foundation of Toray's Green Innovation Businesses. Toray Group has adopted LCA\*1 methods and the Toray Eco-Efficiency Analysis (T-E2A)\*2 tool to promote and entrench LCM.

- \*1 Life cycle assessment: Assessment of environmental impacts taking into account the entire life cycle of products and services from resource extraction to manufacturing, use, and disposal.
- \*2 Toray Eco-Efficiency Analysis (T-E2A): Environmental analysis tool developed by Toray. It produces a map of multiple products plotted along the axes of environmental impact and economic performance, enabling users to select the most environmentally friendly and economical products.

## Initiatives to Conserve Energy and Efforts against Global Warming

Toray Group was an early adopter of greenhouse gas (GHG) emissions reduction initiatives in order to help realize sustainable, low-carbon societies. In fiscal 2016 we announced our Fifth Medium-term Environmental Plan, under which we are systematically conserving energy by improving our processes and installing gas cogeneration systems, among other initiatives.

#### Voluntary Reduction in Atmospheric Emission of Chemical Substances

Since we are engaged in the chemicals business, Toray Group believes that the reduction of environmental impacts, including release of chemical substances into the atmosphere, is one of its most important priorities.

We are actively reducing emissions. Our Fifth Medium-term Environmental Plan (fiscal 2016 to fiscal 2020) sets out our targets for such initiatives, particularly for substances covered by the PRTR law and volatile organic substances (VOCs).

# Initiatives to Prevent Air and Water Pollution

Toray Group has ongoing environmental protection initiatives in place at its production facilities. The Group will focus efforts on reducing sulfur oxide (SOX) emissions by installing desulfurization systems and converting to alternative fuels, as well as on lowering chemical oxygen demand (COD) levels by expanding our wastewater treatment facilities and other measures.

#### Water Resource Management Initiatives

Toray Group, through its water treatment business, is addressing water resource issues around the world. The Group also takes steps to ensure the proper management of water resources used in its business activities, including using recycled water to enhance water usage efficiency.

Toray Group practices the 3Rs (reduce, reuse, recycle) in consuming water resources, and monitors the quality of water that is released into public bodies of water.

#### Initiatives to Reduce Waste

Toray Group recognizes the importance of effectively utilizing resources and facilitating zero emissions in creating a sustainable, recycling-oriented society. We have set group-wide targets toward attaining zero emissions and are making steady progress toward our various numerical goals for our ratios of directly disposed waste, landfill, and recycling.

#### **Biodiversity Initiatives**

Toray Group recognizes the protection of biodiversity as an important theme in its initiatives for reducing greenhouse gases and confronting global environmental problems. We aim to help realize a sustainable society by analyzing the impact of our business activities on biodiversity.

Based on the Toray Group's Biodiversity Initiatives, we have been formulating three-year road maps and implementing measures in order of priority.

The plants of Toray industries, Inc. and its affiliated companies in Japan operate greenery policies and plans through 2020, guided by the Toray Group Basic Policy for Increasing Green Areas. The plans encompass initiatives to conserve green areas, including natural forests\*3 that have been protected since the plants began operating. Sustainable greenery conservation initiatives also help to conserve the environment for communities.

We periodically conduct a survey to determine the usage of bio-based raw materials in product manufacturing. We also incorporated into our management rules a process for checking for impact on biodiversity, while also looking to conserve biodiversity through our social contribution activities.

\*3 Natural forests: Natural groves or forestation formed of vegetation native to that area

## Corporate Governance

#### **Basic Policy**

From the outset, one of Toray Group's managerial principles has been that the purpose of a company is to contribute to society. The Group has developed a Management Philosophy that incorporates this principle. The Group systematizes the Management Philosophy as a Corporate Philosophy, Corporate Missions, and Corporate Guiding Principles. Among these, the Corporate Missions call for desirable relationships with stakeholders and enunciate the Group's commitment "To provide our stockholders with dependable and trustworthy management." In addition, the Corporate Guiding Principles stipulate the Group's commitment to "Obtaining the trust of society and meeting the expectations by acting fairly while maintaining high ethical standards and a strong sense of responsibility and maintaining transparency in management."

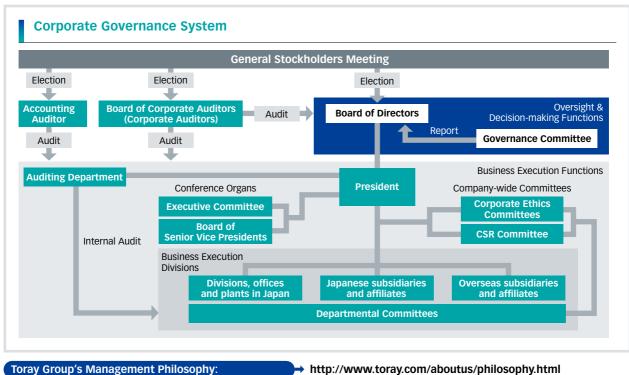
When establishing the corporate governance structure, the Group seeks to realize these philosophies as its basic

#### **Systems for Executing and Supervising Management**

Toray is a company with a Board of Corporate Auditors, and the members of the Board and corporate auditors are elected at the general meeting of stockholders. Members of the Board and corporate auditors, as officers directly elected at the general meeting of stockholders, clearly recognize their fiduciary responsibility to stockholders, who have

entrusted them with management. They seek to appropriately fulfill their respective roles while fulfilling their duty to report on management status to stockholders and other stakeholders.

Toray's Board of Directors consists of 25 members. Since Toray Group supplies materials to a wide range of industries and globally plays an active part in a broad scope of business fields, it is necessary to evaluate various risks multilaterally based on expertise relevant to worksites, not only for management judgment and decision-making but also for oversight. To that end, the Board of Directors formulates a structure in which members of the Board familiar with Toray Group businesses oversee management and make decisions from various viewpoints. Meanwhile, Toray also elects two outside directors to the board to ensure



http://www.toray.com/aboutus/philosophy.html

Toray Group's Basic Policy on Corporate Governance: http://www.toray.com/aboutus/governance/gov\_001.html

transparency and fairness, to ensure oversight from an even broader perspective, and to obtain appropriate managerial advice from a medium- to long-term perspective. Furthermore, the Board of Corporate Auditors oversees the execution of operations by members of the Board based on professional knowledge in fields such as finance, accounting and law in addition to an understanding about businesses, from a standpoint entirely independent of the Board of Directors as a system to secure transparency and fairness of oversight and decision-making.

Toray has established the Governance Committee, as an advisory body to the Board of Directors in order to report on important medium- to long-term issues regarding our corporate governance. The Governance Committee consists of the Chairman of the Board, President, and all of the outside directors of Toray. An outside director chairs the committee. The Committee deliberates on matters regarding the Company's overall corporate governance, including:

- Structure of the Board of Directors and the Board of Corporate Auditors
- Evaluation of the management and

- operation of the Board of Directors
- Policy on nominating candidates for members of the Board and corporate auditors
- Remuneration system for members of the Board and corporate auditors
- Basic policy on electing the senior management, including the President

# **Election of Outside Directors**

At Toray, we ensure objectivity and transparency of corporate governance by establishing and disclosing standards for independence of outside directors and outside corporate auditors. Toray's outside directors and outside corporate auditors meet Toray's standards for independence and meet the independence requirements set by the Tokyo Stock Exchange. We, therefore, have submitted notification to the Tokyo Stock Exchange of their status as independent officers.

#### Progress in Establishing Risk Management and Internal Control Systems

To realize the Management Philosophy, the Company shall establish a structure to execute its business legally and effectively by improving its internal control system according to the following basic policy as a structure to enable it to appropriately establish organization, formulate regulations, communicate information, and monitor the execution of operations.

 System to ensure that the execution of duties by members of the Board and employees complies with laws and regulations and the Company's Articles of Incorporation

# The following table outlines the basis for election of our outside directors/corporate auditors and details of their independence.

## Kunio Ito (Director)

- Is highly expert in accounting and business administration as a university professor
- Has extensive experience as a corporate outside director
- No matters affect his independence from Toray

## Ryoji Noyori

- Has extensive experience as a university professor and highly specialized expertise in organic synthetic chemistry, which is a core Toray technology
- · Has experience as a corporate outside director
- Although he served as a special adviser for Toray's research and technology strategy until April 2015, the annual remuneration he was paid by Toray over the past three years, even at its peak, was less than 10% of his total income; therefore, this is considered to have no impact on his independence

#### Toshio Nagai (Corporate auditor)

- Has an excellent track record of high standing in the legal profession and a solid character and judgement, so we believe he can audit appropriately from an objective standpoint
- No matters affect his independence from Toray

#### Kazuya Jono (Corporate auditor)

- Has held key positions in the corporate world and has solid character and judgement, so we believe he can audit appropriately from an objective standpoint
- Formerly employed by Sumitomo Mitsui Banking Corporation and Citibank Bank Ltd.; Toray has regular banking transactions with both banks. With respect to Sumitomo Mitsui Banking Corporation, over three years have passed since he retired from the board, and we have no borrowing from Citibank Bank Ltd., therefore independence is not affected. Toray's balance of borrowing from Sumitomo Mitsui Banking Corporation (including syndicated loans) as of 31 March 2017 is 0.9% of total assets, which is not high compared with other banks.

Standards for Judging the Independence of Outside Directors/Corporate Auditors

http://www.toray.com/aboutus/governance/gov\_002.html

- ▶ Toray shall establish the Corporate Ethics Committee, as one of the company-wide committees to promote observance of corporate ethics and legal compliance, and shall take other measures to improve the required internal systems, including the establishment of dedicated organizations.
- ▶ We shall establish the Corporate Ethics and Legal Compliance Code of Conduct as specific provisions to be observed by members of the Board and employees, and shall take other measures to improve the required guidelines, etc. Especially with regard to eliminating relations with antisocial forces, the Company shall act as one to stand firmly against them.
- ▶ We shall establish an internal reporting system (whistle-blowing system) for the reporting of the discovery of violation of laws, regulations, or the Company's Articles of Incorporation.
- ▶ We shall establish a Security Trade Control Program, one of the most important legal compliance issues, and establish an organization dedicated to security export control.
- System to ensure the efficient execution of duties by members of the

  Roard
- ▶ Toray shall establish the Authority of Top Management to stipulate matters with respect to which decision-making authority is reserved by the Board of Directors and matters with respect to which decision-making is delegated to the President, General Managers, etc., from among matters necessary for decision-making.
- ▶ Toray shall establish the Executive Committee and Board of Senior Vice Presidents as deliberative organs for important matters decided by the Board of Directors or the President. The Executive Committee shall be responsible for the general direction of

- policy, while the Board of Senior Vice Presidents shall be in charge of issues related to implementation.
- System for preserving and managing information pertaining to the execution of duties by the members of the Board
- ▶ Toray shall establish regulations for important documents and important information related to management, confidential information and personal information, and appropriately preserve and manage them in accordance with the regulations.
- 4. Regulations and other systems pertaining to controls over risks of loss
- ▶ Toray shall identify potential risks in business activities, promote companywide risk management to strive to reduce the level of risk under normal business conditions, and prevent future crises, as well as improve regulations and establish an internal committee so we can respond rapidly in the event of a major crisis.
- ➤ We shall establish an internal control system for financial reporting that ensures the reliability of financial reporting.
- 5. System for ensuring appropriate business operations within subsidiaries
- To establish a system under which subsidiaries report to the Company on matters regarding the execution of duties by members of the Board, etc. of the subsidiaries, the Company shall provide regulations on the regular reporting of important management information to the Company and regularly hold conferences at which the Company's management receives direct reports on the status of the management of the subsidiaries.
- ▶ To establish regulations and other systems pertaining to controls over risks of loss for subsidiaries, the Company shall provide subsidiaries with guidance to help them to establish risk

- management systems appropriate for their respective business forms and business environments, and shall receive regular reports on the status of their activities.
- ▶ To establish a system for ensuring that members of the Board, etc. of subsidiaries effectively execute their duties, the Company shall provide regulations on the scope under which the Company can reserve its authority over the execution of business operations. In addition, the Company shall endeavor to grasp management information in a unified manner and provide assistance and guidance necessary for subsidiaries by determining divisions, etc. with control over its respective subsidiaries.
- ▶ To establish a system for ensuring that the execution of duties by members of the Board, etc., and employees of subsidiaries complies with laws and regulations and the Articles of Incorporation, the Company shall thoroughly familiarize its subsidiaries with the Company's Corporate Ethics and Legal Compliance Code of Conduct as a code of conduct in common for the Toray Group. At the same time, the Company shall request the subsidiaries to establish their own codes of conduct, guidelines, etc. in consideration of the laws and regulations, business practices, business forms, and other factors in their respective countries. In addition, the Company shall direct its subsidiaries to establish systems under which the status of internal whistle-blowing by members of the Board, etc. and employees of the subsidiaries is appropriately reported to the Company.
- 6. System for reporting to corporate auditors and systems for ensuring that persons who report to corporate auditors are not treated disadvantageously because of their reporting

- ▶ Members of the Board, etc. and employees of Toray Group and corporate auditors of subsidiaries shall report matters regarding the execution of duties to corporate auditors in response to requests from the corporate auditors
- ▶ The department in charge of the internal reporting system (whistle-blowing system) shall regularly report the status of internal whistle-blowing in the Toray Group to the corporate auditors.
- ▶ Toray shall stipulate regulations to the effect that members of the Board and employees who report to corporate auditors shall not be subjected to any disadvantageous treatment because of the said reporting, and shall provide subsidiaries with guidance to help them stipulate the same regulations.
- Items pertaining to the handling of expenses and liabilities arising from the execution of duties by corporate auditors

- ▶ Toray shall pay expenses, etc. incurred from the execution of duties by corporate auditors.
- 8. Items pertaining to employees assisting with corporate auditors' duties, items pertaining to the independence of said employees from members of the Board, and items pertaining to the assurance of effectiveness of instructions from the corporate auditors to said employees
- ▶ Toray shall assign a full-time employee to provide assistance if and when corporate auditors request assistance. The said employee shall exclusively follow the corporate auditors' commands and instructions, and the Company shall consult with corporate auditors in advance with respect to the personnel arrangements for the said employee.
- Other systems for ensuring effective implementation of audits by corporate auditors

- ▶ Corporate auditors shall attend Board of Directors meetings and other important meetings so that they may ascertain important decision-making processes and the execution of operations.
- ▶ Corporate auditors shall hold regular meetings with members of the Board and management and conduct regular visiting audits of Toray offices, plants, and subsidiaries.

# Remuneration for Members of the Board

Given their roles, remuneration for members of the Board consists of monthly remuneration, a bonus and stock acquisition rights as stock options. Remuneration for outside directors consists only of monthly remuneration. Remuneration is set at a level that enables the Company to secure superior human resources and further motivate them to improve performance, referring to the

#### **Details of Remuneration in Fiscal 2016**

	Total remuneration by type (millions of yen)					
Position	remuneration (millions of yen)	Basic	Bonuses	Provision for the allowance for retirement benefits	Stock options as remunerations	Recipients
Members of the Board (excluding outside directors)	1,334	928	154	0	252	29
Corporate auditors (excluding outside corporate auditors)	81	81	<del></del>	<del>-</del>	<u>—</u>	3
Outside directors	24	24	_	_	_	2
Outside corporate auditors	19	19	<del>-</del>	<del>-</del>	<del>-</del>	2

- Notes: 1. Recipients included six members of the Board and one corporate auditor who retired during fiscal 2016.
  - 2. Total amounts of remuneration do not include the ¥81 million paid in salaries to eleven employee-directors.

#### Total Remuneration Received by Members of the Board and Corporate Auditors

	Total consolidated					eration by type (million	
Name	remuneration (millions of yen)	Position	Status of company	Basic	Bonuses	Provision for	Stock options as
Akihiro Nikkaku	149	Member of the Board	Filing company	104	20	_	25

Note: Total remuneration only includes persons receiving more than ¥100 million.

results of a survey of other companies' remuneration by an external third-party organization.

With respect to monthly remuneration, the maximum limit of total remuneration is determined at general meetings of stockholders. Within the scope of the maximum limit, monthly remuneration to each member of the Board is determined by the President based on the Company's internal regulations with a resolution at a Board of Directors meeting.

The provision and the total amount of bonuses are determined each time at a general meeting of stockholders. Particulars of the agenda at the general meeting of stockholders are resolved by the Board of Directors through conference among the senior management, including the President, in consideration of the consolidated and non-consolidated business results for each fiscal year plus the historical record. A bonus to each member of the Board is determined by the President according to each member's performance based on the Company's internal regulations with a resolution at a Board of Directors meeting.

The maximum limit of total number of Stock Acquisition Rights as well as the limit of remuneration relating to the granting of the Stock Acquisition Rights as stock options to members of the Board is resolved at the general meeting of stockholders, and within that limit, the total number of Stock Acquisition Rights to be allocated to the members of the Board shall be decided at the Board of Directors meeting based on the Company's internal regulations.

Given their roles, remuneration for corporate auditors consists only of monthly remuneration. Remuneration is set at a level that enables the Company to secure superior human resources, referring to the results of a survey of other

companies' remuneration by an external third-party organization. With respect to monthly remuneration, the maximum limit of total remuneration is determined at general meetings of stockholders. Within the scope of the maximum limit, monthly remuneration to each corporate auditor is determined through negotiations with the said auditor based on the Company's internal regulations.

# **Status of Compliance Initiatives**

Toray Group is keenly aware that strict adherence to laws, regulations and social norms is an essential facet of corporate management. Toray's top management takes a clear position on corporate ethics and legal compliance, and strives to improve the conduct of all companies in Toray Group.

#### Framework for Promoting Corporate Ethics and Legal Compliance

Toray operates a Corporate Ethics Committee chaired by the President. The committee oversees corporate policies relating to corporate ethics, and implements initiatives through the joint efforts of labor and management. Underneath it is a Company-Wide Legal Compliance Committee that functions as a forum for sharing the views of management and the policies that are decided by the Corporate Ethics Committee and for reporting status of implementation of corporate ethics and compliance initiatives at workplaces. This committee is primarily comprised of section managers and, while communicating with upper management, takes initiatives that address company-wide compliance issues. Furthermore, CSR/legal compliance committees operate at the divisional and plant levels

to implement initiatives rooted in the workplace and fully engage all employ-

Toray has established CSR/legal compliance committees at its domestic Group companies, and appointed executives and section managers in charge of legal compliance. Furthermore, relevant departments at Toray's headquarters collaborate to hold a group-wide corporate ethics and legal compliance meetings annually to improve understanding of revised laws and particular issues.

CSR/legal compliance committees have also been established at Group companies around the world. With support from Toray's International Division, CSR Operations Department, and other relevant sections, the committees independently promote initiatives related to legal compliance and corporate ethics.

The Corporate Ethics and Legal Compliance Code of Conduct is a strict set of standards that every Toray Group executive and employee closely follows when performing corporate activities. In the event that a violation is discovered, strict discipline is carried out in consultation with the Company's Rewards and Sanctions Committee. Toray has put together the Corporate Ethics and Legal Compliance Handbook, which explains the code and gives details of the compliance helpline, to ensure comprehensive understanding for all Toray and Japanese affiliated company executives and employees, including contracted, parttime and temporary workers.

Overseas Group and affiliated companies make corporate ethics and legal compliance handbooks for each country or region. These are then distributed to all managers and employees to ensure comprehensive understanding of the code of conduct.

# Status of Risk Management Initiatives

Toray has established a Risk Management Committee under the CSR Committee to regularly monitor the progress of risk reduction measures across all Group companies and conduct planning and promotion of risk management measures. Under the Risk Management Committee, local risk management committees have been established at each of Toray's divisions, departments, offices, and plants.

Group-wide measures determined by the Risk Management Committee are given to local risk management committees, which then incorporate these measures in their own initiatives to reduce risks particular to their respective division, department, office or plant, while carrying out coordinated risk management activities.

Toray Group has also established a risk management system for the Group and affiliated companies in Japan and overseas, led by their presidents. The system promotes initiatives to reduce the specific risks faced by each company. Each Group company reports on the results of these initiatives to the Risk Management Committee every fiscal year.

Toray Group regularly evaluates company-wide risks, identifies risks that should be prioritized in light of their potential impact on management of the Group, and is working to reduce these risks through the PDCA cycle.

#### Addressing Priority Risks

Once every three years, Toray reviews its priority risks. The activities for reducing each risk are led by a specific department or working group, and implemented in line with a three-year roadmap. Fiscal 2016 was the second year of implementing initiatives identified in the third risk priority screening. As a result of these efforts, Toray surpassed its target for priority risks identified and mitigated in fiscal 2016.

Considerable progress was made in improving the accuracy of the existing business continuity plan, particularly for major earthquakes and new strains of influenza. Moreover, tighter information security measures were undertaken in certain business fields, above and beyond Group standards.

Toray also conducted a simple risk evaluation questionnaire of each department head in fiscal 2016. This was used to evaluate whether any potential risks had dramatically increased since the group-wide fiscal 2014 evaluation. This evaluation confirmed that there were no issues to be added as priority risks for the current term.

The status of risk at Group and affiliated companies in Japan was investigated through a questionnaire on the status of their risk management activities. Interviews were conducted at some of these companies, and specific mitigation measures for risk were discussed with leading sections in headquarters.

In fiscal 2016, we also started discussions on methods and procedures for conducting a risk assessment groupwide, including affiliated companies.

# **Supply Chain Risk Reduction**

In fiscal 2016, we analyzed the results and gave feedback to the suppliers surveyed in last year's CSR procurement survey. We also further reviewed ways of addressing global human rights issues, particularly in our overseas Group supply chain.

Moreover, Toray Group conducts checks for the use of conflict minerals in all products and has been working to make its responses to customers' requests for surveys quicker and more efficient by integrating data management.

# Maintaining Information Security

In fiscal 2016, we changed the IT Promotion Committee, which has been working for greater dissemination of information in general at Toray, to an organization specifically focused on Toray Group information security.

Besides this, we have established a group-wide committee working to reduce existing serious risks, such as legal compliance; fluctuations in raw material prices, exchange rates or economic conditions; business strategy; and security export control at Toray Group. Whenever necessary, the committee reports on the status of risk reduction activities to the Board of Directors.

#### Crisis Management System

In its Crisis Management Regulations, Toray Group has clearly defined the basic principles for a group-wide response to serious risks affecting Toray Group in order to ensure a consistent and comprehensive response in a crisis situation. The regulations are revised as appropriate so as to prepare for new risks that may emerge as a result of change in the social environment.

In fiscal 2016, Toray reviewed crisis management regulations focusing on the risk management of domestic and overseas affiliated companies and revised them in May 2017.

As part of our crisis management activities, we also recognize the importance of, and continue to provide appropriate and timely advice to Toray Group employees on, issues such as managing personal safety on overseas business trips, and countermeasures for terrorism or political instability risks.

# Preparedness for a Major Earthquake

Identifying major earthquakes as a priority risk factor, Toray Group continues to develop its business continuity plan for large-scale earthquakes. In fiscal 2016, we formulated the Toray Group Business Continuity Plan for Large-scale Earthquakes by systematizing our previously held preparedness activities. Further, we selected products for which we have a strong responsibility to supply to society in the event of an earthquake. To this end we compiled procedures for developing business continuity plans for important products that are essential to society and strategically important to our business. In fiscal 2017, we will continue developing business continuity

plans for these selected products.

In addition, we finished introducing a safety confirmation system covering all domestic affiliated companies and continued systematic earthquake-proofing of plant buildings.

Since fiscal 2012, Toray Group has conducted drills to create a temporary group-wide headquarters. In fiscal 2016, the Group began conducting drills based on a disaster scenario involving an earthquake comparable to the March 2011 Great East Japan Earthquake and a secondary earthquake striking directly underneath Tokyo simultaneously that would cause extensive damage to Group companies and plants situated in all areas of Japan to the east of and including Shizuoka Prefecture. First, drills were held to establish a temporary group-wide headquarters in Kansai. Then, in a scenario in which the Tokyo headquarters has been restored, drills simulating moving the temporary groupwide headquarters back to Tokyo were held. Efforts were made to make the drills as realistic as possible with some parts of the scenario undisclosed to drill participants. Also, in conjunction with the drills, we reviewed the most important tasks of the headquarters' staff and the departments.

The Group launched the Toray Disaster Map System after the Great East Japan Earthquake. This system is for rapidly and accurately grasping the extent of damage caused by an earthquake to Toray Group and at its business partners. The system helped to ensure business continuity after the April 2016 Kumamoto earthquake.

#### Preparedness for New Influenza Pandemic

In June 2015, we revised the Toray Group Business Continuity Plan for Pandemic Influenza to address both strongly and weakly virulent influenzas. Toray Group's business offices and plants have revised and begun implementing their crisis management systems and measures to prevent the spread of infection by virus.

In fiscal 2016, we continued finalizing our Guidelines for Continuity Plan and Scale-down Plan of Business Operations to prevent the spread of infection in an emergency and to fulfill our social responsibility for the supply of products. This involved planning for securing management resources such as our supply chain and operational structure based on a classification of the importance of each of our products and operations according to the level of epidemic.

Domestic affiliated companies have established and started operating crisis management systems and infection prevention measures similar to Toray's. Moreover, overseas affiliated companies are working to reduce the particular risks they face in their respective countries.

## **Board of Directors and Corporate Auditors**

(As of June 27, 2017)



and Representative Member of the Board Akihiro Nikkaku



and Representative Member of the Board Koichi Abe



and Representative Member of the Board Kazushi Hashimoto



er of the Board and Mer Ryo Murayama



Senior Vice President Yukichi Deguchi



Senior Vice President Akira Umeda



Senior Vice President Mitsuo Ohya



Senior Vice President Hiroshi Otani



Senior Vice President Toru Fukasawa



Senior Vice President Yasuo Suga



Senior Vice President Hirofumi Kobayashi



Senior Vice President Kazuhiko Shuto



Senior Vice President Tetsuya Tsunekawa



Senior Vice President **Kazuo Morimoto** 



Senior Vice President Osamu Inoue



Vice President Satoru Nishino



Vice President Yoshiyuki Tanaka



Vice President Takashi Fujimoto



Vice President Yuji Fukuda



Vice President Shigeki Taniguchi



Vice President Toshiyuki Kondo



Vice President Kenichiro Miki



Vice President Hideki Hirabayashi



Vice President Kunio Ito\*1



Vice President Member of the Boar Ryoji Noyori\*1



Corporate Auditor Shogo Masuda



Corporate Auditor Shoshiro Taneichi

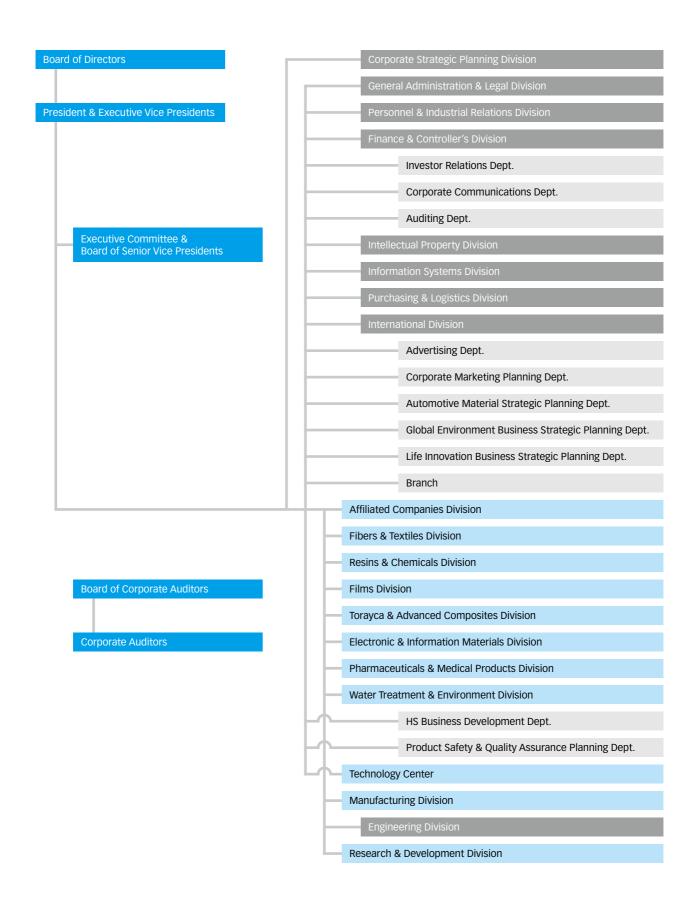


Corporate Auditor Toshio Nagai\*2



Corporate Auditor Kazuya Jono\*2

<sup>\*1</sup> Kunio Ito and Ryoji Noyori are outside directors. 
\*2 Toshio Nagai and Kazuya Jono are outside corporate auditors.



#### **Toray Group Worldwide Network**

(As of March 31, 2017)

#### Toray Group operates businesses in 26 countries and regions including Japan.

	Japan	Overseas	Total
Consolidated subsidiaries	60	98	158
Subsidiaries accounted for by equity method	26	35	61
Total subsidiaries	86	133	219
Affiliates accounted for by equity method	13	23	36
Companies subject to consolidation	99	156	255



#### United Kingdom

#### Consolidated Subsidiaries

- Toray Textiles Europe Ltd. (TTEL)
- ◆ Toray International U.K. Ltd. (TIUK)

#### Consolidated Subsidiaries

- Toray Films Europe S.A.S. (TFE)
- Toray Carbon Fibers Europe S.A.(CFE)

#### Subsidiary Accounted for by Equity Method ☆ Toray Membrane Europe AG (TMEu)

#### Consolidated Subsidiary

Alcantara S.p.A. (Alcantara)

#### Subsidiaries Accounted for by Equity Method

- ◆ Toray International Italy S.r.I. (TIIT)
- Composite Materials (Italy) S.r.l. (CIT)
- Delta-Tech S.p.A (DELTA)

#### Czech Republic

#### Consolidated Subsidiary

Toray Textiles Central Europe s.r.o. (TTCE)

#### Consolidated Subsidiaries

- Euro Advanced Carbon Fiber Composites GmbH (EACC)
- ◆ Toray International Europe GmbH (TIEU) Others

#### ASIA

#### Consolidated Subsidiaries

- ★ Toray Industries (China) Co., Ltd. (TCH) ● Toray Fibers (Nantong) Co., Ltd. (TFNL)
- Toray Sakai Weaving & Dyeing (Nantong)
- Co., Ltd. (TSD)
- Toray Polytech (Nantong) Co., Ltd. (TPN) Toray Jifa (Qingdao) Textile Co., Ltd. (TJQ)

- Toray Plastics (Chengdu) Co., Ltd. (TPCD)
- (TPPH)
- (TPP7)
  - ◆ Toray Industries (H.K.) Ltd. (THK)
  - ◆ Toray International (China) Co., Ltd. (TICH)
- Toray Film Products (Hong Kong) Ltd. (TFH)
- Toray Film Products (Zhongshan) Ltd. (TFZ) ☆ Toray BlueStar Membrane Co., Ltd. (TBMC)
- ☐ Toray Medical (Qingdao) Co., Ltd. (TMQ) Others

#### Affiliate Accounted for by Equity Method

Yihua Toray Polyester Film Co., Ltd. (YTP)

#### Consolidated Subsidiary

- Toray Advanced Film Kaohsiung Co., Ltd. (TAFK) Subsidiaries Accounted for by Equity Method
  - ◆ Toray International Taipei Inc. (TITP) Others

#### Republic of Korea

#### Consolidated Subsidiaries

- ● Toray Advanced Materials Korea Inc. (TAK) O STEMCO, Ltd. (STEMCO)
- 🕽 🛣 Toray Chemical Korea Inc. (TCK)

#### Affiliates Accounted for by Equity Method

O STECO, Ltd. (STECO) Others

#### Malaysia

#### Consolidated Subsidiaries

- Penfabric Sdn. Berhad (PAB)
- Penfibre Sdn. Berhad (PFR)
- Toray Plastics (Malaysia) Sdn. Berhad (TPM) Others

#### Subsidiary Accounted for by Equity Method

- ★ Toray Industries (Malaysia) Sdn. Berhad (TML)
- Affiliate Accounted for by Equity Method

#### ● Toray BASF PBT Resin Sdn. Berhad (TBPR)

#### Singapore Consolidated Subsidiary

◆ Toray International Singapore Pte. Ltd. (TISP)

#### Consolidated Subsidiaries

- O Toray Plastics Precision Co., Ltd.
- O Toray KP Films Inc.
- Toray Battery Separator Film Co., Ltd.\*1
- Soda Aromatic Co., Ltd.
- $\bigcirc$   $\updownarrow$  Toray Engineering Co., Ltd.
  - ☆ Toray Construction Co., Ltd.
  - ☆ Suido Kiko Kaisha, Ltd.
  - ☐ Toray Medical Co., Ltd.
  - ☐ Toray Research Center Inc.
  - ◆ Toray International, Inc.
  - ◆ Chori Co., Ltd.

#### Others

#### Subsidiaries Accounted for by Equity Method

- Toray Carbon Magic Co., Ltd.
- ☐ Toyo Business Support Inc.

#### Others Affiliates Accounted for by Equity Method

- ○ Du Pont-Toray Co., Ltd
  - Toray Opelontex Co., Ltd.
  - O Dow Corning Toray Co., Ltd.
  - Sanyo Chemical Industries, Ltd.
- \*1 Toray Battery Separator Film Co., Ltd. was absorbed into Toray Industries, Inc. on April 1, 2017.

#### Indonesia

#### Consolidated Subsidiaries

- P.T. Acryl Textile Mills (ACTEM)
- P.T. Century Textile Industry Tbk (CENTEX)
- P.T. Easterntex (ETX)
- P.T. Indonesia Synthetic Textile Mills (ISTEM)
- P.T. Indonesia Toray Synthetics (ITS)
- P.T. Toray Polytech Jakarta (TPJ)

#### Subsidiaries Accounted for by Equity Method

★ P.T. Toray Industries Indonesia (TIN) Others

#### Affiliates Accounted for by Equity Method

 P.T. Petnesia Resindo (PNR) Others

#### Consolidated Subsidiaries

- Luckytex (Thailand) Public Co., Ltd. (LTX)
- Thai Toray Textile Mills Public Co., Ltd. (TTTM)
- Thai Toray Synthetics Co., Ltd. (TTS)
   Carbon Magic (Thailand) Co., Ltd. (CMTH)
- Subsidiary Accounted for by Equity Method

#### ★ Toray Industries (Thailand) Co., Ltd. (TTH)

Affiliate Accounted for by Equity Method

Thai PET Resin Co., Ltd. (TPRC)

### NORTH AMERICA

#### Consolidated Subsidiaries

- Toray Fluorofibers (America), Inc. (TFA)
- ◆ Toray International America Inc. (TIAM)
- Toray Plastics (America), Inc. (TPA)
- Toray Resin Co. (TREC)
- Toray Carbon Fibers America, Inc. (CFA)\*2 ■ Toray Composites (America), Inc. (TCA)\*2
- Zoltek Companies, Inc. (Zoltek)
- ☆ Toray Membrane USA, Inc. (TMUS)
- Others \*2 CFA and TCA were merged on April 1, 2017, to establish Toray Composite Materials America, Inc. (CMA) as the new company.

◆ Trading

- Subsidiary Accounted for by Equity Method Toray Resin Mexico, S.A. de C.V. (TRMX)
- ★ Regional Supervisory Organization Fibers & Textiles
- Plastics & Chemicals ○ IT-related Products
- Carbon Fiber Composite Materials
- ☆ Environment & Engineering ☐ Life Science & Other Businesses

#### Major Offices in Japan

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## Facsimile: 1 (212) 972-4279

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Toray Industries, Inc., Beijing Office Beijing Fortune Bldg., No. 702, 5. Dong San Huan Bei-Lu, Chao Yang District, Beijing 100004, China Telephone: 86 (10) 6590-8961~3 Facsimile: 86 (10) 6590-8964

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Toray Industries, Inc., Seoul Office 36F. FKI Tower, 24, Yeoui-daero, Yeongdeungpo-gu, Seoul, 150-881 Korea Telephone: 82 (2) 707-0381~2 Facsimile: 82 (2) 707-0067

Toray Industries (India) Private Limited (TID) Unit No. 504, 5th Floor, Vatika City Point, MG Road Gurgaon, Haryana 122002, India Telephone: 91 (12) 4387-7900

#### Facsimile: 91 (12) 4387-7901 Brazil

Toray do Brasil Ltda. (TBL)

Av. Paulista, 1048-Coni 71 Bela Vista Sao Paulo - SP 01310-100, Brasil Telephone/Facsimile: 55 (11) 4314-7792

# **Financial Section** CONTENTS Ten-Year Summary of Selected Financial Data 50 Management's Discussion and Analysis 52 **Consolidated Balance Sheets** 58 Consolidated Statements of Income 60 Consolidated Statements of Comprehensive Income 60 Consolidated Statements of Changes in Net Assets 61 Consolidated Statements of Cash Flows 62 Notes to Consolidated Financial Statements **Independent Auditor's Report** 89

## Ten-Year Summary of Selected Financial Data

Toray Industries, Inc. and Consolidated Subsidiaries Years ended March 31

	2008	2009	2010
Net sales*1	¥1,649,670	¥1,471,561	¥1,359,631
Fibers & Textiles	637,343	568,996	525,204
Plastics & Chemicals	404,015	377,644	332,735
IT-related Products	283,734	229,421	230,433
Carbon Fiber Composite Materials	83,580	70,390	50,676
Environment & Engineering	173,213	160,207	159,787
Life Science		_	46,656
Others		_	14,140
Life Science & Other Businesses	67,785	64,903	_
Operating income	103,429	36,006	40,107
Income (loss) before income taxes and non-controlling interests	78,565	(19,751)	(2,415)
Net income (loss) attributable to owners of parent	48,069	(16,326)	(14,158)
Net cash provided by operating activities	110,367	38,447	166,215
Depreciation and amortization	86,423	83,764	74,904
Capital expenditures	146,787	92,349	57,073
Total assets	1,698,226	1,523,603	1,556,796
Property, plant and equipment, net	680,993	596,261	580,344
Interest-bearing liabilities	591,182	663,945	632,160
Net assets	642,159	512,610	518,216
Per share of common stock:  Net income (loss) attributable to owners of parent:  Basic	¥ 34.34	¥ (11.66)	¥ (10.12)
Diluted	<del>_</del>	_	
Cash dividends	10.00	7.50	5.00
Net assets	423.78	335.04	336.65
Ratios:			
Operating income to net sales	6.27	2.45	2.95
Net income (loss) attributable to owners of parent to net sales	2.91	(1.11)	(1.04)
Equity ratio	34.9	30.8	30.3
Return on equity	8.1	(3.1)	
Debt/equity ratio (times)	4.00	4.40	(3.0)
	1.00	1.42	(3.0) 1.34
Common stock price range:		1.42	
Common stock price range: High	¥ 998	¥ 694	(3.0) 1.34 ¥ 591
			1.34
High	¥ 998	¥ 694	1.34 ¥ 591

<sup>\*1</sup> Effective from the year ended March 31, 2011, "Revised Accounting Standard for Disclosures about Segments of an Enterprise and Related Information" (Accounting Standards Board of Japan (ASBJ) Statement No.17, March 27, 2009) and "Guidance on the Accounting Standard for Disclosures about Segments of an Enterprise and Related Information" (ASBJ Guidance No. 20, March 21, 2008) are applied. Accordingly, segment information for the year ended March 31, 2010 is restated.

\*2 Effective from the year ended March 31, 2014, certain overseas subsidiaries applied IAS 19 "Employee Benefits" (revised on June 16, 2011). As this change in accounting policy is applied.

retrospectively, the related financial data for 2013 reflect the retrospective application.

2011						Millions of yen
2011	2012	2013*2	2014	2015	2016	2017
¥1,539,693	¥1,588,604	¥1,592,279	¥1,837,778	¥2,010,734	¥2,104,430	¥2,026,470
584,115	638,375	632,150	755,474	856,676	892,039	856,124
382,299	397,815	395,835	470,542	496,370	521,238	499,099
262,027	243,404	237,593	245,741	247,975	251,072	254,439
67,018	69,914	77,620	113,342	158,365	186,196	161,608
178,183	170,247	178,355	180,197	179,988	183,324	186,113
52,430	55,554	56,599	58,205	57,039	55,841	54,150
13,621	13,295	14,127	14,277	14,321	14,720	14,937
_	_	_	_	_	_	_
100,087	107,721	83,436	105,253	123,481	154,480	146,893
82,893	101,091	77,828	97,760	114,469	137,808	139,012
57,925	64,218	48,477	59,608	71,021	90,132	99,418
129,214	104,410	100,815	161,455	141,282	196,142	173,958
70,479	67,443	67,588	78,743	81,480	91,168	89,073
55,942	98,384	99,135	118,207	124,929	136,556	152,039
1,567,470	1,581,501	1,731,933	2,119,683	2,357,925	2,278,386	2,396,785
531,595	561,923	627,240	781,235	855,593	830,612	881,434
493,509	481,906	532,002	654,163	700,258	704,253	716,399
640,970	674,149	778,626	944,625	1,080,757	1,024,909	1,100,176
						Yen
¥ 36.41	¥ 39.41	¥ 29.75	¥ 36.59	¥ 44.33	¥ 56.38	
34.43	¥ 39.41 37.46	28.90	¥ 36.59 35.70	44.28	¥ 56.38 56.31	¥ 62.17
34.43 7.50			35.70 10.00			¥ 62.17 62.10 14.00
34.43	37.46	28.90	35.70	44.28	56.31	¥ 62.17 62.10 14.00
34.43 7.50	37.46 10.00	28.90 10.00	35.70 10.00	44.28 11.00	56.31 13.00	¥ 62.17 62.10 14.00
34.43 7.50 363.90	37.46 10.00 384.90	28.90 10.00 444.45	35.70 10.00 527.32	44.28 11.00 616.70	56.31 13.00 591.50	¥ 62.17 62.10 14.00 638.64
34.43 7.50 363.90 6.50	37.46 10.00 384.90	28.90 10.00 444.45	35.70 10.00 527.32	44.28 11.00 616.70	56.31 13.00 591.50	¥ 62.17 62.10 14.00 638.64 %
34.43 7.50 363.90	37.46 10.00 384.90	28.90 10.00 444.45	35.70 10.00 527.32	44.28 11.00 616.70 6.14 3.53	56.31 13.00 591.50	¥ 62.17 62.10 14.00 638.64 % 7.25
34.43 7.50 363.90 6.50 3.76	37.46 10.00 384.90 6.78 4.04 39.7	28.90 10.00 444.45 5.24 3.04 41.8	35.70 10.00 527.32 5.73 3.24	44.28 11.00 616.70	56.31 13.00 591.50 7.34 4.28	¥ 62.17 62.10 14.00 638.64 % 7.25 4.91
34.43 7.50 363.90 6.50 3.76 37.8 10.9	37.46 10.00 384.90 6.78 4.04 39.7 10.5	28.90 10.00 444.45 5.24 3.04 41.8 7.2	35.70 10.00 527.32 5.73 3.24 40.5 7.5	44.28 11.00 616.70 6.14 3.53 41.8 7.7	56.31 13.00 591.50 7.34 4.28 41.5 9.3	¥ 62.17 62.10 14.00 638.64 % 7.25 4.91 42.6
34.43 7.50 363.90 6.50 3.76 37.8	37.46 10.00 384.90 6.78 4.04 39.7	28.90 10.00 444.45 5.24 3.04 41.8	35.70 10.00 527.32 5.73 3.24 40.5	44.28 11.00 616.70 6.14 3.53 41.8	56.31 13.00 591.50 7.34 4.28 41.5	¥ 62.17 62.10 14.00 638.64 % 7.25 4.91 42.6
34.43 7.50 363.90 6.50 3.76 37.8 10.9	37.46 10.00 384.90 6.78 4.04 39.7 10.5	28.90 10.00 444.45 5.24 3.04 41.8 7.2	35.70 10.00 527.32 5.73 3.24 40.5 7.5	44.28 11.00 616.70 6.14 3.53 41.8 7.7	56.31 13.00 591.50 7.34 4.28 41.5 9.3	¥ 62.17 62.10 14.00 638.64 % 7.25 4.91 42.6
34.43 7.50 363.90 6.50 3.76 37.8 10.9	37.46 10.00 384.90 6.78 4.04 39.7 10.5	28.90 10.00 444.45 5.24 3.04 41.8 7.2	35.70 10.00 527.32 5.73 3.24 40.5 7.5 0.76	44.28 11.00 616.70 6.14 3.53 41.8 7.7	56.31 13.00 591.50 7.34 4.28 41.5 9.3 0.74	¥ 62.17 62.10 14.00 638.64 % 7.25 4.91 42.6 10.1
34.43 7.50 363.90 6.50 3.76 37.8 10.9 0.83	37.46 10.00 384.90 6.78 4.04 39.7 10.5 0.77	28.90 10.00 444.45 5.24 3.04 41.8 7.2 0.73	35.70 10.00 527.32 5.73 3.24 40.5 7.5 0.76	44.28 11.00 616.70 6.14 3.53 41.8 7.7 0.71	56.31 13.00 591.50 7.34 4.28 41.5 9.3 0.74	¥ 62.17 62.10 14.00 638.64  % 7.25 4.91 42.6 10.1 0.70  Yen ¥ 1,027.5
34.43 7.50 363.90 6.50 3.76 37.8 10.9 0.83	37.46 10.00 384.90 6.78 4.04 39.7 10.5 0.77	28.90 10.00 444.45 5.24 3.04 41.8 7.2 0.73	35.70 10.00 527.32 5.73 3.24 40.5 7.5 0.76	44.28 11.00 616.70 6.14 3.53 41.8 7.7 0.71	56.31 13.00 591.50 7.34 4.28 41.5 9.3 0.74	¥ 62.17 62.10 14.00 638.64 % 7.25 4.91 42.6 10.1

#### **OVERVIEW**

During the period covered by the year ended March 31, 2017 (fiscal 2016), the global economy as a whole maintained its recovery trend despite some delay seen in the U.S. and Europe. The Chinese economy has been heading toward a rally, and there were also signs of economic improvement in many of the other emerging countries. The Japanese economy in general continued on a gradual recovery track on the back of an improving employment and income situation.

Under such circumstances, Toray Group implemented a growth strategy focused on taking advantage of growth business fields and business opportunities while pursuing business expansion in growth countries and regions, as well as further bolstering its competitiveness. These initiatives were guided by the medium-term management program "Project AP-G 2016," which spans the three years from fiscal year 2014 to 2016. Unfavorable foreign exchange rates meant that, the yen was stronger against the U.S. dollar and other major currencies compared with a year earlier, which resulted in declines in net sales and profits at overseas subsidiaries when converted into yen.

As a result, Toray Group posted a year-on-year decrease in both consolidated net sales and operating income, while posting an increase in net income attributable to owners of parent, a record-high.

#### **INCOME ANALYSIS**

#### **Net Sales**

Consolidated net sales for fiscal 2016 were in ¥2,026.5 billion, down by ¥78.0 billion (3.7%) from the previous fiscal year. Regarding the sales by business segment, net sales in the IT-related Products, Environment & Engineering and Others segments increased, while those in the Fibers & Textiles, Plastics & Chemicals, Carbon Fiber Composite Materials and Life Science segments decreased.

#### **Costs and Expenses**

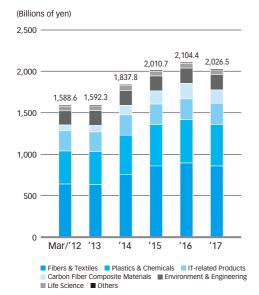
The ratio of total costs and expenses to net sales for the fiscal year under review was 92.8%, slightly up by 0.1 percentage points year on year.

Consolidated net sales and cost of sales decreased from the previous fiscal year by 3.7% and 4.0%, respectively. As a result, the cost of sales ratio improved by 0.2 percentage points to 78.8%.

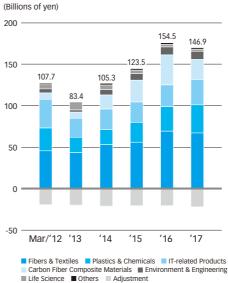
Selling, general and administrative expenses decreased by ¥4.3 billion (1.5%) to ¥283.1 billion. The ratio of selling, general and administrative expenses to net sales rose by 0.3 percentage points to 14.0%.

R&D expenses increased by  $\pm 0.4$  billion (0.8%) to  $\pm 59.2$  billion.

#### **Net Sales by Segment**



#### **Operating Income by Segment**



The Science Touriers Augustinent

<sup>\*</sup>Operating income by segment that is not attributable to any segment is included in "Adjustment."

#### **Operating Income and Net Income**

Consolidated operating income declined by ¥7.6 billion (4.9%) year on year to ¥146.9 billion, and the ratio of operating income to net sales declined slightly by 0.1 percentage points to 7.2%. Operating income by business segment declined in the Fibers & Textiles, Carbon Fiber Composite Materials and Life Science segments, while that in the Plastics & Chemicals, ITrelated Products, Environment & Engineering and Others segments increased.

In net other income (expenses), Toray Group reported net expenses of ¥7.9 billion in fiscal 2016, down by ¥8.8 billion (52.7%) from the previous fiscal year. Interest and dividend income decreased slightly by ¥0.0 billion (0.6%) to ¥5.0 billion, and interest expense also decreased by ¥0.7 billion (13.0%) to ¥4.7 billion. As a result, net financial income of ¥0.4 billion was recorded in fiscal 2016, reversing ¥0.3 billion net financial expenses posted in the previous fiscal year. Equity in earnings of unconsolidated subsidiaries and affiliated companies rose year on year by ¥2.5 billion (49.6%) to ¥7.5 billion. Loss on impairment of fixed assets decreased by ¥6.1 billion (67.7%) to ¥2.9 billion. Net loss on sales and disposal of property, plant and equipment decreased by ¥0.1 billion (2.5%) to ¥5.0 billion. Gain on sales and loss on write-down of investment securities, net, increased by ¥0.7 billion (29.8%) to ¥3.0 billion.

As a result of the above, income before income taxes and non-controlling interests grew by \$1.2 billion (0.9%) from the previous fiscal year to \$139.0 billion. After deductions for income taxes and net income attributable to non-controlling interests, net income attributable to owners of parent amounted to \$99.4 billion, up by \$9.3 billion (10.3%) year on year.

Net income per share was ¥62.17, an increase of ¥5.79. The Company declared a year-end cash dividend of ¥7.00 per share in light of the profit conditions for the year under review and the profit outlook for the next fiscal year. When added to the interim cash dividend, the total annual dividend for fiscal 2016 was ¥14.00 per share.

#### Business Performance by Segment Fibers & Textiles

In Japan, the demand for apparel and industrial applications remained weak. Against this background, Toray Group strived to expand sales on the whole and worked to improve profitability by upgrading the business, primarily through the promotion of a business format that integrates the process from fibers to final products through textiles, as well as by advancing cost reductions.

Overseas, mainly in apparel applications, the business performance of some subsidiaries, mainly in Southeast Asia, was affected by the slowdown in final demand in Europe and China. On the other hand, materials for automotive applications and hygiene products remained strong in general.

As a result, overall sales of the Fibers & Textiles segment for fiscal 2016 declined by ¥35.9 billion (4.0%) to ¥856.1 billion from the previous year, and operating income fell by ¥2.1 billion (3.1%) to ¥66.8 billion.

#### Plastics & Chemicals

In the resin business, shipments of automotive applications were strong in general, both in Japan and overseas. Toray Group also promoted expanded sales of ABS and PPS resins for non-automotive applications.

In the film business, while the demand for some applications in the U.S. and Europe was sluggish, Toray Group moved to expand the sales of high value-added products in Asia and other regions. In Japan, products for packaging applications performed strongly.

Despite many of the segment's products being affected by price competition in Japan and abroad, Toray Group strived to improve the profitability of the business by focusing on the sales expansion of high value-added products, as well as on cost reduction.

As a result, overall sales of the Plastics & Chemicals segment declined by ¥22.1 billion (4.2%) to ¥499.1 billion from the previous year, while operating income increased by ¥4.4 billion (15.0%) to ¥33.8 billion.

#### **IT-related Products**

Among materials for flat panel displays, smartphoneand tablet terminal-related materials performed strongly, with growing shipments of organic EL applications. Shipments of battery separator films for lithium-ion secondary batteries expanded, reflecting growth in demand.

While many of the segment's applications were affected by price competition, Toray Group endeavored to improve the profitability of this business by concentrating efforts on expanding sales of high value-added products, as well as on cost reduction.

As a result, overall sales of the IT-related Products segment increased by ¥3.4 billion (1.3%) to ¥254.4 billion from the previous year, and operating income, as well, rose by ¥4.4 billion (16.7%) to ¥30.5 billion.

#### **Carbon Fiber Composite Materials**

In the Carbon Fiber Composite Materials segment, while final demand for aircraft was strong, the demand for carbon fiber intermediate products (prepreg) remained on a weak note, reflecting inventory adjustment in the supply chain. Demand for products for compressed natural gas tank applications was slow due to the impact of declining crude oil prices. Meanwhile, shipments of products for wind turbine blade applications expanded on the back of growing demand.

As a result, overall sales of the Carbon Fiber Composite Materials segment declined by ¥24.6 billion (13.2%) to ¥161.6 billion from the previous year,

and operating income fell by \$12.2 billion (33.6%) to \$24.0 billion.

#### **Environment & Engineering**

In the water treatment business, although Toray Group continued to work on expanding sales of reverse osmosis membranes and other products, exports from Japan were affected by the further appreciation of the yen. Among domestic subsidiaries in the segment, pharmaceutical-related plant construction and lithium-ion secondary battery-related machinery at an engineering subsidiary performed strongly.

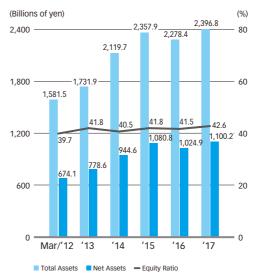
As a result, overall sales of the Environment & Engineering segment increased by ¥2.8 billion (1.5 %) to ¥186.1 billion from the previous year, and operating income also rose by ¥0.3 billion (3.3%) to ¥9.9 billion.

#### Life Science

In the pharmaceutical business, while the sales volume of pruritus treatment REMITCH®\* grew solidly, as the product received approval for an additional indication in 2015, it was also affected by a National Health Insurance drug price revision in April 2016. The shipment of natural-type interferon beta preparation FERON® and orally active prostacyclin derivative DORNER® remained sluggish due to the impact of alternative medicines and generic drugs.

In the medical devices business, the shipment of dialyzers grew strongly both in Japan and overseas.

#### **Total Assets and Net Assets**



<sup>\*</sup>Effective from the year ended March 31, 2014, certain overseas subsidiaries applied IAS 19 "Employee Benefits" (revised on June 16, 2011). As this change in accounting policy is applied retrospectively, the related financial data for 2013 reflect the retrospective application.

As a result, overall sales of the Life Science segment declined by \$1.7\$ billion (3.0%) to \$54.2\$ billion from the previous year, and operating income fell \$0.9\$ billion (30.0%) to \$2.1\$ billion.

\*REMITCH® is a registered trademark of Torii Pharmaceutical Co., Ltd.

#### Others

Net sales increased by \$0.2 billion (1.5%) from the previous fiscal year to \$14.9 billion, and operating income as well increased by \$0.0 billion (1.4%) to \$2.0 billion.

#### **FINANCIAL POSITION**

#### Analysis of Assets, Liabilities and Net Assets

Total assets of Toray Group as of March 31, 2017 stood at ¥2,396.8 billion, up by ¥118.4 billion compared to the previous fiscal year-end. Current assets increased by ¥57.2 billion mainly due to the increases in cash and time deposits as well as trade receivables. Total non-current assets also increased by ¥61.2 billion mainly due to the increases in property, plant and equipment and investment securities.

Total liabilities rose by 443.1 billion year on year to 41,296.6 billion, primarily due to the increases in trade payables and interest-bearing liabilities.

Total net assets increased by ¥75.3 billion from the previous fiscal year-end to ¥1,100.2 billion, reflecting the increase in retained earnings due to net income posted for fiscal 2016. Net assets less noncontrolling interests and stock acquisition rights stood at ¥1,021.3 billion. The equity ratio at the end of the year under review came to 42.6%, a 1.1 percentage-point increase compared with the level at the end of the previous fiscal year.

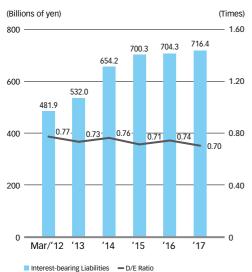
#### **CASH FLOWS**

For fiscal 2016, net cash provided by operating activities exceeded net cash used in investing activities by ¥38.7 billion. On the other hand, net cash used in financing activities resulted in ¥18.0 billion. Including the cash and cash equivalents at subsidiaries not previously included in consolidation and the effect of exchange rate changes, cash and cash equivalents as of March 31, 2017 amounted to ¥131.4 billion, up by ¥21.6 billion (19.7%).

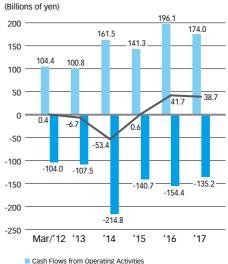
#### **Cash Flows from Operating Activities**

Net cash provided by operating activities decreased by ¥22.2 billion compared to the previous fiscal year to ¥174.0 billion. Major cash-increasing factors included income before income taxes and non-controlling interests of ¥139.0 billion, and depreciation and amortization of ¥89.1 billion. Major cash-decreasing factors, on the other hand, were the increase in trade receivables of ¥25.0 billion, the increase in inventories of ¥16.5 billion, and income taxes paid of ¥28.3 billion.

#### Interest-bearing Liabilities and D/E Ratio



#### **Cash Flows**



Cash Flows from Operating Activities
 Cash Flows from Investing Activities
 Free Cash Flows

#### **Cash Flows from Investing Activities**

Net cash used in investing activities totaled ¥135.2 billion, down by ¥19.2 billion compared to the previous fiscal year. Major cash-flow factors included capital expenditures of ¥143.9 billion.

#### **Cash Flows from Financing Activities**

Net cash used in financing activities decreased by ¥59.6 billion year on year to ¥18.0 billion. Repayment of long-term debt of ¥49.3 billion was offset by proceeds from long-term debt of ¥50.9 billion. In addition, short-term debt recorded a net increase of ¥8.6 billion, reversing the net decrease of ¥42.3 billion for the previous fiscal year.

#### **BUSINESS RISKS**

Operational and other risks faced by Toray Group that could have a major influence on the decisions of investors are described below. Toray Group works constantly to avoid such potential risks, minimize their impact, and build a system to enable swift responses and accurate information disclosure on the occurrence of unforeseen situations. Please note that the risks described below are those identified by Toray Group when this annual report was produced, and do not represent all the operational and other risks that could affect Toray Group.

# (1) Domestic and overseas demand and market trends

As a supplier of basic materials to a broad range of industries, Toray Group is exposed to various factors that could cause a sharp drop in demand for its products. These include changes in both worldwide and regional supply-demand conditions, increased use of substitute materials, and changes to the purchasing policies of business partners. In addition to severe competition with other companies, Toray Group's various businesses also face the risk of new players entering the market. Price fluctuations, stemming from the reduction of National Health Insurance (NHI) drug prices and reimbursement prices, also affect the pharmaceuticals and medical products business. Although Toray Group takes steps to maintain its competitive advantage, a decline in demand for, or falling prices of, such items, or the appearance of a credit risk affecting Toray Group's business partners, could have a negative impact on Toray Group's results of operations and financial conditions.

#### (2) Rising prices of fuel and raw materials

The prices of petrochemical raw materials and fuel used by Toray Group are subject to significant fluctuations. If Toray Group is unable to fully pass the increases in such prices on to its product prices, or cannot raise its product prices due to lack of progress in shifting to high-value-added products, its results of operations and financial conditions could be negatively affected.

# (3) Capital expenditures, joint ventures, alliances and acquisitions

Toray Group makes capital expenditures in a wide range of business fields. Its other activities include formation of various joint ventures or strategic alliances with third parties, as well as business acquisitions.

When Toray Group becomes involved in capital expenditures, joint ventures, alliances and acquisitions, it considers the potential for profitability and return on investment. However, there is not necessarily any guarantee that the outcome will be consistent with expectations. If unforeseen market changes or significant discrepancies between actual results and initial business plans occur due to sudden changes in the operating environment, there could be a loss on impairment of fixed assets or equity in losses of unconsolidated subsidiaries and affiliated companies. As a result, Toray Group's results of operations and financial conditions could be negatively affected.

#### (4) Foreign currency, interest rate and securities market fluctuations

Foreign currency exchange rate fluctuations affect Toray Group's consolidated financial statements when the financial statements of the overseas operations presented in local currencies are translated into yen. Toray Group takes measures, such as entering forward exchange contracts, to alleviate risks associated with transactions denominated in foreign currencies. However, unforeseen exchange rate fluctuations could have an impact on Toray Group's results of operations and financial conditions.

Moreover, rapid and unforeseen changes in interest rates and other aspects of financial market turmoils, as well as changes in the value of securities and pension assets held by Toray Group, may have an impact on Toray Group's results of operations and financial conditions.

#### (5) Changes in assumptions on which forecasts are based that might affect employee retirement benefit obligations and deferred tax assets

Toray's consolidated financial statements contain employee retirement benefit obligations based on future pension payments calculated in accordance with certain criteria, as well as deferred tax assets stated according to likely tax refunds based on taxable income estimates for the future fiscal years. However, if changes in the criteria used to calculate pension payments were to occur, or if fluctuations arose in the estimates of future taxable income, Toray Group's results of operations and financial conditions could be affected.

#### (6) Overseas operations

Toray Group is developing a broad geographical presence, with operations in various countries of Asia, Europe, and the Americas. Some of the major potential risks associated with various regions are summarized below. If such risks were to become reality, Toray Group's results of operations and financial conditions could be negatively affected.

- Unforeseen introduction, changes or abolition of laws and regulations such as changes in taxation systems
- Unforeseen economic or political events
- Social upheaval, including acts of terror or war

#### (7) Product liability

Toray Group strives to supply the world's best-in-class product quality. However, it cannot always guarantee against a major unforeseen quality problem. If quality-related serious situations were to occur, Toray Group's results of operations and financial conditions could be negatively affected.

#### (8) Lawsuits

In the course of conducting its wide range of business activities, Toray Group faces the risk of being targeted by legal action pertaining to various matters such as intellectual property, product liability, environment, and labor issues. If Toray Group were subject to a major lawsuit, its results of operations and financial conditions could be negatively affected.

#### (9) Laws and regulations, taxes, competition policies and internal controls

Various laws and regulations apply in the countries and regions where Toray Group conducts its business. These laws and regulations include regulations related to the environment, commercial trading, labor, intellectual property, taxation and foreign exchange, investment approval protocols and import/export controls, and policies on competition based on antitrust laws. Through the establishment and maintenance of internal control systems, Toray Group endeavors to comply with all such laws and regulations. However, changes to such laws and regulations, including the introduction of new environmental regulations and taxes, as well as changes to the corporate income tax rate could affect Toray Group's results of operations and financial conditions. Also, if Toray Group is judged as having violated such laws and regulations, is subject to government sanctions initiated by a fair trade commission, receives a notice of correction from tax authorities, has an employee who engages in illicit behavior, or is unable to uphold internal controls pertaining to financial statements, its results of operations and financial conditions could be negatively affected.

#### (10) Natural disasters and accidents

Toray Group places top priority on safety, accident prevention, and environmental preservation. To minimize losses caused by the suspension of production, Toray Group conducts regular accident prevention inspections, maintenance of its manufacturing facilities, and safety activities. However, the advent of a major natural disaster or unprecedented accident could cause damage to Toray Group's manufacturing facilities, or could cause inadequate supply of raw materials, which could have a negative impact on its results of operations and financial conditions.

#### (11) Information security risk

The Toray Group's information systems and networks are fundamentally essential elements in the execution of the Group's business operations and every security precaution is taken in their formulation and operation. Unauthorized access, data alteration, theft or deletion, an interruption of system operations that causes a work stoppage or leads to a lost of trust in the Group, or a leak of confidential information outside the Company, or other such incident could negatively impact the Toray Group's earnings and financial conditions.

## **Consolidated Balance Sheets**

Toray Industries, Inc. and Consolidated Subsidiaries March 31, 2017 and 2016

	Millions	Thousands of U.S. dollars (Note 2)	
ASSETS	2017	2016	2017
Current assets:			
Cash (Note 5)	¥ 97,920	¥ 89,976	\$ 872,727
Time deposits (Notes 4 and 5)	45,191	30,192	402,772
Trade receivables (Notes 5 and 7):			
Notes receivable	53,213	35,633	474,269
Accounts receivable	372,909	366,587	3,323,610
Inventories (Note 3)	409,332	394,034	3,648,235
Deferred tax assets (Note 10)	26,438	24,113	235,633
Prepaid expenses and other current assets (Notes 5 and 6)	63,911	70,815	569,617
Allowance for doubtful accounts	(2,205)	(1,791)	(19,652
Total current assets	1,066,709	1,009,559	9,507,210
Property, plant and equipment (Notes 4 and 13):			
Land	79,831	76,942	711,50
Buildings	602,423	584,763	5,369,189
Machinery and equipment	1,859,050	1,808,732	16,569,073
Construction in progress	107,562	97,497	958,663
Other	111,307	106,510	992,04
	2,760,173	2,674,444	24,600,472
Accumulated depreciation	(1,878,739)	(1,843,832)	(16,744,554
Property, plant and equipment, net	881,434	830,612	7,855,918
Intangible assets (Note 13):			
Goodwill	45,779	54,299	408,012
Other	31,516	32,860	280,891
Total intangible assets	77,295	87,159	688,904
Investments and other assets:			
Investments in unconsolidated subsidiaries and affiliated companies (Note 5)	113,206	118,949	1,008,966
Investment securities (Notes 4, 5 and 6)	186,512	158,541	1,662,317
Long-term loans receivable	1,566	1,494	13,957
Deferred tax assets (Note 10)	13,513	12,633	120,437
Other (Notes 4 and 8)	59,813	62,868	533,093
Allowance for doubtful accounts	(3,263)	(3,429)	(29,082
Total investments and other assets	371,347	351,056	3,309,688
Total investments and other assets	07 1,047	001,000	0,007,000
Total assets	¥ 2,396,785	¥ 2,278,386	\$ 21,361,720
See accompanying notes to consolidated financial statements			

See accompanying notes to consolidated financial statements.

	Millions	Thousands of U.S. dollars (Note 2)	
LIABILITIES AND NET ASSETS	2017	2016	2017
Current liabilities:			
Short-term bank loans (Notes 4, 5 and 7)	¥ 132,014	¥ 135,960	\$ 1,176,595
Current portion of long-term debt (Notes 4, 5 and 7)	110,244	48,507	982,567
Commercial paper (Note 5)	19,000	6,000	169,340
Trade payables (Notes 5 and 7):			
Notes payable	40,814	38,273	363,761
Accounts payable	188,378	174,870	1,678,948
Income taxes payable (Note 10)	18,560	15,815	165,419
Accrued liabilities	58,244	57,645	519,109
Other current liabilities (Notes 4 and 10)	102,722	94,278	915,526
Total current liabilities	669,976	571,348	5,971,266
Long-term debt (Notes 4, 5 and 7)	450,757	510,349	4,017,442
Deferred tax liabilities (Note 10)	43,320	34,632	386,096
Net defined benefit liability (Note 8)	103,459	104,803	922,094
Customers' guarantee deposits and other liabilities (Note 4)	29,097	32,345	259,332
Total liabilities	1,296,609	1,253,477	11,556,230
Commitments and contingent liabilities (Note 12)  Net assets (Note 11): Stockholders' equity:			
Common stock: Authorized—4,000,000,000 shares Issued—1,631,481,403 shares	147,873	147,873	1,317,941
Capital surplus	121,091	119,180	1,079,242
Retained earnings	691,290	614,334	6,161,230
Treasury stock, at cost	(20,822)	(21,163)	(185,579)
Total stockholders' equity	939,432	860,224	8,372,834
Accumulated other comprehensive income:			
Net unrealized gains on securities	66,513	61,272	592,807
Net deferred gains (losses) on hedges	21	(490)	187
Foreign currency translation adjustments	13,764	29,270	122,674
Remeasurements of defined benefit plans	1,542	(4,708)	13,743
Total accumulated other comprehensive income	81,840	85,344	729,412
Stock acquisition rights (Note 9)	1,205	1,181	10,740
Non-controlling interests	77,699	78,160	692,504
Total net assets	1,100,176	1,024,909	9,805,490
Total liabilities and net assets	¥2,396,785	¥2,278,386	\$21,361,720

#### **Consolidated Statements of Income**

Toray Industries, Inc. and Consolidated Subsidiaries Years ended March 31, 2017 and 2016

	Millions	Thousands of U.S. dollars (Note 2)	
	2017	2016	2017
Net sales	¥2,026,470	¥2,104,430	\$18,061,230
Costs and expenses:			
Cost of sales (Notes 3, 8, 13 and 14)	1,596,472	1,662,556	14,228,806
Selling, general and administrative expenses (Notes 8, 9, 13 and 14)	283,105	287,394	2,523,217
	1,879,577	1,949,950	16,752,023
Operating income	146,893	154,480	1,309,207
Other income (expenses):			
Interest expense	(4,654)	(5,350)	(41,480)
Interest and dividend income	5,010	5,042	44,652
Equity in earnings of unconsolidated subsidiaries and affiliated companies	7,506	5,016	66,898
Loss on sales and disposal of property, plant and equipment, net	(4,971)	(5,098)	(44,305)
Loss on impairment of fixed assets (Note 15)	(2,925)	(9,063)	(26,070)
Gain on sales and loss on write-down of investment securities, net	2,951	2,273	26,301
Other, net	(10,798)	(9,492)	(96,239)
	(7,881)	(16,672)	(70,241)
Income before income taxes and non-controlling interests	139,012	137,808	1,238,966
Income taxes (Note 10):			
Current	31,361	31,435	279,510
Deferred	1,708	9,191	15,223
	33,069	40,626	294,733
Net income	105,943	97,182	944,234
Net income attributable to non-controlling interests	(6,525)	(7,050)	(58,155)
Net income attributable to owners of parent	¥ 99,418	¥ 90,132	\$ 886,078

See accompanying notes to consolidated financial statements.

## **Consolidated Statements of Comprehensive Income**

Toray Industries, Inc. and Consolidated Subsidiaries Years ended March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars (Note 2)
	2017	2016	2017
Net income	¥105,943	¥ 97,182	\$ 944,234
Other comprehensive income (Note 16)			
Net unrealized gains (losses) on securities	5,131	(17,868)	45,731
Net deferred gains (losses) on hedges	643	(100)	5,731
Foreign currency translation adjustments	(14,114)	(59,118)	(125,793)
Remeasurements of defined benefit plans	6,305	(3,273)	56,194
Share of other comprehensive income of unconsolidated subsidiaries and affiliated companies accounted for by the equity method	(1,950)	(3,933)	(17,380)
Total other comprehensive income	(3,985)	(84,292)	(35,517)
Comprehensive income	¥101,958	¥ 12,890	\$ 908,717
Total comprehensive income attributable to:			
Owners of parent	¥ 95,914	¥ 10,881	\$ 854,848
Non-controlling interests	6,044	2,009	53,868

See accompanying notes to consolidated financial statements.

## **Consolidated Statements of Changes in Net Assets**

Toray Industries, Inc. and Consolidated Subsidiaries Years ended March 31, 2017 and 2016

							Millions of year	n					
		Stockholders' equity Accumulated other comprehensive income											
	Common stock	Capital surplus	Retained earnings	Treasury stock, at cost	Total stockholders' equity	Net unrealized gains on securities	Net deferred gains (losses) on hedges		ments of defined	Total accumulated other comprehen- s sive income		Non- controlling interests	Total net assets
Balance as of April 1, 2015 Changes in:	¥147,873	¥136,727	¥544,557	¥(21,345)	¥807,812	¥ 79,093	¥(387)	¥100,097	¥ (947)	¥177,856	¥1,207	¥ 93,882	¥1,080,757
Dividends			(19,191)		(19,191)								(19,191)
Net income attributable to owners of parent			90,132		90,132								90,132
Purchase of treasury stock			70,102	(64)	(64)								(64)
Disposition of treasury stock		(52)		246	194								194
Change in equity attributable to parent arising from transaction with non-controlling shareholders		(17,547)			(17,547)								(17,547)
Effect of change in accounting period of subsidiaries		(11/211/											
and affiliated companies			(1,105)		(1,105)								(1,105)
Other		52	(59)		(7)								(7)
Items other than						(47.004)	(400)	(70.007)	(2.7/4)	(00 540)	(0/)	/4F 700°	(100.0/0)
stockholders' equity, net Total changes		(17,547)	69,777	182	52,412	(17,821)	(103)	(70,827) (70,827)	(3,761)	(92,512)	(26)	(15,722)	(108,260)
Balance as of March 31, 2016	¥147,873	¥119.180	¥614,334	¥(21,163)	¥860,224	¥ 61,272	¥(490)	¥ 29,270	¥(4,708)	¥ 85,344	¥1,181	¥ 78,160	¥1,024,909
Balance as of April 1, 2016	¥147,873	¥119,180	¥614,334	¥(21,163)	¥860,224	¥ 61,272	¥(490)	¥ 29,270	¥(4,708)	¥ 85,344	¥1,181	¥ 78,160	¥1,024,909
Changes in:	1111/070	11177100	1011,001	1(21)100)	1000/221	. 01,272	1(170)	. 27,270	1(1), 00)	1 00,011	,	1 70,100	11,021,707
Dividends			(22,396)		(22,396)								(22,396)
Net income attributable to owners of parent			99,418		99,418								99,418
Purchase of treasury stock				(25)	(25)								(25)
Disposition of treasury stock		(43)		366	323								323
Change in equity attributable to parent arising from transaction with non-controlling shareholders		1,911			1,911								1,911
Effect of change in accounting period of subsidiaries and affiliated companies					_								_
Other Items other than		43	(66)		(23)								(23)
stockholders' equity, net						5,241	511	(15,506)	6,250	(3,504)	24	(461)	(3,941)
Total changes	_	1,911	76,956	341	79,208	5,241	511	(15,506)	6,250	(3,504)	24	(461)	75,267
Balance as of March 31, 2017	¥147,873	¥121,091	¥691,290	¥(20,822)	¥939,432	¥ 66,513	¥ 21	¥ 13,764	¥ 1,542	¥ 81,840	¥1,205	¥ 77,699	¥1,100,176
						Thousand	ls of U.S. dolla	rs (Note 2)	-				
		Sto	ckholders' eq	uity			Accumulated o	other comprel	hensive inco	ne Total			
	Common stock	Capital surplus	Retained earnings	Treasury stock, at cost	Total stockholders' equity	Net unrealized gains on securities	Net deferred gains (losses) on hedges		ments of defined	accumulated other comprehen- s sive income	Stock acquisition rights	Non- controlling interests	Total net assets
Balance as of April 1, 2016	\$1,317,941	\$1,062,210	\$5,475,348	\$(188,619)	\$7,666,881	\$546,096	\$(4,367)	\$ 260,873	\$(41,961)	\$760,642	\$10,526	\$696,613	\$9,134,661
Changes in: Dividends			(199,608)		(199,608)								(199,608)
Net income attributable to owners of parent			886,078		886,078								886,078
Purchase of treasury stock			000,070	(223)	(223)								(223)
Disposition of treasury stock		(383)		3,262	2,879								2,879
Change in equity attributable to parent arising from transaction with non-controlling shareholders		17,032			17,032								17,032
Effect of change in accounting period of subsidiaries and affiliated companies					_								_
Other		383	(588)		(205)								(205)
Items other than stockholders' equity, net		47.000	/05.000	2.022	705.05*	46,711	4,554	(138,200)	55,704	(31,230)	214	(4,109)	(35,125)
Total changes	£1 247 044	17,032	685,882	3,039	705,954	46,711	4,554	(138,200)	55,704	(31,230)	\$10.740	(4,109)	670,829
Balance as of March 31, 2017	\$1,317,947	\$1,079,242	\$6,161,230	\$(185,579)	\$8,372,834	\$592,807	\$ 187	\$ 122,674	\$ 13,743	\$729,412	\$10,740	\$692,504	\$9,805,490

See accompanying notes to consolidated financial statements.

## **Consolidated Statements of Cash Flows**

Toray Industries, Inc. and Consolidated Subsidiaries Years ended March 31, 2017 and 2016

	Millions	of yen	Thousands of U.S. dollars (Note 2)
	2017	2016	2017
Cash flows from operating activities:			
Income before income taxes and non-controlling interests	¥ 139,012	¥ 137,808	\$ 1,238,966
Adjustments to reconcile income before income taxes and non-controlling interests to net cash provided by operating activities:			
Depreciation and amortization	89,073	91,168	793,877
Loss on impairment of fixed assets	2,925	9,063	26,070
Interest and dividend income	(5,010)	(5,042)	(44,652)
Equity in earnings of unconsolidated subsidiaries and affiliated companies	(7,506)	(5,016)	(66,898)
Interest expense	4,654	5,350	41,480
Loss on sales and disposal of property, plant and equipment, net	4,971	5,098	44,305
Gain and loss on sales and loss on write-down of investment securities, net	(3,010)	(1,998)	(26,827)
Decrease in net defined benefit liability	(234)	(2,829)	(2,086)
Increase in trade receivables	(24,993)	(20,775)	(222,754)
Increase in inventories	(16,483)	(15,207)	(146,907)
Increase (decrease) in trade payables	17,982	(473)	160,267
Other, net	(3,714)	16,817	(33,102)
Subtotal	197,667	213,964	1,761,738
Interest and dividends received	9,175	14,945	81,774
Interest paid	(4,572)	(5,212)	(40,749)
Income taxes paid	(28,312)	(27,555)	(252,335)
Net cash provided by operating activities	173,958	196,142	1,550,428
Cash flows from investing activities:			
Capital expenditures	(143,894)	(129,114)	(1,282,478)
Purchases of investment securities	(4,616)	(11,308)	(41,141)
Proceeds from sales of property, plant and equipment	2,114	1,702	18,841
Proceeds from sales of investment securities	7,009	5,762	62,469
Acquisition of shares of consolidated subsidiaries resulting in change in scope of consolidation	_	(6,226)	_
Other, net	4,145	(15,230)	36,943
Net cash used in investing activities	(135,242)	(154,414)	(1,205,365)
Cash flows from financing activities:			
Net increase (decrease) in short-term debt	8,621	(42,255)	76,836
Proceeds from long-term debt	50,929	88,182	453,913
Repayment of long-term debt	(49,323)	(66,894)	(439,599)
Cash dividends paid	(24,316)	(20,600)	(216,720)
Payments from changes in ownership interests in subsidiaries that do not	(24/010/	(20,000)	(210)/20)
result in change in scope of consolidation	(3,064)	(32,024)	(27,308)
Other, net	(865)	(4,014)	(7,709)
Net cash used in financing activities	(18,018)	(77,605)	(160,588)
Effect of exchange rate changes on cash and cash equivalents	(847)	(7,860)	(7,549)
Net increase (decrease) in cash and cash equivalents	19,851	(43,737)	176,925
Cash and cash equivalents at beginning of year	109,778	112,489	978,414
Beginning balance of cash and cash equivalents at subsidiaries not previously included in consolidation	1,712	57	15,258
Increase in cash and cash equivalents resulting from change in accounting period of consolidated subsidiaries		40,969	
Increase in cash and cash equivalents resulting from merger with unconsolidated subsidiaries	64	_	570
Cash and cash equivalents at end of year	¥ 131,405	¥ 109,778	\$ 1,171,168
oush and oush equivalents at the Oi year	+ 131,403	+ 107,//0	φ 1, 17 1, 108

#### **Notes to Consolidated Financial Statements**

Toray Industries, Inc. and Consolidated Subsidiaries Years ended March 31, 2017 and 2016

#### 1. SIGNIFICANT ACCOUNTING POLICIES

#### a) Basis of Presenting Consolidated Financial Statements

The accompanying consolidated financial statements of Toray Industries, Inc. (the "Company") and its consolidated subsidiaries have been prepared in accordance with the provisions set forth in the Financial Instruments and Exchange Act of Japan and its related accounting regulations, and in conformity with accounting principles and practices generally accepted in Japan, which are different in certain respects as to application and disclosure requirements of International Financial Reporting Standards.

For the preparation of consolidated financial statements, the accounting policies and procedures applied to a parent company and its subsidiaries for similar transactions and events under similar circumstances should be unified, in principle. However, financial statements prepared by overseas subsidiaries in accordance with International Financial Reporting Standards or the generally accepted accounting principles in the United States tentatively may be used for the consolidation process. In addition, some items should be adjusted in the consolidation process so that net income is accurately accounted for, unless they are not material.

Certain items presented in the original consolidated financial statements in Japanese have been reclassified for the convenience of readers outside Japan.

#### b) Principles of Consolidation

The accompanying consolidated financial statements include the accounts of the Company and substantially all of its subsidiaries.

Assets and liabilities of the consolidated subsidiaries are revalued to fair market value when the Company acquires control over the subsidiaries

Investments in unconsolidated subsidiaries and affiliated companies are accounted for by the equity method.

All intercompany accounts and transactions have been eliminated in consolidation. The difference between the acquisition cost and the underlying net assets of the subsidiaries is recognized as goodwill and amortized principally over its estimated useful life not exceeding twenty years on a straight-line method.

#### c) Cash and Cash Equivalents

Cash and cash equivalents at March 31, 2017 and 2016 include cash, short-term time deposits which may be withdrawn on demand without diminution of principal and highly liquid investments with original maturities of three months or less.

Cash and cash equivalents consisted of:

	Millions	U.S. dollars	
	2017	2016	2017
Cash	¥ 97,920	¥ 89,976	\$ 872,727
Time deposits	45,191	30,192	402,772
Less—Time deposits with maturities of over 3 months	(11,746)	(10,390)	(104,688)
Marketable securities with original maturities of			
3 months or less	40		357
Cash and cash equivalents	¥131,405	¥109,778	\$1,171,168

## d) Financial Instruments

#### Derivatives:

All derivatives are stated at fair value, with changes in fair value included in net income or loss for the period in which they arise, except for derivatives that are designated as "hedging instruments" (see Hedge Accounting below).

#### Securities:

Held-to-maturity debt securities that the Company and its consolidated subsidiaries have the intent to hold to maturity, are stated at cost after accounting for premium or discount on acquisition, which are amortized over the period to maturity.

Other securities for which market quotations are available are stated at fair value. Net unrealized gains or losses on these securities are reported as a separate item in net assets at a net-of-tax amount.

Other securities for which market quotations are unavailable are stated at cost, except as stated in the paragraph below.

In cases where the fair value of held-to-maturity debt securities or other securities has declined significantly and such impairment of the value is not deemed temporary, those securities are written down to fair value and the resulting losses are included in net income or loss for the period.

#### Hedge Accounting:

Gains or losses arising from changes in fair value of derivatives designated as "hedging instruments" are deferred as a separate item of net assets at a net-of-tax amount and included in net income or loss in the same period during which the gains and losses on the hedged items or transactions are recognized.

The derivatives designated as hedging instruments by the Company and its consolidated subsidiaries are principally interest rate swaps and forward foreign exchange contracts. The related hedged items are trade accounts receivable and payable, long-term bank loans and debt securities issued by the Company and its consolidated subsidiaries.

The Company and its consolidated subsidiaries have a policy to utilize the above hedging instruments in order to reduce their exposure to the risk of interest rate and foreign currency fluctuations. Thus, their purchases of the hedging instruments are limited to, at maximum, the amounts of the hedged items.

The Company and its consolidated subsidiaries evaluate the effectiveness of hedging activities by reference to the accumulated gains or losses on the hedging instruments and the related hedged items from the commencement of the hedges.

#### e) Allowance for Doubtful Accounts

In the Company and its domestic consolidated subsidiaries, an allowance for doubtful accounts, including receivables and loans, is determined from the amounts considered unlikely to be recovered, estimated from past actual bad debt ratio records for general receivables and from studying the probability of recovery in individual cases where there is concern over claims.

#### f) Inventories

Inventories are stated at the lower of acquisition cost, principally determined by the moving average method, or net selling value to reflect any decreased profitability of inventories.

#### g) Property, Plant and Equipment

Property, plant and equipment are stated at cost.

Depreciation for property, plant and equipment (except leased assets) is principally computed by the straight-line method at rates based on estimated useful lives that are as follows:

Buildings 3–60 years Machinery and equipment 3–15 years

Principally, a depreciation method of leased assets is identical to the method applicable to its own fixed assets.

#### h) Income Taxes

Income taxes of the Company and its domestic consolidated subsidiaries consist of corporate income taxes, local inhabitants taxes and enterprise taxes. Deferred income taxes are determined using the asset and liability approach, where deferred tax assets and liabilities are recognized for temporary differences between the tax basis of assets and liabilities and their reported amount in the financial statements. The Company also provides for the anticipated tax effect of future remittances of retained earnings from subsidiaries and affiliated companies.

The Company and some of its domestic consolidated subsidiaries adopt the consolidated taxation system.

#### i) Consumption Taxes

Transactions subject to consumption taxes are recorded at amounts exclusive of consumption taxes.

#### j) Retirement Benefits

The Company and its domestic consolidated subsidiaries have an unfunded lump-sum benefit plan, a funded contributory pension plan and a defined contribution pension plan covering all eligible employees.

Under the terms of the unfunded lump-sum benefit plan, eligible employees are entitled under most circumstances, upon mandatory retirement or earlier voluntary severance, to indemnities based on compensation at the time of severance and years of service.

The funded contributory pension plan and the defined contribution pension plan provide, in general, pension payments for life commencing from age 60.

To provide for the payment of retirement benefits to employees, net defined benefit liability is recognized at an amount equal to the expected retirement benefit obligations net of the fair value of pension assets at the end of the period.

Past service cost is amortized as incurred using the straight-line method over a certain period within the employees' average remaining years of service (primarily 13 years).

Actuarial gains and losses are amortized from the following fiscal year after recognition using the straight-line method over a certain period within the employees' average remaining years of service (primarily 13 years).

Unrecognized actuarial gains and losses and unrecognized past service cost are recognized in remeasurements of defined benefit plans in accumulated other comprehensive income under the net assets section, net of deferred taxes.

Allowance for retirement benefits for members of the Board and corporate auditors ("executives") of the Company and certain of its domestic consolidated subsidiaries is provided based on the companies' pertinent rules and is calculated as the estimated amount which would be payable if all executives were to retire at the balance sheet date. Any amounts payable to executives upon retirement are subject to approval at the annual stockholders' meeting. The amount is included in "customers' guarantee deposits and other liabilities" on the consolidated balance sheets.

#### k) Appropriation of Retained Earnings

Cash dividends are recorded in the fiscal year when the proposed appropriation of retained earnings is approved by the Board of Directors and/or stockholders.

#### I) Foreign Currency Transactions

All monetary assets and liabilities denominated in foreign currencies, whether long-term or short-term, are translated into Japanese yen at the exchange rates prevailing at the balance sheet date. Resulting gains and losses are included in net income or loss for the period.

#### m) Translation of Foreign Currency Financial Statements

Translation of foreign currency financial statements of overseas subsidiaries into Japanese yen for consolidation purposes is made by using the current exchange rates prevailing at their balance sheet dates, with the exception that the translation of stockholders' equity is made by using historical rates. Revenue and expense accounts are principally translated at the average exchange rates during the year. Differences in yen amounts arising from the use of different rates are presented as "foreign currency translation adjustments" in net assets except for the portion belonging to non-controlling shareholders, which is included in "non-controlling interests" in net assets.

# n) Application of Revised Implementation Guidance on Recoverability of Deferred Tax Assets

The Company and its consolidated subsidiaries adopted "Revised Implementation Guidance on Recoverability of Deferred Tax Assets" (ASBJ Guidance No. 26, March 28, 2016) from the beginning of the year ended March 31, 2017.

#### 2. U.S. DOLLAR AMOUNTS

The Company and its domestic consolidated subsidiaries maintain their accounting records in yen. The U.S. dollar amounts included in the accompanying consolidated financial statements and notes thereto represent the arithmetic results of translating yen into U.S. dollars at the rate of ¥112.2 to \$1.00, the approximate exchange rate prevailing on March

31, 2017. The inclusion of such U.S. dollar amounts is solely for the convenience of readers outside Japan and is not intended to imply that the assets and liabilities that originated in yen have been or could be readily converted, realized or settled in U.S. dollars at this or at any other rate.

Thousands of

#### 3. INVENTORIES

At March 31, 2017 and 2016, inventories consisted of the following:

Millions of yen		
2017	2016	2017
¥235,127	¥229,199	\$2,095,606
78,646	75,992	700,945
95,559	88,843	851,684
¥409,332	¥394,034	\$3,648,235
	2017 ¥235,127 78,646 95,559	2017     2016       ¥235,127     ¥229,199       78,646     75,992       95,559     88,843

Losses recognized and charged to cost of sales as a result of valuation at March 31, 2017 and 2016 were ¥6,246 million (\$55,668 thousand) and ¥6,443 million, respectively.

## 4. SHORT-TERM BANK LOANS, LONG-TERM DEBT AND LEASE OBLIGATIONS

Short-term bank loans at March 31, 2017 and 2016 represented bank overdrafts and short-term notes. The Company is not required to pay commitment fees on unused balances of the bank overdraft agreements.

Long-term debt and lease obligations at March 31, 2017 and 2016 were as follows:

Millions of yen		Thousands of U.S. dollars
2017	2016	2017
¥420,399	¥418,581	\$3,746,872
592	255	5,276
4,384	3,437	39,073
10	20	89
20,000	20,000	178,253
20,000	20,000	178,253
50,000	50,000	445,633
50,000	50,000	445,633
565,385	562,293	5,039,082
111,376	49,558	992,656
¥454,009	¥512,735	\$4,046,426
	2017 ¥420,399 592 4,384 10 20,000 20,000 50,000 50,000 565,385 111,376	2017     2016       ¥420,399     ¥418,581       592     255       4,384     3,437       10     20       20,000     20,000       20,000     20,000       50,000     50,000       50,000     50,000       565,385     562,293       111,376     49,558

At March 31, 2017, assets pledged as collateral were as follows:

	Millions of yen	U.S. dollars
Time deposits	¥ 828	\$ 7,380
Property, plant and equipment, net	4,045	36,052
Investment securities	1,023	9,118
Others	518	4,617
	¥6,414	\$57,166

The annual maturities of long-term debt and lease obligations subsequent to March 31, 2017 were as follows:

Years ending March 31: 2018		
	¥111,376	\$ 992,656
2019	62,007	552,647
2020	64,451	574,430
2021	66,946	596,667
2022	68,070	606,684
2023 and thereafter	192,535	1,715,998
	¥565,385	\$5,039,082

#### **5. FINANCIAL INSTRUMENTS**

## Conditions of Financial Instruments

#### a) Policy in Relation to Financial Instruments

The policy of the Company and its consolidated subsidiaries is to manage funds only by short-term deposits, etc. and to raise funds by borrowing from banks and issuing corporate bonds. The Company and its consolidated subsidiaries use derivatives to hedge risks associated with foreign currency exchange rates and fluctuations of borrowing interest rates and do not enter into derivative transactions for speculative or trading purposes.

#### b) Contents and Risk of Financial Instruments and Risk Management System

Trade receivables are operating receivables and therefore are exposed to customer credit risk. Under its internal regulations, the Company carefully manages the payment periods for receivables and outstanding balances of all customers and regularly monitors the credit standing of major clients. Consolidated subsidiaries also monitor and manage the credit standings of their clients. Operating receivables and payables denominated in foreign currencies that arise from the global business operations are also exposed to foreign currency exchange risk. The Company and its consolidated subsidiaries hedge this risk mainly through the use of forward exchange contracts against positions after netting receivables and payables denominated in the same foreign currencies. Likewise, the Company and its consolidated subsidiaries mainly use currency swaps to hedge the foreign currency exchange risk of bank loans denominated in foreign currencies.

Investment securities are mostly the shares of corporations with which the Group has business relationships and are exposed to the risk of market price fluctuations. The fair value of the investment securities and financial positions of the issuing entities (clients) are regularly monitored.

Trade payables are operating payables, most of which are due and payable within one year.

Short-term bank loans and commercial paper are financing instruments mainly for operating transactions, while long-term bank loans and bonds (due within ten years, in principle) are primarily for capital expenditures. Bank loans and bonds are exposed to the risk of interest rate fluctuation. Bank loans and bonds at floating interest rates carry the risk of higher interest expenses when rates rise, while bank loans and bonds at fixed interest rates carry the risk of higher interest expenses when rates fall. The Company and its consolidated subsidiaries use derivative transactions (interest rate swap transactions) to minimize the risk of interest rate fluctuation, taking into consideration the balance between fixed interest rates and floating interest rates.

Hedging instruments, hedged items, the policy for utilizing such hedging instruments and the method for evaluating the effectiveness of hedging activities are described in Note 1. SIGNIFICANT ACCOUNTING POLICIES d) Financial Instruments, Hedge Accounting in the Notes to the Consolidated Financial Statements.

Derivative transactions are executed and managed in accordance with the internal regulations prescribing the authorization for transactions. To mitigate credit risk, the Company and its consolidated subsidiaries carry out derivative transactions only with highly rated financial institutions.

# c) Supplemental Explanation on Fair Value of Financial Instruments

The fair value of financial instruments is based on market prices, or reasonable estimate of fair value for instruments for which market prices are not available. Estimates of fair value are subject to fluctuation because they employ various factors and assumptions. In addition, the contract amount of derivatives in Note 7. DERIVATIVES in the Notes to the Consolidated Financial Statements is not an indicator of market risk associated with derivative transactions.

#### **Fair Value of Financial Instruments**

Carrying value, fair value and unrealized gain (loss) as of March 31, 2017 and 2016 were as follows.

In addition, financial instruments, for which it is extremely difficult to measure the fair value, are not included. (Please refer to Note 2 below).

		Millions of yen	
		2017	
	Carrying value	Fair value	Unrealized gain (loss)
Cash and time deposits	¥143,111	¥143,111	¥ —
Trade receivables	426,122	426,122	_
Investment securities			
Held-to-maturity debt securities	100	103	3
Investment securities in subsidiaries and affiliated companies	22,001	20,788	(1,213)
Other securities	177,825	177,825	_
Assets	¥769,159	¥767,949	¥ (1,210)
Trade payables	¥229,192	¥229,192	¥ —
Short-term bank loans	132,014	132,014	_
Commercial paper	19,000	19,000	_
Bonds*1	140,010	162,942	22,932
Long-term bank loans*2	420,991	420,261	(730)
Liabilities	¥941,207	¥963,409	¥22,202
Derivative transactions*3			
Hedge accounting is not applied	¥ (135)	¥ (135)	¥ —
Hedge accounting is applied	101	101	_
Derivative transactions	¥ (34)	¥ (34)	¥ —
		Millions of yen 2016	
	Carrying value	Fair value	Unrealized gain (loss)
Cash and time deposits	¥120,168	¥120,168	¥ —
Trade receivables	402,220	402,220	
Investment securities			
Held-to-maturity debt securities	105	110	5
Investment securities in subsidiaries and affiliated companies	20,785	19,178	(1,607)
Other securities	151,051	151,051	_
Assets	¥694,329	¥692,727	¥ (1,602)
Trade payables	¥213,143	¥213,143	¥ —
Short-term bank loans	135,960	135,960	_
Commercial paper	6,000	6,000	_
Bonds*1	140,020	163,078	23,058
Long-term bank loans*2	418,836	422,631	3,795
Liabilities	¥913,959	¥940,812	¥26,853
Derivative transactions*3			
Hedge accounting is not applied	¥ 56	¥ 56	¥ —
Hedge accounting is applied	12	12	
Derivative transactions	¥ 68	¥ 68	¥ —

Thousands of U.S. dollars

2017				
Carrying value	Fair value	Unrealized gain (loss)		
\$1,275,499	\$1,275,499	\$ <u></u>		
3,797,879	3,797,879	_		
891	918	27		
196,087	185,276	(10,811)		
1,584,893	1,584,893	_		
\$6,855,250	\$6,844,465	\$ (10,784)		
\$2,042,709	\$2,042,709	\$ —		
1,176,595	1,176,595	_		
169,340	169,340	_		
1,247,861	1,452,246	204,385		
3,752,148	3,745,642	(6,506)		
\$8,388,654	\$8,586,533	\$197,879		
\$ (1,203)	\$ (1,203)	<b>\$</b> —		
900	900	_		
\$ (303)	\$ (303)	\$ —		
	\$1,275,499 3,797,879  891 196,087 1,584,893 \$6,855,250 \$2,042,709 1,176,595 169,340 1,247,861 3,752,148 \$8,388,654  \$ (1,203) 900	\$1,275,499 \$1,275,499 3,797,879 3,797,879  891 918 196,087 185,276 1,584,893 1,584,893 \$6,855,250 \$6,844,465 \$2,042,709 \$2,042,709 1,176,595 1,176,595 169,340 169,340 1,247,861 1,452,246 3,752,148 3,745,642 \$8,388,654 \$8,586,533 \$ (1,203) \$ (1,203) 900 900		

<sup>\*1</sup> Bonds include bonds due within one year.

#### Notes:

1. Estimation method for fair value of financial instruments and items related to securities and derivative transactions Assets

#### Cash and time deposits and Trade receivables

Carrying value is used for fair value since the items will be settled within the short term and the fair value is approximately equal to the carrying value.

#### Investment securities

Securities are valued at quoted market price. Debt securities, etc. are valued at quoted market price or at the price provided by correspondent financial institutions. For information on securities classified by holding purpose, please refer to Note 6. SECURITIES of the Notes to the Consolidated Financial Statements.

#### Liabilities

Trade payables, Short-term bank loans and Commercial paper

Carrying value is used for fair value since the items will be settled within the short term and the fair value is approximately equal to the carrying value.

#### Ronds

The fair value of bonds with market price is based on market price. The fair value of bonds without market price is estimated by discounting the principal amounts and interest based on interest rates adjusted for the remaining periods and credit risk of the bonds. However, for floating-rate bonds or fixed-rate bonds converted to floating using interest rate swaps accounted for under the special accounting treatment for interest rate swaps, the fair value is approximately equal to the carrying value because the interest rates are adjusted periodically. Therefore, the fair value is based on the carrying value.

#### Long-term bank loans

The fair value of long-term bank loans is estimated by discounting the principal amounts and interest based on estimated interest rates if similar new loans were entered into in the current period. The fair value of long-term bank loans for which the special accounting method for interest rate swaps is applied is estimated by discounting the total principal amount and interest (accounted for together with the interest rate swaps) based on estimated interest rates if similar new loans were entered into in the current period. For long-term bank loans at floating interest rates, however, the fair value is approximately equal to the carrying value because the interest rates are adjusted periodically. Therefore, the fair value is based on the carrying value.

#### Derivative transactions

Please refer to Note 7. DERIVATIVES in the Notes to the Consolidated Financial Statements.

<sup>\*2</sup> Long-term bank loans include long-term bank loans due within one year.

<sup>\*3</sup> Receivables and payables arising from derivative transactions are indicated in net amounts. Total net payables, if any, are shown in parentheses.

#### 2. Financial instruments for which it is extremely difficult to determine the fair value

,	Million	s of yen	Thousands of U.S. dollars
	2017	2016	2017
Unlisted equity securities	¥78,266	¥83,080	\$ 697,558
Unlisted debt securities	2,000	2,000	17,825

These securities have no quoted market price and the fair value is extremely difficult to determine. Therefore, they are not included in the preceding table.

#### 3.

		Million	s of yen				
	<del></del>	20	)17				
	Due within one year	Due after one year through five years	Due after five years through ten years	Due after ten years			
Cash and time deposits	¥143,111	¥—	¥—	¥—			
Trade receivables	426,112	10	_	_			
Investment securities							
Held-to-maturity debt securities	9	79	12	_			
Other securities	40	1	60	_			
	¥569,272	¥90	¥72	¥—			
	Millions of yen						
	2016						
	Due within one year	Due after one year through five years	Due after five years through ten years	Due after ten years			
Cash and time deposits	¥120,168	¥ —	¥—	¥ —			
Trade receivables	402,106	114	_	_			
Investment securities							
Held-to-maturity debt securities	16	79	10	_			
Other securities	986	_	10	100			
	¥523,276	¥193	¥20	¥100			
	Thousands of U.S. dollars						
		2017					
	Due within one year	Due after one year through five years	Due after five years through ten years	Due after ten years			
Cash and time deposits	\$1,275,499	\$ —	\$ —	\$-			
Trade receivables	3,797,790	89	_	_			
Investment securities							
Held-to-maturity debt securities	80	704	107	_			
Other securities	357	9	535	_			
	\$5,073,725	\$802	\$642	\$-			

<sup>4.</sup> The redemption schedule for long-term debt is disclosed in Note 4. SHORT-TERM BANK LOANS, LONG-TERM DEBT AND LEASE OBLIGATIONS of the Notes to the Consolidated Financial Statements.

#### **6. SECURITIES**

At March 31, 2017 and 2016, information on securities classified as held-to-maturity debt securities was as follows:

		Millior	ns of yen			Thousands	of U.S. dollars	
	2017				2	017		
	Carrying value	Fair value	Unrealized gains	Unrealized losses	Carrying value	Fair value	Unrealized gains	Unrealized losses
Held-to-maturity debt securities	¥100	¥103	¥3	¥0	\$891	\$918	\$27	\$0

	Millions of yen					
	2016					
	Carrying value	Fair value	Unrealized gains	Unrealized losses		
Held-to-maturity debt securities	¥105	¥110	¥5	¥—		

At March 31, 2017 and 2016, information on securities classified as other securities was as follows:

		Millions	s of yen			Thousands o	of U.S. dollars	
	2017				20	17		
	Carrying value	Acquisition cost	Unrealized gains	Unrealized losses	Carrying value	Acquisition cost	Unrealized gains	Unrealized losses
Other securities	¥177,825	¥84,862	¥95,378	¥2,415	\$1,584,893	\$756,346	\$850,071	\$21,524

		Millions of yen					
	2016						
	Carrying value	Acquisition cost	Unrealized gains	Unrealized losses			
Other securities	¥151,051	¥65,632	¥87,758	¥2,339			

## 7. DERIVATIVES

The Company and its consolidated subsidiaries had the following derivative contracts outstanding at March 31, 2017 and 2016:

Hedge accounting is not applied	Millions of yen			Thousands of U.S. dollars		
		2017		2017		
	Contract amount	Fair value	Unrealized gain (loss)	Contract amount	Fair value	Unrealized gain (loss)
Forward foreign exchange contracts:						
Buying U.S. dollar	¥9,964	¥ 36	¥ 36	\$88,806	\$ 321	\$ 321
Buying euro	1,141	(10)	(10)	10,169	(89)	(89)
Buying Thai baht	319	37	37	2,843	330	330
Buying Japanese yen	4,397	(211)	(211)	39,189	(1,881)	(1,881)
Selling U.S. dollar	9,098	(9)	(9)	81,087	(80)	(80)
Selling euro	446	(5)	(5)	3,975	(45)	(45)
Selling British pound	67	(0)	(0)	597	(0)	(0)
Selling Chinese yuan	107	1	1	954	9	9
Selling Japanese yen	2,053	(27)	(27)	18,298	(241)	(241)
Foreign currency swaps:						
Receiving U.S. dollar, paying Thai baht	5,075	53	53	45,232	472	472

¥(135)

¥(135) \$ —

\$(1,203) \$(1,203)

		Millions of yen				
	Contract amount	Fair value	Unrealized gain (loss)			
Forward foreign exchange contracts:						
Buying U.S. dollar	¥ 7,408	¥(332)	¥(332)			
Buying euro	31	(0)	(0)			
Buying Chinese yuan	680	(2)	(2)			
Buying Thai baht	360	(12)	(12)			
Buying Japanese yen	7,678	55	55			
Selling U.S. dollar	11,923	296	296			
Selling euro	187	(7)	(7)			
Selling British pound	41	1	1			
Selling Chinese yuan	18	(0)	(0)			
Selling Japanese yen	1,614	41	41			
Foreign currency swaps:						
Receiving U.S. dollar, paying Korean won	1,076	(22)	(22)			
Receiving U.S. dollar, paying Thai baht	5,132	38	38			
	¥ —	¥ 56	¥ 56			

Hedge accounti	ing is applied			Millions of yen 2017
Hedge accounting method	Type of derivative and principal hedged items	Contract amount	Fair value* <sup>1, 2</sup>	Estimation method for fair value
Deferral hedge	Forward foreign exchange contracts:			
method	Accounted for as part of trade receivables and trade payables			
	Buying Japanese yen	¥ 1,397	¥ 15	Forward foreign exchange quotes
	Selling euro	2,074	(25)	
	Selling Chinese yuan	652	2	
	Foreign currency swaps:			
	Accounted for as part of long-term bank loans			
	Receiving U.S. dollar, paying Korean won	7,028	0	The price provided by correspon-
	Receiving Japanese yen, paying Korean won	16,000	(667)	dent financial institutions
	Interest rate swaps:			
	Accounted for as part of long-term bank loans			The price provided by correspon-
	Floating-rate receipt, fixed-rate payment	86,468	221	dent financial institutions
Special	Interest rate swaps:			
accounting	Accounted for as part of bonds			
method for	and long-term bank loans			
interest rate	Floating-rate receipt, fixed-rate payment	2,000		
swaps	Floating-rate receipt, floating-rate payment	26,900		<del>-</del>
	Fixed-rate receipt, floating rate payment	40,000		
Allocation	Forward foreign exchange contracts:			
method for	Accounted for as part of trade receivables			
forward foreign				
exchange	Buying U.S. dollar	16,655	302	Forward foreign exchange quotes
contracts	Buying euro	655	5	
	Buying Chinese yuan	377	(2)	
	Buying Thai baht	900	118	
	Buying Korean won	333	5	
	Buying Indian rupee	259	1	
	Selling U.S. dollar	18,140	119	
	Selling euro	1,176	8	
	Selling British pound	17	0	
	Selling Chinese yuan Selling Thai baht	79 61	(1) 0	
		12	0	
	Selling Japanese yen Forward foreign exchange contracts:	12		
	Accounted for as part of trade receivables and trade payables			
	Buying U.S. dollar	13,044		
	Buying euro	232		
	Buying Chinese yuan	1,518		
	Buying Grimese year	4		
	Selling U.S. dollar	25,972		_
	Selling euro	3,310		
	Selling British pound	24		
	Selling Chinese yuan	502		
	Selling Thai baht	3		
	Foreign currency swaps:			
	Accounted for as part of long-term bank loans			
	Receiving U.S. dollar, paying Japanese yen	160,981		
	Receiving Australian dollar,	-		<del>-</del>
	paying Japanese yen	3,129		
,		¥ —	¥ 101	

						Millions of yen
						2016
Hedge accounting method	Type of derivative and principal hedged items		ntract nount		air alue* <sup>1, 2</sup>	Estimation method for fair value
Deferral hedge method	Forward foreign exchange contracts:  Accounted for as part of trade receivables and trade payables	V	1 057	V	21	Converd foreign evolution
	Buying Japanese yen Selling U.S. dollar	¥	1,856 772	¥	31 24	Forward foreign exchange quotes
	Selling euro		367		(14)	
	Selling Japanese yen		258		3	
	Foreign currency options:		230			
	Accounted for as part of trade payables Buying Japanese yen (call)		396		3	The price provided by correspondent
	Selling Japanese yen (put)		198		(2)	financial institutions
	Foreign currency swaps:					
	Accounted for as part of long-term bank loans Receiving U.S. dollar, paying Korean won		6,403		234	The price provided by correspondent
	Receiving Japanese yen, paying Korean won		6,000		26	financial institutions
	Interest rate swaps:  Accounted for as part of long-term bank loans  Floating-rate receipt, fixed-rate payment		14,790	(	(153)	The price provided by correspondent financial institutions
Special Special	Interest rate swaps:				,	
accounting method for interest rate	Accounted for as part of bonds and long-term bank loans Floating-rate receipt, fixed-rate payment		2,000			
swaps	Floating-rate receipt, floating-rate payment		26,900			_
	Fixed-rate receipt, floating-rate payment		53,000			
Allocation method for forward foreign	Forward foreign exchange contracts:  Accounted for as part of trade receivables and trade payables (Forecasted transactions)		50,000			
exchange	Buying U.S. dollar	2	26,720	(	(707)	Forward foreign exchange quotes
contracts	Buying euro		542		6	
	Buying Chinese yuan		566		(7)	
	Buying Korean won		174		(4)	
	Buying Indian rupee		179		(0)	
	Selling U.S. dollar	1	13,467		564	
	Selling euro		1,117		9	
	Selling British pound		7		0	
	Selling Chinese yuan		75 2		(1)	
	Selling Thai baht					
	Selling Japanese yen		29		0	
	Forward foreign exchange contracts:  Accounted for as part of trade receivables and trade payables					
	Buying U.S. dollar	1	19,569			
	Buying euro		190			
	Buying Chinese yuan		410			
	Buying Japanese yen		5			
	Selling U.S. dollar	3	34,467			
	Selling euro		3,684			_
	Selling British pound		22			
	Selling Chinese yuan		592			
	Selling Thai baht		20			
	Selling Japanese yen		2			
	Foreign currency swaps:					
	Accounted for as part of long-term bank loans					
	Receiving U.S. dollar, paying Japanese yen Receiving Australian dollar,	17	77,778			_
	paying Japanese yen		3,129			
	. , , , , ,	¥		¥	12	

		Thousands of U.S. dollars				ousands of U.S. dollars
						2017
Hedge accounting method	Type of derivative and principal hedged items		Contract amount		Fair ⁄alue*¹,²	Estimation method for fair value
Deferral hedge method	Forward foreign exchange contracts: Accounted for as part of trade receivables					
	and trade payables		40.454		404	Familiary Complete Co
	Buying Japanese yen	\$	12,451	\$		Forward foreign exchange quotes
	Selling euro		18,485		(223)	
	Selling Chinese yuan		5,811		18	
	Foreign currency swaps:					
	Accounted for as part of long-term bank loans		(0.(00		•	The price previded by severe
	Receiving U.S. dollar, paying Korean won		62,638	/г	0	The price provided by correspondent financial institutions
	Receiving Japanese yen, paying Korean won		142,602	(5	5,945)	dent financial institutions
	Interest rate swaps:					
	Accounted for as part of long-term bank loans		770 ((0			The price provided by correspondent financial institutions
	Floating-rate receipt, fixed-rate payment		770,660	1	1,970	dent iniancial institutions
Special	Interest rate swaps:					
accounting	Accounted for as part of bonds and long-term bank loans					
method for interest rate			47 00E			
swaps	Floating-rate receipt, fixed-rate payment Floating-rate receipt, floating-rate payment		17,825			
эмирэ	Fixed-rate receipt, floating-rate payment		239,750			<del>_</del>
***			356,506			
Allocation	Forward foreign exchange contracts:					
method for forward foreign	Accounted for as part of trade receivables and trade payables (Forecasted transactions)					
exchange	Buying U.S. dollar		148,440		2,692	Forward foreign exchange quotes
contracts						Forward foreign exchange quotes
Contracts	Buying euro Buying Chinese yuan		5,838		45	
	Buying Thai baht		3,360 8,021	-	(18) 1,052	
	Buying Korean won		2,968		45	
	Buying Rolean won  Buying Indian rupee		2,308		9	
	Selling U.S. dollar		161,676		<del>,</del> 1,061	
	Selling euro		10,481		71	
	Selling British pound		152		0	
	Selling Chinese yuan		704		(9)	
	Selling Thai baht		544		0	
	Selling Japanese yen		107		0	
	Forward foreign exchange contracts:		107			
	Accounted for as part of trade receivables and trade payables					
	Buying U.S. dollar		116,257			
	Buying euro		2,068			
	Buying Chinese yuan		13,529			
	Buying Japanese yen		36			
	Selling U.S. dollar		231,480			_
	Selling euro		29,501			
	Selling British pound		214			
	Selling Chinese yuan		4,474			
	Selling Thai baht		27			
	Foreign currency swaps:					
	Accounted for as part of long-term bank loans					
	Receiving U.S. dollar, paying Japanese yen	1,	,434,768			
	Receiving Australian dollar,					_
	paying Japanese yen		27,888			
		\$	_	\$	900	

<sup>\*1</sup> The fair value of interest rate swaps to which a special accounting method is applied is included in the fair value of bonds and long-term bank loans in Note 5. FINANCIAL INSTRUMENTS of the Notes to the Consolidated Financial Statements because such interest rate swaps are accounted for together with the corresponding bonds and long-term bank loans.

<sup>\*2</sup> The fair value of forward foreign exchange contracts to which the allocation method is applied, except for forecasted transactions, is included in the fair value of trade receivables, trade payables and long-term bank loans in Note 5. FINANCIAL INSTRUMENTS of the Notes to the Consolidated Financial Statements since such forward foreign exchange contracts are accounted for together with the corresponding trade receivables, trade payables and long-term bank loans.

## **8. RETIREMENT BENEFIT PLAN**

The changes in the retirement benefit obligation during the years ended March 31, 2017 and 2016 were as follows:

	Millions of yen		U.S. dollars	
	2017	2016	2017	
Retirement benefit obligation at beginning of the year	¥203,426	¥210,751	\$1,813,066	
Service cost	7,281	7,489	64,893	
Interest cost	1,500	1,660	13,369	
Actuarial gains and losses	(682)	1,270	(6,078)	
Retirement benefit paid	(14,856)	(16,203)	(132,406)	
Effect of change in accounting period	_	1,363	_	
Other	242	(2,904)	2,157	
Retirement benefit obligation at end of the year	¥196,911	¥203,426	\$1,755,000	

The changes in the plan assets at fair value during the years ended March 31, 2017 and 2016 were as follows:

	Millions of	Millions of yen	
	2017	2016	2017
Plan assets at beginning of the year	¥131,360	¥140,541	\$1,170,766
Expected return on plan assets	2,490	2,888	22,193
Actuarial gains and losses	12,871	(6,789)	114,715
Contributions	6,552	7,727	58,396
Retirement benefit paid	(10,077)	(10,873)	(89,813)
Return of assets from retirement benefit trust	(21,632)	_	(192,799)
Effect of change in accounting period		(336)	_
Other	210	(1,798)	1,872
Plan assets at end of the year	¥121,774	¥131,360	\$1,085,330

The following table sets forth the funded status of the plans and the amounts recognized in the consolidated balance sheets as of March 31, 2017 and 2016 for the Company's and its consolidated subsidiaries' defined benefit plans:

	Millions of yen		U.S. dollars	
	2017	2016	2017	
Funded retirement benefit obligation	¥ 102,223	¥ 108,274	\$ 911,078	
Plan assets at fair value	(121,774)	(131,360)	(1,085,330)	
	(19,551)	(23,086)	(174,251)	
Unfunded retirement benefit obligation	94,688	95,152	843,922	
Net liability for retirement benefits in the balance sheets	75,137	72,066	669,670	
Net defined benefit liability	103,459	104,803	922,094	
Net defined benefit asset (included in other non-current assets)	(28,322)	(32,737)	(252,424)	
Net liability for retirement benefits in the balance sheets	¥ 75,137	¥ 72,066	\$ 669,670	

The components of retirement benefit expense for the years ended March 31, 2017 and 2016 were as follows:

	Millions of	U.S. dollars	
	2017	2016	2017
Service cost	¥ 7,281	¥ 7,489	\$ 64,893
Interest cost	1,500	1,660	13,369
Expected return on plan assets	(2,490)	(2,888)	(22,193)
Amortization of actuarial gains and losses	648	7,107	5,775
Amortization of past service cost	(4,221)	(4,300)	(37,620)
Gain on return of assets from retirement benefit trust	(810)	_	(7,219)
Retirement benefit expense	¥ 1,908	¥ 9,068	\$ 17,005

Thousands of

In addition to the above, special severance payments of ¥967 million (\$8,619 thousand) and ¥1,329 million were recognized for the years ended March 31, 2017 and 2016, respectively. Contributions to the defined contribution pension plan of ¥6,297 million (\$56,123 thousand) and ¥6,057 million were recognized for the years ended March 31, 2017 and 2016, respectively.

The components of remeasurements of defined benefit plans included in other comprehensive income (before tax effect) for the years ended March 31, 2017 and 2016 were as follows:

	Millions o	U.S. dollars	
	2017	2016	2017
Past service cost	¥ (4,221)	¥ (4,300)	\$ (37,620)
Actuarial gains and losses	13,320	(559)	118,717
Total	¥ 9,099	¥ (4,859)	\$ 81,096

The components of remeasurements of defined benefit plans included in accumulated other comprehensive income (before tax effect) as of March 31, 2017 and 2016 were as follows:

	Millions o	Millions of yen		
	2017	2016	2017	
Unrecognized past service cost	¥(4,202)	¥ (8,423)	\$(37,451)	
Unrecognized actuarial gains and losses	1,950	15,276	17,380	
Total	¥(2,252)	¥ 6,853	\$(20,071)	

The fair value of plan assets, by major category, as a percentage of total plan assets as of March 31, 2017 and 2016 was as follows:

	2017	2016
Bonds	12%	10%
Stocks	52%	57%
Life insurance	26%	24%
Cash and time deposits	8%	7%
Other	2%	2%
Total	100%	100%

The expected return on plan assets has been estimated based on the anticipated allocation to each asset class and the expected long-term returns on assets held in each category.

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

	2017	2016
Discount rate	primarily 0.6%	primarily 0.6%
Expected rate of return on plan assets	primarily 2.0%	primarily 2.0%
Expected rate of salary increase	primarily 7.5%	primarily 7.5%

Thousands of

## 9. STOCK OPTION PLANS

- 1. Stock option expense included in selling, general and administrative expenses amounted to ¥346 million (\$3,084 thousand) and ¥351 million for the years ended March 31, 2017 and 2016, respectively.
- 2. Information on stock options issued

  The following table summarizes the stock options outstanding as of March 31, 2017.

Company name			Toray Industries, Inc.	
		No. 1 Stock Option Plan	No. 2 Stock Option Plan	No. 3 Stock Option Plan
Position and	Members of the Board of the Company	28	26	26
number of grantees	Directors of the Company	32	32	26
Type and number of shares to be issued upon exercise	Common stock	747,000 shares	844,000 shares	583,000 shares
Grant date		August 20, 2011	August 4, 2012	August 10, 2013
Vesting conditions		Based on the number of months that have elapsed during the vesting period	Based on the number of months that have elapsed during the vesting period	Based on the number of months that have elapsed during the vesting period
Vesting period		June 24, 2011– June 22, 2012	June 22, 2012- June 26, 2013	June 26, 2013- June 25, 2014
Exercise period		August 21, 2011– August 20, 2041	August 5, 2012– August 4, 2042	August 11, 2013– August 10, 2043
Company name			Toray Industries, Inc.	
		No. 4 Stock Option Plan	No. 5 Stock Option Plan	No. 6 Stock Option Plan
Position and	Members of the Board of the Company	25	23	23
number of grantees	Directors of the Company	27	31	30
Type and number of shares to be issued upon exercise	Common stock	569,000 shares	358,000 shares	381,000 shares
Grant date		August 9, 2014	August 22, 2015	August 20, 2016
Vesting conditions		Based on the number of months that have elapsed during the vesting period	Based on the number of months that have elapsed during the vesting period	Based on the number of months that have elapsed during the vesting period
Vesting period		June 25, 2014– June 24, 2015	June 24, 2015- June 28, 2016	June 28, 2016- June 27, 2017
Exercise period		August 10, 2014– August 9, 2044	August 23, 2015– August 22, 2045	August 21, 2016– August 20, 2046
Company name		Toray Chemical Korea Inc.	-	
		No. 2 Stock Option Plan	•	
Position and number of grantees	Executives of the Company	1	•	
Type and number of shares to be issued upon exercise	Common stock	18,815 shares		
Grant date		July 22, 2008	-	
Vesting conditions		Holders must be in continuous employment from the grant date to the vesting date of July 21, 2011		
Vesting period		July 22, 2008– July 21, 2011		
Exercise period		July 22, 2011– July 21, 2018	-	

The following table summarizes movements of stock options during the year and price information on stock options as of March 31, 2017. The number of stock options are translated into the number of shares.

(1) Number of stock options

Company name	Toray Industries, Inc.			
	No. 1 Stock Option Plan	No. 2 Stock Option Plan	No. 3 Stock Option Plan	
Stock acquisition rights not yet vested				
As of March 31, 2016	<del>_</del>	_	_	
Granted	<del>_</del>	_	_	
Forfeited	_	_	_	
Vested	_	_	_	
As of March 31, 2017		_	_	
Stock acquisition rights already vested				
As of March 31, 2016	352,000	512,000	421,000	
Vested	<del>_</del>	_	_	
Exercised	110,000	157,000	115,000	
Forfeited	_	_	_	
As of March 31, 2017	242,000	355,000	306,000	

Company name	Toray Industries, Inc.			
	No. 4 Stock Option Plan	No. 5 Stock Option Plan	No. 6 Stock Option Plan	
Stock acquisition rights not yet vested				
As of March 31, 2016	_	103,000	_	
Granted	<del>_</del>	_	381,000	
Forfeited	_	_	_	
Vested	<del>_</del>	103,000	271,000	
As of March 31, 2017	_	_	110,000	
Stock acquisition rights already vested				
As of March 31, 2016	480,000	255,000	_	
Vested	<del>_</del>	103,000	271,000	
Exercised	115,000	72,000	_	
Forfeited	_	_	_	
As of March 31, 2017	365,000	286,000	271,000	

Company name	Toray Chemical Korea Inc.
	No. 2 Stock Option Plan
Stock acquisition rights not yet vested	
As of March 31, 2016	_
Granted	_
Forfeited	_
Vested	_
As of March 31, 2017	_
Stock acquisition rights already vested	
As of March 31, 2016	18,815
Vested	_
Exercised	_
Forfeited	_
As of March 31, 2017	18,815

## (2) Price information

Company name		Toray Industries, Inc.	
	No. 1 Stock Option Plan	No. 2 Stock Option Plan	No. 3 Stock Option Plan
Exercise price	¥ 1	¥ 1	¥ 1
Weighted average price at exercise	880.4	880.4	880.4
Fair value per share at the grant date	513	394	546

		Yen	
Company name		Toray Industries, Inc.	
	No. 4 Stock Option Plan	No. 5 Stock Option Plan	No. 6 Stock Option Plan
Exercise price	¥ 1	¥ 1	¥ 1
Weighted average price at exercise	880.4	880.4	_
Fair value per share at the grant date	605	987	902

	Won		
Company name	Toray Chemical Korea Inc.		
	No. 2 Stock Option Plan		
Exercise price	₩8,480		
Weighted average price at exercise			
Fair value per share at the grant date	7,067		

U.S. dollars

Company name		Toray Industries, Inc.	
	No. 1 Stock Option Plan	No. 2 Stock Option Plan	No. 3 Stock Option Plan
Exercise price	\$0.01	\$0.01	\$0.01
Weighted average price at exercise	7.85	7.85	7.85
Fair value per share at the grant date	4.57	3.51	4.87

U.S. dollars

Company name		Toray Industries, Inc.	
	No. 4 Stock Option Plan	No. 5 Stock Option Plan	No. 6 Stock Option Plan
Exercise price	\$0.01	\$0.01	\$0.01
Weighted average price at exercise	7.85	7.85	_
Fair value per share at the grant date	5.39	8.80	8.04

U.S. dollars

Toray Chemical Korea Inc.
No. 2 Stock Option Plan
\$7.59
6.32

- 3. Estimation method and assumptions used for the per share fair value of stock options
  - (1) Estimation method
    Black-Scholes model
  - (2) Assumptions used for the per share fair value of stock options

Company name	Toray Industries, Inc.	
	No. 6 Stock Option Plan	
Expected volatility*1	31.825%	
Expected holding period*2	8 years	
Expected dividend*3	¥13 per share (\$0.12)	
Risk-free rate*4	(0.164)%	

<sup>\*1</sup> The expected volatility is based on actual share prices during 8 years from August 21, 2008 to August 19, 2016.

Because it is difficult to reasonably estimate the number of options that will expire in the future, only the number of options that have actually forfeited is applied.

## **10. INCOME TAXES**

The statutory tax rates in Japan for the years ended March 31, 2017 and 2016 were 30.9% and 33.1%, respectively.

At March 31, 2017 and 2016, significant components of deferred tax assets and liabilities were as follows:

	Millions of yen		U.S. dollars	
	2017	2016	2017	
Deferred tax assets:				
Accrued bonuses	¥ 5,978	¥ 5,778	\$ 53,280	
Depreciation and impairment loss	10,680	11,932	95,187	
Net defined benefit liability	33,396	34,731	297,647	
Tax loss carryforwards	17,136	18,080	152,727	
Unrealized intercompany profits	16,512	15,612	147,166	
Investments in subsidiaries and affiliated companies	19,593	20,418	174,626	
Other	33,005	31,403	294,162	
	136,300	137,954	1,214,795	
Valuation allowance	(41,168)	(44,154)	(366,916)	
Total deferred tax assets	95,132	93,800	847,879	
Deferred tax liabilities:				
Reserve for advanced depreciation	4,854	5,019	43,262	
Depreciation	22,070	22,882	196,702	
Undistributed earnings of subsidiaries and affiliated companies	17,749	16,028	158,191	
Unrealized gains on securities	28,768	26,227	256,399	
Other	25,064	21,589	223,387	
Total deferred tax liabilities	98,505	91,745	877,941	
Net deferred tax assets (liabilities)	¥ (3,373)	¥ 2,055	\$ (30,062)	

At March 31, 2017 and 2016, deferred tax assets and liabilities were classified as follows:

	Millions o	Thousands of U.S. dollars	
	2017	2016	2017
Deferred tax assets - current	¥26,438	¥24,113	\$235,633
Deferred tax assets - non-current	13,513	12,633	120,437
Deferred tax liabilities - current (included in other current liabilities)	4	59	36
Deferred tax liabilities - non-current	43,320	34,632	386,096

Thousands of

<sup>\*2</sup> The expected holding period is calculated based on the service period of past members of the Board.

<sup>\*3</sup> This is based on the dividend for the year ended March 31, 2016.

<sup>\*4</sup> The risk-free interest rate is the yield on Japanese government bonds for the period that corresponds to the remaining life of the option.

The reconciliation of the statutory tax rate and the effective income tax rate for the years ended March 31, 2017 and 2016 was as follows:

	2017	2016
Statutory tax rate	30.9%	
Increase (decrease) in taxes resulting from:		
Permanent differences	0.4	0.2
Recognition of certain deferred tax assets by reversal of valuation allowance	(2.4)	(1.1)
Equity in earnings of unconsolidated subsidiaries and affiliated companies	(1.7)	(1.2)
Income taxes for prior periods	(1.7)	_
Differences of tax rates for overseas consolidated subsidiaries	(2.9)	(3.3)
Undistributed earnings of subsidiaries and affiliated companies	1.4	0.5
Change in statutory tax rate		1.3
Amortization of goodwill	1.9	2.2
Other	(2.1)	(2.2)
Effective income tax rate	23.8%	29.5%

#### 11. NET ASSETS

The Corporation Law of Japan provides that an amount equal to 10% of the amount to be disbursed as distributions of capital surplus (other than the capital reserve) and retained earnings (other than the earned reserve) be transferred to the capital reserve and the earned reserve, respectively, until the sum of the capital reserve and the earned reserve equals 25% of the capital stock account. Such distributions can be made at any time by resolution of the stockholders, or by the Board

of Directors if certain conditions are met.

At the June 2017 annual stockholders' meeting, stockholders approved the payment of cash dividends of ¥7.00 per share, aggregating to ¥11,200 million (\$99,822 thousand) which has not been reflected in the accompanying consolidated financial statements for the year ended March 31, 2017.

#### 12. COMMITMENTS AND CONTINGENT LIABILITIES

At March 31, 2017, commitment line of credit to unconsolidated subsidiaries and affiliated companies was as follows:

	Millions of yen	U.S. dollars
Total commitment line of credit	¥280	\$2,496
Loans receivable outstanding	134	1,194
Balance	¥146	\$1,301

This commitment does not necessarily imply that the unused amount may be fully utilized.

At March 31, 2017 and 2016, contingent liabilities were as follows:

Millions o	Thousands of U.S. dollars	
2017	2016	2017
¥5,774	¥11,283	\$51,462
2,849	9,148	25,392
¥8,623	¥20,431	\$76,854
¥ 307	¥ 89	\$ 2,736
785	635	6,996
1,162	1,160	10,357
¥3,255	¥ 9,573	\$29,011
	¥5,774 2,849 ¥8,623 ¥ 307 785 1,162	¥5,774 ¥11,283 2,849 9,148 ¥8,623 ¥20,431 ¥ 307 ¥ 89 785 635 1,162 1,160

#### **13. LEASES**

#### **Finance leases**

The Group holds certain buildings, machinery and equipment and intangible assets by leases.

#### **Operating leases**

Future minimum lease payments under noncancellable operating leases subsequent to March 31, 2017 and 2016 were as follows:

	Millions	Millions of yen			
	2017	2016	2017		
Due within one year	¥ 343	¥ 368	\$ 3,057		
Due after one year	1,193	1,323	10,633		
Total	¥1,536	¥1,691	\$13,690		

## 14. RESEARCH AND DEVELOPMENT EXPENSES

Research and development expenses included in cost of sales and selling, general and administrative expenses for the years ended March 31, 2017 and 2016 were ¥59,230 million (\$527,897 thousand) and ¥58,783 million, respectively.

#### 15. LOSS ON IMPAIRMENT OF FIXED ASSETS

The Company and its consolidated subsidiaries grouped assets used for business based on the classification under the management accounting. For assets to be disposed and idle assets, each asset is considered to constitute a group.

For the year ended March 31, 2017, the carrying value of certain business-use assets for which profitability declined were written down to the recoverable amount. As a result, the Company and its consolidated subsidiaries recognized loss on impairment of fixed assets in the amount of ¥2,925 million (\$26,070 thousand).

For the year ended March 31, 2016, the carrying value of certain business-use assets for which profitability declined were written down to the recoverable amount. As a result, the Company and its consolidated subsidiaries recognized loss on impairment of fixed assets in the amount of ¥9,063 million.

The major assets for which a loss on impairment was recognized for the year ended March 31, 2016 were as follows:

			Millions of yen
Location	Use	Classification	Loss on impairment
Otsu, Shiga, Japan	Films production facilities Buildings		¥ 594
		Machinery and equipment	1,401
		Other	243
St-Maurice de Beynost, France	Films production facilities	Machinery and equipment	¥3,949
		Other	87

The recoverable amount of the above assets was measured at their value in use. The value in use was calculated by discounting future cash flows at discount rates of 5% - 8%.

## **16. OTHER COMPREHENSIVE INCOME**

The following table presents reclassification adjustments and tax effects allocated to each component of other comprehensive income for the years ended March 31, 2017 and 2016.

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Net unrealized gains (losses) on securities:			
Amount arising during the year	¥ 11,004	¥(26,313)	\$ 98,075
Reclassification adjustments for gains and losses included in net income	(3,454)	(2,099)	(30,784)
Before tax effect	7,550	(28,412)	67,291
Tax effect	(2,419)	10,544	(21,560)
Net unrealized gains (losses) on securities	5,131	(17,868)	45,731
Net deferred gains (losses) on hedges:			
Amount arising during the year	918	(137)	8,182
Reclassification adjustments for gains and losses included in net income	15	13	134
Assets acquisition cost adjustment	_	22	_
Before tax effect	933	(102)	8,316
Tax effect	(290)	2	(2,585)
Net deferred gains (losses) on hedges	643	(100)	5,731
Foreign currency translation adjustments:			
Amount arising during the year	(14,953)	(59,123)	(133,271)
Reclassification adjustments for gains and losses included in net income	838		7,469
Before tax effect	(14,115)	(59,123)	(125,802)
Tax effect	1	5	9
Foreign currency translation adjustments	(14,114)	(59,118)	(125,793)
Remeasurements of defined benefit plans:			
Amount arising during the year	13,482	(7,666)	120,160
Reclassification adjustments for gains and losses included in net income	(4,383)	2,807	(39,064)
Before tax effect	9,099	(4,859)	81,096
Tax effect	(2,794)	1,586	(24,902)
Remeasurements of defined benefit plans	6,305	(3,273)	56,194
Share of other comprehensive income of unconsolidated subsidiaries and affiliated companies accounted for by the equity method:			
Amount arising during the year	(1,938)	(3,722)	(17,273)
Reclassification adjustments for gains and losses included in net income	(12)	(211)	(107)
Share of other comprehensive income of unconsolidated subsidiaries and affiliated companies accounted for by the equity method	(1,950)	(3,933)	(17,380)
Total other comprehensive income	¥ (3,985)	¥(84,292)	\$ (35,517)
10 1 10 10 10 10 10 10 10 10 10 10 10 10	,,	· · · -/	

#### 17. SEGMENT INFORMATION

#### (Segment information)

#### 1. Outline of reportable segments

The reportable segments of the Group are components for which discrete financial information is available and whose operating results are regularly reviewed by the Board of Directors to make decisions about resource allocation to the segments and assess performance.

The Company identifies the following six segments according to the nature of the products and market for their products.

Reportable segment	Main products
Fibers & Textiles	Filament yarns, staple fibers, and woven and knitted fabrics of nylon, polyester and acrylic fibers, etc.; non-woven fabrics, ultra-microfiber non-woven fabric with suede texture and apparel products
Plastics & Chemicals	Nylon, ABS, PBT, PPS and other resins and molded products, polyolefin foam; polyester, polypropylene, PPS and other films and processed film products; raw materials for synthetic fibers and other plastics; zeolite catalysts; fine chemicals for pharmaceuticals and agrochemicals; veterinary medicine (excludes film and resin covered in IT-related Products segment)
IT-related Products	Films and plastic products for information and telecommunications related products; materials for electronic circuits and semiconductors; color filters for LCDs and related materials and equipment; magnetic recording materials; graphic materials and related equipment
Carbon Fiber Composite Materials	Carbon fibers, carbon fiber composite materials and their molded products
Environment & Engineering	Comprehensive engineering; condominiums; industrial equipment and machinery; environment-related equipment; water treatment membranes and related equipment; materials for housing, building and civil engineering
Life Science	Pharmaceuticals and medical devices

## 2. Measurement of sales, income, assets and other material items of reportable segments

The accounting policies for the reportable segments are the same as those described in Note 1. SIGNIFICANT ACCOUNTING POLICIES.

The figures of segment income are based on operating income.

Intersegment sales are determined based on consideration of the market price and related information.

## ${\bf 3.}\ Information\ on\ sales,\ income,\ assets\ and\ other\ material\ items\ of\ reportable\ segments$

					Millions	of yen				
Year ended March 31, 2017:	Fibers & Textiles	Plastics & Chemicals	IT-related Products	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Others	Total	Adjustments	Consolidated Total
Sales to outside customers	¥856,124	¥499,099	¥254,439	¥161,608	¥186,113	¥54,150	¥14,937	¥2,026,470	¥ —	¥2,026,470
Intersegment sales	1,001	16,043	7,627	519	68,038	2	16,681	109,911	(109,911)	_
Total sales	¥857,125	¥515,142	¥262,066	¥162,127	¥254,151	¥54,152	¥31,618	¥2,136,381	¥(109,911)	¥2,026,470
Segment income	¥ 66,768	¥ 33,798	¥ 30,528	¥ 23,963	¥ 9,904	¥ 2,148	¥ 1,990	¥ 169,099	¥ (22,206)	¥ 146,893
Segment assets	¥722,078	¥541,995	¥384,773	¥460,968	¥204,323	¥79,732	¥57,463	¥2,451,332	¥ (54,547)	¥2,396,785
Depreciation and amortization	27,460	18,019	15,702	19,967	4,231	2,581	1,209	89,169	(96)	89,073
Investment in unconsolidated subsidiaries and affiliated companies accounted for by the equity method	26,827	42,598	1,800	8,563	10,058	2,763	7,727	100,336	(414)	99,922
Capital expenditures	41,143	25,133	32,437	46,459	4,544	3,445	1,157	154,318	(2,279)	152,039

	Millions of yen									
Year ended March 31, 2016:	Fibers & Textiles	Plastics & Chemicals	IT-related Products	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Others	Total	Adjustments	Consolidated Total
Sales to outside customers	¥892,039	¥521,238	¥251,072	¥186,196	¥183,324	¥55,841	¥14,720	¥2,104,430	¥ —	¥2,104,430
Intersegment sales	1,035	19,148	7,614	369	62,608	8	16,422	107,204	(107,204)	_
Total sales	¥893,074	¥540,386	¥258,686	¥186,565	¥245,932	¥55,849	¥31,142	¥2,211,634	¥(107,204)	¥2,104,430
Segment income	¥ 68,909	¥ 29,384	¥ 26,150	¥ 36,115	¥ 9,584	¥ 3,068	¥ 1,962	¥ 175,172	¥ (20,692)	¥ 154,480
Segment assets	¥680,947	¥524,558	¥362,851	¥429,503	¥193,837	¥83,277	¥55,302	¥2,330,275	¥ (51,889)	¥2,278,386
Depreciation and amortization	25,839	18,514	17,034	21,313	4,408	2,832	1,201	91,141	27	91,168
Investment in unconsolidated subsidiaries and affiliated companies accounted for by the equity method	34,860	39,492	1,873	10,273	10,613	3,243	6,331	106,685	(451)	106,234
Capital expenditures	35,436	31,244	29,773	32,095	3,604	3,223	1,531	136,906	(350)	136,556
Year ended March 31, 2017:	Fibers & Textiles	Plastics & Chemicals	IT-related Products	Carbon Fiber Composite Materials	Thousands of Environment & Engineering	f U.S. dollars  Life Science	Others	Total	Adjustments	Consolidated Total
Sales to outside customers	\$7,630,339	\$4,448,298	\$2.267.727	\$1,440,357	\$1.658.761	\$482,620	\$133.128	\$18.061,230	\$ —	\$18,061,230
Intersegment sales	8,922	142,986	67,977	4,626	606,399	18	148,672	979,599	(979,599)	_
Total sales	\$7,639,260	\$4,591,283	\$2,335,704	\$1,444,982	\$2,265,160	\$482,638	\$281,800	\$19,040,829	\$(979,599)	\$18,061,230
Segment income	\$ 595,080	\$ 301,230	\$ 272,086	\$ 213,574	\$ 88,271	\$ 19,144	\$ 17,736	\$ 1,507,121	\$(197,914)	\$ 1,309,207
Segment assets	\$6,435,633	\$4,830,615	\$3,429,349	\$4,108,449	\$1,821,061	\$710,624	\$512,148	\$21,847,879	\$(486,159)	\$21,361,720
Depreciation and amortization	244,742	160,597	139,947	177,959	37,709	23,004	10,775	794,733	(856)	793,877
Investment in unconsolidated subsidiaries and affiliated companies accounted for by the equity method	239,100	379,661	16,043	76,319	89,643	24,626	68,868	894,260	(3,690)	890,570
Capital expenditures	366,693	224,002	289,100	414,073	40,499	30,704	10,312	1,375,383	(20,312)	1,355,071

#### Notes:

- 1) "Others" represents service-related businesses such as analysis, survey and research.
- 2) a) "Adjustments" of segment income for the year ended March 31, 2017 of ¥(22,206) million (\$(197,914) thousand) includes intersegment eliminations of ¥(708) million (\$(6,310) thousand) and corporate expenses of ¥(21,498) million (\$(191,604) thousand). "Adjustments" of segment income for the year ended March 31, 2016 of ¥(20,692) million includes intersegment eliminations of ¥(167) million and corporate expenses of ¥(20,525) million. The corporate expenses consist of the headquarters' research expenses, etc. that are not allocated to each reportable segment.
  - b) "Adjustments" of segment assets at March 31, 2017 of ¥(54,547) million (\$(486,159) thousand) includes intersegment eliminations of ¥(71,516) million (\$(637,398) thousand) and corporate assets of ¥16,969 million (\$151,239 thousand). "Adjustments" of segment assets at March 31, 2016 of ¥(51,889) million includes intersegment eliminations of ¥(68,133) million and corporate assets of ¥16,244 million. The corporate assets consist of the headquarters' research assets, etc. that are not allocated to each reportable segment.
- 3) "Segment income" is reconciled to operating income.

# (Related information) Geographic information

Sales to outside customers	Millions of yen							
		А	sia	North America, Europe				
Year ended March 31, 2017:	Japan	China	Others	and other areas	Total			
Sales to outside customers	¥976,839	¥335,469	¥376,134	¥338,028	¥2,026,470			
			Millions of yen					
		А	sia	North America,				
Year ended March 31, 2016:	Japan	China	Others	<ul> <li>Europe and other areas</li> </ul>	Total			
Sales to outside customers	¥995,093	¥352,967	¥387,219	¥369,151	¥2,104,430			

						Th	ousands of U.S. de			
						A	sia		n America, Europe	
Year ended March 31, 2	2017:				apan	China	Others	and c	other areas	Total
Sales to outside custome	rs			\$8,7	06,230	\$2,989,920	\$3,352,353	\$3,0	012,727	\$18,061,230
Sales amounts are allocat	ted to countri	es or region	s acc	cording	g to the cus	stomers' loca	tion.			
Property, plant and equ	ipment, net					Million	s of yen			
					Asia			nerica, Eu other area		
March 31, 2017:		Japan		Repub	ic of Korea	Others	U.S.A.	(	Others	Total
Property, plant and equip	ment, net	¥316,3	10	¥18	36,259	¥155,441	¥122,890	¥1	00,534	¥881,434
		_				Million	s of yen			
					Asia			nerica, Eu other area		
March 31, 2016:		Japan			ic of Korea	Others	U.S.A.		Others	Total
Property, plant and equip	ment, net	¥315,0	20	¥16	58,706	¥158,930	¥91,080	¥9	96,876	¥830,612
						Thousands of	of U.S. dollars			
					Asia			nerica, Eu other area	-	
March 31, 2017:		Japan		Repub	ic of Korea	Others	U.S.A.		Others	Total
Property, plant and equip	ment, net	\$2,819,	162	\$1,6	60,062	\$1,385,392	\$1,095,276	6 \$896,025		\$7,855,918
Year ended March 31, 2017:	Fibers & Textiles	Plastics & Chemicals		elated oducts	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Others	Eliminatio & Corpora	
Loss on impairment	¥1,095	¥401	¥	476	¥—	¥15	¥938	¥—	¥—	¥2,925
						Millions of yen				
Year ended					Carbon Fiber					
March 31, 2016:	Fibers & Textiles	Plastics & Chemicals		elated oducts	Composite Materials	Environment & Engineering	Life Science	Others	Eliminatio & Corpora	
Loss on impairment	¥—	¥5,281	¥3	3,297	¥—	¥485	¥—	¥—	¥—	¥9,063
					Tho	usands of U.S. do	llars			
	Fibers &	Plastics &	IT		Carbon Fiber					
Year ended	FIDEI 3 Q	riasiius a	11-1	hotelo					Eliminatio	n
	Textiles	Chemicals	Pro	elated oducts	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Others	Eliminatio & Corpora	
March 31, 2017:	Textiles \$9,759	\$3,574			Composite	Environment &	Life Science \$8,360	Others \$—		
March 31, 2017: Loss on impairment	\$9,759	\$3,574	\$4	oducts	Composite Materials	Environment & Engineering \$134	\$8,360		& Corpora	te Total
Year ended March 31, 2017: Loss on impairment (Information about amo	\$9,759	\$3,574	\$4	oducts	Composite Materials \$— by report	Environment & Engineering \$134  able segment Millions of yen	\$8,360		& Corpora	te Total
March 31, 2017: Loss on impairment (Information about amo	\$9,759 ortization and	\$3,574 d balance o	\$4	oducts ,242 odwill	composite Materials  s—  by report  Carbon Fiber Composite	Environment & Engineering \$134  able segment Millions of yen Environment & Environment	\$8,360 nts)	\$—	& Corpora \$	te Total \$26,070
March 31, 2017: Loss on impairment  (Information about amo  Year ended March 31, 2017:	\$9,759 ortization and Fibers & Textiles	\$3,574 d balance o	f god	oducts  ,242  odwill  related oducts	composite Materials  \$— by report  Carbon Fiber Composite Materials	Environment & Engineering \$134  able segment Millions of yen	\$8,360		& Corpora	s26,070
March 31, 2017: Loss on impairment  (Information about amo  Year ended March 31, 2017:  Amortization of goodwill	\$9,759 ortization and	\$3,574  d balance o	f god	oducts ,242 odwill	composite Materials  s—  by report  Carbon Fiber Composite	state the service of	\$8,360  hts)  Life Science	\$— Others	& Corpora \$— Eliminatio & Corpora	n te Total  * 326,070
March 31, 2017: Loss on impairment  (Information about amo  Year ended March 31, 2017:  Amortization of goodwill	sp,759  ortization and  Fibers & Textiles  ¥1,208	\$3,574 d balance o  Plastics & Chemicals  ¥1,083	f god	oducts  ,242  odwill  related oducts 3,098	composite Materials  \$— by report  Carbon Fiber Composite Materials  ¥ 2,768	state the segment and the segm	\$8,360  hts)  Life Science	\$— Others	& Corpora \$— Eliminatio & Corpora	n Total  * 326,070
March 31, 2017: Loss on impairment  (Information about amo  Year ended March 31, 2017:  Amortization of goodwill  Balance of goodwill	Fibers & Textiles  ¥1,208 8,657	\$3,574 d balance of Plastics & Chemicals ¥1,083 3,250	\$4  IT-r  Pro  ¥ 3	oducts 2,242 odwill elated oducts 3,098 4,716	composite Materials  \$— by report  Carbon Fiber Composite Materials  ¥ 2,768 16,842  Carbon Fiber	Environment & Engineering \$134  able segment Millions of yen Environment & Engineering ¥ 323 2,314  Millions of yen	\$8,360  hts)  Life Science	\$— Others	& Corpora  \$— Eliminatio & Corpora  ¥—	n te Total  * \$26,070  n te Total  * \$45,779
March 31, 2017: Loss on impairment  (Information about amo  Year ended March 31, 2017:  Amortization of goodwill	sp,759  ortization and  Fibers & Textiles  ¥1,208	\$3,574 d balance o  Plastics & Chemicals  ¥1,083	\$4  IT-r Pro  11-r Pro  11-r	oducts  ,242  odwill  related oducts 3,098	composite Materials  \$— by report  Carbon Fiber Composite Materials  ¥ 2,768  16,842	Environment & Engineering \$134  able segmer Millions of yen Environment & Engineering \$2,314  Millions of yen Environment & Engineering \$2,314	\$8,360  hts)  Life Science	\$— Others	& Corpora \$— Eliminatio & Corpora	n te Total  * 326,070  n te Total  * 48,480  45,775
March 31, 2017: Loss on impairment  (Information about amo  Year ended March 31, 2017:  Amortization of goodwill  Balance of goodwill  Year ended	Fibers & Textiles  ¥1,208 8,657	\$3,574  d balance of Plastics & Chemicals  ¥1,083  3,250  Plastics &	\$44  IT-r  Pro  11-r  Pro  11-r  Pro	odwill elated oducts 3,098 4,716	Carbon Fiber  Carbon Fiber Composite Materials  *	Environment & Engineering \$134  able segment Millions of yen Environment & Engineering ¥ 323 2,314  Millions of yen	\$8,360  Its)  Life Science  ——————	Others  Y—	& Corpora  \$	n te Total  * 326,070  n te Total  * 45,775

#### Thousands of U.S. dollars

Year ended March 31, 2017:	Fibers & Textiles	Plastics & Chemicals	IT-related Products	Carbon Fiber Composite Materials	Environment & Engineering	Life Science	Others	Elimination & Corporate	Total
Amortization of goodwill	\$10,766	\$ 9,652	\$ 27,611	\$ 24,670	\$ 2,879	<b>\$</b> —	<b>\$</b> —	\$—	\$ 75,579
Balance of goodwill	77,157	28,966	131,159	150,107	20,624	_		_	408,012

<sup>&</sup>quot;Others" represents service-related businesses such as analysis, survey and research.

### 18. AMOUNTS PER SHARE

Basic net income per share is computed based on the net income attributable to owners of parent available for distribution to stockholders of common stock and the weighted-average number of shares of common stock outstanding during the year.

Diluted net income per share is computed based on the net income attributable to owners of parent available for distribution to the stockholders and the weighted-average number of shares of common stock outstanding during the year after giving effect to the dilutive potential of shares of common stock to be issued upon the exercise of warrants and stock acquisition rights.

Amounts per share of net assets are computed based on the net assets available for distribution to the stockholders and the number of shares of common stock outstanding at year end.

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

	Yen		U.S. dollars	
	2017	2016	2017	
Net income attributable to owners of parent:				
Basic	¥ 62.17	¥ 56.38	\$0.55	
Diluted	62.10	56.31	0.55	
Cash dividends applicable to the year	14.00	13.00	0.12	
Net assets	638.64	591.50	5.69	

## 19. RELATED PARTY TRANSACTIONS

# Corporate pension for employees

Year ended March 31, 2017

Name Retirement benefit trust Category Corporate pension

Relationship Plan assets under retirement benefit accounting

Description of the transaction Return of part of assets

Amount of the transaction ¥21,632 million (\$192,799 thousand)

Year ended March 31, 2016 No items to be reported.



Ernst & Young ShinNihon LLC Hibiya Kokusai Bldg. 2-2-3 Uchisaiwai-cho, Chiyoda-ku Tokyo, Japan 100-0011 Tel: +81 3 3503 1100 Fax: +81 3 3503 1197 www.shinnihon.or.jp

## Independent Auditor's Report

The Board of Directors Toray Industries, Inc.

We have audited the accompanying consolidated financial statements of Toray Industries, Inc. and its consolidated subsidiaries, which comprise the consolidated balance sheet as at March 31, 2017, and the consolidated statements of income, comprehensive income, changes in net assets, and cash flows for the year then ended and a summary of significant accounting policies and other explanatory information, all expressed in Japanese yen.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for designing and operating such internal control as management determines is necessary to enable the preparation and fair presentation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in Japan. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. The purpose of an audit of the consolidated financial statements is not to express an opinion on the effectiveness of the entity's internal control, but in making these risk assessments the auditor considers internal controls relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

## Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Toray Industries, Inc. and its consolidated subsidiaries as at March 31, 2017, and their consolidated financial performance and cash flows for the year then ended in conformity with accounting principles generally accepted in Japan.

#### Convenience Translation

We have reviewed the translation of these consolidated financial statements into U.S. dollars, presented for the convenience of readers, and, in our opinion, the accompanying consolidated financial statements have been properly translated on the basis described in Note 2.

Crust & Joung Shin Nihon UC

June 27, 2017 Tokyo, Japan

A member firm of Ernst & Young Global Limited

#### **Investor Information**

(As of March 31, 2017)

#### **Common Stock:**

Issued: 1,599,971,887 shares (excluding treasury stock) Number of Stockholders: 137,641

#### **Annual General Meeting:**

The annual general meeting of stockholders is normally held in June in Tokyo.

#### **Listings**:

Common stock is listed on the Tokyo Stock Exchange.

## **Independent Auditors:**

Ernst & Young ShinNihon LLC

## **Transfer Agent:**

Sumitomo Mitsui Trust Bank, Limited 1-4-1, Marunouchi Chiyoda-ku, Tokyo 100-0005, Japan

#### **Cash Dividends Per Share**

Years ended March 31	2017	2016
Total for the year	¥14.00	¥13.00
Interim	7.00	6.00

## **Principal Stockholders**

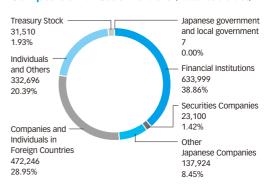
	Thousands of shares	Percentage of shares held
The Master Trust Bank of Japan, Ltd. (Trust Account)	116,760	7.30
Japan Trustee Services Bank, Ltd. (Trust Account)	95,213	5.95
Nippon Life Insurance Co.	71,212	4.45
Mitsui Life Insurance Co., Ltd.	35,961	2.25
Sumitomo Mitsui Banking Corporation	30,022	1.88
Japan Trustee Services Bank, Ltd. (Trust 5 Account)	27,918	1.74
State Street Bank West Client – Treaty 505234	25,813	1.61
Japan Trustee Services Bank, Ltd. (Trust 4 Account)	23,366	1.46
Japan Trustee Services Bank, Ltd. (Trust 9 Account)	22,164	1.39
Japan Trustee Services Bank, Ltd. (Trust 7 Account)	20,896	1.31

<sup>\*</sup>Percentage of shares held is calculated excluding 31,509,516 shares of treasury stock.

#### **Stock Price Range**



#### Composition of Stockholders (Thousands of shares)



## **Corporate Data**

(As of March 31, 2017)

## **Toray Industries, Inc.**

## **Head Office**

URL:

Nihonbashi Mitsui Tower, 1-1, Nihonbashi-Muromachi 2-chome, Chuo-ku, Tokyo 103-8666, Japan Telephone: 81(3)3245-5111 Facsimile: 81(3)3245-5054

http://www.toray.com

## **Established:**

January 1926

## **Capital Stock:**

¥147,873,030,771

## **Number of Employees:**

46,248

Parent company: 7,220 Japanese subsidiaries: 10,657 Overseas subsidiaries: 28,371













## **Toray Industries, Inc.**

1-1, Nihonbashi-Muromachi 2-chome, Chuo-ku, Tokyo 103-8666, Japan Telephone: 81(3)3245-5111 Facsimile: 81(3)3245-5054 URL: http://www.toray.com For questions about this report:

Contact IR Dept.

Telephone: 81(3)3245-5113 Facsimile: 81(3)3245-5459 e-mail: ir@nts.toray.co.jp

# Toray's "Blue Butterfly" Corporate Advertising



Automotive Materials Version



Plant-based Polyester Version



Carbon Fiber Version



Food Packaging Film Version



## **About Our Blue Butterfly**

The Butterfly Effect is one of the ideas in chaos theory that suggests that a flap of a butterfly's wings in one part of the world can set off a tornado in another. This idea proposes that one small change can instigate various phenomena that ultimately results in a larger transformation. Materials are the foundation of all products. And we at Toray believe that the evolution of materials is what will help change the future in a bigger, better way. Just like the butterfly effect.