kuraray

Kuraray Report 2018
Financial Section

For the year ended December 31, 2017

Business Environment

In the fiscal year ended December 31, 2017 ("fiscal 2017"), concerns about the economic impact of political instability remained in the world economy. Consumption and investment continued to expand, and the world economy remained favorable overall. The Japanese economy gradually improved due to higher corporate profits backed by favorable exports as employment conditions improved. The U.S. and European economies continued to expand, underpinned by healthy corporate profits, personal consumption and employment conditions. In China, the economy continued to grow on the back of steady personal consumption despite the economic impact of the government's tightening of monetary policy. Economies in emerging countries continued to gradually recover.

Under these circumstances, the Kuraray Group has successively implemented the business strategies outlined in GS-STEP, its medium-term management plan that ended in fiscal 2017, to realize "a high-profit specialty chemical company with a global presence."

Sales

(Billions of yen, rounded to the nearest hundred million)

	Fiscal 2017	Fiscal 2016	Change
Net Sales	**¥518.4**	¥485.2	+6.9%
Operating Income	**75.1**	67.8	+10.7%
Ordinary Income	**73.0**	66.2	+10.3%
Net Income Attributable to Owners of the Parent	**53.6**	40.4	+32.7%

The Kuraray Group's consolidated net sales for fiscal 2017 rose by ¥33,250 million ($294 million), or 6.9%, compared with the previous fiscal year to ¥518,442 million ($4,588 million); operating income grew by ¥7,290 million ($65 million), or 10.7%, to ¥75,117 million ($665 million); ordinary income increased by ¥6,817 million ($60 million), or 10.3%, to ¥72,998 million ($646 million); and net income attributable to owners of the parent rose by ¥13,201 million ($117 million), or 32.7%, to ¥53,601 million ($474 million).

In the previous fiscal year, the activated carbon business and energy materials business were included in the Other Business segment. However, due to the absorption-type merger of Kuraray Chemical Co., Ltd. on January 1, 2017, the Company decided to merge these businesses into the Carbon Materials Business and move said business to the Functional Materials segment in fiscal 2017. Comparisons and analyses for fiscal 2017 are based on the segmentation following this change.

Results by Business Segment

(Billions of yen, rounded to the nearest hundred million)

	Net Sale		Operating Income	
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**	Fiscal 2016
Vinyl Acetate	**¥ 266.9**	¥ 253.2	**¥ 61.3**	¥ 58.5
Isoprene	**56.4**	51.1	**8.4**	6.9
Functional Materials	**69.9**	68.0	**7.5**	4.5
Fibers and Textiles	**51.7**	48.6	**6.0**	6.0
Trading	**128.8**	119.5	**3.9**	3.8
Other Business	**54.2**	46.3	**3.3**	1.4
Elimination & Corporate	**(109.5)**	(101.4)	**(15.3)**	(13.3)
Total	**¥ 518.4**	¥ 485.2	**¥ 75.1**	¥ 67.8

Vinyl Acetate

Sales in this segment increased by 5.4% year on year to ¥266,894 million ($2,362 million), and segment income grew by 4.8% year on year to ¥61,320 million ($543 million).

(1) Sales of PVA resin were favorable, increasing in sales volume mainly in the North American market following the start of regular operations at the new U.S. plant. Sales volume of optical-use PVA film rose. In addition, newly installed equipment at the Saijo Plant commenced operations from the second quarter. Sales of water-soluble PVA film were healthy due mainly to increase in demand for unit dose detergent applications. In PVB film, sales of high added-value products expanded.

(2) Sales volume of *EVAL* ethylene vinyl alcohol copolymer (EVOH resin) grew for both automotive gas tank and food packaging applications.

Isoprene

Sales in this segment increased by 10.3% year on year to ¥56,366 million ($499 million), and segment income rose by 20.4% year on year to ¥8,350 million ($74 million).

(1) In isoprene chemicals, the sales volume of fine chemicals, *SEPTON* thermoplastic elastomer and liquid rubber expanded and was favorable.

(2) The sales volume of *GENESTAR* heat-resistant polyamide resin for automotive, connector and LED reflector applications expanded and was favorable.

Functional Materials

Sales in this segment climbed 2.8% year on year to ¥69,910 million ($619 million), and segment income jumped 67.4% year on year to ¥7,485 million ($66 million).

(1) In the methacrylic resin business, in addition to market conditions being health year round, sales of high-value-added products increased.

(2) In the medical business, sales of new zirconia-based dental materials expanded.

(3) For *CLARINO* man-made leather, sales of products made with both the conventional and the new production process remained favorable.

(4) In the Carbon Materials business, sales remained favorable as the sales volume of high-value-added products increased.

Fibers and Textiles

Although sales of *KURALON* expanded, higher raw material and fuel costs affected some products. Sales of consumer goods and materials were favorable as sales of the high value-added product *KURAFLEX* continued to rise. As a result, sales in this segment rose by 6.4% year on year to ¥51,658 million ($457 million) while segment income grew by 0.9% year on year to ¥6,011 million ($53 million).

Trading

In fiber-related businesses, clothing sales were firm for sportswear and uniforms, but exports of yarn and textiles struggled. The overseas sewn products business expanded due to the effects of increased investment in Vietnam. In addition, sales of materials were steady overall, and sales of resins and chemicals were favorable, particularly for exports. As a result, segment sales increased by 7.8% year on year to ¥128,834 million ($1,140 million), and segment income climbed 2.0% to ¥3,911 million ($35 million).

Other Business

In other businesses, overall performance remained healthy. As a result, segment sales grew by 17.2% year on year to ¥54,233 million ($480 million), and segment income jumped 134.7% to ¥3,300 million ($29 million).

Outlook for the Fiscal Year Ending December 31, 2018

The Company expects geopolitical risks to persist in each region but the global economy to continue to expand and remain favorable overall. However, the Japanese economy is expected to stall with just very gradual growth due to sluggish personal consumption despite exports and investments continuing to expand against the backdrop of the favorable global economy. In addition, raw material and fuel prices that had been consistently low since fiscal 2015 began rising in 2017, leading to worries about higher production costs hurting earnings.

In its medium-term management plan "PROUD2020," which began in 2018, the Group outlines four key management strategies: Pursue competitive superiority, expand new business fields, enhance comprehensive strength of the Kuraray Group, and Contribute to the environment. From 2018, the first year of the plan, the Group will reflect on the results of the previous medium-term management plan GS-STEP and work to resolve any remaining issues while steadily implementing specific measures under the key management strategies of "PROUD2020."

Based on these circumstances, the forecast of operating results for fiscal 2018 is as shown below.

(Billions of yen, rounded to the nearest hundred million)

	Forecast for Fiscal 2018	Fiscal 2017	Change
Net Sales	**¥540.0**	¥518.4	+4.2%
Operating Income	**77.0**	75.1	+2.5%
Ordinary Income	**75.0**	73.0	+2.7%
Net Income Attributable to Owners of the Parent	**49.0**	53.6	-8.6%

For the forecast of operating results for fiscal 2018, we assume average exchange rates of ¥110 to the U.S. dollar and ¥130 to the euro, as well as a domestic naphtha price of ¥43,000 per kiloliter.

[Reference] Forecast of Results by Segment for Fiscal 2018

In fiscal 2017, the "*CLARINO* business" was classified in the Functional Materials segment. The Company has decided to reclassify this business into the Fibers and Textiles segment in the ensuing fiscal year.

The following compares the forecast for fiscal 2018 and restated results for fiscal 2017 after the change in classification.

Forecast of Results for the Fiscal Year Ending December 31, 2018 (Breakdown by Segment)

(Billions of yen, rounded to the nearest hundred million)

	Net Sale		Operating Income	
	Forecast for Fiscal 2018	Fiscal 2017	**Forecast for Fiscal 2018**	Fiscal 2017
Vinyl Acetate	**¥ 282.0**	¥ 266.9	**¥ 58.5**	¥ 61.3
Isoprene	**59.0**	56.4	**9.0**	8.4
Functional Materials	**59.0**	55.2	**6.5**	6.3
Fibers and Textiles	**68.0**	66.4	**7.5**	7.2
Trading	**135.0**	128.8	**4.5**	3.9
Other Business	**51.0**	54.2	**3.5**	3.3
Elimination & Corporate	**(114.0)**	(109.5)	**(12.5)**	(15.3)
Total	**¥ 540.0**	¥ 518.4	**¥ 77.0**	¥ 75.1

Consolidated Balance Sheet

Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2017

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017 (December 31, 2017)	Fiscal 2016 (December 31, 2016)	**Fiscal 2017 (December 31, 2017)**
ASSETS			
I Current assets:			
1 Cash and deposits[*6]	¥ 60,904	¥ 51,437	$ 538,973
2 Notes and accounts receivable—trade[*7]	113,876	105,010	1,007,752
3 Short-term investment securities	38,296	39,064	338,902
4 Merchandise and finished goods	84,572	73,504	748,424
5 Work-in-process	14,699	12,260	130,079
6 Raw materials and supplies	28,235	25,504	249,867
7 Deferred tax assets	7,670	5,974	67,876
8 Other	11,652	12,669	103,115
9 Allowance for doubtful accounts	(436)	(451)	(3,858)
Total current assets	359,471	324,974	3,181,159
II Noncurrent assets:			
1 Tangible fixed assets:			
(1) Buildings and structures, net[*2 and 6]	59,267	54,343	524,486
(2) Machinery, equipment and vehicles, net[*2]	164,803	162,963	1,458,433
(3) Land[*2 and 6]	19,671	19,526	174,079
(4) Construction in progress	38,187	29,904	337,938
(5) Other, net[*2]	5,266	5,090	46,601
Total tangible fixed assets[*1]	287,196	271,827	2,541,557
2 Intangible fixed assets:			
(1) Goodwill	24,567	26,256	217,407
(2) Customer-related assets	26,070	28,880	230,707
(3) Other	26,387	24,401	233,513
Total intangible fixed assets	77,024	79,537	681,628
3 Investments and other assets:			
(1) Investment securities[*3 and 6]	35,417	34,023	313,424
(2) Long-term loans receivable	229	260	2,026
(3) Net defined benefit assets	1,963	827	17,371
(4) Deferred tax assets	6,739	7,097	59,637
(5) Other	7,734	6,929	68,442
(6) Allowance for doubtful accounts	(42)	(43)	(371)
Total investments and other assets	52,042	49,093	460,548
Total noncurrent assets	416,263	400,458	3,683,743
TOTAL ASSETS	¥ 775,735	¥ 725,433	$ 6,864,911

The accompanying notes are an integral part of the financial information.

Consolidated Balance Sheet

Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2017

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017 (December 31, 2017)	Fiscal 2016 (December 31, 2016)	**Fiscal 2017 (December 31, 2017)**
LIABILITIES			
I Current liabilities:			
1 Notes and accounts payable—trade[*7]	¥ 39,864	¥ 36,424	$ 352,778
2 Short-term loans payable[*6]	7,864	7,626	69,592
3 Accrued expenses	13,090	10,719	115,840
4 Income taxes payable	13,594	7,635	120,300
5 Provision for bonuses	6,000	5,296	53,097
6 Other provisions	8	4	70
7 Other[*7]	27,631	28,430	244,522
Total current liabilities	108,053	96,136	956,221
II Noncurrent liabilities:			
1 Bonds payable	10,000	10,000	88,495
2 Long-term loans payable[*6]	42,099	42,172	372,557
3 Deferred tax liabilities	15,251	25,442	134,964
4 Provision for directors' retirement benefits	224	209	1,982
5 Provision for environmental measures	6,184	3,580	54,725
6 Net defined benefit liabilities	14,597	11,542	129,176
7 Asset retirement obligations	4,469	4,192	39,548
8 Other	10,367	11,178	91,743
Total noncurrent liabilities	103,193	108,318	913,212
TOTAL LIABILITIES	211,247	204,454	1,869,442
NET ASSETS			
I Shareholders' equity:			
1 Capital stock	88,955	88,955	787,212
2 Capital surplus	87,219	87,178	771,849
3 Retained earnings	343,666	304,277	3,041,292
4 Treasury stock	(6,110)	(3,972)	(54,070)
Total shareholders' equity	513,730	476,439	4,546,283
II Accumulated other comprehensive income:			
1 Valuation difference on available-for-sale securities	13,007	10,913	115,106
2 Deferred gains or losses on hedges	(603)	(110)	(5,336)
3 Foreign currency translation adjustment	33,681	30,054	298,061
4 Remeasurements of defined benefit plans	(3,836)	(4,336)	(33,946)
Total accumulated other comprehensive income	42,248	36,520	373,876
III Subscription rights to shares	539	719	4,769
IV Noncontrolling interests	7,968	7,300	70,513
TOTAL NET ASSETS	564,487	520,978	4,995,460
TOTAL LIABILITIES AND NET ASSETS	¥ 775,735	¥ 725,433	$ 6,864,911

The accompanying notes are an integral part of the financial information.

Consolidated Statement of Income and Consolidated Statement of Comprehensive Income

Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2017

Consolidated Statement of Income

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017 (January 1, 2017 to December 31, 2017)	Fiscal 2016 (January 1, 2016 to December 31, 2016)	**Fiscal 2017 (January 1, 2017 to December 31, 2017)**
I Net sales	¥ 518,442	¥ 485,192	$ 4,587,982
II Cost of sales[*2]	339,836	317,748	3,007,398
Gross profit	178,606	167,444	1,580,584
III Selling, general and administrative expenses:			
1 Selling expenses	28,236	27,238	249,876
2 General and administrative expenses[*2]	75,251	72,378	665,938
Total selling, general and administrative expenses[*1]	103,488	99,616	915,823
Operating income	75,117	67,827	664,752
IV Non-operating income:			
1 Interest income	266	223	2,353
2 Dividend income	1,541	2,695	13,637
3 Equity in earnings of affiliates	2	1	17
4 Other	1,409	1,999	12,469
Total non-operating income	3,219	4,919	28,486
V Non-operating expenses:			
1 Interest expenses	729	739	6,451
2 Foreign exchange losses	1,369	774	12,115
3 Personnel expenses for seconded employees	625	666	5,530
4 Loss on disposal of tangible fixed assets	558	474	4,938
5 Other	2,055	3,909	18,185
Total non-operating expenses	5,338	6,565	47,238
Ordinary income	72,998	66,181	646,000
VI Extraordinary income:			
1 Gain on transfer of know-how	2,500	—	22,123
2 Gain on sale of investment securities	1,352	—	11,964
Total extraordinary income	3,852	—	34,088
VII Extraordinary loss:			
1 Provision for environmental measures	3,146	3,293	27,840
2 Impairment loss[*3]	1,674	2,179	14,814
3 Acquisition related expenses[*4]	1,465	—	12,964
4 Loss on antitrust act[*5]	1,019	—	9,017
5 Loss on valuation of investment securities[*6]	556	—	4,920
6 Loss on disaster [*7]	523	—	4,628
7 Loss on disposal of tangible fixed assets	323	196	2,858
Total extraordinary loss	8,709	5,669	77,070
Income before income taxes	68,141	60,512	603,017
Income taxes—current	21,047	17,469	186,256
Income taxes—deferred	(7,395)	1,838	(65,442)
Total income taxes	13,652	19,308	120,814
Net income	54,488	41,204	482,194
Net income attributable to noncontrolling interests	886	804	7,840
Net income attributable to owners of the parent	¥ 53,601	¥ 40,400	$ 474,345

Consolidated Statement of Comprehensive Income

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017 (January 1, 2017 to December 31, 2017)	Fiscal 2016 (January 1, 2016 to December 31, 2016)	**Fiscal 2017 (January 1, 2017 to December 31, 2017)**
I Net income	¥ 54,488	¥ 41,204	$ 482,194
II Other comprehensive income:			
1 Valuation difference on available-for-sale securities	2,094	105	18,530
2 Deferred gains or losses on hedges	(484)	(114)	(4,283)
3 Foreign currency translation adjustment	3,375	(9,221)	29,867
4 Remeasurements of defined benefit plans	500	464	4,424
Total other comprehensive income[*1]	5,485	(8,765)	48,539
III Comprehensive income	59,974	32,438	530,743
Comprehensive income attributable to			
1 Owners of the parent	59,078	31,642	522,814
2 Minority interests	895	796	7,920

The accompanying notes are an integral part of the financial information.

Consolidated Statement of Changes in Net Assets

Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2017

	Millions of yen				
	Shareholders' equity				
Fiscal 2017 (January 1, 2017 to December 31, 2017)	Capital stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Balance at January 1, 2017	¥88,955	¥87,178	¥304,277	¥(3,972)	¥476,439
Changes of items during the period					
Cash dividends			(14,420)		(14,420)
Net income attributable to owners of the parent			53,601		53,601
Changes of scope of consolidation			172		172
Purchase of treasury stock				(2,892)	(2,892)
Disposal of treasury stock		64		754	819
Changes in equity due to transactions with noncontrolling interests		0			0
Other		(23)	33		10
Net changes of items other than shareholders' equity					—
Total changes of items during the period	—	41	39,388	(2,137)	37,291
Balance at December 31, 2017	¥88,955	¥87,219	¥343,666	¥(6,110)	¥513,730

	Millions of yen							
	Accumulated other comprehensive income							
	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Subscription rights to shares	Noncontrolling interests	Total net assets
Balance at January 1, 2017	¥10,913	¥ (110)	¥30,054	¥ (4,336)	¥36,520	¥ 719	¥7,300	¥520,978
Changes of items during the period								
Cash dividends					—			(14,420)
Net income attributable to owners of the parent					—			53,601
Changes of scope of consolidation					—			172
Purchase of treasury stock					—			(2,892)
Disposal of treasury stock					—			819
Changes in equity due to transactions with noncontrolling interests					—			0
Other					—			10
Net changes of items other than shareholders' equity	2,094	(492)	3,627	500	5,728	(179)	668	6,217
Total changes of items during the period	2,094	(492)	3,627	500	5,728	(179)	668	43,508
Balance at December 31, 2017	¥13,007	¥ (603)	¥33,681	¥ (3,836)	¥42,248	¥ 539	¥7,968	564,487

The accompanying notes are an integral part of the financial information.

Consolidated Statement of Changes in Net Assets

Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2017

	Thousands of U.S. dollars				
	Shareholders' equity				
Fiscal 2017 (January 1, 2017 to December 31, 2017)	Capital stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Balance at January 1, 2017	$787,212	$771,486	$2,692,716	$(35,150)	$4,216,274
Changes of items during the period					
Cash dividends			(127,610)		(127,610)
Net income attributable to owners of the parent			474,345		474,345
Changes of scope of consolidation			1,522		1,522
Purchase of treasury stock				(25,592)	(25,592)
Disposal of treasury stock		566		6,672	7,247
Changes in equity due to transactions with noncontrolling interests		0			0
Other		(203)	292		88
Net changes of items other than shareholders' equity					—
Total changes of items during the period	—	362	348,566	(18,911)	330,008
Balance at December 31, 2017	$787,212	$771,849	$3,041,292	$(54,070)	$4,546,283

	Thousands of U.S. dollars							
	Accumulated other comprehensive income							
	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Subscription rights to shares	Noncontrolling interests	Total net assets
Balance at January 1, 2017	$96,575	$(973)	$265,964	$(38,371)	$323,185	$6,362	$64,601	$4,610,424
Changes of items during the period								0
Cash dividends					—			(127.610)
Net income attributable to owners of the parent					—			474,345
Changes of scope of consolidation					—			1,522
Purchase of treasury stock					—			(25,592)
Disposal of treasury stock					—			7,247
Changes in equity due to transactions with noncontrolling interests					—			0
Other					—			88
Net changes of items other than shareholders' equity	18,530	(4,353)	32,097	4,424	50,690	(1,584)	5,911	55,017
Total changes of items during the period	18,530	(4,353)	32,097	4,424	50,690	(1,584)	5,911	385,026
Balance at December 31, 2017	$115,106	$(5,336)	$298,061	$(33,946)	$373,876	$4,769	$70,513	$4,995,460

The accompanying notes are an integral part of the financial information.

Consolidated Statement of Changes in Net Assets

Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2017

	Millions of yen				
	Shareholders' equity				
Fiscal 2016 (January 1, 2016 to December 31, 2016)	Capital stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Balance at January 1, 2016	¥88,955	¥87,147	¥278,899	¥(4,319)	¥450,682
Changes of items during the period					
Cash dividends			(14,753)		(14,753)
Net income attributable to owners of the parent			40,400		40,400
Changes of scope of consolidation			(267)		(267)
Purchase of treasury stock				(5)	(5)
Disposal of treasury stock		30		353	383
Net changes of items other than shareholders' equity					—
Total changes of items during the period	—	30	25,378	347	25,756
Balance at December 31, 2016	¥88,955	¥87,178	¥304,277	¥(3,972)	¥476,439

	Millions of yen							
	Accumulated other comprehensive income							
	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Subscription rights to shares	Noncontrolling interests	Total net assets
Balance at January 1, 2016	¥10,808	¥ (4)	¥39,377	¥(4,801)	¥45,380	¥ 831	¥6,695	¥503,589
Changes of items during the period								
Cash dividends								(14,753)
Net income attributable to owners of the parent								40,400
Changes of scope of consolidation								(267)
Purchase of treasury stock								(5)
Disposal of treasury stock								383
Net changes of items other than shareholders' equity	104	(105)	(9,323)	464	(8,859)	(112)	604	(8,367)
Total changes of items during the period	104	(105)	(9,323)	464	(8,859)	(112)	604	17,389
Balance at December 31, 2016	¥10,913	¥(110)	¥30,054	¥(4,336)	¥36,520	¥ 719	¥7,300	¥520,978

The accompanying notes are an integral part of the financial information.

Consolidated Statement of Cash Flows

Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2017

		Millions of yen		Thousands of U.S. dollars
		Fiscal 2017 (January 1, 2017 to December 31, 2017)	Fiscal 2016 (January 1, 2016 to December 31, 2016)	**Fiscal 2017** (January 1, 2017 to December 31, 2017)
I	**Net cash provided by (used in) operating activities:**			
	1 Income before income taxes	¥68,141	¥60,512	$603,017
	2 Depreciation and amortization	42,965	41,555	380,221
	3 Increase (decrease) in allowance for doubtful accounts	(17)	(160)	(150)
	4 Loss on disposal of tangible fixed assets	323	196	2,858
	5 Impairment loss	1,674	2,179	14,814
	6 Provision for environmental measures	3,146	3,293	27,840
	7 Foreign exchange losses (gains)	1,145	1,281	10,132
	8 Interest and dividends income	(1,807)	(2,919)	(15,991)
	9 Interest expenses	729	739	6,451
	10 Decrease (increase) in notes and accounts receivable—trade	(7,294)	(4,386)	(64,548)
	11 Decrease (increase) in inventories	(13,601)	(1,645)	(120,362)
	12 Increase (decrease) in notes and accounts payable—trade	3,031	(1,435)	26,823
	13 Loss (gain) on valuation of investment securities	556	—	4,920
	14Loss (gain) on sale of investment securities	(1,352)	—	(11,964)
	15 Increase (decrease) in provision for bonuses	659	130	5,831
	16 Increase (decrease) in net defined benefit liabilities	1,727	264	15,283
	17 Decrease (increase) in net defined benefit assets	(285)	(297)	(2,522)
	18 Other, net	1,475	16,854	13,053
	Sub-total	101,217	116,162	895,725
	20 Interest and dividends income received	1,794	2,912	15,876
	21 Interest expenses paid	(729)	(739)	(6,451)
	22 Income taxes (paid) refund	(17,675)	(24,412)	(156,415)
	Net cash provided by (used in) operating activities	84,606	93,923	748,725
II	**Net cash provided by (used in) investment activities:**			
	1 Net decrease (increase) in time deposits	(4,459)	—	(39,460)
	2 Net decrease (increase) in short-term investment securities	(17,456)	—	(154,477)
	3 Purchase of investment securities	(1,036)	(489)	(9,168)
	4 Proceeds from sales and redemption of investment securities	1,561	3,551	13,814
	5 Purchase of tangible fixed assets and intangible fixed assets	(55,419)	(49,992)	(490,433)
	6 Payments for disposal of tangible fixed assets and intangible fixed assets	(1,047)	(516)	(9,265)
	7 Proceeds from sales of tangible fixed assets and intangible fixed assets	59	52	522
	8 Other, net	(2,097)	(1,905)	(18,557)
	Net cash provided by (used in) investment activities	(79,896)	(49,300)	(707,044)
III	**Net cash provided by (used in) financing activities:**			
	1 Net increase(decrease) in short-term loans payable	232	495	2,053
	2 Repayment of long-term loans payable	(85)	(142)	(752)
	3 Purchase of treasury stock	(2,892)	(5)	(25,592)
	4 Proceeds from sales of treasury stock	529	195	4,681
	5 Cash dividends paid	(14,420)	(14,753)	(127,610)
	6 Cash dividends paid to minority shareholders	(227)	(191)	(2,008)
	7 Other, net	(312)	(299)	(2,761)
	Net cash provided by (used in) financing activities	(17,176)	(14,701)	(152,000)
IV	**Effect of exchange rate changes on cash and cash equivalents**	(882)	(1,514)	(7,805)
V	**Net increase (decrease) in cash and cash equivalents**	(13,349)	28,407	(118,132)
VI	**Cash and cash equivalents, beginning of year**	83,389	54,750	737,955
VII	**Increase in cash and cash equivalents from newly consolidated subsidiaries**	193	231	1,707
VIII	**Cash and cash equivalents, end of year**[*1]	¥70,234	¥ 83,389	$621,539

The accompanying notes are an integral part of the financial information

1 Significant Accounting Policies

1. Basis of presenting consolidated financial statements

The accompanying consolidated financial statements of Kuraray Co., Ltd. (the "Company") and its consolidated subsidiaries are prepared on the basis of accounting principles generally accepted in Japan, which are different in certain respects as to application and disclosure requirements of International Financial Reporting Standards, and are filed with the Japanese Ministry of Finance (the "MOF") as required by the Financial Instruments Exchange Law of Japan. The accompanying consolidated financial statements are translations of those filed with the MOF.

Each amount in the consolidated financial statements and notes is rounded down to the nearest 1 million yen (in the case of the translation into the United States dollars, they have been rounded down to the nearest 1 thousand dollars).

The United States dollar amounts included herein are provided solely for the convenience of readers outside Japan and are stated, at the rate of ¥113=$1, the approximate exchange rate prevailing on December 31, 2017. The translations should not be construed as representations that the Japanese yen amounts have been, could have been, or could in the future be, converted into the United States dollars at this or any other rate.

2. Scope of consolidation

(1) Number of consolidated subsidiaries

	Fiscal 2017	Fiscal 2016
Number of consolidated subsidiaries	39	38

(Major consolidated subsidiaries)

KURARAY TRADING Co., LTD., Kuraray Plastics Co., Ltd., KURARAY ENGINEERING CO., LTD., KURARAY LIVING CO., LTD., Kuraray Techno Co., Ltd., KURARAYKURAFLEX CO., LTD., TECHNO SOFT CO., LTD., Kuraray Travel Service Corporation, KURARAY SAIJO CO., LTD., KURARAY TAMASHIMA COMPANY, LIMITED, Iruma Country Club Co., Ltd., KURASHIKI KOKUSAI HOTEL LTD., KURARAY FASTENING CO., LTD., OKAYAMA RINKOH CO., LTD., Kuraray Noritake Dental Inc., KURARAY AQUA CO., LTD., Kuraray Holdings U.S.A., Inc., Kuraray America, Inc., Kuraray Europe GmbH, EVAL Europe N.V., Kuraray Hong Kong Co., Ltd., Kuraray Asia Pacific Pte. Ltd., Kuraray (Shanghai) Co., Ltd., MonoSol Holdings, Inc., MonoSol, LLC, Kuraray China Co., Ltd., Kuraray Korea Ltd., Plantic Technologies Limited and 11 other consolidated subsidiaries.

During the fiscal year ended December 31, 2017 (fiscal 2017), Kuraray Methacrylate (Zhang Jia Gang) Co., Ltd. and Kuraray Chemical (Ningxia) Environmental Industry Co., Ltd. were added to the scope of consolidation due to their increased significance.

In addition, during fiscal 2017, the Company merged its consolidated subsidiary Kuraray Chemical Co., Ltd., which was removed from the scope of consolidation.

(2) Names of major unconsolidated subsidiaries

(Major unconsolidated subsidiaries)

Kuraray Okayama Spinning Co., Ltd.

Kuraray South America Ltda.

(Reasons for excluding from the scope of consolidation)

The total assets, total sales and net income and loss (amount corresponding to the owned interest) and retained earnings (amount corresponding to the owned interest) of the unconsolidated subsidiaries have no material effect on the consolidated financial statements.

3. Scope of application of equity method affiliates and subsidiaries

(1) Number of unconsolidated subsidiaries accounted for using the equity method

	Fiscal 2017	Fiscal 2016
Number of unconsolidated subsidiaries accounted for using the equity method	1	1

(Name of unconsolidated subsidiaries)

Kuraray Okayama Spinning Co., Ltd.

(2) Unconsolidated subsidiaries and affiliates (Hexin Kuraray Micro Fiber Leather (Jiaxing) Co., Ltd., and other affiliates) have not been accounted for using the equity method, because their net income and loss and retained earnings (amount corresponding to the owned interest) have no material effect on the consolidated financial statements.

4. Fiscal years of consolidated subsidiaries

The closing date of the consolidated subsidiaries is the same as the consolidated closing date.

5. Accounting policies

(1) Valuation standards and methods for significant assets

a) Investment securities

Available-for-sale securities for which a market price is available are stated at fair value at the year-end. (Net unrealized gains or losses on these securities are recorded as a separate component in "Net assets," net of tax amount. The cost of securities sold is determined based on the moving-average cost of all such securities held at the time of sale.) Other securities for which a market price is not available are stated at cost determined by the moving-average method.

b) Derivative financial instruments

All derivatives are stated at fair value.

c) Inventories

Finished goods, raw materials, and work-in-process are principally stated at the lower of cost determined by the weighted average method or net realizable value.

Supplies are principally stated at the lower of cost determined by the moving-average method or net realizable value.

(2) Depreciation method of significant depreciable assets

a) Tangible fixed assets (excluding lease assets)

Depreciation, except for buildings, is primarily computed using the declining-balance method over the estimated useful lives of the assets. However, depreciation for structures purchased on or after April 1, 2016 is computed using the straight-line method. The depreciation method for buildings is primarily computed using the straight-line method.

The estimated useful lives of assets are primarily as follows:

• Buildings and structures…… 31 to 50 years

• Machinery, equipment and vehicles…..... 4 to 9 years

b) Intangible assets (excluding lease assets)

Amortization is primarily computed using the straight-line method.

The numbers of years for amortization are primarily as follows:

• Goodwill……..15 or 20 years

• Customer-related assets……... 9 to 20 years

However, minor amounts are charged or credited to income directly in the year of acquisition.

c) Lease assets

Amortization is primarily computed using the straight-line method.

(3) Accounting for significant allowance

a) Allowance for doubtful accounts

The Company and its consolidated subsidiaries provide for doubtful accounts principally at an amount computed based on the historical bad debt ratio during a certain reference period plus an estimated uncollectible amount based on the analysis of certain individual accounts.

b) Provision for bonuses

Provision for bonuses is stated at the estimated amount of the bonuses to be paid to employees based on services provided for the fiscal year.

c) Provision for directors' retirement benefits

Some of the consolidated subsidiaries accrue the liabilities for their retirement benefits for directors and corporate auditors, which is, in general, based upon the amounts required by the subsidiaries' internal regulations.

d) Provision for environmental measures

In order to provide for payments on disposal of polychlorinated biphenyl (PCB) wastes removed from the noncurrent assets and stored, and for expenditure on soil remediation work, a provision is made based on the estimated disposal cost.

(Additional Information)

In the fiscal year ended December 31, 2017, in addition to the estimated amount for the disposal of PCB waste, an estimated amount for soil remediation work has been included in the provision for environmental measures. In the fiscal year ended December 31, 2017, an estimated amount of ¥3,146 million (US$27,840 thousand) for the relevant work is recorded under extraordinary loss as provision for environmental measures.

(4) Accounting treatment of retirement benefit plan

a) Method for attributing estimated retirement benefits to individual periods of service

In calculating benefit obligation, the benefit formula basis was used to attribute estimated retirement benefits to periods up to December 31, 2017.

b) Calculation of net actuarial gain or loss and prior service cost

Prior service cost is amortized on a straight-line basis over a certain period (mainly 15 years), which falls within the average remaining years of service of the eligible employees.

Actuarial gains or losses are amortized on a straight-line basis over a certain period (mainly 15 years), which falls within the average remaining years of service of the eligible employees, allocated proportionately commencing the year following the year in which each respective gain or loss occurred.

c) Use of simplified method among small companies

Certain consolidated subsidiaries calculate retirement benefit liabilities and expenses using the simplified method that assumes their benefit obligation is equal to the benefits payable if all employees voluntarily retired at fiscal year-end.

(5) Significant hedge accounting

a) Hedge accounting

The Company and its consolidated subsidiaries adopt the method for hedging instruments whereby any gains or losses are deferred over the period of the hedging contract and are offset against the deferred losses or gains on the related hedged items. However, deferral hedge accounting is applied to forward foreign exchange contracts used to hedge foreign currency denominated loans, and when an interest rate swap contract meets certain conditions, the net amount to be paid or received under the contract is added to or deducted from the interest on the hedged items.

b) Hedging instruments and hedged items

Hedging instruments	Hedged items
Forward foreign exchange contracts	Foreign currency-denominated loans Future transactions in foreign currency
Interest rate swap contracts	Interest expenses

c) Hedging policy

The Company and its consolidated subsidiaries use financial instruments to hedge interest rate fluctuation and exchange fluctuation risks in accordance with their internal policies and procedures.

d) Assessment method for hedge accounting

The Company identifies and confirms the material conditions and measures the effectiveness of forward foreign exchange contracts associated with planned transactions denominated in foreign currencies.

Measurement of hedge effectiveness is not considered necessary for forward foreign exchange contracts that meet the requirements for deferral hedge accounting and interest rate swaps that meet the requirements for special accounting because the Company identifies and confirms the material conditions at the time of transaction.

(6) Amortization of goodwill

The Company amortizes goodwill using the straight-line method over the estimated period of benefit with the exception of minor amounts, which are charged or credited to income directly in the year of acquisition.

(7) Cash and cash equivalents

Cash and cash equivalents include all highly liquid investments with a maturity of three months or less, that are readily convertible to known amounts of cash which are subject to an insignificant risk of changes in value.

(8) Other accounting policies

Accounting for consumption tax

Consumption tax and local consumption tax on goods and services are not included in the revenue and expenses amounts.

2 Accounting Standards Issued but Not Yet Applied

・"Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for Consolidated Financial Statements" (ASBJ Practical Issue Task Force [PITF] No. 18, March 29, 2017)

・"Practical Solution on Unification of Accounting Policies Applied to Associates Accounted for Using the Equity Method" (ASBJ Practical Issues Task Force [PITF] No. 24, March 29, 2017).

(1) Outline

The Company has made a revision to apply "Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for Consolidated Financial Statements" to all subsidiaries and affiliated companies in Japan that prepare consolidated financial statements based on designated international accounting standards and revised international standards and that disclose information in a Securities Report as stipulated in the Financial Instruments and Exchange Act.

(2) Expected Application Date

Beginning of the fiscal year ending December 31, 2018.

(3) Effect of Applying the Accounting Standard

There is no material effect on the consolidated financial statements from the revision concerning "Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for Consolidated Financial Statements."

3 Changes in Presentation

Consolidated Statement of Income

From fiscal 2017, "Loss on disposal of tangible fixed assets," which was included in "Other" under "Non-operating expenses" in the previous fiscal year, is presented separately because its amount is more than 10/100 of total non-operating expenses. The financial statements for the previous fiscal year have been restated to reflect this change in presentation method.

As a result, ¥4,384 million presented in the Consolidated Statement of Income for the previous fiscal year as "Other" under "Non-operating expenses" was reclassified as ¥474 million in "Loss on disposal of tangible fixed assets" and ¥3,909 million in "Other.

4 Additional Information

Application of the Guidance on Recoverability of Deferred Tax Assets

The Accounting Standards Board of Japan (ASBJ) issued ASBJ Guidance No. 26 “Guidance on Recoverability of Deferred Tax Assets” on March 28, 2016. This guidance is applied from the fiscal year ended December 31, 2017.

5 Notes to Consolidated Balance Sheet

*1. Accumulated depreciation of tangible fixed assets

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Accumulated depreciation of tangible fixed assets	**¥722,484**	¥684,246	**$ 6,393,663**

*2. Accumulated amount of reduced-value entry as a result of receiving government subsidies, and so on that are subtracted from the acquisition price of tangible fixed assets

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Buildings and structures	**¥2,065**	¥2,094	**$ 18,274**
Machinery, equipment and vehicles	**1,511**	1,509	**13,371**
Land	**1,257**	1,257	**11,123**
Other	**30**	30	**265**
(Deduction for this fiscal year)	**(—)**	(0)	**—**

*3. Investments in unconsolidated subsidiaries and affiliates

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Investment securities (equity)	**¥4,696**	¥5,632	**$41,557**

*4. Commitments and contingencies

The Company is contingently liable for guarantees for bank loans of unconsolidated subsidiaries, affiliates and others.

The company names and the guarantees of their liabilities are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Social welfare corporation Ishii Kinen Aizenen (Joint and several guarantee)	**¥920**	¥1,052	**$ 8,141**
Kuraray India Private Limited	**—**	48	**—**
Total	**¥920**	¥1,100	**$ 8,141**

*5. Additional payment under share purchase agreement

The acquisition of Plantic Technologies Limited and subsidiaries includes an earn-out provision, whereby, based on specified performance targets, up to an additional $86.7 million may be required to be paid.

*6. Assets pledged as collateral and secured liabilities

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Investment securities [Note]	**¥ 46**	¥ 46	**$ 407**
Buildings	**729**	747	**6,451**
Land	**1,001**	1,001	**8,858**
Total	**¥1,776**	¥1,794	**15,716**

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Collateral for short-term loans	**¥170**	¥180	**$ 1,504**
Collateral for long-term loans	**4**	13	**35**
Total	**¥174**	¥193	**$ 1,539**

Note: The above investment securities have been provided as collateral for loans of Mizushima Eco-works Co., Ltd.

*7. Accounting for notes with maturity dates at fiscal year-end

Notes with maturity dates at fiscal year-end and fixed-date cash settlements (a method of cash settlement on the same terms as notes) are accounted for and settled as of the date of maturity. As the fiscal year-end fell on a bank holiday, the following amounts of notes and accounts receivable and payable with maturity dates at fiscal year-end were accounted for and settled as of the date of maturity.

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Notes and accounts receivable—trade	**¥5,686**	¥5,453	**$ 50,318**
Notes and accounts payable—trade	**3,744**	3,108	**33,132**
Other (Current liabilities)	**510**	266	**4,513**

6 Notes to Consolidated Statement of Income

*1. Major items and the amounts under "Selling, general and administrative expenses" are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Freight and storage	**¥20,218**	¥18,996	**$ 178,920**
Research and development	**19,661**	18,536	**173,991**
Salaries and legal welfare expense	**19,478**	18,420	**172,371**
Provision for bonuses	**5,725**	5,062	**50,663**
Retirement benefit expenses	**1,483**	1,454	**13,123**
Provision for directors' retirement benefits	**5**	12	**44**

*2. Research and development expenses included in general, administrative and current manufacturing expenses

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
	¥20,961	¥19,830	**$ 185,495**

*3. Impairment loss

The significant component of impairment loss is as follows:

Fiscal 2017

Location	Assets	Usage	Type	Impairment loss	
				Millions of yen	Thousands of U.S. dollars
Tainai City, Niigata Prefecture	Business assets	Thermoplastic resin manufacturing equipment	Machinery and equipment	**¥1,256**	**$ 11,115**
U.S.A.	Business assets	Result of research and development activities related to industrial-use film	In-process research and development	**224**	**$ 1,982**

Fiscal 2016

Location	Assets	Usage	Type	Impairment loss
				Millions of yen
Saijo City, Ehime Prefecture Kamisu City, Ibaraki Prefecture	Business assets	Assets for E&E materials business	Machinery and equipment	¥942
U.S.A.	Business assets	Result of research and development activities related to industrial-use film	In-process research and development	489

(Identifying the cash-generating unit to which an asset belongs)

As a minimum unit for generating cash flow, business assets are grouped into sections used for management accounting, and leased assets, idle assets, and assets associated with discontinued or reorganized businesses are assessed individually. Other head office and research facilities are shared assets.

(Method for calculating the recoverable amount)

After separately examining the indications for impairment with respect to those businesses whose income from operations continues to be negative, for businesses whose recoverable amount falls short of the book value, the book value is to be reduced to the recoverable amount. The recoverable amount is measured based on the value in use, and is calculated by discounting expected future cash flows at a rate of 3%.

Idle assets are categorized into “assets held for sale,” “assets that can be put to use in other businesses” and “assets to be discarded” and for items to be sold or discarded, the net book value of the assets is to be reduced to their recoverable amount. The recoverable amount of the assets is measured based on the net sale price and calculated by deducting the estimated disposal cost from the estimated sale price.

*4. Costs incurred in acquiring Calgon Carbon Corporation

*5. Expenditure related to antitrust violation in the bidding of specific PVA fiber products

*6. Disaster losses due mainly to hurricanes in the United States

*7. Expense for removing equipment rendered unnecessary by business closure, etc.

7 Notes to Consolidated Statement of Comprehensive Income

Reclassification adjustments and tax effect adjustments relating to other comprehensive income (loss) for the fiscal years ended December 31, 2017 and December 31, 2016, are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Valuation difference on available-for-sale securities			
Amount recorded during the period	¥ 2,450	¥ (617)	$ 21,681
Reclassification adjustments	225	384	1,991
Before tax effect adjustments	2,675	(232)	23,672
Tax effect	(581)	337	(5,141)
Valuation difference on available-for-sale securities	2,094	105	18,530
Deferred gains or losses on hedges			
Amount recorded during the period	(782)	(205)	(6,920)
Reclassification adjustments	89	34	787
Before tax effect adjustments	(693)	(170)	(6,132)
Tax effect	208	56	1,840
Deferred gains or losses on hedges	(484)	(114)	(4,283)
Foreign currency translation adjustment			
Amount recorded during the period	3,375	(9,221)	$ 29,867
Reclassification adjustments	—	—	—
Before tax effect adjustments	3,375	(9,221)	29,867
Tax effect	—	—	—
Foreign currency translation adjustment	3,375	(9,221)	29,867
Remeasurements of defined benefit plans			
Amount recorded during the period	(298)	(490)	(2,637)
Reclassification adjustments	1,100	1,229	9,734
Before tax effect adjustments	802	739	7,097
Tax effect	(302)	(274)	(2,672)
Remeasurements of defined benefit plans	500	464	4,424
Total other comprehensive income	¥5,485	¥(8,765)	$ 48,539

8 Notes to Consolidated Statement of Changes in Net Assets

Fiscal 2017

1. Type and number of issued shares of common stock and treasury stock

	Number of shares as of December 31, 2016 (Thousands of shares)	Increase in the number of shares (Thousands of shares)	Decrease in the number of shares (Thousands of shares)	Number of shares as of December 31, 2017 (Thousands of shares)
Number of outstanding shares				
Common stock	354,863	—	—	354,863
Total	354,863	—	—	354,863
Number of outstanding shares				
Common stock (Notes 1, 2)	3,363	1,304	628	4,040
Total	3,363	1,304	628	4,040

Notes: 1. The increase in treasury stock (common stock) is attributable to the acquisition of treasury stock by resolution of the Board of Directors (1,300 thousand shares) and the purchase of less-than-one unit shares (4 thousand shares).

2. The decrease in treasury stock (common stock) is attributable to a transfer of shares upon the exercise of subscription rights (628 thousand shares) and the sale of less-than-one unit shares by the shareholders (0 thousand shares).

2. Subscription rights to shares

The Company granted its directors, executive officers, employees, and directors and employees of its subsidiaries subscription rights to the Company shares as stock options. The balance of the subscription rights to shares as of December 31, 2017 is ¥539 million (US$4,769 thousand).

3. Dividends

(1) Amount of dividends paid

Resolution	Type of share	Amount of dividends (Millions of yen)	Dividend per share (Yen)	Record date	Effective date
General shareholders' meeting held on March 24, 2017	Common stock	¥7,381 (US$65,318 thousand)	¥21.00 (US$1.85)	December 31, 2016	March 27, 2017
Board of directors' meeting held on August 9, 2017	Common stock	¥7,038 (US$62,283 thousand)	¥20.00 (US$1.76)	June 30, 2017	September 1, 2017

(2) Dividends whose effective date is after the end of Fiscal 2017 and record date is included in Fiscal 2017.

Resolution	Type of share	Amount of dividends (Millions of yen)	Source of dividends	Dividend per share (Yen)	Record date	Effective date
General shareholders' meeting held on March 23, 2018	Common stock	¥7,718 (US$68,300 thousand)	Retained earnings	¥22.00 (US$1.94)	December 31, 2017	March 26, 2018

Fiscal 2016

1. Type and number of issued shares of common stock and treasury stock

	Number of shares as of December 31, 2015 (Thousands of shares)	Increase in the number of shares (Thousands of shares)	Decrease in the number of shares (Thousands of shares)	Number of shares as of December 31, 2016 (Thousands of shares)
Number of outstanding shares				
Common stock	354,863	—	—	354,863
Total	354,863	—	—	354,863
Number of outstanding shares				
Common stock (Notes 1, 2)	3,658	3	299	3,363
Total	3,658	3	299	3,363

Notes: 1. The increase in treasury stock (common stock) is attributable to the purchase of less-than-one unit shares (3 thousand shares).

2. The decrease in treasury stock (common stock) is attributable to a transfer of shares upon the exercise of subscription rights (299 thousand shares) and the sale of less-than-one unit shares by the shareholders (0 thousand shares).

2. Subscription rights to shares

The Company granted its directors, executive officers, employees, and directors and employees of its subsidiaries subscription rights to the Company shares as stock options. The balance of the subscription rights to shares as of December 31, 2016 is ¥719 million.

3. Dividends

(1) Amount of dividends paid

Resolution	Type of share	Amount of dividends (Millions of yen)	Dividend per share (Yen)	Record date	Effective date
General shareholders' meeting held on March 29, 2016	Common stock	¥7,726	¥22.00	December 31, 2015	March 30, 2016
Board of directors' meeting held on August 4, 2016	Common stock	¥7,027	¥20.00	June 30, 2016	September 1, 2016

(2) Dividends whose effective date is after the end of Fiscal 2016 and record date is included in Fiscal 2016.

Resolution	Type of share	Amount of dividends (Millions of yen)	Source of dividends	Dividend per share (Yen)	Record date	Effective date
General shareholders' meeting held on March 24, 2017	Common stock	¥7,381	Retained earnings	¥21.00	December 31, 2016	March 27, 2017

9 Notes to Consolidated Statement of Cash Flows

*1. Cash and cash equivalents at December 31, 2017 and December 31, 2016 are reconciled to the accounts reported in the consolidated balance sheet as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Cash on hand and in banks	**¥60,904**	¥51,437	**$ 538,973**
Time deposits with a deposit period of 3 months or more	**(5,509)**	(1,048)	**(48,752)**
Marketable securities with original maturities of 3 months or less	**14,839**	32,999	**131,318**
Total	**¥70,234**	¥83,389	**621,539**

10 Leases

1. Finance lease transactions

(1) Lease transactions as a lessee

Finance leases without transfer of ownership

1) Details of lease assets

a) Tangible fixed assets

Mainly vehicles used at plants, including forklifts, buildings and equipment, etc., related to manufacturing (“Machinery and Equipment”, “Buildings and Structures”), OA equipment, including personal computers and printers, and servers (“Other”).

b) Intangible fixed assets

Software (“Other”)

2) Depreciation method of lease assets

As described in the basis of presenting consolidated financial statements “1. Significant Accounting Policies, 5. Accounting policies (2) Depreciation method of significant depreciable assets”

(2) Lease transactions as a lessor

Finance lease transactions without transfer of ownership that commenced on or before March 31, 2008 are accounted for on a basis similar to operating leases. The details of such transactions are as follows.

Disclosure of finance lease transactions which commenced on or after April 1, 2008 is omitted due to less materiality.

1) Lease acquisition costs, accumulated depreciation and net book value as of December 31, 2017 and December 31, 2016 are as follows:

December 31, 2017

	Millions of yen		
	Acquisition cost	Accumulated depreciation	Net book value
Buildings and structures	**¥197**	**¥105**	**¥92**
Total	**¥197**	**¥105**	**¥92**

	Thousands of U.S. dollars		
	Acquisition cost	Accumulated depreciation	Net book value
Buildings and structures	$ 1,743	$ 929	$ 814
Total	$ 1,743	$ 929	$ 814

December 31, 2016

	Millions of yen		
	Acquisition cost	Accumulated depreciation	Net book value
Buildings and structures	¥197	¥101	¥95
Total	¥197	¥101	¥95

2) Future lease payment obligations at December 31, 2017 and December 31, 2016 are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Due within one year	¥13	¥13	$ 115
Due after one year	42	56	371
Total	¥56	¥69	495

Note: As the proportion of total balance of future lease payment obligations and estimated residual value of leased property to the balance of notes and accounts receivables—trade at the balance sheet date is immaterial, interest income is included in the amount of future lease payment obligations.

3) Lease revenue and depreciation expense for the years ended December 31, 2017 and December 31, 2016 are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Lease revenue	¥13	¥13	$ 115
Depreciation expense	3	3	26

2. Operating leases

Lease transactions as a lessee:

Future lease payment obligations under operating leases at December 31, 2017 and December 31, 2016 are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Due within one year	¥ 2,225	¥ 2,396	$ 19,690
Due after one year	9,011	9,465	79,743
Total	¥11,237	¥11,862	99,442

11 Financial Instruments

1. Outline of financial instruments

(1) Policy for financial instruments

The Group raises funds necessary to conduct its business mainly through bank loans or issuance of bonds. Temporary cash surpluses, if any, are invested in low risk financial assets. Derivatives are used, not for speculative purposes, but to manage exposure to financial risks as described below.

(2) Nature and extent of risks arising from financial instruments

Receivables such as notes and accounts receivable–trade are exposed to customer credit risk. Trade receivables denominated in foreign currencies are exposed to foreign currency exchange fluctuation risk.

Short-term investment securities and investment securities, mainly consisting of beneficiary securities on investment trusts, certificates of deposit and others held for management of capital surpluses and stocks in companies with which the Company has a business relationship are exposed to the risk of market price fluctuations.

Payment terms of payables, such as notes and accounts payable–trade, are mostly less than one year. Payables in foreign currencies incurred mainly from import of raw materials are exposed to foreign currency exchange fluctuation risk. Those risks are mostly offset by receivable balances denominated in the same foreign currency.

Loans, bonds and lease obligations related to finance lease transactions, used to raise funds for working capital and capital expenditures, have maturities of at the longest 29 years from the balance sheet date. The debts bearing floating interest rates are exposed to interest rate fluctuation risk, although a part of the exposure is hedged through use of derivatives (interest rate swaps).

Derivative transactions include forward foreign currency contracts and currency swaps for the purpose of hedging foreign currency exchange fluctuation risk resulting from receivables and payables denominated in foreign currencies and interest rate swaps for the purpose of hedging interest rate fluctuation risk resulting from variable interest expenses on debts. Please refer to "(5) Significant hedge accounting" under "1. Significant Accounting Policies, 5. Accounting policies" for a description of the Company's accounting policy relating to hedging activities.

(3) Risk management for financial instruments

a. *Credit Risk Management (customers' default risk)*

The Company manages and mitigates customer credit risk from trade receivables on the basis of internal rules concerning credit management, which include monitoring of payment terms and balances of customers to identify default risk at an early stage. With respect to loan receivables and liability guarantee agreements, the Company manages its exposure to credit risk by periodically identifying the financial position of the debtors. With respect to financial assets held for managing capital surplus, its credit risk is minimal because the investments are limited to issuers with high credit ratings in accordance with internal rules concerning fund management. The Company enters into derivative transactions only with financial institutions that have high credit ratings in order to mitigate counterparty risks.

b. *Market Risk Management (foreign currency exchange and interest rate fluctuation risks)*

The Company and certain consolidated subsidiaries principally use forward foreign exchange contracts to hedge foreign currency exchange fluctuation risk exposure in connection with trade receivables and payables denominated in foreign currencies. Depending on foreign currency exchange rate conditions, trade receivables and payables denominated in foreign currencies that are expected to be generated based on export and import forecasts are hedged using forward foreign exchange contracts with limited contract periods of around half a year. The Company also hedges certain scheduled nontrading transactions denominated in foreign currencies that it expects to generate.

In addition, the Company uses currency swap and interest rate swap contracts to mitigate foreign currency exchange fluctuation risk exposure in connection with long-term loans receivable in foreign currencies and interest rate fluctuation risk exposure in connection with long-term loans payable.

With respect to short-term investment securities and investment securities, the Company periodically monitors fair values or financial status of the related issuers. With respect to stocks in companies with which the Company has a business relationship, the Company continuously checks the necessity for holding them, taking into account the business relationship.

The Company manages derivative transactions in accordance with internal rules that regulate delegation of authority concerning derivative transactions.

c. *Liquidity Risk Management on Fund Raising*

Liquidity risk comprises the risk that the Group cannot meet its contractual obligations in full at the respective maturity dates. The Group manages its liquidity risk by diversifying its fund raising instruments, obtaining commitment lines from several financial institutions and adjusting short-term and long-term funding balances in consideration of market environments.

(4) Supplementary explanation concerning fair values of financial instruments

Fair values of financial instruments comprise values determined based on market prices and values determined reasonably when there is no market price. Since variable factors are incorporated in computing the relevant fair values, such fair values may vary depending on the different assumptions. The notional amounts and other information described in Note 15. “Derivative Financial Instruments” are not indicative of market risk exposure to derivative transactions.

2. Fair values of financial instruments

Carrying amount, fair value and unrealized gain/loss of the financial instruments as of December 31, 2017 and December 31, 2016 are as follows:

Financial instruments whose fair values are not readily determinable are excluded from the following table:

Fiscal 2017

	Millions of yen		
	Carrying amount	Fair value	Unrealized gain (loss)
(1) Cash and deposits	¥ 60,904	¥ 60,904	¥ —
(2) Notes and accounts receivable—trade	113,876		
Allowance for doubtful accounts	(436)		
	113,440	113,440	—
(3) Short-term investment securities and investment securities Available-for-sale securities	66,381	66,381	—
Total assets	240,726	240,726	
(1) Notes and accounts payable—trade	39,864	39,864	—
(2) Long-term loans payable (*1)	42,172	43,544	1,372
Total liabilities	82,037	83,409	1,372
Derivative transactions (*2)	(2,649)	(2,649)	—

	Thousands of U.S. dollars		
	Carrying amount	Fair value	Unrealized gain (loss)
(1) Cash and deposits	$ 538,973	$ 538,973	$ —
(2) Notes and accounts receivable—trade	1,007,752	—	—
Allowance for doubtful accounts	(3,858)	—	—
	1,003,893	1,003,893	—
(3) Short-term investment securities and investment securities Available-for-sale securities	587,442	587,442	—
Total assets	2,130,318	2,130,318	—
(1) Notes and accounts payable—trade	352,778	352,778	—
(2) Long-term loans payable (*1)	373,203	385,345	12,141
Total liabilities	725,991	738,132	12,141
Derivative transactions (*2)	(23,442)	(23,442)	—

Fiscal 2016

	Millions of yen		
	Carrying amount	Fair value	Unrealized gain (loss)
(1) Cash and deposits	¥ 51,437	¥ 51,437	¥ —
(2) Notes and accounts receivable—trade	105,010		
Allowance for doubtful accounts	(451)		
	104,559	104,559	—
(3) Short-term investment securities and investment securities Available-for-sale securities	64,525	64,525	—
Total assets	220,522	220,522	
(1) Notes and accounts payable—trade	36,424	36,424	—
(2) Long-term loans payable (*1)	42,257	44,035	1,777
Total liabilities	78,681	80,459	1,777
Derivative transactions (*2)	(5,836)	(5,836)	—

(*1) Long-term loans payable include the current portion of long-term loans payable.

(*2) Receivables and payables incurred as a result of derivative transactions are presented on a net basis. Net payables are presented in parentheses.

Notes: 1. Calculation method of fair values of financial instruments and securities and derivative transactions

Assets:

(1) Cash and deposits and (2) Notes and accounts receivable—trade

These assets are recorded using book values because fair values approximate book values because of their short-term maturities.

(3) Short-term investment securities and investment securities

The fair values of these assets are determined using the quoted market price on applicable stock exchanges. Other instruments are determined using the quoted price obtained from financial institutions.

Liabilities:

(1) Notes and accounts payable–trade

These payables are recorded using book values because fair values approximate book values because of their short-term maturities.

(2) Long-term loans payable

The fair values of long-term loans payable are determined by discounting the aggregated values of the principal and interest using an assumed interest rate based on the interest rate that would be applied to a new loan of a similar nature.

Long-term loans payable bearing floating interest rates are hedged using interest rate swap contracts and the fair values of these loans payable are determined by discounting the aggregated values of the principal and interest accounted for together with the related interest rate swap contracts using a reasonably estimated interest rate based on the interest rate that would be applied to a new loan of a similar nature.

Derivative financial instruments:

Please see Note 13. “Derivative Financial Instruments.”

2. Financial instruments whose fair values are not readily determinable

	Millions of yen		Thousands of U.S. dollars
	Carrying amount		Carrying amount
Category	**Fiscal 2017**	Fiscal 2016	**Fiscal 2017**
Unlisted equity securities	**¥7,331**	¥8,562	**$ 64,876**

These items are not included in “(3) Short-term investment securities and investment securities,” because there is no market price, future cash flows cannot be estimated and it is very difficult to identify fair values.

3. Redemption schedule of monetary assets and securities with contractual maturities

Fiscal 2017

	Millions of yen			
	Within one year	One to five years	Five to ten years	Over ten years
Cash and deposits	**¥ 60,904**	**¥—**	**¥—**	**¥—**
Notes and accounts receivable—trade	**113,876**	**—**	**—**	**—**
Short-term investment securities and investment securities:				
o/w Securities with contractual maturities:				
(1) Bonds (Corporate)	**2,999**	**—**	**—**	**—**
(2) Bonds (Others)	**—**	**—**	**—**	**—**
(3) Others	**35,296**	**—**	**—**	**—**
Total	**¥213,076**	**¥—**	**¥—**	**¥—**

	Thousands of U.S. dollars			
	Within one year	One to five years	Five to ten years	Over ten years
Cash and deposits	**$ 538,973**	**$—**	**$—**	**$—**
Notes and accounts receivable—trade	**1,007,752**	**—**	**—**	**—**
Short-term investment securities and investment securities:				
o/w Securities with contractual maturities:				
(1) Bonds (Corporate)	**26,539**	**—**	**—**	**—**
(2) Bonds (Others)	**—**	**—**	**—**	**—**
(3) Others	**312,353**	**—**	**—**	**—**
Total	**$ 1,885,628**	**$—**	**$—**	**$—**

Fiscal 2016

	Millions of yen			
	Within one year	One to five years	Five to ten years	Over ten years
Cash and deposits	¥ 51,437	¥—	¥—	¥—
Notes and accounts receivable—trade	105,010	—	—	—
Short-term investment securities and investment securities:				
o/w Securities with contractual maturities:				
(1) Bonds (Corporate)	9,000	—	—	—
(2) Bonds (Others)	—	—	—	—
(3) Others	30,000	—	—	—
Total	¥195,448	¥—	¥—	¥—

4. Redemption schedule of bonds, long-term loans payable and lease obligations after the balance sheet date:

Fiscal 2017

	Millions of yen					
	Within one year	One to two years	Two to three years	Three to four years	Four to five years	Over five years
Bonds	¥ —	¥ —	¥ —	¥10,000	¥ —	¥ —
Long-term loans payable	72	12,050	33	15	10,000	20,000
Lease obligations	394	347	299	223	161	526
Total	¥467	¥12,397	¥333	¥10,239	¥10,161	¥20,526

	Thousands of U.S. dollars					
	Within one year	One to two years	Two to three years	Three to four years	Four to five years	Over five years
Bonds	$ —	$ —	$ —	$ 88,495	$ —	$—
Long-term loans payable	637	106,637	292	132	88,495	176,991
Lease obligations	3,486	3,070	2,646	1,973	1,424	4,654
Total	$ 4,132	$ 109,707	$ 2,946	$ 90,610	$ 89,920	$ 181,646

Fiscal 2016

	Millions of yen					
	Within one year	One to two years	Two to three years	Three to four years	Four to five years	Over five years
Bonds	¥ —	¥ —	¥ —	¥ —	¥10,000	¥ —
Long-term loans payable	85	72	12,050	33	15	30,000
Lease obligations	363	305	245	198	150	626
Total	¥448	¥377	¥12,295	¥231	¥10,166	¥30,626

12 Securities

1. Available-for-sale securities with market value

Fiscal 2017

	Millions of yen			Thousands of U.S. dollars		
	Book value (estimated fair value)	Cost	Net	Book value (estimated fair value)	Cost	Net
Securities with book value exceeding their acquisition cost						
Equity securities	¥27,744	¥ 9,969	¥17,774	$ 245,522	$ 88,221	$ 157,292
Bonds						
Government and municipal	—	—	—	—	—	—
Corporate	—	—	—	—	—	—
Others	—	—	—	—	—	—
Others	—	—	—	—	—	—
Subtotal	27,744	9,969	17,774	245,522	88,221	157,292
Securities with book value not exceeding their acquisition cost						
Equity securities	341	461	(120)	3,017	4,079	(1,061)
Bonds						
Government and municipal	—	—	—	—	—	—
Corporate	2,999	2,999	—	26,539	26,539	
Others	—	—	—	—	—	—
Others	35,296	35,296	—	312,353	312,353	—
Subtotal	38,637	38,757	(120)	341,920	342,982	(1,061)
Total	¥66,381	¥48,727	¥17,654	$ 587,442	$ 431,212	$ 156,230

Note: Unlisted equity securities amounting to ¥2,635 million (US$23,318 thousand) are excluded from the above table, because there is no market price and it is very difficult to identify fair values.

Fiscal 2016

	Millions of yen		
	Book value (estimated fair value)	Cost	Net
Securities with book value exceeding their acquisition cost			
Equity securities	¥25,234	¥ 10,370	¥14,863
Bonds			
Government and municipal	—	—	—
Corporate	6,064	6,000	64
Others	—	—	—
Others	—	—	—
Subtotal	31,298	16,370	14,928
Securities with book value not exceeding their acquisition cost			
Equity securities	226	241	(15)
Bonds			
Government and municipal	—	—	—
Corporate	2,999	2,999	—
Others	—	—	—
Others	30,000	30,000	—
Subtotal	33,226	33,241	(15)
Total	¥64,525	¥49,612	¥14,913

Note: Unlisted equity securities amounting to ¥2,930 million are excluded from the above table, because there is no market price and it is very difficult to identify fair values.

2. Available-for-sale securities sold during the fiscal year

Fiscal 2017

	Millions of yen			Thousands of U.S. dollars		
	Proceeds from sales	Total gain	Total loss	Proceeds from sales	Total gain	Total loss
Others	¥931	¥782	¥—	$ 8,238	$ 6,920	$—
Total	¥931	¥782	¥—	$ 8,238	$ 6,920	$—

Notes: 1. Attributable to sale of stock.

2. Securities for which it is difficult to identify fair value are excluded from the above table.

Fiscal 2016

	Millions of yen		
	Proceeds from sales	Total gain	Total loss
Others	¥3,498	¥384	¥—
Total	¥3,498	¥384	¥—

Notes: 1. Attributable to cancellation of an investment trust and sale of stock.

2. Securities for which it is difficult to identify fair value are excluded from the above table.

3. Impairment loss on securities

The Company recognized impairment loss on securities of ¥610 million (US$5,398 thousand) in fiscal 2017 and ¥154 million in fiscal 2016.

As for the available-for-sale securities for which market prices are available, the Company recognizes impairment loss when the fair value of such securities as of the fiscal year end declines to less than 50% of acquisition cost. When the fair value declines to between 30% and 50% of the acquisition cost, the Company considers the recoverability of each security and recognizes impairment for the amount deemed necessary. As for the available-for-sale securities for which market prices are not available, the Company recognizes impairment loss in the amount deemed necessary when the fair value of such securities declines significantly.

13 Derivative Financial Instruments

1. Derivative transactions to which hedge accounting is not applied

(1) Currencies

Fiscal 2017

		Millions of yen			
Category	Classification	Nominal amount	Nominal amount due after one year	Market value	Unrealized gain (loss)
Transactions other than market transactions	Forward foreign exchange contracts:				
	Receipts in Yen/Payments in U.S. dollar ..	¥32,373	¥ —	¥ (882)	¥ (882)
	Receipts in Yen/Payments in Euro	19,680	735	(488)	(488)
	Receipts in Yen/Payments in Yuan	169	—	(5)	(5)
	Receipts in Yen/Payments in Australian dollar.....	4,637	167	(202)	(202)
	Receipts in U.S. dollar/Payments in Yen ..	824	—	(7)	(7)
	Receipts in U.S. dollar/Payments in Australian dollar	0	—	(0)	(0)
	Receipts in Euro/Payments in Yen.....	143	—	2	2
	Receipts in Euro/Payments in Australian dollar.....	37	—	(0)	(0)
	Non-deliverable forward foreign exchange transaction:				
	Receipts in Yen/Payments in Won	3,378	—	(194)	(194)
Total.....		¥61,247	¥902	¥(1,779)	¥(1,779)

		Thousands of U.S. dollars			
Category	Classification	Nominal amount	Nominal amount due after one year	Market value	Unrealized gain (loss)
Transactions other than market transactions	Forward foreign exchange contracts:				
	Receipts in Yen/Payments in U.S. dollar	$ 286,486	$ —	$ (7,805)	$ (7,805)
	Receipts in Yen/Payments in Euro	174,159	6,504	(4,318)	(4,318)
	Receipts in Yen/Payments in Yuan.....	1,495	—	(44)	(44)
	Receipts in Yen/Payments in Australian dollar.....	41,035	1,477	(1,787)	(1,787)
	Receipts in U.S. dollar/Payments in Yen...	7,292	—	(61)	(61)
	Receipts in U.S. dollar/Payments in Australian dollar.....	—	—	(0)	(0)
	Receipts in Euro/Payments in Yen	1,265	—	17	17
	Receipts in Euro/Payments in Australian dollar.....	327	—	(0)	(0)
	Non-deliverable forward foreign exchange transaction:				
	Receipts in Yen/Payments in Won.....	29,893	—	(1,716)	(1,716)
Total.....		$ 542,008	$ 7,982	$ (15,743)	$ (15,743)

Notes: 1. Market values of forward foreign exchange contracts and non-deliverable forward foreign exchange transaction at the end of the fiscal year are calculated using forward exchange rates.

2. The forward foreign exchange contracts and non-deliverable forward foreign exchange transaction above are mainly those set with claims and liabilities to consolidated subsidiaries as the hedged items.

Fiscal 2016

Category	Classification	Millions of yen			
		Nominal amount	Nominal amount due after one year	Market value	Unrealized gain (loss)
Transactions other than market transactions	Forward foreign exchange contracts:				
	Receipts in Yen/Payments in U.S. dollar	¥34,445	¥ —	¥(4,216)	¥(4,216)
	Receipts in Yen/Payments in Euro	20,305	1,404	(1,067)	(1,067)
	Receipts in Yen/Payments in Yuan	536	—	(37)	(37)
	Receipts in Yen/Payments in Australian dollar	2,741	253	(192)	(192)
	Receipts in U.S. dollar/Payments in Yen	356	—	10	10
	Receipts in Euro/Payments in Yen	336	—	22	22
	Non-deliverable forward foreign exchange transaction:				
	Receipts in Yen/Payments in into Won	3,079	—	(179)	(179)
Total		¥61,800	¥1,657	¥(5,659)	¥(5,659)

Notes: 1. Market values of forward foreign exchange contracts and non-deliverable forward foreign exchange transaction at the end of the fiscal year are calculated using forward exchange rates.

2. The forward foreign exchange contracts and non-deliverable forward foreign exchange transaction above are mainly those set with claims and liabilities to consolidated subsidiaries as the hedged items.

2. Derivative transactions to which hedge accounting is applied

(1) Currencies

Fiscal 2017

Hedge accounting method	Classification	Major hedged items	Fiscal 2017 (As of December 31, 2017)					
			Millions of yen			Thousands of U.S. dollars		
			Nominal amount	Nominal amount over one year	Market value	Nominal amount	Nominal amount over one year	Market value
Allocation method	Forward foreign exchange contracts:							
	Receipts in Yen/ Payments in U.S. dollar	Accounts receivable—trade	¥ 706	¥—	Note	$ 6,247	$—	Note
	Receipts in Yen/ Payments in Euro	Accounts receivable—trade	15	—	Note	132	—	Note
	Receipts in Yen/ Payments in Baht	Loans receivable	172	—	Note	1,522	—	Note
	Receipts in U.S. dollar/ Payments in Yen	Accounts payable—trade	133	—	Note	1,176	—	Note
Total			¥1,028	¥—	Note	$ 9,097	$—	Note

Note: With respect to forward foreign exchange contracts whose exchange rates are used for translating accounts receivable—trade, loans receivable or accounts payable—trade, market values of forward foreign exchange contracts are included in the market values of the relevant accounts receivable—trade, loans receivable or accounts payable—trade, since they are used for recording accounts receivable—trade, loans receivable or accounts payable-trade as hedged items.

Hedge accounting method	Classification	Major hedged items	Fiscal 2017 (As of December 31, 2017) Millions of yen Nominal amount	Nominal amount over one year	Market value	Thousands of U.S. dollars Nominal amount	Nominal amount over one year	Market value
Deferred hedge method	Forward foreign exchange contracts:							
	Receipts in Yen/ Payments in U.S. dollar	Forecasted transactions in foreign currencies	¥ 1,813	¥—	¥ 2	$ 16,044	$—	$ 17
	Receipts in Yen/ Payments in Euro	Forecasted transactions in foreign currencies	1,221	—	(1)	10,805	—	(8)
	Receipts in Yen/ Payments in Yuan	Forecasted transactions in foreign currencies	57	—	(0)	504	—	(0)
	Receipts in U.S. dollar/Payments in Yen	Forecasted transactions in foreign currencies	125,824	—	(870)	1,113,486	—	(7,699)
Total			¥128,916	¥—	¥(870)	$ 1,140,849	$—	$ (7,699)

Notes: 1. Market values of forward foreign exchange contracts at the end of the fiscal year are calculated using forward exchange rates.
2. Forecasted transactions in foreign currencies represent primarily foreign exchange contracts related to acquisition funds.

Fiscal 2016

Hedge accounting method	Classification	Major hedged items	Fiscal 2016 (As of December 31, 2016) Millions of yen Nominal amount	Nominal amount over one year	Market value
Allocation method	Forward foreign exchange contracts:				
	Receipts in Yen/ Payments in U.S. dollar	Accounts receivable—trade	¥ 728	¥—	Note
	Receipts in Yen/ Payments in Euro	Accounts receivable—trade	7	—	Note
	Receipts in Yen/ Payments in Baht	Loans receivable	226	—	Note
	Receipts in U.S. dollar/ Payments in Yen	Accounts payable—trade	109	—	Note
Total			¥1,072	¥—	Note

Note: With respect to forward foreign exchange contracts whose exchange rates are used for translating accounts receivable—trade, loans receivable or accounts payable—trade, market values of forward foreign exchange contracts are included in the market values of the relevant accounts receivable-trade, loans receivable or accounts payable—trade, since they are used for recording accounts receivable—trade, loans receivable or accounts payable-trade as hedged items.

Hedge accounting method	Classification	Major hedged items	Fiscal 2016 (As of December 31, 2016) Millions of yen Nominal amount	Nominal amount over one year	Market value
Deferred hedge method	Forward foreign exchange contracts:				
	Receipts in Yen/ Payments in U.S. dollar	Forecasted transactions in foreign currencies	¥4,845	¥—	¥(238)
	Receipts in Yen/ Payments in Euro	Forecasted transactions in foreign currencies	1,414	—	(18)
	Receipts in Yen/ Payments in Yuan	Forecasted transactions in foreign currencies	70	—	0
	Receipts in U.S. dollar/Payments in Yen	Forecasted transactions in foreign currencies	1,026	—	79
	Receipts in Euro/ Payments in Yen	Forecasted transactions in foreign currencies	4	—	(0)
Total			¥7,361	¥—	¥(176)

Note: Market values of forward foreign exchange contracts at the end of the fiscal year are calculated using forward exchange rates.

(2) Interest rate

Fiscal 2017

Hedge accounting method	Classification	Major hedged items	Millions of yen Nominal amount	Nominal amount over one year	Market value
Special treatment For interest rate swaps	Interest rate swaps: Floating rate into fixed rate	Long-term loans payable	**¥26,000**	**¥26,000**	**Note**

Hedge accounting method	Classification	Major hedged items	Thousands of U.S. dollars Nominal amount	Nominal amount over one year	Market value
Special treatment For interest rate swaps	Interest rate swaps: Floating rate into fixed rate	Long-term loans payable	**$ 230,088**	**$ 230,088**	**Note**

Note: With respect to interest rate swap contracts which meet certain conditions, market values of the interest rate swap contracts are included in the market values of the relevant long-term loans payable, since they are used for recording long-term loans payable as hedged items.

Fiscal 2016

Hedge accounting method	Classification	Major hedged items	Millions of yen Nominal amount	Nominal amount over one year	Market value
Special treatment For interest rate swaps	Interest rate swaps: Floating rate into fixed rate	Long-term loans payable	¥26,000	¥26,000	Note

Note: With respect to interest rate swap contracts which meet certain conditions, market values of the interest rate swap contracts are included in the market values of the relevant long-term loans payable, since they are used for recording long-term loans payable as hedged items.

14 Retirement Benefits

1. Summary of retirement benefit plan

The Company and certain consolidated subsidiaries provide retirement benefits to employees with funded and unfunded defined benefits plans and a defined contribution plan. Certain consolidated subsidiaries participate in a multi-employer plan and account for their contributions to this fund as a retirement benefit expense because the plan assets that correspond to the contribution of each participant cannot be reasonably calculated.

The funded defined benefits plan provides a lump sum payment or a pension primarily based on qualifications and length of service. The Company and certain consolidated subsidiaries are introducing a cash-balance plan to the defined benefits plan. The cash-balance plan establishes hypothetical individual employee accounts representing each employee's share of plan funding and assets. Interest credits based on money market rate movements and credits primarily based on qualifications and length of service accumulate in the hypothetical individual employee accounts.

The unfunded retirement benefit plan is a lump sum retirement plan. It functions as a retirement savings plan because the Company has established a retirement benefits trust for it. This plan provides lump sum retirement benefits primarily based on qualifications and length of service.

Certain consolidated subsidiaries use a simplified method to calculate liabilities and expenses associated with their defined benefit and lump sum plans.

2. Defined benefit plan

(1) Reconciliations of beginning and ending balance of retirement benefit plan (excluding simplified method)

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Retirement benefit obligations at beginning of year	**¥44,621**	¥44,283	**$ 394,876**
Service costs	**2,322**	2,093	**20,548**
Interest costs	**547**	518	**4,840**
Actuarial gain or loss	**635**	819	**5,619**
Benefits paid	**(1,967)**	(2,906)	**(17,407)**
Other	**109**	(186)	**964**
Retirement benefit obligations at end of year	**¥46,270**	¥44,621	**$ 409,469**

(2) Reconciliations of beginning and ending balance of plan assets (excluding simplified method)

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Plan assets at beginning of year	**¥35,483**	¥35,343	**$ 314,008**
Expected return on plan assets	**776**	766	**6,867**
Actuarial gain or loss	**337**	329	**2,982**
Contribution from entrepreneur	**803**	951	**7,106**
Benefits paid	**(2,069)**	(1,921)	**(18,309)**
Other	**(33)**	14	**(292)**
Plan assets at end of year	**¥35,296**	¥35,483	**$ 312,353**

(3) Reconciliations of beginning and ending net defined benefit liabilities using the simplified method

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Net defined benefit liabilities at beginning of year	**¥1,576**	¥1,517	**$ 13,946**
Retirement benefit expenses	**375**	295	**3,318**
Benefits paid	**(107)**	(136)	**(946)**
Contribution to plan assets	**(196)**	(92)	**(1,734)**
Other	**11**	(6)	**97**
Net defined benefit liabilities at end of year	**¥1,660**	¥1,576	**$14,690**

(4) Reconciliations of net amount of retirement benefit liabilities and plan assets and net amount of net defined benefit obligation and net defined benefit asset recognized on the consolidated balance sheet

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Installment type retirement benefit obligation	**¥ 38,974**	¥ 38,207	**$344,902**
Plan assets	**(36,053)**	(36,004)	**(319,053)**
	2,920	2,202	**25,840**
Non installment type retirement benefit obligation	**9,713**	8,512	**85,955**
Net amount of net defined benefit obligation and net defined benefit asset recognized on the consolidated balance sheet	**12,633**	10,715	**111,796**
Net defined benefit obligation	**14,597**	11,542	**129,176**
Net defined benefit asset	**(1,963)**	(827)	**(17,371)**
Net amount of net defined benefit obligation and net defined benefit asset recognized on the consolidated balance sheet	**¥ 12,633**	¥ 10,715	**$ 111,796**

Note: Includes plan that uses the simplified method.

(5) The components of retirement benefit expenses

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Service costs	**¥2,322**	¥2,093	**$20,548**
Interest costs	**547**	518	**4,840**
Expected return on plan assets	**(776)**	(766)	**(6,867)**
Amortization of actuarial gains or losses	**1,087**	1,333	**9,619**
Amortization of prior service costs	**12**	(103)	**106**
Retirement benefit expenses calculated by simplified method	**375**	295	**3,318**
Other	**(21)**	(22)	**(185)**
Retirement benefit expense pertaining to defined benefit plan	**¥3,548**	¥3,348	**$ 31,398**

(6) Remeasurements of defined benefit plans (Consolidated comprehensive income)

The following is a breakdown of remeasurements of defined benefit plans (before deductions for the effect of income taxes)

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Prior service costs	**¥ 12**	¥(103)	**$ 106**
Actuarial gain or loss	**789**	842	**6,982**
Total	**¥802**	¥ 739	**$ 7,097**

(7) Remeasurements of defined benefit plans (Consolidated balance sheet)

The following is a breakdown of items recorded in cumulative remeasurements of defined benefit plans (before deductions for the effect of income taxes).

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Unrecognized prior service costs	**¥ (323)**	¥ (352)	**$ (2,858)**
Unrecognized actuarial gain or loss	**(5,365)**	(6,139)	**(47,477)**
Total	**¥(5,689)**	¥(6,492)	**$ (50,345)**

(8) Plan assets

a. The components of plan assets

	Fiscal 2017	Fiscal 2016
Debt securities	**40%**	44%
Equity securities	**14**	13
Life insurance company general accounts (Note 1)	**20**	21
Cash and deposits	**3**	1
Other assets	**24**	22
Total (Note 2)	**100%**	100%

Notes: 1. Life insurance companies manage the assets in, assume the asset management risk for, and guarantee a fixed return to policyholders for life insurance general accounts.

2. Total retirement plan assets for the years ended December 31, 2017 and 2016 include 50% and 53%, respectively, of the retirement benefits trust established for the lump sum retirement plan.

b. Determination of long-term expected rate of return on plan assets

The long-term expected rate of return on plan assets is determined with due consideration of current and future distribution of plan assets and current and expected returns on the various types of plan assets.

(9) Actuarial assumptions

	Fiscal 2017	Fiscal 2016
Discount rate	**Mainly 0.7% or 0.8%**	Mainly 0.7% or 0.8%
Long-term expected rate of return	**Mainly 1.0% or 3.3%**	Mainly 1.0% or 3.3%

3. Defined contribution plan

The amounts of required contribution to the defined contribution plan of the Company and its consolidated subsidiaries for the years ended December 31, 2017 and 2016 are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Defined contribution plan	**¥595**	¥821	**$ 5,265**

4. Multi-employer plan

The contribution to the multi-employer plan, which is accounted for in the same manner as the defined contribution plan for the years ended December 31, 2017 and 2016, totaled ¥110 million (US$973 thousand) and ¥135 million, respectively. Since the Osaka Textile Commerce Pension Fund, in which the Company's domestic subsidiaries participate, was dissolved on September 4, 2017 under the approval of the Minister of Health, Labor and Welfare, the most recent funding status of the pension fund for the year ended December 31, 2017, the percentage of the subsidiaries' contributions to the total plan, and other supplemental information are omitted. Additional contribution due to the dissolution of the fund is not expected.

Multi-employer plan in which domestic consolidated subsidiaries participate

(1) Accumulated funds for the plan (As of March 31, 2016)

	Millions of yen
Plan assets	¥ 63,647
Total of actuarial pension liabilities and plan's minimum reserve	75,201
Difference	¥(11,553)

(2) Ratio of total salaries of the consolidated subsidiary to total funds of the plan (As of March 31, 2016)

2.6%

(3) Supplementary explanation (As of March 31, 2016)

The main reasons behind the difference in amounts described above in (1) are as follows. The method of depreciation of prior service cost is to evenly split principals thereof over a period of 9 years and 10 months.

	Millions of yen
Balance of prior service cost	¥16,383
Deficient amount carried forward	4,829

The ratio in the above (2) does not match with the ratio of the actual burden of the consolidated subsidiary.

Multi-employer plan in which overseas consolidated subsidiaries participate

(1) Accumulated funds for the plan

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017 (As of June 30, 2017)	Fiscal 2016 (As of June 30, 2016)	**Fiscal 2017 (As of June 30, 2017)**
Plan assets	**¥ 53,234**	¥ 47,179	**$ 471,097**
Total of actuarial pension liabilities and plan's minimum reserve	**56,651**	51,343	**501,336**
Difference	**¥ (3,416)**	¥ (4,163)	**$ (30,230)**

(2) Ratio of total salaries of the consolidated subsidiary to total funds of the plan

Fiscal 2017 (As of June 30, 2017)	Fiscal 2016 (As of June 30, 2016)
3.1%	3.1%

The ratio in the above (2) does not match with the ratio of the actual burden of the consolidated subsidiary.

15 Stock-Based Compensation Plans

1. Item and amount of expenses for stock options

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Selling, general and administrative expenses.....	**¥116**	¥82	**$1,026**

2. Details including size and changes of stock options

(1) Stock options plans

	Stock options June 2007	Stock options June 2008	Stock options June 2009
Number of eligible persons by position	Directors of the Company: 10 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 11	Directors of the Company: 10 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 16	Directors of the Company: 9 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 15
Total number and type of stocks granted	56,500 shares of common stock	78,500 shares of common stock	86,500 shares of common stock
Grant date	June 5, 2007	June 10, 2008	June 9, 2009
Prerequisite to be vested	No vesting conditions are set.	No vesting conditions are set.	No vesting conditions are set.
Required service period	There is no provision for a required service period.	There is no provision for a required service period.	There is no provision for a required service period.
Exercise period	From June 6, 2007 to June 5, 2022; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.	From June 11, 2008 to June 10, 2023; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.	From June 10, 2009 to June 9, 2024; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.

	Stock options June 2010	Stock options October 2010	Stock options May 2011
Number of eligible persons by position	Directors of the Company: 9 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 16	Directors of the Company: 25 Employees of the Company: 3,924 Directors or employees of the Company's subsidiaries: 2,010	Directors of the Company: 10 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 14
Total number and type of stocks granted	83,500 shares of common stock	4,074,500 shares of common stock	89,500 shares of common stock
Grant date	June 9, 2010	October 1, 2010	May 19, 2011
Prerequisite to be vested	No vesting conditions are set.	Note	No vesting conditions are set.
Required service period	There is no provision for a required service period.	From October 1, 2010 to June 24, 2012	There is no provision for a required service period.
Exercise period	From June 10, 2010 to June 9, 2025; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.	From June 25, 2012 to June 24, 2020	From May 19, 2011 to May 18, 2026; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.

	Stock options May 2012	Stock options May 2013	Stock options May 2014
Number of eligible persons by position	Directors of the Company:10 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas):13	Directors of the Company:10 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas):17	Directors of the Company: 10 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 17
Total number and type of stocks granted	86,500 shares of common stock	88,000 shares of common stock	78,500 shares of common stock
Grant date	May 17, 2012	May 15, 2013	May 15, 2014
Prerequisite to be vested	No vesting conditions are set.	No vesting conditions are set.	No vesting conditions are set.
Required service period	There is no provision for a required service period.	There is no provision for a required service period.	There is no provision for a required service period.
Exercise period	From May 17, 2012 to May 16, 2027; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.	From May 15, 2013 to May 14, 2028; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.	From May 15, 2014 to May 14, 2029; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.

	Stock options February 2015	Stock options February 2016	Stock options February 2017
Number of eligible persons by position	Directors of the Company:12 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 11	Directors of the Company: 12 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 10	Directors of the Company: 12 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 11
Total number and type of stocks granted	59,500 shares of common stock	69,000 shares of common stock	75,500 shares of common stock
Grant date	February 17, 2015	February 10, 2016	February 9, 2017
Prerequisite to be vested	No vesting conditions are set.	No vesting conditions are set.	No vesting conditions are set.
Required service period	There is no provision for a required service period.	There is no provision for a required service period.	There is no provision for a required service period.
Exercise period	From February 17, 2015 to February 16, 2030; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.	From February 10, 2016 to February 9, 2031; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.	From February 9, 2017 to February 8, 2032; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date.

Note: Eligible persons shall be directors, executive officers, counselors, full-time consultants or employees of the Company or the Companies' subsidiaries at the time of exercise. However, those who were directors, executive officers or associate executive officers of the Company or presidents of the significant subsidiaries of the Company (Kuraray Engineering Co., Ltd., Kuraray Chemical Co., Ltd., Kuraray Trading Co., Ltd., Kuraray Plastics Co., Ltd., Kuraray Techno Co., Ltd., Kuraray America, Inc., Kuraray Europe GmbH and EVAL Europe N.V.) can exercise even after retirement.

Other conditions are prescribed in the "Contracts on Subscription Rights to Shares" to be entered between the Company and eligible persons who were granted subscription rights to shares.

(2) Size and changes of stock options

Stock options that existed in current fiscal years were converted into shares.

1) Number of stock options

	Stock options June 2007	Stock options June 2008	Stock options June 2009	Stock options June 2010	Stock options October 2010
Unvested stock options (shares)					
At the beginning of the fiscal year	—	—	—	—	—
Granted	—	—	—	—	—
Forfeited	—	—	—	—	—
Vested	—	—	—	—	—
At the end of the fiscal year	—	—	—	—	—
Vested stock options (shares)					
At the beginning of the fiscal year	4,000	6,500	14,500	13,000	1,907,000
Vested	—	—	—	—	—
Exercised	4,000	6,500	14,500	13,000	490,500
Forfeited	—	—	—	—	21,000
At the end of the fiscal year	—	—	—	—	1,395,500

	Stock options May 2011	Stock options May 2012	Stock options May 2013	Stock options May 2014	Stock options February 2015
Unvested stock options (shares)					
At the beginning of the fiscal year	—	—	—	—	—
Granted	—	—	—	—	—
Forfeited	—	—	—	—	—
Vested	—	—	—	—	—
At the end of the fiscal year	—	—	—	—	—
Vested stock options (shares)					
At the beginning of the fiscal year	15,500	15,500	26,000	31,000	32,000
Vested	—	—	—	—	—
Exercised	14,000	13,500	15,500	12,000	11,000
Forfeited	—	—	—	—	—
At the end of the fiscal year	1,500	2,000	10,500	19,000	21,000

	Stock options February 2016	Stock options February 2017
Unvested stock options (shares)		
At the beginning of the fiscal year	—	—
Granted	—	75,500
Forfeited	—	—
Vested	—	75,500
At the end of the fiscal year	—	—
Vested stock options (shares)		
At the beginning of the fiscal year	47,000	—
Vested	—	75,500
Exercised	15,000	18,500
Forfeited	—	—
At the end of the fiscal year	32,000	57,000

2) Price information

	Yen				
	Stock options June 2007	Stock options June 2008	Stock options June 2009	Stock options June 2010	Stock options October 2010
Exercise prices	¥ 1	¥ 1	¥ 1	¥ 1	¥1,078
Weighted-average exercise date stock price	2,054	2,054	2,054	2,054	1,979
Fair value at the grant date	1,318	1,264	947	1,054	247

	Yen				
	Stock options May 2011	Stock options May 2012	Stock options May 2013	Stock options May 2014	Stock options February 2015
Exercise prices	¥ 1	¥ 1	¥ 1	¥ 1	¥ 1
Weighted-average exercise date stock price	2,054	2,054	2,019	2,010	1,990
Fair value at the grant date	1,174	1,046	1,482	1,119	1,352

	Yen	
	Stock options February 2016	Stock options February 2017
Exercise prices	¥ 1	¥ 1
Weighted-average exercise date stock price	1,948	1,930
Fair value at the grant date	1,200	1,538

	U.S. dollars				
	Stock options June 2007	Stock options June 2008	Stock options June 2009	Stock options June 2010	Stock options October 2010
Exercise prices	$ 0.00	$ 0.00	$ 0.00	$ 0.00	$ 9.53
Weighted-average exercise date stock price	18.17	18.17	18.17	18.17	17.51
Fair value at the grant date	11.66	11.18	8.38	9.32	2.18

	U.S. dollars				
	Stock options May 2011	Stock options May 2012	Stock options May 2013	Stock options May 2014	Stock options February 2015
Exercise prices	$ 0.00	$ 0.00	$ 0.00	$ 0.00	$ 0.00
Weighted-average exercise date stock price	18.17	18.17	17.86	17.78	17.61
Fair value at the grant date	10.38	9.25	13.11	9.90	11.96

	U.S. dollars	
	Stock options February 2016	Stock options February 2017
Exercise prices	$ 0.00	$ 0.00
Weighted-average exercise date stock price	17.23	17.07
Fair value at the grant date	10.61	13.61

3. Method to estimate fair value of stock options

The fair value of the February 2017 stock options, which were granted in fiscal 2016, are estimated as follows:

(1) Valuing method: Black-Scholes model

(2) Major basic figures and estimating method

	February 2017 stock options
Stock price volatility (Note 1)	26.9%
Expected remaining life (Note 2)	2.6 year
Expected dividend (Note 3)	¥41/share (US$0.362)
Risk-free interest rate (Note 4)	-0.17 %

Notes:1. Calculated weekly based on the weekly stock price information over a period from the week that contains June 30, 2014 to the week that contains January 30, 2017.

2. Calculated by subtracting the average period of service of directors and executive officers who are currently in office as of the day of grant from the past average period of service of directors and executive officers.

3. Based on the dividend paid for the fiscal year ended December 2016.

4. Government bond yield over a period corresponding to the expected remaining life.

4. Method to estimate number of vested stock options

Stock options February 2017

The number of vested stock options is the same as the number of stock options granted, since the stock options were vested on the day following the day of the grant.

16 Income Taxes

1. Significant components of deferred tax assets and liabilities at December 31, 2017 and December 31, 2016

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Deferred tax assets:			
Net defined benefit liabilities	**¥ 8,409**	¥ 8,299	**$ 74,415**
Impairment loss	**2,650**	2,504	**23,451**
Loss (gain) on valuation of investment securities	**2,138**	1,070	**18,920**
Provision for environmental measures	**1,879**	1,088	**16,628**
Unrealized gain on inventories	**1,871**	1,803	**16,557**
Depreciation and amortization	**1,651**	1,692	**14,610**
Provision for bonuses	**1,120**	1,082	**9,911**
Asset retirement obligations	**1,074**	1,041	**9,504**
Unrealized gain on non-current assets	**877**	925	**7,761**
Accrued expenses	**787**	1,077	**6,964**
Write-down of inventories	**781**	514	**6,911**
Tax loss carry forward	**7,055**	5,160	**62,433**
Other	**3,831**	5,253	**33,902**
Subtotal deferred tax assets	**34,128**	31,513	**302,017**
Valuation allowance	**(9,292)**	(9,090)	**(82,230)**
Total deferred tax assets	**24,836**	22,422	**219,787**
Deferred tax liabilities:			
Depreciation and amortization	**(10,941)**	(16,363)	**(96,823)**
Adjustment to book value of assets stated at fair value	**(6,057)**	(10,890)	**(53,601)**
Unrealized gain on revaluation of securities	**(4,645)**	(4,043)	**(41,106)**
Reserve for reduction entry	**(1,199)**	(1,267)	**(10,610)**
Net defined benefit assets	**(596)**	(251)	**(5,274)**
Other	**(2,234)**	(1,977)	**(19,769)**
Total deferred tax liabilities	**(25,676)**	(34,793)	**(227,221)**
Net deferred tax assets (liabilities)	**¥ (840)**	¥ (12,370)	**$(7,433)**

Net deferred tax assets are included in the following items in the consolidated balance sheet:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Current assets:			
Deferred tax assets	**¥7,670**	¥ 5,974	**$ 67,876**
Noncurrent assets:			
Deferred tax assets	**6,739**	7,097	**59,637**
Noncurrent liabilities:			
Deferred tax liabilities	**(15,251)**	(25,442)	**(134,964)**

2. Reconciliation of the differences between the normal effective tax rate and the income tax rate in the accompanying consolidated statement of income at December 31, 2017 and December 31, 2016.

	Fiscal 2017	Fiscal 2016
Normal effective tax rate	**30.7%**	32.8%
(Adjustment)		
Non-taxable income for income tax purposes	**(0.3)**	(0.6)
Non-deductible expenses for income tax purposes	**0.4**	0.2
Tax credit primarily for research and development expenses	**(3.2)**	(3.5)
Decrease in deferred tax assets (liabilities) at fiscal year-end due to change in tax rate	**(11.1)**	0.8
Amortization of goodwill	**0.6**	0.7
Effect of income tax rates change	**0.8**	(0.4)
Undistributed earnings of overseas subsidiaries	**0.3**	0.0
Other	**1.8**	1.8
Income tax rate per the consolidated statement of income	**20.0%**	31.9%

3. Revision of deferred tax assets and liabilities due to a change in the income tax rate

As a federal tax reform bill was enacted on December 22, 2017 in the United States, the corporate income tax rate will change from the consolidated fiscal year beginning on or after January 1, 2018. Accordingly, the effective statutory tax rates used to measure deferred tax assets and liabilities of the Company's subsidiaries in the United States change primarily from 36.7% to 24.1% for temporary differences expected to be eliminated in the consolidated fiscal year beginning on January 1, 2018, and from 37.5% to 23.5% for temporary differences expected to be eliminated in or after the consolidated fiscal year beginning on January 1, 2019.

As a result of these changes, deferred tax liabilities (net of deferred tax assets) have decreased by ¥7,542 million (US$66,743 thousand), and income taxes–deferred have increased by the same amount.

17 Business Combinations

(Transaction under common control)

At the Board of Directors meeting held on September 28, 2016, the Company resolved to conduct an absorption-type merger of Kuraray Chemical Co., Ltd., a consolidated subsidiary, and completed the absorption-type merger on January 1, 2017.

1. Summary of the transaction

(1) Company name and business of combined company

Company name: Kuraray Chemical Co., Ltd.

Business: Manufacture and sale of activated carbon and related products

(2) Date of the business combination

January 1, 2017

(3) Legal form of the business combination

Absorption-type merger in which Kuraray Co., Ltd. is the surviving company and Kuraray Chemical Co., Ltd., is the extinguished company.

(4) Name of the company after the business combination

Kuraray Co., Ltd.

(5) Purpose of the merger

The Company is striving to commercialize *KURANODE*, a plant-based hard carbon anode material, for use in components of lithium-ion batteries (LIBs), targeting the energy field. Concurrently, Kuraray Chemical Co., Ltd. is engaged in the activated carbon business on a global basis, manufacturing highly functional carbon materials that are used in a range of applications, including the energy, water resources and air purification fields. The market targeted by both companies is expected to see burgeoning growth for automotive LIB components, and the market for activated carbon is expected to grow by approximately 7% each year, due to the tightening of regulations against water and air pollution, as well as demand growth in emerging nations. Given this operating environment, the Company decided to execute a merger to absorb Kuraray Chemical Co., Ltd., targeting an earlier expansion of the carbon material business. The Company will provide optimal solutions with technological innovation generated by the combination of both companies' accumulated technologies and expertise, satisfying customer requirements that have grown ever more stringent. At the same time, the Company will fully leverage the Group's overseas network and other management resources to accelerate the expansion of our carbon material business.

2. Summary of the accounting treatment

This combination was treated as a transaction under common control in accordance with "Accounting Standard for Business Combinations" (ASBJ Statement No.21, September 13, 2013) and "Guidance on Accounting Standard for Business Combinations and Accounting Standard for Business Divestitures" (ASBJ Guidance No.10, September 13, 2013).

18 Asset Retirement Obligations

Asset retirement obligations recorded in the consolidated balance sheet are as follows:

Overview of asset retirement obligations

Some tangible fixed assets of the Company include assets containing asbestos, PCB and fluorocarbon which must be treated in the manner stipulated by the laws and ordinances when they are scrapped or removed. Accordingly, asset retirement obligations are recognized based on the estimated disposal costs, excluding removal costs for aforementioned toxic substances incurred through the repair and maintenance activities in the normal service of the tangible fixed assets. The grounds laws and ordinances are as follows:

Disposal costs for asbestos	The Ordinance on Prevention of Asbestos Hazards
Disposal costs for equipment containing PCB	The Law concerning Special Measures for Promotion of Proper Treatment of PCB Wastes (PCB Special Measures Law)
Disposal costs for equipment containing fluorocarbon	Law concerning the Recovery and Destruction of Fluorocarbons (Fluorocarbons Recovery and Destruction Act)

Certain consolidated subsidiaries including overseas subsidiaries recognize asset retirement obligations for recovery obligations on rental agreements on plant sites and lease contracts.

Calculation method for the amount of asset retirement obligations

The Company

The Company recognizes asset retirement obligations for tangible fixed assets planned to be removed or assets, which have been removed, but not scrapped yet. Tangible fixed assets planned to be removed mainly consist of assets, which are in use for the reason that they are still usable although useful lives have elapsed and assets, which need immaterial time to remove. Since the payment terms for disposal of these assets are considered to have matured, removal costs, which are reasonably estimated without discounting future cash flows, are recorded as asset retirement obligations.

Consolidated subsidiaries

Consolidated subsidiaries determine the amounts of asset retirement obligations using discount rates ranging from 1.9% to 5.0% for the net cash flows, estimating the period of use to be 22 to 40 years after acquisition.

Increase or decrease of the total amount of asset retirement obligations during the fiscal years ended December 31, 2017 and December 31, 2016:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Beginning balance	**¥4,197**	¥3,620	**$ 37,141**
Increase due to decisions to remove	**99**	562	**876**
Adjustments due to the elapse of time	**74**	65	**654**
Decrease due to payment for the obligations	**(198)**	(88)	**(1,752)**
Other increase (decrease)	**301**	37	**2,663**
Ending balance	**¥4,474**	¥4,197	**39,592**

19 Segment Information

Segment information

1. Segment overview

The business segments reported by Kuraray are the business units for which the Company is able to obtain respective financial information separately in order for the Board of Directors to conduct periodic investigations to determine distribution of management resources and evaluate their business results.

Kuraray adopts an in-house company system where each in-house company conducts business activities and establishes its own comprehensive strategy, both for Japan and for overseas markets, for the products it handles. In addition, among Kuraray subsidiaries, Kuraray Trading Co., Ltd. independently conducts propriety planning and sales activities, including the processing and sale of Kuraray Group products as well as other companies' products.

Consequently, Kuraray has created five business segments for reporting—"Vinyl Acetate," "Isoprene," "Functional Materials," "Fibers and Textiles" and "Trading"—categorized by product group based on the respective in-house companies and the Trading segment.

On January 1, 2017, Kuraray absorbed its consolidated subsidiary Kuraray Chemical Co., Ltd. Following this, the Company revised the organization of its business segments in fiscal 2017. The activated carbon business and energy materials business, which had been included in Other Business, were merged into the Carbon Materials Business. This business is now listed under Functional Materials.

Segment information for fiscal 2016 has been restated to reflect the segmentation following the revision.

The Vinyl Acetate segment manufactures and markets functional resins and film, including *PVA*, *PVB* and *EVAL*. The Isoprene segment manufactures and markets *SEPTON* and *KURARITY* thermoplastic elastomers, isoprene-related products and *GENESTAR*. The Functional Materials segment manufactures and markets methacrylic resin, man-made leather, medical products and carbon materials. The Fibers and Textiles segment manufactures and sells synthetic fibers and textiles, non-woven fabrics and others. The Trading segment mainly processes and sells synthetic fibers and man-made leather, and conducts planning and marketing for other products produced by the Kuraray Group and other companies.

2. Methods for calculating reporting segment net sales, income and loss, assets and other items

The accounting method applied to reported business segments is the same as that stated in "Significant Matters That Form the Basis for Preparation of Consolidated Financial Statements." Profits from reported segments are operating income, and intersegment sales and transfers are based on the prevailing market prices.

3. Information on sales, income and loss, assets, and other amounts by reporting segment

Fiscal 2017 (January 1, 2017 to December 31, 2017)

Millions of yen

	Reporting Segments						Other Business (Note 1)	Total	Adjustment (Note 2)	Consolidated Financial Statements (Note 3)
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Trading	Total				
Net sales										
(1) Outside customers	¥234,711	¥30,037	¥49,706	¥39,526	¥125,180	¥479,161	¥39,281	¥518,442	¥ —	¥518,442
(2) Inter-segment sales and transfers	32,183	26,329	20,204	12,132	3,653	94,503	14,952	109,455	(109,455)	—
Total	266,894	56,366	69,910	51,658	128,834	573,664	54,233	627,898	(109,455)	518,442
Segment income (loss)	61,320	8,350	7,485	6,011	3,911	87,080	3,300	90,380	(15,263)	75,117
Segment assets	423,415	52,819	62,285	52,009	43,713	634,243	41,813	676,057	99,677	775,735
Other items										
Depreciation and amortization (other than goodwill)	25,981	3,651	4,518	3,792	57	38,001	1,146	39,148	1,879	41,027
Impairment loss	224	1,256	—	—	—	1,480	193	1,674	—	1,674
Amortization of goodwill	1,800	—	135	—	—	1,935	2	1,937	—	1,937
Balance of goodwill at end of current period	23,548	—	1,015	—	—	24,564	2	24,567	—	24,567
Investments in equity method affiliates	—	—	—	111	—	111	—	111	—	111
Increase in tangible fixed assets and intangible fixed assets	35,865	2,654	4,880	4,777	59	48,237	1,438	49,675	4,838	54,514

	Thousands of U.S. dollars									
	Reporting Segments						Other Business (Note 1)	Total	Adjustment (Note 2)	Consolidated Financial Statements (Note 3)
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Trading	Total				
Net sales										
(1) Outside customers	$ 2,077,088	$ 265,814	$ 439,876	$ 349,787	$ 1,107,787	$ 4,240,362	$ 347,619	$ 4,587,982	$ —	$ 4,587,982
(2) Inter-segment sales and transfers	284,805	233,000	178,796	107,362	32,327	836,309	132,318	968,628	(968,628)	—
Total	2,361,893	498,814	618,672	457,150	1,140,123	5,076,672	479,938	5,556,619	(968,628)	4,587,982
Segment income (loss)	542,654	73,893	66,238	53,194	34,610	770,619	29,203	799,823	(135,070)	664,752
Segment assets	3,747,035	467,424	551,194	460,256	386,840	5,612,769	370,026	5,982,805	882,097	6,864,911
Other items										
Depreciation and amortization (other than goodwill)	229,920	32,309	39,982	33,557	504	336,292	10,141	346,442	16,628	363,070
Impairment loss	1,982	11,115	—	—	—	13,097	1,707	14,814	—	14,814
Amortization of goodwill	15,929	—	1,194	—	—	17,123	17	17,141	—	17,141
Balance of goodwill at end of current period	208,389	—	8,982	—	—	217,380	17	217,407	—	217,407
Investments in equity method affiliates	—	—	—	982	—	982	—	982	—	982
Increase in tangible fixed assets and intangible fixed assets	317,389	23,486	43,185	42,274	522	426,876	12,725	439,601	42,814	482,424

Notes:1. The “Other Business” category incorporates operations not included in business segment reporting, including the environmental business and engineering business.

2. Adjustments are as follows:

(a) Adjustments of negative ¥15,263 million (negative US$135,070 thousand) for segment income include the elimination of intersegment transactions of ¥1,188 million (US$10,513 thousand) and unallocated corporate expenses of negative ¥16,451 million (negative US$145,584 thousand). These corporate expenses mainly comprise the Company’s basic research expenses and headquarters’ general and administrative expenses.

(b) Adjustments for segment assets amounting to ¥99,677 million (US$882,097 thousand) include the elimination of intersegment transactions of negative ¥38,914 million (negative US$344,371 thousand) and unallocated corporate assets of ¥138,591 million (US$1,226,469 thousand). These corporate assets mainly comprise the Company’s surplus funds, long-term investments and assets related to basic research and administrative divisions at headquarters.

3. Segment income is adjusted with operating income under the Consolidated Statement of Income.

Fiscal 2016 (January 1, 2016 to December 31, 2016)

Millions of yen

	Reporting Segments						Other Business (Note 1)	Total	Adjustment (Note 2)	Consolidated Financial Statements (Note 3)
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Trading	Total				
Net sales										
(1) Outside customers	¥223,447	¥27,637	¥48,851	¥37,305	¥116,566	¥453,808	¥31,383	¥485,192	¥ —	¥485,192
(2) Inter-segment sales and transfers	29,727	23,445	19,130	11,261	2,931	86,496	14,908	101,404	(101,404)	—
Total	253,175	51,083	67,981	48,566	119,498	540,304	46,292	586,597	(101,404)	485,192
Segment income (loss)	58,517	6,934	4,471	5,958	3,833	79,716	1,406	81,122	(13,295)	67,827
Segment assets	400,326	49,778	59,400	49,082	41,464	600,052	38,533	638,585	86,847	725,433
Other items										
Depreciation and amortization (other than goodwill)	22,815	4,333	4,298	3,446	45	34,938	1,169	36,107	1,767	37,874
Impairment loss	489	83	25	—	—	599	1,580	2,179	—	2,179
Amortization of goodwill	3,543	—	135	—	—	3,678	2	3,680	—	3,680
Balance of goodwill at end of current period	25,100	—	1,151	—	—	26,251	4	26,256	—	26,256
Investments in equity method affiliates	—	—	—	109	—	109	—	109	—	109
Increase in tangible fixed assets and intangible fixed assets	35,350	2,070	4,288	5,176	114	47,001	1,985	48,986	4,621	53,608

Notes:1. The “Other Business” category incorporates operations not included in business segment reporting, including the environmental business and engineering business.

2. Adjustments are as follows:

(a) Adjustments of negative ¥13,295 million for segment income include the elimination of intersegment transactions of ¥1,435 million and unallocated corporate expenses of negative ¥14,731 million. These corporate expenses mainly comprise the Company’s basic research expenses and headquarters’ general and administrative expenses.

(b) Adjustments for segment assets amounting to ¥86,847 million include the elimination of intersegment transactions of negative ¥35,872 million and unallocated corporate assets of ¥122,720 million. These corporate assets mainly comprise the Company’s surplus funds, long-term investments and assets related to basic research and administrative divisions at headquarters.

3. Segment income is adjusted with operating income under the Consolidated Statement of Income.

(Related Information)

Fiscal 2017 (January 1, 2017 to December 31, 2017)

1. Information about products and services

	Millions of yen					
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Other Business	Total
Net sales to outside customers	¥268,961	¥52,717	¥73,721	¥73,411	¥49,629	¥518,442

	Thousands of U.S. dollars					
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Other Business	Total
Net sales to outside customers	$2,380,185	$466,522	$652,398	$649,654	$439,194	$4,587,982

Notes: Principal products of each segment are as follows:

Vinyl Acetate: PVA resin and film, *EVAL* resin and others

Isoprene: *SEPTON*, thermoplastic elastomers, *KURARITY*, isoprene chemicals, *GENESTAR* heat-resistant polyamide resin and others

Functional Materials: Methacrylic resin, *CLARINO* man-made leather, medical products, carbon materials and others

Fibers and Textiles: *KURALON*, *KURAFLEX* non-woven fabrics, *MAGIC TAPE* hook and loop fasteners, polyester and others

Other Business: Environmental business, engineering business and others

2. Performance by geographical segment

(1) Net sales

Millions of yen						
Japan	United States	China	Europe	Asia	Other Area	Total
¥184,674	¥67,610	¥62,767	¥106,979	¥73,157	¥23,253	¥518,442

Thousands of U.S. dollars						
Japan	United States	China	Europe	Asia	Other Area	Total
$1,634,283	$598,318	$555,460	$946,716	$647,407	$205,778	$4,587,982

Note: Net sales are classified by country or area based on customer location.

(2) Tangible fixed assets

Millions of yen					Thousands of U.S. dollars				
Japan	United States	Germany	Other Overseas	Total	Japan	United States	Germany	Other Overseas	Total
¥127,213	¥97,392	¥27,756	¥34,833	¥287,196	$1,125,778	$861,876	$245,628	$308,256	$2,541,557

3. Major customers

No information is available as there is no single outside customer accounting for 10% or more of the Company's total net sales.

Fiscal 2016 (January 1, 2016 to December 31, 2016)

1. Information about products and services

	Millions of yen					
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Other Business	Total
Net sales to outside customers	¥254,383	¥47,808	¥70,753	¥71,188	¥41,058	¥485,192

Notes: Principal products of each segment are as follows:

Vinyl Acetate: PVA resin and film, *EVAL* resin and others

Isoprene: *SEPTON*, thermoplastic elastomers, *KURARITY*, isoprene chemicals, *GENESTAR* heat-resistant polyamide resin and others

Functional Materials: Methacrylic resin, *CLARINO* man-made leather, carbon materials and others

Fibers and Textiles: *KURALON*, *KURAFLEX* non-woven fabrics, *MAGIC TAPE* hook and loop fasteners, polyester and others

Other Business: Environmental business, engineering business and others

As stated in Segment Information, 1. Segment Overview, in fiscal 2017 the Company merged the activated carbon business and energy materials business into the Carbon Materials Business and moved said business from Other Business to Functional Materials. Figures for fiscal 2016 have been restated to reflect the segmentation following the revision.

2. Performance by geographical segment

(1) Net sales

Millions of yen						
Japan	United States	China	Europe	Asia	Other Area	Total
¥180,101	¥62,837	¥49,302	¥97,165	¥73,952	¥21,832	¥485,192

Note: Net sales are classified by country or area based on customer location.

(2) Tangible fixed assets

Millions of yen				
Japan	United States	Germany	Other Overseas	Total
¥126,819	¥94,340	¥24,989	¥25,678	¥271,827

3. Major customers

No information is available as there is no single outside customer accounting for 10% or more of the Company's total net sales.

Information about impairment loss of fixed assets by reporting segment

Fiscal 2017: This information is omitted since similar information is disclosed in the segment information.

Fiscal 2016: This information is omitted since similar information is disclosed in the segment information.

Information about amortization of goodwill and unamortized balance of goodwill by reporting segment

Fiscal 2017: This information is omitted since similar information is disclosed in the segment information.

Fiscal 2016: This information is omitted since similar information is disclosed in the segment information.

Information about gain on negative goodwill

Fiscal 2017: Not applicable.

Fiscal 2016: Not applicable.

19 Related Party Disclosures

Fiscal 2017: Not applicable

Fiscal 2016: Not applicable

20 Per Share Information

	Yen		U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Net assets per share	**¥1,584.78**	¥1,459.34	**$14.02**
Basic net income per share	**152.41**	114.98	**1.34**
Diluted net income per share	**152.01**	114.75	**1.34**

Note: The basis for computation of basic and diluted net income per share is as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2017	Fiscal 2016	**Fiscal 2017**
Basic net income per share			
Net income attributable to owners of the parent	**¥53,601**	¥ 40,400	**$474,345**
Amount unallocated to common stock	**—**	—	**—**
Net income attributable to owners of the parent allocated to common stock	**53,601**	40,400	**474,345**
Average number of common stock outstanding during the fiscal year (thousand shares)	**351,688**	351,351	**3,112,283**
Diluted net income per share			
Adjustment made on net income attributable to owners of the parent	**—**	—	**—**
Increase of common stocks (thousand shares)	**934**	723	**8,265**
(New subscription rights to shares (thousand shares))	**(934)**	(723)	**(8,265)**
Outline of the residual securities which were not included in the calculation of the diluted net income per share because there was no dilutive effect	**—**	—	**—**

21 Subsequent Events

(Business Combination through Acquisition)

The Company and Calgon Carbon Corporation (Headquarters: Pennsylvania, USA; listed on NYSE) signed an agreement on September 21, 2017, whereby Kuraray will acquire all the shares of Calgon Carbon ("the Purchase"), making it a wholly owned subsidiary, and the acquisition was completed on March 9, 2018 based on the agreement.

1. Summary of the business combination

(1) Company name and description of the acquired business

Company name: Calgon Carbon Corporation

Acquired business: Manufacture and sale of activated carbon and water processing equipment

(2) Main reason for the business combination

The Company is developing its activated carbon business, focusing on high-performance activated carbon for such applications as energy, water resources, and air purification.

Calgon Carbon Corporation is a global leader in activated carbon with production bases in seven countries worldwide and sales bases in 16 countries, providing cutting-edge solutions for a wide variety of applications and industries.

After the Purchase, Kuraray will position the activated carbon business as one of its future core businesses and steadily implement a range of strategic measures, including further expanding its business by leveraging Calgon Carbon's solid worldwide business base, accelerating the technological revolution by bringing together both companies' technical and developmental capabilities, and cutting costs by optimizing production systems. Through its supply of high-performance activated carbon materials, The Company will continue to contribute to people's health and comfort as well as the sustainability of the planet's environment and resources.

(3) Date of the business combination

January 1, 2018.

(4) Legal form of the business combination

Cash purchase of shares

(5) Name of the company after the business combination

Calgon Carbon Corporation

(6) Percentage of voting rights acquired

100%

(7) Structure of the acquisition

The Company's acquisition-purpose subsidiary acquired shares in exchange for cash payment.

2. Acquisition cost of the acquired companies and its breakdown by type of consideration

Amount of the consideration: Cash of ¥125,632 million (US$1,111,787 thousand)

Acquisition cost: ¥125,632 million (US$ 1,111,787 thousand)

3. Detail and amount of main expenses related to the acquisition

Advisory expenses, etc., of ¥1,486 million (US$ 13,150 thousand)

4. Amount of goodwill, reason for its recognition, amortization method and amortization period

Undetermined at the present time

5. The amounts and breakdown of acquired assets and assumed liabilities on the date of business combination

Undetermined at the present time

6. Acquisition funding method

To raise funds necessary for this acquisition, the Company borrowed from financial institutions and issued commercial papers as follows:

(1) Summary of the short-term loan agreement as of March 23, 2018

Name of the lenders: Mitsubishi Tokyo UFJ Bank, Ltd. Total 11 financial institutions

Borrowing amount: ¥110,000 million (US$973,451 thousand)

Borrowing execution date: March 9, 2018 and March 15, 2018

Repayment due date: March 30, 2018 and May 15, 2018

Interest rate: Base rate + spread

(2) Commercial paper issuance status as of March 23, 2018

Issue amount: ¥40,000 million (US$353,982 thousand)

Issue date: March 9, 2018

Redemption date: April 27, 2018

Interest rate: Market interest rate

Note: The short-term loans and commercial papers will be repaid and redeemed by refinancing to long-term loans.

(Acquisition of treasury stock)

At the Board of Directors meeting held on May 15, 2018, it was resolved to acquire the Company's shares as noted below, based on the stipulations of paragraph 3, Article 165, of Japan's Companies Act, as interpreted in the light of Article 156 of the Companies Act.

1. Reason for the acquisition

The acquisition will be conducted to enhance the return to shareholders and improve capital efficiency as well as to enable the Company to implement a more flexible capital policy going forward.

2. Details of the acquisition

(1) Type of shares

Common stock

(2) Number of shares to be acquired

Up to 2,200 thousand (Ratio of shares issued and outstanding [excluding treasury stocks]: 0.63%)

(3) Total value of shares to be acquired

Up to ¥4,000 million

(4) Method to acquire

Market purchase on the Tokyo Stock Exchange (method of discretionary investment by securities firm)

(5) Dates of acquisition

From May 16, 2018 to October 31, 2018

Annexed Consolidated Detailed Schedules

Kuraray Co., Ltd. and its Consolidated Subsidiaries / Year ended December 31, 2017

1 Detailed Schedule of Bonds

(Millions of yen)

Company name	Issue	Date of issue	Balance at beginning of period	Balance at end of period	Yield	Security	Date of redemption
Kuraray Co., Ltd.	No. 4 Unsecured bonds	December 9, 2011	¥10,000 (US$88,495 thousand)	¥10,000 (US$88,495 thousand)	1.24%	None	December 9, 2021
	Total	—	¥10,000 (US$88,495 thousand)	¥10,000 (US$88,495 thousand)	—	—	—

Note: Total amount of corporate bonds to be redeemed each year within five years of the consolidated fiscal year-end:

(Millions of yen)

Due within 1 year	Due in 1-2 years	Due in 2-3 years	Due in 3-4 years	Due in 4-5 years
—	—	—	¥10,000 (US$88,495 thousand)	—

2 Detailed Schedule of Loans Payable

(Millions of yen)

Category	Balance as of January 1, 2016	Balance as of December 31, 2016	Average Interest rate (%)	Due date
Short-term loans	¥ 7,541	¥ 7,791 (US$68,946 thousand)	0.5	
Current portion of long-term loans due within one year	85	¥ 72 (US$637 thousand)	1.3	
Current portion of long-term lease due within one year (Note 2)	363	¥ 394 (US$3,486 thousand)	—	
Long-term loans (Excluding current portion) (Note 3)	42,172	¥42,099 (US$372,557 thousand)	1.2	From March 2019 to March 2024
Lease liabilities (Excluding current portion) (Notes 2, 3)	1,524	¥ 1,558 (US$13,787 thousand)	—	From January 2019 to September 2046
Other interest-bearing debts (Commercial papers)	—	—	—	
Total.	¥51,686	¥51,916 (US$459,433 thousand)	—	

Notes: 1. The average interest rate is calculated based on the interest rate and the ending balance.

2. The average interest rate on lease liabilities is not reported, since interest payment equivalents included in total lease payments are allocated to each consolidated fiscal year using the straight-line method.

3. Repayments of long-term loans and lease liabilities (excluding those due within one year) within five years after the Consolidated Balance Sheet date are as follows:

(Millions of yen)

Category	Due after 1 year but within 2 years	Due after 2 years but within 3 years	Due after 3 years but within 4 years	Due after 4 years but within 5 years
Long-term loans	¥12,050	¥ 33	¥ 15	¥10,000
Lease liabilities	347	299	223	161

(Thousands of U.S. dollars)

Category	Due after 1 year but within 2 years	Due after 2 years but within 3 years	Due after 3 years but within 4 years	Due after 4 years but within 5 years
Long-term loans	$106,637	$ 292	$ 132	$ 88,495
Lease liabilities	3,070	2,646	1,973	1,424

3 Detailed Schedule of asset retirement obligations

The schedule of asset retirement obligations is omitted since the amount of asset retirement obligations is not more than one hundredth of total liabilities and net assets as of January 1, 2017 and December 31, 2017.

4 Quarterly information in Fiscal 2017

(Millions of yen)

Accumulated	First quarter from January 1 to March 31, 2017	Second quarter from January 1 to June 30, 2017	Third quarter from January 1 to September 30, 2017	Fiscal 2017
Net sales	¥126,342	¥251,340	¥379,663	¥518,442
Income (loss) before income taxes	21,066	35,061	54,957	68,141
Net income (loss) attributable to owners of the parent	14,529	23,988	37,512	53,601
Net income (loss) per share (Yen)	41.32	68.21	106.63	152.41

Quarterly	First quarter from January 1 to March 31, 2017	Second quarter from April 1 to June 30, 2017	Third quarter from July 1 to September 30, 2017	Fourth quarter from October 1 to December 31, 2017
Net income (loss) per share (Yen)	¥41.32	¥26.89	¥38.42	¥45.80

(Thousands of U.S. dollars)

Accumulated	First quarter from January 1 to March 31, 2017	Second quarter from January 1 to June 30, 2017	Third quarter from January 1 to September 30, 2017	Fiscal 2017
Net sales	$1,118,070	$2,224,247	$3,359,849	$4,587,982
Income (loss) before income taxes	186,424	310,274	486,345	603,017
Net income (loss) attributable to owners of the parent	128,575	212,283	331,964	474,345
Net income (loss) per share (Dollars)	0.36	0.60	0.94	1.34

Quarterly	First quarter from January 1 to March 31, 2017	Second quarter from April 1 to June 30, 2017	Third quarter from July 1 to September 30, 2017	Fourth quarter from October 1 to December 31, 2017
Net income (loss) per share (Dollars)	$ 0.36	$ 0.23	$ 0.34	$ 0.40

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Independent Auditor's Report

To the Board of Directors of
Kuraray Co., Ltd.

We have audited the accompanying consolidated financial statements of Kuraray Co., Ltd. ("the Company") and its consolidated subsidiaries, which comprise the consolidated balance sheet as at December 31, 2017, and the consolidated statement of income, consolidated statement of comprehensive income, consolidated statement of changes in net assets and consolidated statement of cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

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 such internal control as management determines is necessary to enable the preparation of 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 comply with ethical requirements and 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. In making, those risk assessments, the auditor considers internal control 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, while the purpose of the financial statement audit is not to express an opinion on the effectiveness of the entity's internal control. 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.

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Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company and its consolidated subsidiaries as at December 31, 2017, and their financial performance and cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

Emphasis of Matter

As discussed in Note 21 to the consolidated financial statements, the Company signed an agreement to acquire all the shares of Calgon Carbon Corporation on September 21, 2017 and completed the acquisition on March 9, 2018. Our opinion is not qualified with respect to this matter.

Convenience translation

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended December 31, 2017 are presented solely for convenience. Our audit also included the translation of Japanese yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 1 to the consolidated financial statements.

PricewaterhouseCoopers Aarata LLC

May 28, 2018