Challenge for Growth and Evolution

Ishihara Sangyo Kaisha

Annual Report 2017

Year Ended March 31, 2017

Forward-Looking Statements

Forward-looking statements in this report relating to operational result forecasts are based on certain assumptions that the Company believes are reasonable and involve risks and uncertainties. Actual results may differ significantly from these forecasts, affected by various material factors.

Contents

Consolidated Financial Highlights

For the year ended March 31,2017

	Millions of yen			Thousands of U.S. dollars (Note)
	2017	2016	2015	2017
For the years ended March 31,				
Net sales:				
Domestic	¥ 46,734	¥ 48,982	¥ 50,803	$ 416,598
Overseas	54,867	53,921	52,528	489,098
Total	101,601	102,903	103,331	905,696
Sales classified by business segment:				
Inorganic chemicals	47,504	49,922	51,342	423,462
Organic chemicals	51,064	49,509	49,031	455,197
Other businesses	3,033	3,472	2,958	27,037
Total	101,601	102,903	103,331	905,696
Operating income	8,416	8,315	11,105	75,022
Net income	5,126	9,462	6,984	45,694
Depreciation and amortization of property, plant and equipment	4,660	5,350	5,561	41,540
Research and development costs	8,173	8,989	9,330	72,856
As of March 31,				
Current assets	103,997	110,484	107,470	927,055
Total assets	159,856	165,051	169,415	1,424,996
Current liabilities	47,311	49,726	56,892	421,742
Net assets	66,571	61,598	53,215	593,430

	Yen			U.S. dollars (Note)
Per share data				
Net income	¥ 128.22	¥ 236.65	¥ 174.63	$ 1.14
Net assets	1,665.34	1,540.64	1,330.83	14.85
Number of employees (as of March 31)	1,581	1,604	1,636	–

Note: The U.S. dollar amounts in this report have been translated from the yen amounts, for convenience only, at ¥112.18 =U.S.$1.00, the rate of exchange prevailing on March 31, 2017.

To Our Shareholders and Friends

Kenichi Tanaka
President & CEO

The global markets in fiscal 2016, ended March 2017, saw an overall trend of economic recovery as the USA economy continued to see mild economic growth supported by firm corporate earnings and consumer spending and even Europe transitioned on a trend of economic recovery despite concerns over the negative impact of Brexit. In Asia, while some regions showed signs of economic recovery, China, which is seeing the ongoing contraction of excessive production facilities, was sluggish as overall the region remains at an economic standstill. The Japanese economy was largely steady thanks to a positive hiring environment and improved corporate earnings but we also saw troubling conditions such as volatility on foreign currency markets and stock markets due to the Brexit issue and policy trends of the new political administration in the USA.

Looking at the market environment influencing the main businesses of the ISK Group, demand for paints application, the main use for titanium dioxide, in Japan was somewhat sluggish, which was unchanged from last year but improved demand from China help drive a mild recovery on the overseas market and result in firm full-year demand. Agrochemicals continued to see decline of global shipment value year on year. In addition to a continuing trend of weak prices of agricultural crops and increasing inventory in Brazil, the world's largest agrochemical consumer nation, abnormal weather conditions occurring around the global have places strains on demand.

Under such conditions, the ISK Group has worked to implement the basic policies of our 6th Medium-Term Management Plan (MTP) to strengthen existing businesses by increasing overseas sales and expanding sales of high value added products and to execute R&D for building a future growth platform.

As a result, net sales for the year under review decreased ¥1.3 billion to year on year to ¥101.6 billion (US$ 906 million), operating income increased ¥0.1 billion to ¥8.4 billion (US$ 75 million), ordinary income was largely unchanged at ¥7.2 billion (US$ 65 million). Net income attributable to parent company shareholders decreased ¥4.3 billion to ¥5.1 billion (US$ 4.6 million) as we did not record extraordinary income on gains on the sale of land leasing rights recorded during the previous fiscal year.

To aim for the realization of the ideal model for our Group by 2020, the year of our 100th anniversary, since fiscal 2015 the ISK Group has united as one to advance the policies outlined in our 6th MTP, a three-year plan based on the theme of "Innovation and Implementation driving forward a strong chemical company" and which calls for us to strengthen existing businesses and our growth platform. Emerging economies, which have driven market growth over the past two years, has slowed and we are now facing a severe business environment that is seeing a global reduction in demand for our mainstay products titanium dioxide and agrochemicals. Last year, the first year of the plan, earnings were strong as operating income outperformed MTP targets thanks to currency markets that trended largely according to assumptions. This year, the second year of our 6th MTP, while the inorganic chemicals business saw increased income underpinned by an improved sales environment overseas, income declined for the organic chemicals business, which has a high ratio of overseas sales, due to the negative impact of yen appreciation. As a result, overall operating income underperformed targets.

Looking at financing, we used capital generated through the sale of land lease rights for the commercial property of an overseas subsidiary and the sale of our main office building to fund the repayment of loans from financial institutions last year. As a result, we succeeded in reducing interest-bearing loans at a rate exceeding targets, which helped improve our financial structure.

The greatest issue facing management for the time being will be the rapid recovery of earnings for the organic chemicals business, which is projected to see decreased income mainly due to increased R&D expenses, in order to get the business back on a growth trajectory. To this end, the mainstay agrochemicals business is focused on achieving launch to market for new self-developed products that will help drive growth and enhancing overseas business. As new agents, on the domestic market this year we launched a herbicide for corn and next year in Europe we are planning the launch of new proprietary agents. To enhance overseas operations, we will strengthen partnerships with local distributors to achieve the rapid penetration of new products into the market and expand sales of existing products while also enhancing our agrochemical development and registration functions in the growth market of Asia. For production, we are focused on cost reduction and quality improvements both internally and at contracted manufacturers.

We are working on the development of new businesses such as veterinary drugs and bio pharmaceuticals as future growth platforms but these efforts are projected to result in increased R&D expenses. We are aware of how important it will be that we work to reduce the impact on our financial status and effectively execute R&D activities. To supplement for the functions our Group does not possess while pursuing new businesses, thus far we have proactively participated in partnerships with other companies, universities, and other research institutions. We will further strengthen these partnerships in order to achieve the rapid commercialization of products utilizing the technology and seeds of the ISK Group.

For the inorganic chemicals business, we will continue to promote technology development and sales route development in high added value fields as we shift from common products to high value added, high function products. For titanium dioxide, we are working on overseas market development for our Super Weatherability Grade products, which are recording favorable sales growth in Japan. Additionally, we are working to generate demand for heat-blocking, dust-proof, and other functional products in response to the growing global awareness related to the environment and energy conservation. For functional materials, we are promoting aggressively products that are projected to see increased demand in the future and will tie these products to expanded sales. This includes high purity titanium dioxide for use in advanced electronic components and conductive materials for use as antistatic agents used in paints and plastics. For R&D, in addition to the development of existing technology aimed at achieving immediate contributions to earnings, we are expanding beyond our traditional framework of inorganic and organic technology and undertaking research themes in areas that will lead into future business growth.

The Group has formulated a “Basic Philosophy” and “Code of Conduct” to represent the fundamental and universal values shared by all its employees in the execution of their work activities.

Basic Philosophy

- Contribute to social development, protection of life and environmental preservation
- Respect shareholders, customers, suppliers, local communities and employees
- Abide by laws and regulations; maintain transparency in business activities

Code of Conduct

- We will strictly observe laws, regulations, social norms and Company rules, while steadfastly adhering to high ethical standards, so as to gain social trust in our business.
- In manufacturing activities, we will place the utmost priority on global environmental protection, and worker safety, and will work to prevent any workplace accident or injury.
- On the basis of respect for human rights, we will promote mutual understanding and cooperation among employees, in order to create an open and friendly workplace.
- To maintain transparency in our business activities, as a corporate citizen, we will promote communication with local communities and society, and will disclose corporate information in a timely and appropriate manner.

With all employees constantly mindful of and practicing the Basic Philosophy and Code of Conduct, the ISK Group will strive to foster progress of society through growth as a robust development-oriented corporation that adapts to the changing times and environment.

We look forward to your ongoing support and understanding.

田中健一

Kenichi Tanaka
President & CEO

Business Overview

Inorganic Chemicals

Sales volume of titanium dioxide were largely unchanged on the domestic market while overseas sales outperformed the previous year by the improved demand. We strove to revise export pricing in light of improved demand overseas but we were unable to make up for the drop experienced during the previous year. We also were impacted by yen appreciation that continued beyond the first half of the year. As a result, net sales were down ¥1.1 billion year on year, to ¥37.0 billion (US$ 330 million).

Sales of functional materials were down ¥1.2 billion, to ¥10.4 billion (US$ 93 million). Although sales for conductive materials and electronic components were firm, no sales were made on certain products due to a lack of replacement demand.

Income improved year on year. Although the drop in export prices for titanium dioxide was a negative factor, income grew driven by a decline in raw materials costs and operating rate improvement due to the recovery of overseas sales volume.

As a result, segment net sales decreased ¥2.4 billion, to ¥47.5 billion (US$ 423 million) and operating income increased year on year, up by ¥2.4 billion to ¥5.0 billion (US$ 45 million).

Organic Chemicals

Domestic sales of agrochemicals outperformed the previous year by the launch of a new horticultural fungicide and natural enemy products. Overseas net sales were up year on year. In addition to yen appreciation, reduced shipments to Brazil due to the impact of the growing use of insect resistant GMO crops and reduced shipments of herbicides to Asia due to poor weather were negative factors. This was made up for by increased sales of insecticides in Europe thanks to weather factors. In North America we registered a new fungicide against Botrytis and Sclerotinia in additional countries. Sales also grew in other regions due to the development of new demands and aggressive initiatives aimed at expanding the applicability and sales regions for key existing products.

For pharmaceuticals, sales of contracted pharmaceutical ingredients were largely unchanged year on year.

As a result, segment net sales increased ¥1.5 billion, to ¥51.0 billion (US$ 455 million) while operating income decreased ¥2.3 billion to ¥4.9 billion (US$ 44 million). Although the reevaluation of expenditure timing and other efforts resulting in a year on year decrease in R&D expenses, income was impacted by yen appreciation.

Other Businesses

Net sales from other businesses decreased ¥0.4 billion to ¥3.0 billion (US$ 27 million) and operating income increased ¥0.1 billion to ¥0.5 billion (US$ 5 million).

Consolidated Balance Sheet

As of March 31, 2017

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2017	2016	2017
Assets			
Current assets:			
Cash and deposits (Notes 4, 9 and 17)	¥ 28,347	¥ 29,399	$ 252,692
Trade receivables (Note 17):			
Notes	1,885	2,105	16,803
Accounts	23,523	23,121	209,690
	25,408	25,226	226,493
Less allowance for doubtful receivables	(195)	(184)	(1,738)
Trade receivables, net	25,213	25,042	224,755
Inventories (Note 6)	47,105	53,070	419,906
Deferred income taxes (Note 13)	1,431	1,097	12,756
Other current assets	1,901	1,876	16,946
Total current assets	103,997	110,484	927,055
Property, plant and equipment:			
Land (Notes 7 and 9)	5,313	5,411	47,361
Buildings and structures (Notes 7, 8 and 9)	35,923	35,367	320,226
Machinery and equipment (Notes 7, 8 and 9)	113,235	112,934	1,009,405
Leased assets (Note 8)	3,078	3,299	27,438
Construction in progress	2,970	2,129	26,476
	160,519	159,140	1,430,906
Less accumulated depreciation	(121,335)	(120,406)	(1,081,610)
Property, plant and equipment, net (Note 24)	39,184	38,734	349,296
Investments and other assets:			
Investments in securities (Notes 5, 9 and 17):			
Unconsolidated subsidiaries and affiliates	4,903	3,856	43,707
Other	1,883	1,483	16,785
Total investments in securities	6,786	5,339	60,492
Deferred income taxes (Note 13)	7,945	8,015	70,824
Asset for retirement benefits (Note 11)	16	16	143
Other	1,928	2,463	17,186
Total investments and other assets	16,675	15,833	148,645
Total assets (Note 24)	¥ 159,856	¥ 165,051	$ 1,424,996

See notes to consolidated financial statements.

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2017	2016	2017
Liabilities and net assets			
Current liabilities:			
Short-term bank loans (Notes 9 and 17)	¥ 13,650	¥ 13,858	$ 121,679
Current portion of long-term bank loans (Notes 9 and 17)	13,490	14,093	120,253
Current portion of bonds (Notes 9 and 17)	280	280	2,496
Trade payables (Note 17):			
Notes	1,236	1,393	11,018
Accounts	9,106	8,949	81,173
	10,342	10,342	92,191
Lease obligations (Notes 9 and 17)	478	511	4,261
Accrued income taxes (Note 13)	348	500	3,102
Accrued expenses	3,718	4,481	33,143
Accrued bonuses for employees	654	628	5,830
Reserve for sales returns	31	26	276
Reserve for implementation of environmental and safety arrangements	358	797	3,191
Provision for maintenance	–	223	–
Provision for loss on liquidation of a subsidiary	6	24	54
Other current liabilities	3,956	3,963	35,266
Total current liabilities	47,311	49,726	421,742
Long-term liabilities:			
Long-term bank loans (Notes 9 and 17)	27,501	35,167	245,151
Bonds (Notes 9 and 17)	280	560	2,496
Lease obligations (Notes 9 and 17)	878	935	7,827
Liability for retirement benefits (Note 11)	12,603	12,958	112,346
Deferred income taxes (Note 13)	13	21	116
Long-term deposits received	1,173	1,029	10,456
Reserve for implementation of environmental and safety arrangements	1,052	1,086	9,378
Asset retirement obligations (Note 10)	781	828	6,962
Other long-term liabilities	1,693	1,143	15,092
Total long-term liabilities	45,974	53,727	409,824
Contingent liabilities (Note 12)			
Net assets:			
Shareholders' equity (Note 14):			
Common stock:			
Authorized: 100,000 thousand in 2017 and 1,000,000 thousand shares in 2016			
Issued: 40,384 thousand in 2017 and 403,839 thousand shares in 2016	43,421	43,421	387,065
Capital surplus	10,627	10,627	94,732
Retained earnings	15,188	10,062	135,390
Less treasury stock, at cost:			
409 thousand shares in 2017 and 4,020 thousand shares in 2016	(709)	(703)	(6,321)
Total shareholders' equity	68,527	63,407	610,866
Accumulated other comprehensive income (loss):			
Net unrealized holding gain on securities	566	245	5,045
Unrealized deferred loss on hedges	(0)	–	(0)
Translation adjustments	(1,976)	(1,273)	(17,614)
Retirement benefits liability adjustments	(546)	(781)	(4,867)
Total accumulated other comprehensive loss	(1,956)	(1,809)	(17,436)
Total net assets	66,571	61,598	593,430
Total liabilities and net assets	¥ 159,856	¥ 165,051	$ 1,424,996

See notes to consolidated financial statements.

Consolidated Statement of Income

For the year ended March 31, 2017

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2017	2016	2017
Net sales (Note 24)	¥ 101,601	¥ 102,903	$ 905,696
Cost of sales (Notes 6 and 15)	70,623	71,534	629,551
Gross profit	30,978	31,369	276,145
Selling, general and administrative expenses (Note 15)	22,562	23,054	201,123
Operating income (Note 24)	8,416	8,315	75,022
Other income:			
Interest and dividend income	127	135	1,132
Equity in earnings of affiliates	384	423	3,423
Reversal of reserve for Ferosilt removal	–	845	–
Gain on sales of raw materials	104	198	927
Commission fee	187	–	1,667
Other	214	208	1,908
	1,016	1,809	9,057
Other expenses:			
Interest expense	1,125	1,398	10,029
Foreign exchange loss, net	372	830	3,316
Other	652	578	5,812
	2,149	2,806	19,157
Ordinary income	7,283	7,318	64,922
Extraordinary gains:			
Gain on sales of fixed assets	–	7,317	–
Subsidy income	33	16	294
Other	–	0	–
	33	7,333	294
Extraordinary losses:			
Loss on disposal of fixed assets	566	377	5,045
Reserve for implementation of environmental and safety arrangements	2	1,186	18
Loss on impairment of fixed assets (Notes 8 and 24)	967	716	8,620
Other	33	18	294
	1,568	2,297	13,977
Income before income taxes	5,748	12,354	51,239
Income taxes (Note 13):			
Current	939	745	8,371
Deferred	(317)	2,147	(2,826)
	622	2,892	5,545
Net income (Note 22)	5,126	9,462	45,694
Net income attributable to:			
Owners of parent	¥ 5,126	¥ 9,462	$ 45,694

See notes to consolidated financial statements.

Consolidated Statement of Comprehensive Income

For the year ended March 31, 2017

	Millions of yen				Thousands of U.S. dollars (Note 1)	
		2017		2016		2017
Net income	¥	5,126	¥	9,462	$	45,694
Other comprehensive loss (Note 20):						
Net unrealized holding gain (loss) on securities		322		(268)		2,870
Unrealized deferred loss on hedges		(0)		(0)		(0)
Translation adjustments		(405)		(372)		(3,610)
Retirement benefits liability adjustments		235		(383)		2,095
Other comprehensive loss of affiliates accounted for by the equity method attributable to the Company		(298)		(52)		(2,656)
Total other comprehensive loss		(146)		(1,075)		(1,301)
Comprehensive income	¥	4,980	¥	8,387	$	44,393
Total comprehensive income attributable to:						
Owners of parent	¥	4,980	¥	8,387	$	44,393

See notes to consolidated financial statements.

Consolidated Statement of Changes in Net Assets

Year ended March 31, 2017

	Millions of yen									
	Shareholders' equity					Accumulated other comprehensive income (loss)				
	Number of shares of common stock in issue	Common stock	Capital surplus	Retained earnings	Treasury stock, at cost	Net unrealized holding gain on securities	Unrealized deferred gain (loss) on hedges	Translation adjustments	Retirement benefits liability adjustments	Total net assets
Balance at April 1, 2015	403,839,431	¥ 43,421	¥ 10,627	¥ 600	¥ (698)	¥ 513	¥ 0	¥ (850)	¥ (398)	¥ 53,215
Net income attributable to owners of parent for the period	–	–	–	9,462	–	–	–	–	–	9,462
Acquisition of treasury stock	–	–	–	–	(5)	–	–	–	–	(5)
Disposition of treasury stock	–	–	0	–	0	–	–	–	–	0
Other changes	–	–	–	–	–	(268)	(0)	(423)	(383)	(1,074)
Balance at April 1, 2016	403,839,431	¥ 43,421	¥ 10,627	¥ 10,062	¥ (703)	¥ 245	¥ –	¥ (1,273)	¥ (781)	¥ 61,598
Net income attributable to owners of parent for the period	–	–	–	5,126	–	–	–	–	–	5,126
Acquisition of treasury stock	–	–	–	–	(6)	–	–	–	–	(6)
Disposition of treasury stock	–	–	0	–	0	–	–	–	–	0
Other changes	(363,455,488)	–	–	–	–	321	(0)	(703)	235	(147)
Balance at March 31, 2017	40,383,943	¥ 43,421	¥ 10,627	¥ 15,188	¥ (709)	¥ 566	¥ (0)	¥ (1,976)	¥ (546)	¥ 66,571

	Thousands of U.S. dollars (Note 1)								
	Shareholders' equity				Accumulated other comprehensive income (loss)				
	Common stock	Capital surplus	Retained earnings	Treasury stock, at cost	Net unrealized holding gain on securities	Unrealized deferred loss on hedges	Translation adjustments	Retirement benefits liability adjustments	Total net assets
Balance at April 1, 2016	$ 387,065	$ 94,732	$ 89,696	$ (6,267)	$ 2,184	$ –	$ (11,348)	$ (6,962)	$ 549,100
Net income attributable to owners of parent for the period	–	–	45,694	–	–	–	–	–	45,694
Acquisition of treasury stock	–	–	–	(54)	–	–	–	–	(54)
Disposition of treasury stock	–	0	–	0	–	–	–	–	0
Other changes	–	–	–	–	2,861	(0)	(6,266)	2,095	(1,310)
Balance at March 31, 2017	$ 387,065	$ 94,732	$ 135,390	$ (6,321)	$ 5,045	$ (0)	$ (17,614)	$ (4,867)	$ 593,430

See notes to consolidated financial statements.

Consolidated Statement of Cash Flows

For the year ended March 31, 2017

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2017	2016	2017
Cash flows from operating activities			
Income before income taxes	¥ 5,748	¥ 12,354	$ 51,239
Adjustments for:			
Depreciation and amortization	4,660	5,350	41,540
Loss (gain) on disposal or sales of fixed assets, net	240	(7,106)	2,139
Loss on impairment of fixed assets	967	716	8,620
Decrease in provision for loss on liquidation of a subsidiary	(16)	(288)	(143)
Foreign exchange loss, net	146	368	1,301
(Decrease) increase in liabilities for retirement benefits, net	(2)	356	(18)
Reversal of reserve for Ferosilt removal	–	(2,459)	–
(Decrease) increase in reserve for implementation of environmental and safety arrangements	(473)	1,051	(4,216)
Interest and dividend income	(127)	(135)	(1,132)
Interest expense	1,125	1,398	10,029
Equity in earnings of affiliates, net	(248)	(334)	(2,211)
Other	(120)	193	(1,070)
Changes in operating assets and liabilities:			
Trade receivables	(617)	3,286	(5,500)
Inventories	5,267	(746)	46,951
Other current assets	5	(287)	45
Trade payables	584	(1,513)	5,206
Accrued expenses and other current liabilities	(442)	274	(3,939)
Subtotal	16,697	12,478	148,841
Interest and dividends received	117	119	1,043
Interest paid	(1,143)	(1,441)	(10,189)
Insurance claim received	16	78	143
Income taxes paid	(1,055)	(965)	(9,405)
Net cash provided by operating activities	¥ 14,632	¥ 10,269	$ 130,433
Cash flows from investing activities			
Increase in time deposits	¥ (0)	¥ (0)	$ (0)
Purchase of investment securities	(1,095)	(60)	(9,761)
Purchases of property, plant and equipment	(5,303)	(3,543)	(47,272)
Proceeds from sales of property, plant and equipment	581	13,318	5,179
Increase in long-term loans receivable	(362)	(375)	(3,227)
Collection of long-term loans receivables	256	267	2,282
Proceeds from liquidation of a subsidiary	–	41	–
Other	(27)	9	(241)
Net cash (used in) provided by investing activities	(5,950)	9,657	(53,040)
Cash flows from financing activities			
Redemption of bonds	(280)	(280)	(2,496)
Decrease in short-term bank loans, net	(208)	(1,542)	(1,854)
Proceeds from long-term bank loans	5,890	7,150	52,505
Repayment of long-term bank loans	(14,160)	(16,409)	(126,226)
Repayment of lease obligations	(558)	(569)	(4,974)
Repayment of installment payable	(91)	(18)	(811)
Proceeds from deposits received	1,611	1,780	14,361
Repayment of deposits received	(1,826)	(2,028)	(16,277)
Increase in treasury stock, net	(6)	(5)	(54)
Net cash used in financing activities	(9,628)	(11,921)	(85,826)
Effect of exchange rate changes on cash and cash equivalents	(106)	(78)	(945)
(Decrease) increase in cash and cash equivalents	(1,052)	7,927	(9,378)
Cash and cash equivalents at beginning of year	29,209	21,282	260,376
Cash and cash equivalents at end of year (Note 4)	¥ 28,157	¥ 29,209	$ 250,998

See notes to consolidated financial statements.

Notes to Consolidated Financial Statements

Year ended March 31, 2017

1. Basis of Preparation of Consolidated Financial Statements

The accompanying consolidated financial statements of Ishihara Sangyo Kaisha, Ltd. (the "Company") and its consolidated subsidiaries have been prepared on the basis of accounting principles generally accepted in Japan, which are different in certain respects as to the application and disclosure requirements of International Financial Reporting Standards, and are compiled from the consolidated financial statements prepared by the Company as required by the Financial Instruments and Exchange Act of Japan.

In preparing the accompanying consolidated financial statements, certain reclassifications and rearrangements have been made to the consolidated financial statements issued in Japan in order to present them in a format which is more familiar to readers outside Japan. In addition, the notes to the consolidated financial statements include information which is not required under accounting principles generally accepted in Japan but is presented herein as additional information.

Certain amounts in the prior year's consolidated financial statements have been reclassified to conform to the current year's presentation. Such reclassifications had no effect on consolidated profit or net assets.

The translation of yen amounts into U.S. dollar amounts is included solely for convenience, as a matter of arithmetic computation only, at ¥112.18 = U.S.$1.00, the approximate rate of exchange in effect on March 31, 2017. This translation should not be construed as a representation that yen have been, could have been, or could in the future be, converted into U.S. dollars at the above or any other rate.

2. Summary of Significant Accounting Policies

(a) Principles of consolidation and accounting for investments in unconsolidated subsidiaries and affiliates

The accompanying consolidated financial statements include the accounts of the Company and its 13 significant consolidated subsidiaries, consisting of ISK Bioscience K.K., ISK SINGAPORE PTE. LTD., the ISK AMERICAS INCORPORATED Group (5 subsidiaries), ISK BIOSCIENCES EUROPE N.V., ISK Taiwan Co., Ltd., Fuji Titanium Industry Co., Ltd., Ishihara Techno Corporation, Yokkaichi Energy Service Co., Ltd. and ISK Engineering Partners Corporation.

The Company's remaining subsidiaries, including ISK BIOSCIENCES KOREA LTD., have not been consolidated because they are not significant in terms of total assets, retained earnings, net sales and net income.

Investments in significant affiliates are stated at their underlying net equity after the elimination of intercompany income.

Investments in unconsolidated subsidiaries and the remaining affiliate companies are stated at cost.

The overseas consolidated subsidiaries are consolidated on the basis of fiscal periods ending December 31, which differs from the balance sheet date of the Company. As a result, adjustments have been made for any significant intercompany transactions which took place during the period between the year ends of these overseas consolidated subsidiaries and the year end of the Company.

(b) Foreign currency translation

Foreign currency transactions

All monetary assets and liabilities denominated in foreign currencies are translated into yen amounts at the rates of exchange in effect at the balance sheet date, except that receivables and payables hedged by qualified forward foreign exchange contracts are translated at their corresponding contracted rates.

Revenue and expense items arising from transactions denominated in foreign currencies are generally translated into yen at the exchange rates in effect at the respective transaction dates. Foreign exchange gain or loss is credited or charged to income in the year in which such gain or loss is recognized for financial reporting purposes.

Financial statements of overseas consolidated subsidiaries

The balance sheet accounts of the overseas consolidated subsidiaries are translated into yen at the rates of exchange in effect at the balance sheet date, except that the components of net assets are translated at their historical rates. Revenue and expense accounts are translated at the average rates of exchange in effect during the year. Differences resulting from translating financial statements denominated in foreign currencies have not been included in the determination of net income but are reported as translation adjustments which are components of accumulated other comprehensive loss.

(c) Cash and cash equivalents

For the purposes of the consolidated statement of cash flows, cash and cash equivalents consist of cash on hand, cash in banks which can be withdrawn at any time and short-term investments with a maturity of three months or less when purchased which can easily be converted to cash and are subject to little risk of change in value.

(d) Inventories

Inventories of the Company and its domestic consolidated subsidiaries are principally stated at lower of cost or net selling value, cost being determined by the gross average method.

(e) Securities

Securities are classified into three categories: trading securities, held-to-maturity debt securities and other securities. Trading securities, consisting of debt and marketable equity securities, are carried at fair value. Gain and loss, both realized and unrealized, are credited or charged to income. Held-to-maturity debt securities are carried at amortized cost. Marketable securities classified as other securities are carried at fair value, with any changes in unrealized holding gain or loss, net of the applicable income taxes, reported as a separate component of accumulated other comprehensive income (loss). Non-marketable securities classified as other securities are carried at cost. Cost of securities sold is determined by the moving average method.

Investments in investment business limited liability partnerships and other similar partnerships, which are deemed to be securities under Article 2, Clause 2 of the Financial Instruments and Exchange Act of Japan, are valued at the amount of the underlying equity in their net assets based on the latest financial statements available as of the closing date stipulated in the partnership agreement.

(f) Derivatives and hedging activities

Derivative financial instruments are utilized by the Company and its domestic consolidated subsidiaries principally in order to manage risk arising from adverse fluctuation in foreign exchange rates and interest rates. The Company and its domestic consolidated subsidiaries have established a control environment which includes policies and procedures for risk assessment, including an assessment of the effectiveness of their hedging activities, and for the approval, reporting and monitoring of transactions involving derivatives.

Derivatives are carried at fair value with any changes in unrealized gain or loss credited or charged to income, except for those which meet the criteria for deferral hedge accounting under which unrealized gain or loss is deferred and reported as a component of accumulated other comprehensive income (loss). Receivables and payables hedged by forward foreign exchange contracts which meet certain conditions are translated at their contracted rates (the “allocation method”). Interest-rate swaps which meet certain conditions are accounted for as if the interest rates which apply to the swaps had originally applied to the underlying debt (the “special method”).

The effectiveness of hedges is assessed based on comparison of the cumulative changes in markets or cash flows of the hedged items and those of the hedging instruments. However, the assessment of interest rate swaps which the special method is applied is omitted.

(g) Property, plant and equipment and depreciation (except for leased assets)

Property, plant and equipment are stated at cost. Depreciation of property, plant and equipment is recognized primarily by the straight-line method over the estimated useful lives of the respective assets. The useful lives of property, plant and equipment are principally as follows:

Buildings and structures ....3 to 55 years
Machinery and equipment ....2 to 20 years

Costs for maintenance, repairs and minor renewals are charged to income as incurred. Major renewals and betterments are capitalized.

(h) Intangible assets (except for leased assets)

Intangible assets are amortized by the straight-line method over the useful lives of the respective assets. Expenditures relating to computer software developed for internal use are charged to income as incurred, except if these are deemed to contribute to the generation of future income or cost savings. Such expenditures are capitalized as assets and amortized by the straight-line method over their estimated useful lives of 5 years.

(i) Research and development costs

Research and development costs are charged to income as incurred.

(j) Leased assets

Leased assets under finance leases that transfer ownership of the assets are depreciated by using the economic useful lives of leased assets.

Leased assets under finance lease contracts that do not transfer ownership to the lessee are depreciated to a residual value of zero by the straight-line method using the term of the contract as the useful life.

(k) Allowance for doubtful receivables

The Company and its domestic consolidated subsidiaries have provided an allowance for doubtful receivables based on their historical experience of bad debts on ordinary receivables plus an additional estimate of probable specific doubtful accounts from customers experiencing financial difficulties.

The allowance for doubtful receivables of the overseas consolidated subsidiaries has been provided at the estimated aggregate amount of their probable bad debts.

(l) Accrued bonuses for employees

Accrued employees' bonuses are accounted for at an estimated amount of the bonuses to be paid as allocated to the current fiscal year.

(m) Reserve for sales returns

Reserve for sales returns is provided for estimated losses incurring due to the return of finished goods and merchandise sold during the fiscal year subsequent to the balance sheet date, using the historical rate of such returns in prior years.

(n) Reserve for implementation of environmental and safety arrangements

The Company has provided the reserve for estimated expenditures to promote environmental and safety arrangements.

(o) Provision for maintenance

Provision for maintenance is provided in an amount estimated to be necessary for the maintenance for certain machinery and equipment.

(p) Provision for loss on liquidation of a subsidiary

Provision for loss on liquidation of a subsidiary is provided based on an estimate of expenditures necessary to complete the process of liquidating of a subsidiary.

(Additional information)

ISK SINGAPORE PTE. LTD., a consolidated subsidiary of the Company, terminated the operations during the year ended March 31, 2014 and has been under the liquidation proceedings.

(q) Retirement benefits

Liability for retirement benefits is provided at an amount calculated based on the retirement benefit obligation and the fair value of the pension plan assets as of the balance sheet date.

The retirement benefit obligation for employees is attributed to each period by the straight-line method over the estimated years of service of the eligible employees.

Actuarial gain or loss is amortized in the year following the year in which such gain or loss is recognized, principally by the straight-line method, over the estimated average remaining years of service of the employees participating in the plans.

Prior service cost is amortized by the straight-line method over the estimated average remaining years of service of the employees participating in the plans.

(r) Income taxes

Income taxes are calculated based on taxable income and charged to income on an accrual basis. Certain temporary differences exist between taxable income and income reported for financial statement purposes which enter into the determination of taxable income in a different period. The Company and its consolidated subsidiaries recognize the tax effect of such temporary differences in their consolidated financial statements.

3. Additional Information

Implementation Guidance on Recoverability of Deferred Tax Assets

Effective April 1, 2016, the Company and its domestic consolidated subsidiaries adopted "Revised Implementation Guidance on Recoverability of Deferred Tax Assets" (Accounting Standards Board of Japan Guidance No. 26 of March 28, 2016).

4. Cash and Deposits

The reconciliation between cash and cash equivalents in the accompanying consolidated statements of cash flows and cash and deposits in the accompanying consolidated balance sheets as of March 31, 2017 and 2016 is presented as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Cash and deposits	¥ 28,347	¥ 29,399	$ 252,692
Time deposits with maturities in excess of three months	(190)	(190)	(1,694)
Cash and cash equivalents	¥ 28,157	¥ 29,209	$ 250,998

5. Investments in Securities

Marketable securities classified as held-to-maturity debt securities and other securities at March 31, 2017 and 2016 were as follows:

(a) Held-to-maturity debt securities

	Millions of yen					
	2017			2016		
	Carrying value	Estimated fair value	Unrealized gain	Carrying value	Estimated fair value	Unrealized gain
Securities whose estimated fair value exceeds their carrying value	¥ 10	¥ 10	¥ 0	¥ 10	¥ 10	¥ 0
Total	¥ 10	¥ 10	¥ 0	¥ 10	¥ 10	¥ 0

	Thousands of U.S. dollars		
	2017		
	Carrying value	Estimated fair value	Unrealized gain
Securities whose estimated fair value exceeds their carrying value	$ 89	$ 89	$ 0
Total	$ 89	$ 89	$ 0

(b) Other securities

	Millions of yen					
	2017			2016		
	Carrying value	Acquisition cost	Unrealized gain (loss)	Carrying value	Acquisition cost	Unrealized gain (loss)
Securities whose carrying value exceeds their acquisition cost: Equity securities	¥ 1,461	¥ 720	¥ 741	¥ 975	¥ 614	¥ 361
Subtotal	1,461	720	741	975	614	361
Securities whose acquisition cost exceeds their carrying value: Equity securities	40	46	(6)	118	141	(23)
Subtotal	40	46	(6)	118	141	(23)
Total	¥ 1,501	¥ 766	¥ 735	¥ 1,093	¥ 755	¥ 338

	Thousands of U.S. dollars		
	2017		
	Carrying value	Acquisition cost	Unrealized gain (loss)
Securities whose carrying value exceeds their acquisition cost: Equity securities	$ 13,023	$ 6,418	$ 6,605
Subtotal	13,023	6,418	6,605
Securities whose acquisition cost exceeds their carrying value: Equity securities	357	410	(53)
Subtotal	357	410	(53)
Total	$ 13,380	$ 6,828	$ 6,552

Proceeds from sales of other securities and the aggregate gain for the years ended March 31, 2017 and 2016 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Proceeds from sales	¥ 2	¥ 9	$ 18
Aggregate gain	1	7	9

The redemption schedule subsequent to March 31, 2017 for held-to-maturity debt securities classified as other securities is described in Note 17.

6. Inventories

Inventories at March 31, 2017 and 2016 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Finished goods and merchandise	¥ 30,243	¥ 34,317	$ 269,594
Work in process	3,932	3,907	35,051
Raw materials and supplies	12,930	14,846	115,261
Total	¥ 47,105	¥ 53,070	$ 419,906

Net gain on reversal of devaluation of inventories included in cost of sales amounted to ¥538 million ($4,796 thousand) for the year ended March 31, 2017 and net loss on devaluation of inventories included in cost of sales amounted to ¥1,003 million for the year ended March 31, 2016.

7. Acquisition Costs of Property, Plant and Equipment

The accumulated amounts deducted from the acquisition costs of machinery and equipment due to receiving government subsidies at March 31, 2017 and 2016 totaled ¥33 million ($294 thousand) and ¥15 million, respectively.

8. Loss on Impairment of Fixed Assets

For the year ended March 31, 2017, the Company recorded a loss on impairment of fixed assets. The main components of loss on impairment of fixed assets are as follows:

			Millions of yen	Thousands of U.S. dollars
Location	Major use	Classification	2017	2017
Yokkaichi Plant (Yokkaichi City, Mie Prefecture)	Production equipment	Buildings and structures	¥ 13	$ 116
		Machinery and equipment	339	3,022
		Leased asset	13	116
		Demobilization cost	602	5,366
		Total	¥ 967	$ 8,620

The Company and its consolidated subsidiaries group their assets based on the business segment and production process for assessment of loss on impairment. Idle assets which are not anticipated to be utilized in the future and leased real estate are classified as individual cash-generating units. Assets not definitely linked to a specific business, such as the head-office building, the facilities for research and development and the facilities for welfare, are classified as corporate assets.

As a part of production equipment located at the Yokkaichi Plant in the above table, such as equipment for organic compound, is not anticipated to be utilized in the future, the Company classified the production equipment as idle assets and recognized a loss on impairment.

For the year ended March 31, 2016, the Company recorded a loss on impairment of fixed assets. The main components of loss on impairment of fixed assets are as follows:

			Millions of yen
Location	Major use	Classification	2016
Yokkaichi Plant (Yokkaichi City, Mie Prefecture)	Production equipment	Buildings and structures	¥ 115
		Machinery and equipment	99
		Demobilization cost	468
		Subtotal	682
Bunkyo-ku, Tokyo	Office equipment	Buildings and structures	¥ 34
		Subtotal	34
		Total	¥ 716

As a part of production equipment located at the Yokkaichi Plant in the above table, such as equipment for organic compounds, is not anticipated to be utilized in the future, the Company classified the production equipment as idle assets and recognized a loss on impairment. In addition, on March 11, 2016, the Board of Directors of the Company approved the relocation of the Tokyo branch. Therefore, as the office equipment of Tokyo branch is not anticipated to be utilized in the future, the Company and its consolidated subsidiary classified it as assets scheduled for disposal and recognized a loss on impairment. The Company and its consolidated subsidiary wrote down the book value of these assets to nil.

9. Short-Term Bank Loans, Long-Term Bank Loans, Lease Obligations and Bonds

The average annual interest rate on short-term bank loans at March 31, 2017 and 2016 was approximately 1.5%.

Long-term bank loans, including the current portion of long-term bank loans, at March 31, 2017 and 2016 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Secured bank loans	¥ 18,081	¥ 19,348	$ 161,178
Unsecured bank loans	22,910	29,912	204,226
Subtotal	40,991	49,260	365,404
Less amounts due within one year	(13,490)	(14,093)	(120,253)
Total	¥ 27,501	¥ 35,167	$ 245,151

The annual average interest rates applicable to long-term bank loans due within one year presented in the above table at March 31, 2017 and 2016 were 1.9% and 2.0%, respectively.

The annual average interest rates applicable to long-term bank loans due after more than one year presented in the above table at March 31, 2017 and 2016 were 1.8% and 2.0%, respectively.

These bank loans become due from April 2017 through to March 2024.

Bonds at March 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Unsecured bonds, payable in yen at rate of 0.106%, due 2019	¥ 560	¥ 840	$ 4,992
Less amounts due within one year	(280)	(280)	(2,496)
Total	¥ 280	¥ 560	$ 2,496

Lease obligations at March 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Finance lease obligations (ownership not transferred to the lessee)	¥ 1,356	¥ 1,446	$ 12,088
Less amounts due within one year	(478)	(511)	(4,261)
Total	¥ 878	¥ 935	$ 7,827

Information on the payment schedules of long-term bank loans, bonds, and lease obligations subsequent to March 31, 2017 is described in Note 17.

At March 31, 2017 and 2016, the following assets were pledged as collateral for short-term bank loans, the current portion of long-term bank loans and long-term bank loans:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Property, plant and equipment, net of accumulated depreciation	¥ 25,518	¥ 25,616	$ 227,473
Investments in securities	98	84	874
Cash and deposits	190	190	1,694
Total	¥ 25,806	¥ 25,890	$ 230,041

Short-term bank loans, the current portion of long-term bank loans and long-term bank loans secured by such collateral at March 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Short-term bank loans	¥ 7,240	¥ 7,530	$ 64,539
Current portion of long-term bank loans	4,844	5,761	43,181
Long-term bank loans	13,237	13,587	117,998
Total	¥ 25,321	¥ 26,878	$ 225,718

In addition, buildings and structures of ¥88 million, land of ¥219 million were pledged as collateral to secure future loans from certain financial institutions at March 31, 2016. However, there were no corresponding liabilities at March 31, 2016.

10. Asset Retirement Obligations

The asset retirement obligations include legal obligations for disposal of items including polychlorobiphenyl pursuant to the "Law Concerning Special Measures Against PCB Waste" and other legal obligations for the removal of leasehold improvements and restoration of premises around the Yokkaichi Plant to their original condition upon termination of lease contracts.

The asset retirement obligations are measured at present value calculated based on the discount rate applicable to government bonds and the estimated useful lives of the assets, which are estimated to be from 3 years to 8 years since their acquisitions.

The following is a summary of changes in the carrying amounts of the asset retirement obligations for the years ended March 31, 2017 and 2016.

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Asset retirement obligation balance at the beginning of the year	¥ 828	¥ 840	$ 7,381
Liabilities incurred due to the acquisition of property, plant and equipment	–	14	–
Accretion expense	0	0	0
Liabilities settled	(47)	(26)	(419)
Asset retirement obligation balance at the end of the year	¥ 781	¥ 828	$ 6,962

11. Retirement Benefits

The Company and certain consolidated subsidiaries have a lump-sum payment plan as a retirement benefit plan for eligible employees upon retirement. Retirement payments are determined by reference to basic salary, years of service and certain other factors. In addition to this, the Company and certain domestic consolidated subsidiaries have defined contribution pension plans.

Certain consolidated subsidiaries have calculated their retirement benefit obligations and retirement benefit expenses based on the amount which would be payable at the year end if all eligible employees terminated their services voluntarily (the "Simplified Method").

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

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Retirement benefit obligations at the beginning of the year	¥ 12,199	¥ 11,405	$ 108,745
Service cost	623	592	5,554
Interest cost	11	108	98
Actuarial (gain) loss	(229)	589	(2,042)
Retirement benefits paid	(737)	(479)	(6,570)
Other	(11)	(16)	(98)
Retirement benefit obligations at the end of the year	¥ 11,856	¥ 12,199	$ 105,687

The changes in plan assets during the years ended March 31, 2017 and 2016 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Plan assets at the beginning of the year	¥ 140	¥ 162	$ 1,248
Expected return on plan assets	1	1	9
Actuarial loss	(5)	(9)	(45)
Contributions paid by the Company and subsidiaries	24	24	214
Retirement benefits paid	(7)	(38)	(62)
Other	0	(0)	0
Plan assets at the end of the year	¥ 153	¥ 140	$ 1,364

The changes in retirement benefit obligations calculated by the Simplified Method during the year ended March 31, 2017 and 2016 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Retirement benefit obligations at the beginning of the year	¥ 883	¥ 828	$ 7,871
Retirement benefit expenses	95	99	847
Retirement benefits paid	(94)	(44)	(838)
Retirement benefit obligations at the end of the year	¥ 884	¥ 883	$ 7,880

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

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Funded retirement benefit obligation	¥ 298	¥ 243	$ 2,656
Plan assets at fair value	(153)	(140)	(1,364)
	145	103	1,292
Unfunded retirement benefit obligation	12,442	12,839	110,911
Net amount of asset and liability for retirement benefits in the consolidated balance sheet	12,587	12,942	112,203
Liability for retirement benefits	12,603	12,958	112,346
Asset for retirement benefits	(16)	(16)	(143)
Net amount of asset and liability for retirement benefits in the consolidated balance sheet	¥ 12,587	¥ 12,942	$ 112,203

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

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Service cost	¥ 623	¥ 592	$ 5,554
Interest cost	11	108	98
Expected return on plan assets	(1)	(1)	(9)
Amortization:			
Actuarial loss	96	46	856
Prior service cost	20	19	178
Retirement benefit expenses calculated by the Simplified Method	95	99	847
Retirement benefit expenses	¥ 844	¥ 863	$ 7,524

The components of retirement benefits liability adjustments included in other comprehensive income (loss) (before tax effect) for the years ended March 31, 2017 and 2016 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Actuarial gain (loss)	¥ 320	¥ (552)	$ 2,853
Prior service cost	20	19	178
Others	(5)	0	(45)
Total	¥ 335	¥ (533)	$ 2,986

The components of retirement benefits liability adjustments included in accumulated other comprehensive loss (before tax effect) as of March 31, 2017 and 2016 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Unrecognized actuarial loss	¥ 607	¥ 923	$ 5,411
Unrecognized prior service cost	171	190	1,524
Total	¥ 778	¥ 1,113	$ 6,935

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

	2017	2016
Debt securities	84%	83%
Equity securities	11	11
Cash and deposits	5	6
Total	100%	100%

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

The assumptions used in accounting for the defined benefit plans for the years ended March 31, 2017 and 2016 are as follows:

	2017	2016
Discount rate	Principally 0.1%	Principally 0.1%
Expected long-term rate of return on plan assets	Principally 1.3%	Principally 2.1%
Expected rates of salary increase	Principally 6.1%	Principally 6.6%

Total contributions paid by the Company and certain consolidated subsidiaries to the defined contribution pension plans for the years ended March 31, 2017 and 2016 amounted to ¥87 million ($776 thousand) and ¥86 million, respectively.

12. Contingent Liabilities

(a) Guarantees

At March 31, 2017, the Company was contingently liable for the following:

	Millions of yen	Thousands of U.S. dollars
	2017	2017
Trade notes receivable discounted with banks	¥ 57	$ 508
As guarantor for borrowings of unconsolidated subsidiaries	100	892
Total	¥ 157	$ 1,400

(b) Remediation measures in response to contaminated soil and underground water and waste assumed to be buried at Yokkaichi Plant of the Company (the "Plant")

As a result of soil and underground water surveys conducted at the Plant after an assessment by a comprehensive compliance test in 2008, contamination was identified, which seems to be mainly derived from past production activities. In response to this, the Company submitted certain documents to Yokkaichi City, which has jurisdiction over the matter, notifying the authorities of these findings, in accordance with the "Ordinance for Conservation of the Living Environment" enacted by Mie Prefecture. Subsequently, under the guidance and advice from the Environmental Expert Committee, which consists of academic advisors, the Company conducted a survey to identify the status and source of the contamination and set up pumping and water treatment facilities in order to prevent dispersal of contaminated ground water. While full-scale pumping is continuing, the Company also conducts detailed surveys and considers the appropriate countermeasures. The Company records costs for preventing dispersal of contaminated ground water as extraordinary losses to the extent that were paid during the year or reasonably estimated as of the balance sheet date. The Company does not record any costs that cannot be reasonably estimated at the balance sheet date, such as costs for permanent contamination remediation measures.

The following information on buried waste that must be removed from the Plant has been officially announced in connection with the assessment of the comprehensive compliance test in 2008. The measures required to remove the buried waste will probably have an impact on the Company's future business performance, however, the Company had not been able to conduct the detailed investigations efficiently as the vacant area in the Plant was used for temporarily storing removed Ferosilt.

In December 2015, the Company completed the disposal of the removed Ferosilt that had been temporarily stored at the Plant and proceeds work based on close discussions with the authorities about the location, extent, nature and volume of buried waste, and appropriate methods to dispose such waste. The Company reserves costs to the extent that can be reasonably estimated as of the balance sheet date such as costs for boring survey of inorganic sludge described in (2) below. The Company does not record any costs that cannot be reasonably estimated at the balance sheet date, such as costs for disposal of buried waste.

(1) Buried waste in area No. 2

Since area No. 2 was previously the site of a sedimentation pond, certain legally permitted waste was also buried there. Consequently, prior to waste removal, the Company will need to distinguish between legally and illegally buried wastes. In the process of identifying the exact location of the inappropriately buried waste, the Company is confirming the presence of underground metallic and type of soil, which is different from other layers.

(2) Inorganic sludge and other substances at a former Synthesis Rutile ("SR") Plant site

As a result of the excavation operation at certain sections in the SR Plant site, inorganic sludge had been identified. Disposal of such identified inorganic sludge had commenced from April, 2016 and was completed during the year ended March 31, 2017. The Company is currently preparing for the boring survey in order to specify buried waste at the SR Plant site sections.

13. Income Taxes

Income taxes applicable to the Company and its domestic consolidated subsidiaries consist of corporation, inhabitants' and enterprise taxes. The applicable statutory tax rates in Japan for the years ended March 31, 2017 and 2016 were, in the aggregate, approximately 30.4% and 32.6%, respectively. Overseas subsidiaries are subject to the income taxes of the respective countries in which they operate.

The effective tax rates reflected in the accompanying consolidated statement of income for the years ended March 31, 2017 and 2016 differs from the above statutory tax rates for the following reasons:

	2017	2016
Statutory tax rate	30.4%	32.6%
Permanently non-deductible expenses	0.6	0.3
Permanently non-taxable income	(0.8)	(0.5)
Per capita portion of inhabitants' taxes	0.6	0.3
Tax deduction for experiment and research expenses	(1.6)	(0.7)
Unrealized gain on intercompany transactions	1.6	0.1
Changes in valuation allowance	(22.5)	3.4
Difference tax rates applied to subsidiaries	0.8	(14.3)
Decrease of deferred tax assets resulting from change in tax rates	–	3.7
Other	1.7	(1.5)
Effective tax rate	10.8%	23.4%

Deferred income taxes reflect the net tax effect of the temporary differences between the carrying amounts of the assets and liabilities for financial reporting purposes and the corresponding amounts for income tax purposes. The significant components of the Company's and consolidated subsidiaries' deferred tax assets and liabilities at March 31, 2017 and 2016 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Deferred tax assets:			
Tax loss carryforwards	¥ 15,391	¥ 16,542	$ 137,199
Liability for retirement benefits	3,825	3,931	34,097
Loss on devaluation of inventories	211	185	1,881
Unrealized gain on intercompany transactions	1,192	1,304	10,626
Accrued expenses	498	400	4,439
Accrued bonuses for employees	197	192	1,756
Reserve for implementation of environmental and safety arrangements	428	598	3,815
Asset retirement obligations	235	249	2,095
Loss on liquidation of a subsidiary	16	16	143
Other	2,203	2,118	19,638
Gross deferred tax assets	24,196	25,535	215,689
Less valuation allowance	(14,192)	(15,925)	(126,511)
Total deferred tax assets	10,004	9,610	89,178
Deferred tax liabilities:			
Property, plant and equipment	(21)	(21)	(187)
Unrealized holding gain on securities	(152)	(73)	(1,355)
Other	(468)	(425)	(4,172)
Total deferred tax liabilities	(641)	(519)	(5,714)
Net deferred tax assets	¥ 9,363	¥ 9,091	$ 83,464

14. Shareholders' Equity

The Company Act of Japan (the "Act") provides that an amount equal to 10% of the amount to be disbursed as distributions of capital surplus (other than the capital reserve) and retained earnings (other than the legal reserve) be transferred to the capital reserve and the legal reserve, respectively, until the sum of the capital reserve and the legal reserve equals 25% of the capital stock account. Such distributions can be made at any time by resolution of the shareholders or by the Board of Directors if certain conditions are met.

Under the Act, upon the issuance and sale of new shares of common stock, the entire amount of the proceeds is required to be accounted for as common stock, although a company may, by resolution of the Board of Directors, account for an amount not exceeding one-half of the proceeds of the sale of new shares as additional paid-in capital.

Common stock and treasury stock

Movements in common stock and treasury stock during the years ended March 31, 2017 and 2016 are summarized as follows:

	Thousands of shares			
	2017			
	April 1, 2016	Increase	Decrease	March 31, 2017
Common stock	403,839	–	363,455	40,384
Treasury stock	4,020	23	3,634	409

	Thousands of shares			
	2016			
	April 1, 2015	Increase	Decrease	March 31, 2016
Common stock	403,839	–	–	403,839
Treasury stock	3,973	47	0	4,020

The increases in treasury stock were due to purchases of shares of less than one voting unit for the years ended March 31, 2017 and 2016. The decreases in common and treasury stock for the year ended March 31, 2017 were mainly due to consolidation of ten shares into one share and sales of shares at requests of shareholders who own less than one voting unit, and for the year ended March 31, 2016 were mainly due to sales of shares at requests of shareholders who own less than one voting unit.

15. Research and Development Costs

Research and development costs included in manufacturing costs and selling, general and administrative expenses for the years ended March 31, 2017 and 2016 totaled ¥8,173 million ($72,856 thousand) and ¥8,989 million, respectively.

16. Leases

Operating lease transactions

Future minimum lease payments subsequent to March 31, 2017 under non-cancelable operating leases are summarized as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2018	¥ 292	$ 2,603
2019 and thereafter	667	5,946
Total	¥ 959	$ 8,549

17. Financial Instruments

Overview

(1) Policy for financial instruments

In consideration of plans for capital expenditures or cash management, the Company and its consolidated subsidiaries (collectively, the “Group”) raise funds through bank loans or issuing bonds for its domestic and overseas business. The Group manages temporary cash surpluses through low-risk financial assets. The Group uses derivatives for the purpose of reducing fluctuation risk of foreign exchange and interest rates. However, the use of derivatives is limited within the extent of risk at the basis of the actual demand and the Group does not enter into derivatives for speculative or trading purposes.

(2) Types of financial instruments and related risk

Trade receivables – trade notes and accounts receivable – are exposed to credit risk in relation to customers. In addition, the Group has global operations and the percentage of sales transactions denominated in foreign currencies is high. As a result, the Group is exposed to foreign currency exchange risk arising from receivables denominated in foreign currencies.

Marketable securities and investments in securities are exposed to market risk. Those securities are composed of mainly held-to-maturity debt securities and the shares of common stock of other companies with which the Group has business relationships, or affiliated companies. The Group has also loans receivable from other companies with which it has business relationships. These loans receivable are exposed to credit risk.

Regarding trade payables – trade notes and accounts payable – the Group is exposed to the risk of failure of settlement of these payables at the due date because of working capital issue, which may result in loss of credit. The Group is also exposed to foreign currency exchange risk arising from those payables denominated in foreign currencies due to the import of raw materials and other supplies.

A portion of bank loans and bonds has some financial covenants, which may result in the risk of early repayment depending on the fluctuation of the financial position of the Group. Short-term and long-term bank loans with variable interest rates are exposed to interest rate fluctuation risk. The repayment dates of the debt extend up to 7 years from the balance sheet date.

Regarding derivatives, the Group enters into forward foreign exchange contracts to reduce the foreign currency exchange risk arising from the receivables and payables denominated in foreign currencies. The Group also enters into interest rate swap transactions to reduce fluctuation risk deriving from interest payable for long-term bank loans bearing interest at variable rates. Information regarding the method of hedge accounting is described in Note 2 (f).

(3) Risk management for financial instruments

(a) Monitoring of credit risk (the risk that customers or counterparties may default)

In accordance with the internal policies for credit limit management, the Group reduces certain risks arising from credit transactions with customers by setting credit limits for individual customers, managing maturity dates and outstanding amounts, recognizing the existing risks and controlling all receivables appropriately. The Group monitors the financial situation of its main customers periodically and compares outstanding receivables balances with the amounts of credit limit by each customer periodically and confirms that the internal policies are appropriately applied.

In accordance with the internal policies for asset management, the Group invests in held-to-maturity debt securities with high credit ratings. Accordingly, the Group believes that the credit risk deriving from such debt securities is insignificant.

The Group also believes that the credit risk of derivatives is insignificant as it enters into derivative transactions only with financial institutions or trading companies which have a sound credit profile.

(b) Monitoring of market risks (the risks arising from fluctuations in foreign exchange rates, interest rates and others)

For trade receivables and payables denominated in foreign currencies, the Group identifies the foreign currency exchange risk for each currency on a monthly basis and enters into forward foreign exchange contracts to hedge such risk. In order to mitigate the unfavorable impact caused by foreign currency exchange fluctuations on accounts receivable deriving from forecasted export sales transactions, the Group may enter into forward foreign exchange contracts to the extent it is probable that those forecasted export sales take place. In order to mitigate the interest rate risk for loans payable and bonds bearing interest at variable rates, the Group may also enter into interest rate swap transactions.

For marketable securities and investments in securities, the Group periodically reviews the fair values of such financial instruments and the financial position of the issuers. In addition, the Group continuously evaluates whether securities other than those classified as held-to-maturity debt securities should be maintained taking into account their fair values and the relationships with the issuers.

In conducting derivative transactions, the division in charge of derivative transactions follows the internal policies, and requests divisions that perform such derivative transactions to report these transactions, and reconciles this information with transaction details obtained from financial institutions. The division prepares monthly reports which include actual transaction data, the contracted amounts, principals, fair value of these derivatives and valuation gains or losses. These reports are then submitted to the Board of Directors for their review.

(c) Monitoring of liquidity risk (the risk that the Group may not be able to meet its obligations on scheduled due dates)

Based on the reports from each cash management division, the Group prepares and updates its cash flow plans on a monthly basis to manage liquidity risk. The Group also reports these plans to the Board of Directors and takes actions if necessary to maintain a specified level of cash position.

(4) Supplementary explanation of the estimated fair value of financial instruments

The fair value of financial instruments is based on their quoted market price, if available. When there is no quoted market price available, fair value is reasonably estimated. Since various assumptions and factors are reflected in estimating the fair value, different assumptions and factors could result in different fair value. In addition, the notional amounts of derivatives in Note 18 are not necessarily indicative of the actual market risk involved in the derivative transactions.

Estimated Fair Value of Financial Instruments

The carrying value of financial instruments on the consolidated balance sheets, estimated fair value and the differences as of March 31, 2017 and 2016 are shown in the following table. The following table does not include financial instruments for which it is extremely difficult to determine the fair value. (Please refer to Note 17(b) below).

(a) Estimated fair value of financial instruments

	Millions of yen					
	2017			2016		
	Carrying value	Estimated fair value	Difference	Carrying value	Estimated fair value	Difference
Assets:						
(1) Cash and deposits	¥ 28,347	¥ 28,347	¥ –	¥ 29,399	¥ 29,399	¥ –
(2) Trade receivables	25,408	25,408	–	25,226	25,226	–
(3) Securities and investments in securities:						
Held-to-maturity debt securities	10	10	0	10	10	0
Other securities	1,501	1,501	–	1,093	1,093	–
Total assets	¥ 55,266	¥ 55,266	¥ 0	¥ 55,728	¥ 55,728	¥ 0
Liabilities:						
(1) Trade payables	10,342	10,342	–	10,342	10,342	–
(2) Short-term bank loans	13,650	13,650	–	13,858	13,858	–
(3) Long-term bank loans, including current portion	40,991	41,136	145	49,260	49,452	192
Total liabilities	¥ 64,983	¥ 65,128	¥ 145	¥ 73,460	¥ 73,652	¥ 192
Derivatives (*)	¥ 37	¥ 37	¥ –	¥ 95	¥ 95	¥ –

	Thousands of U.S. dollars		
	2017		
	Carrying value	Estimated fair value	Difference
Assets:			
(1) Cash and deposits	$ 252,692	$ 252,692	$ –
(2) Trade receivables	226,493	226,493	–
(3) Securities and investments in securities:			
Held-to-maturity debt securities	89	89	0
Other securities	13,380	13,380	–
Total assets	$ 492,654	$ 492,654	$ 0
Liabilities:			
(1) Trade payables	92,191	92,191	–
(2) Short-term bank loans	121,679	121,679	–
(3) Long-term bank loans, including current portion	365,404	366,697	1,293
Total liabilities	$ 579,274	$ 580,567	$ 1,293
Derivatives (*)	$ 330	$ 330	$ –

(*) Assets and liabilities arising from derivatives are shown at net value with the amount in parentheses representing net liability position.

Methods to determine the estimated fair value of financial instruments and other matters related to securities and derivative transactions are as follows:

Assets:

(1) Cash and deposits and (2) Trade receivables

Since these items are settled in a short time period, their carrying value approximates estimated fair value.

(3) Securities and investments in securities
The fair value of equity and debt securities is based on quoted market prices.

Regarding the information on securities and investments in securities corresponding to holding purposes, please refer to Note 5.

Liabilities:

(1) Trade payables and (2) Short-term bank loans
Since these items are settled in a short time period, their carrying value approximates estimated fair value.

(3) Long-term bank loans, including current portion
For long-term bank loans with floating interest rates, their carrying value approximates estimated fair value because their interest rate reflects the market interest rate.

The estimated fair value of long-term bank loans with fixed interest rates is based on the present value of the total of principal and interest discounted by the interest rate to be applied assuming new loans under the similar conditions to existing loans are made.

Derivatives:

Please refer to Note 18 "Derivatives."

(b) Financial instruments whose fair values were extremely difficult to determine

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Unlisted equity securities	¥ 5,251	¥ 4,204	$ 46,809
Investments in limited partnerships	24	32	214

Because no quoted market price is available and it is extremely difficult to determine the fair value, the above financial instruments are not included in the preceding table.

(c) Redemption schedule of deposits, monetary receivables and securities with maturities

	Millions of yen				Millions of yen			
	2017				2016			
	Due in one year or less	Due after one year through five years	Due after five years through ten years	Due after ten years	Due in one year or less	Due after one year through five years	Due after five years through ten years	Due after ten years
Deposits	¥ 28,336	¥ –	¥ –	¥ –	¥ 29,390	¥ –	¥ –	¥ –
Trade receivables	25,408	–	–	–	25,226	–	–	–
Investments in securities:								
Held-to-maturity debt securities	–	–	10	–	–	–	10	–
Total	¥ 53,744	¥ –	¥ 10	¥ –	¥ 54,616	¥ –	¥ 10	¥ –

	Thousands of U.S. dollars			
	2017			
	Due in one year or less	Due after one year through five years	Due after five years through ten years	Due after ten years
Deposits	$ 252,594	$ –	$ –	$ –
Trade receivables	226,493	–	–	–
Investments in securities:				
Held-to-maturity debt securities	–	–	89	–
Total	$ 479,087	$ –	$ 89	$ –

(d) Redemption schedule of long-term debt

	Millions of yen					
	2017					
	Due in one year or less	Due after one year through two years	Due after two years through three years	Due after three years through four years	Due after four years through five years	Due after five years
Long-term bank loans	¥ 13,490	¥ 15,198	¥ 8,109	¥ 2,594	¥ 1,288	¥ 312
Bonds	280	280	–	–	–	–
Lease obligations	478	369	275	159	62	13
Total	¥ 14,248	¥ 15,847	¥ 8,384	¥ 2,753	¥ 1,350	¥ 325

	Thousands of U.S. dollars					
	2017					
	Due in one year or less	Due after one year through two years	Due after two years through three years	Due after three years through four years	Due after four years through five years	Due after five years
Long-term bank loans	$ 120,253	$ 135,479	$ 72,286	$ 23,124	$ 11,481	$ 2,781
Bonds	2,496	2,496	–	–	–	–
Lease obligations	4,261	3,289	2,452	1,417	553	116
Total	$ 127,010	$ 141,264	$ 74,738	$ 24,541	$ 12,034	$ 2,897

18. Derivatives

The notional amounts and the estimated fair value of the derivative instruments outstanding which did not qualify for deferral hedge accounting at March 31, 2017 and 2016 were as follows:

(a) Currency-related transactions

Forward foreign exchange contracts:

	Millions of yen					
	2017			2016		
	Notional amount	Estimated fair value	Unrealized gain	Notional amount	Estimated fair value	Unrealized gain (loss)
Sell:						
Euro	¥ 3,767	¥ 49	¥ 49	¥ 4,552	¥ 89	¥ 89
U.S. dollars	343	7	7	–	–	–
Buy:						
Japanese yen	372	(19)	(19)	370	5	5
U.S. dollars	18	0	0	–	–	–
Total	¥ 4,500	¥ 37	¥ 37	¥ 4,922	¥ 94	¥ 94

	Thousands of U.S. dollars		
	2017		
	Notional amount	Estimated fair value	Unrealized gain
Sell:			
Euro	$ 33,580	$ 437	$ 437
U.S. dollars	3,058	62	62
Buy:			
Japanese yen	3,316	(169)	(169)
U.S. dollars	160	0	0
Total	$ 40,114	$ 330	$ 330

(b) Currency-related transactions (hedge accounting is applied)

Forward foreign exchange contracts:

			Millions of yen					
			2017			2016		
Method of accounting	Classification	Hedged item	Notional amount	Notional amount (over one year)	Estimated fair value (*)	Notional amount	Notional amount (over one year)	Estimated fair value (*)
Deferred hedge method	Buy: U.S. dollars	Accounts payable	¥ 5	¥ –	¥ 0	¥ –	¥ –	¥ –
The allocation method	Buy: U.S. dollars	Accounts payable	27	–	(**)	–	–	–
Total			¥ 32	¥ –	¥ 0	¥ –	¥ –	¥ –

			Thousands of U.S. dollars		
			2017		
Method of accounting	Classification	Hedged item	Notional amount	Notional amount (over one year)	Estimated fair value (*)
Deferred hedge method	Buy: U.S. dollars	Accounts payable	$ 44	$ –	$ 0
The allocation method	Buy: U.S. dollars	Accounts payable	241	–	(**)
Total			$ 285	$ –	$ 0

(*) The estimated fair value of forward foreign currency exchange contracts is computed using prices provided by counterparty financial institutions.

(**) Because forward foreign exchange contracts are accounted for as if the exchange rates applied to the forward foreign exchange contracts had originally applied to the accounts receivable or payable, their fair values were included in accounts receivable or payable.

(c) Interest-related transactions (hedge accounting is applied)

			Millions of yen					
			2017			2016		
Method of accounting	Classification	Hedged item	Notional amount	Notional amount (over one year)	Estimated fair value (*)	Notional amount	Notional amount (over one year)	Estimated fair value (*)
The special method	Receive/floating and pay/fixed	Long-term bank loans	¥ 9,492	¥ 6,161	¥ (**)	¥ 8,732	¥ 6,983	¥ (**)

			Thousands of U.S. dollars		
			2017		
Method of accounting	Classification	Hedged item	Notional amount	Notional amount (over one year)	Estimated fair value (*)
The special method	Receive/floating and pay/fixed	Long-term bank loans	¥ 84,614	¥ 54,921	$ (**)

(*) The estimated fair value of forward foreign currency exchange contracts is computed using prices provided by counterparty financial institutions.

(**) Because interest rate swap agreements are accounted for as if the interest rates applied to the swaps had originally applied to the long-term bank loans, their estimated fair values were included in estimated fair value of long-term bank loans.

19. Gain on Sales of Fixed Assets

The gain on sales of fixed assets for the year ended March 31, 2016 mainly consisted of gain on sales of land and a building at the Company's head office, and gain on sales of land leasing rights of ISK Singapore PTE. Ltd., a consolidated subsidiary of the Company, in the amounts of ¥639 million and ¥6,661 million, respectively.

20. Other Comprehensive Loss

The following table presents reclassification adjustments and tax effects for components of other comprehensive loss for the years ended March 31, 2017 and 2016:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Net unrealized holding gain (loss) on securities:			
Amount arising during the year	¥ 400	¥ (339)	$ 3,565
Before tax effect	400	(339)	3,565
Tax effect	(78)	71	(695)
Total	322	(268)	2,870
Unrealized deferred loss on hedges:			
Amounts arising during the year	(0)	(0)	(0)
Reclassification adjustments for gains and losses included in net income	–	0	–
Before tax effect	(0)	(0)	(0)
Tax effect	0	0	0
Total	(0)	(0)	(0)
Translation adjustment:			
Amount arising during the year	(405)	(372)	(3,610)
Before tax effect	(405)	(372)	(3,610)
Tax effect	–	–	–
Total	(405)	(372)	(3,610)
Retirement benefits liability adjustments:			
Amount arising during the year	219	(598)	1,952
Reclassification adjustments for gains and losses included in net income	116	65	1,034
Before tax effect	335	(533)	2,986
Tax effect	(100)	150	(891)
Total	235	(383)	2,095
Other comprehensive loss of affiliates accounted for by the equity method attributable to the Company	(298)	(52)	(2,656)
Total other comprehensive loss	¥ (146)	¥ (1,075)	$ (1,301)

21. Supplemental Information to Consolidated Statements of Cash Flows

Information on significant non-cash transactions

The Company and its consolidated subsidiaries recorded new leased assets of ¥434 million ($3,869 thousand) and ¥550 million and lease obligations of ¥469 million ($4,181 thousand) and ¥594 million under finance leases for the years ended March 31, 2017 and 2016, respectively.

22. Amounts per Share

	Yen		U.S. dollars
	2017	2016	2017
Net assets per share	¥ 1,665.34	¥ 1,540.64	$ 14.85
Net income attributable to owners of parent per share	128.22	236.65	1.14

Net income attributable to owners of parent per share is based on the net income attributable to shareholders of common stock and the weighted-average number of shares of common stock outstanding during each year. Net assets per share are based on the number of shares of common stock outstanding at the year end.

Diluted net income attributable to owners of parent per share for the years ended March 31, 2017 and 2016 is not presented since no potentially dilutive securities have been issued.

Ten shares of common stock were consolidated into one share on October 1, 2016. However, net income attributable to owners of parent per share and net assets per share have been computed as if the consolidation of shares was executed on April 1, 2015.

The financial data for the computation of basic net income attributable to owners of parent per share for the years ended March 31, 2017 and 2016 in the table above is summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Information on basic net income attributable to owners of parent per share:			
Net income attributable to owners of parent	¥ 5,126	¥ 9,462	$ 45,694
Net income not attributable to common shareholders	–	–	–
Adjusted net income attributable to common shareholders	¥ 5,126	¥ 9,462	$ 45,694

	Thousands of shares	
	2017	2016
Weighted-average number of shares of common stock outstanding during the year	39,979	39,984

The financial data for the computation of net assets per share at March 31, 2017 and 2016 in the above table is summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2017	2016	2017
Total net assets	¥ 66,571	¥ 61,598	$ 593,430
Deductions from total net assets:			
Non-controlling interests	–	–	–
Total net assets used in the calculation of net assets per share	¥ 66,571	¥ 61,598	$ 593,430

	Thousands of shares	
	2017	2016
Number of shares used in the calculation of net assets per share	39,975	39,982

23. Related Party Transactions

Major transactions and balances between the Company and an affiliated company for the years ended and as of March 31, 2017 and 2016 were as follows:

		Transactions			Balances			
		Millions of yen		Thousands of U.S. dollars		Millions of yen		Thousands of U.S. dollars
Name of affiliated company	Type of transaction	2017	2016	2017	Account	2017	2016	2017
BELCHIM CROP PROTECTION N.V.	Sales of products	¥ 465	¥ 471	$ 4,145	Trade receivables	¥ 154	¥ 94	$ 1,373

Major transactions and balances between a consolidated subsidiary and an affiliated company for the years ended and as of March 31, 2017 and 2016 were as follows:

		Transactions			Balances			
		Millions of yen		Thousands of U.S. dollars		Millions of yen		Thousands of U.S. dollars
Name of affiliated company	Type of transaction	2017	2016	2017	Account	2017	2016	2017
BELCHIM CROP PROTECTION N.V.	Sales of products	¥18,189	¥17,152	$162,141	Trade receivables	¥ 2,545	¥ 3,109	$22,687

24. Segment Information

(a) Overview of the reportable segments

The Company's reportable segments are determined on the basis that such segments provide the Board of Directors with specific information to determine the business activity policy and allocation of management resources and to evaluate their business performance. Consequently, the Company has classified its business into three reportable segments of "Inorganic chemicals," "Organic chemicals," and "Other businesses" based on the properties of products and services sold, manufacturing methods and processes.

Inorganic chemicals

This reportable segment includes the business of manufacturing and sales of titanium dioxide, functional materials, which are value-added products designed to take advantage of the characteristics of titanium dioxide and other inorganic chemicals.

Organic chemicals

This reportable segment includes the business of manufacturing and sales of organic intermediates such as agrochemicals and active pharmaceutical ingredients.

Other businesses

This reportable segment principally includes the trading business and the construction business.

(b) Valuation method for reportable segment sales, income and assets

The accounting policies for the reportable business segments are the same as those described in Note 2. Intersegment sales are recorded at the same prices used in transactions with third parties.

(c) Reportable segment information

	Millions of yen					
	2017					
	Reportable segments					
	Inorganic chemicals	Organic chemicals	Other businesses	Subtotal	Elimination and corporate (*1)	Consolidated (*2)
Net sales and operating income:						
Net sales:						
External customers	¥ 47,504	¥ 51,064	¥ 3,033	¥ 101,601	¥ –	¥ 101,601
Intersegment	–	–	3,594	3,594	(3,594)	–
Net sales	47,504	51,064	6,627	105,195	(3,594)	101,601
Segment income	¥ 5,019	¥ 4,911	¥ 517	¥ 10,447	¥ (2,031)	¥ 8,416
Segment assets	¥ 67,555	¥ 55,393	¥ 2,944	¥ 125,892	¥ 33,964	¥ 159,856
Other items:						
Depreciation and amortization of intangible assets	3,157	898	55	4,110	105	4,215
Loss on impairment of fixed assets	62	731	–	793	174	967
Increase in fixed tangible and intangible assets	3,982	1,408	3	5,393	49	5,442

	Millions of yen					
	2016					
	Reportable segments					
	Inorganic chemicals	Organic chemicals	Other businesses	Subtotal	Elimination and corporate (*1)	Consolidated (*2)
Net sales and operating income:						
Net sales:						
External customers	¥ 49,922	¥ 49,509	¥ 3,472	¥ 102,903	¥ –	¥ 102,903
Intersegment	–	–	2,962	2,962	(2,962)	–
Net sales	49,922	49,509	6,434	105,865	(2,962)	102,903
Segment income	¥ 2,568	¥ 7,238	¥ 394	¥ 10,200	¥ (1,885)	¥ 8,315
Segment assets	¥ 68,875	¥ 58,665	¥ 3,121	¥ 130,661	¥ 34,390	¥ 165,051
Other items:						
Depreciation and amortization of intangible assets	3,321	966	58	4,345	113	4,458
Loss on impairment of fixed assets	–	682	7	689	27	716
Increase in fixed tangible and intangible assets	3,743	782	20	4,545	110	4,655

	Thousands of U.S. dollars					
	2017					
	Reportable segments					
	Inorganic chemicals	Organic chemicals	Other businesses	Subtotal	Elimination and corporate (*1)	Consolidated (*2)
Net sales and operating income:						
Net sales:						
External customers	$ 423,462	$ 455,197	$ 27,037	$ 905,696	$ –	$ 905,696
Intersegment	–	–	32,038	32,038	(32,038)	–
Net sales	423,462	455,197	59,075	937,734	(32,038)	905,696
Segment income	$ 44,741	$ 43,778	$ 4,608	$ 93,127	$ (18,105)	$ 75,022
Segment assets	$ 602,202	$ 493,787	$ 26,244	$1,122,233	$ 302,763	$1,424,996
Other items:						
Depreciation and amortization of intangible assets	28,142	8,005	491	36,638	936	37,574
Loss on impairment of fixed assets	553	6,516	–	7,069	1,551	8,620
Increase in fixed tangible and intangible assets	35,497	12,551	27	48,075	436	48,511

(*1) The elimination and corporate applicable to segment income amounted to ¥2,031 million ($18,105 thousand) and ¥1,885 million in the above tables and includes ¥43 million ($383 thousand) and ¥(71) million of eliminations of intersegment transactions and ¥1,988 million ($17,722 thousand) and ¥1,956 million of corporate expenses, which are not allocable to the reportable segments for the years ended March 31, 2017 and 2016, respectively. Corporate expenses mainly comprise expenses incurred by the administration department of the Company, which are not allocable to any reportable segment.

The elimination and corporate applicable to segment assets amounted to ¥33,964 million ($302,763 thousand) and ¥34,390 million includes ¥781 million ($6,962 thousand) and ¥716 million of offset of inter-segment receivables and payables, and ¥34,745 million ($309,725 thousand) and ¥35,106 million of corporate assets, which are not allocable to a reportable segment as of March 31, 2017 and 2016, respectively. Corporate assets consist of investments of surplus funds (cash and securities), long-term investments (investments in securities), assets for common use so forth.

(*2) Segment income corresponds to operating income in the consolidated statements of income.

Related information

Products and services information

The information on each product and service is omitted because it is the same as that of reportable segment information for the years ended March 31, 2017 and 2016.

Geographical information

Net sales by geographical segment for the years ended March 31, 2017 and 2016 are summarized as follows:

	Millions of yen					
	Year ended March 31, 2017					
	Japan	Asia	America	Europe	Other	Total
Net sales	¥ 46,734	¥ 18,709	¥ 11,298	¥ 24,584	¥ 276	¥ 101,601

	Millions of yen					
	Year ended March 31, 2016					
	Japan	Asia	America	Europe	Other	Total
Net sales	¥ 48,982	¥ 18,411	¥ 11,293	¥ 23,970	¥ 247	¥ 102,903

	Thousands of U.S. dollars					
	Year ended March 31, 2017					
	Japan	Asia	America	Europe	Other	Total
Net sales	$ 416,598	$ 166,777	$ 100,713	$ 219,148	$ 2,460	$ 905,696

The regions are determined on the basis of geographic proximity and the Company's business activities as follows:

Asia: China, Taiwan, South Korea, Thailand, Indonesia and Singapore
America: The United States, Canada, Brazil, Argentina and Mexico
Europe: Germany, the Netherlands, France, the United Kingdom, Belgium, Italy, Eastern Europe and the Middle East
Other: Australia, New Zealand and Africa

Property, plant and equipment by geographical segment as of March 31, 2017 and 2016 are summarized as follows:

	Millions of yen				
	At March 31, 2017				
	Japan	Asia	America	Europe	Total
Property, plant and equipment	¥ 38,131	¥ 138	¥ 885	¥ 30	¥ 39,184

	Millions of yen				
	At March 31, 2016				
	Japan	Asia	America	Europe	Total
Property, plant and equipment	¥ 37,766	¥ 142	¥ 784	¥ 42	¥ 38,734

	Thousands of U.S. dollars				
	At March 31, 2017				
	Japan	Asia	America	Europe	Total
Property, plant and equipment	$ 339,909	$ 1,230	$ 7,889	$ 268	$ 349,296

Geographical segments are determined on the basis of geographic proximity and the Company's business activity as follows:

Asia: Taiwan
America: The United States
Europe: Belgium

Information on sales transactions with major customers
Information about major customers is not disclosed for the year ended March 31, 2017, because there is no customer that represents more than 10% of net sales in the consolidated statement of income.

Sales transactions with major customers for the year ended March 31, 2016 are as follows:

Customer name	Relevant reportable segments	Millions of yen 2016
MITSUI & CO., LTD.	Inorganic chemicals and Organic chemicals	¥ 10,709

Report of Independent Public Accountants

Ernst & Young ShinNihon LLC

Independent Auditor's Report

The Board of Directors
Ishihara Sangyo Kaisha, Ltd.

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

Management's Responsibility for the Consolidated Financial Statements

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

Auditor's Responsibility

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

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

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

Opinion

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

Emphasis of Matter

We draw attention to Note 12(b) to the consolidated financial statements, which states that the Company is currently examining certain remediation measures in response to soil and underground water contamination, and waste assumed to be buried at the Yokkaichi Plant. Our opinion is not qualified in respect of this matter.

Convenience Translation

We have reviewed the translation of these consolidated financial statements into U.S. dollars, presented for the convenience of readers, and, in our opinion, the accompanying consolidated financial statements have been properly translated on the basis described in Note 1.

June 29, 2017
Osaka, Japan

Ernst & Young ShinNihon LLC

Corporate Data

(As of June 29, 2017)

Head Office

1-3-15 Edobori, Nishi-ku, Osaka 550-0002, Japan
Tel: +81-6-6444-1451 (General Affairs Division)
Fax: +81-6-6445-7798 (General Affairs Division)

Board of Directors

Executive Director President
Kenichi Tanaka

Directors
Michiyoshi Arata
Chimoto Honda
Teruaki Matsue
Norihiro Kato

Outside Directors
Noriyuki Yonemura
Hiroshi Katsumata

Board of Corporate Auditors

(Standing) Corporate Auditor
Taizo Kato

Outside Corporate Auditors
Yoshitaka Akikuni
Masaaki Harima

Executive Officers

President & Chief Executive Officer
Kenichi Tanaka

Senior Managing Executive Officers
Michiyoshi Arata
Chimoto Honda

Managing Executive Officers
Teruaki Matsue
Norihiro Kato
Masanari Kato
Kiyomitsu Yoshida
Hiroshi Yoshizawa
Yasunobu Kawazoe

Executive Officers
Yoichi Kobayashi
Hideo Takahashi
Kiyoshi Masuda
Hisashi Takenaka
Masaki Shimojo
Hiroshi Kimura

Overseas Affiliated Companies

ISK Taiwan Co.,Ltd
Empire Bldg., Fl 11-1., 87, Sung Chiang Road
Taipei, Taiwan
Tel: +886-2-2504-5387 Fax: +886-2-2509-4961

ISK KOREA CORPORATION
#421 Cheonggu Blueville, 11-1 Sunae-dong, Bundang-gu
Seongnam-City, Gyeonggi-do,
463-825 Korea
Tel: +82-31-778-6393 Fax: +82-31-778-6392

ISK Biosciences Korea Ltd.
4F Kairos Bldg., 837-2 Yeoksam-dong, Gangnam-gu,
Seoul , 135-937 Korea
Tel: +82-2-555-1401 Fax: +82-2-563-1408

ISK Americas, Incorporated
7474 Auburn Road
Concord, OH 44077-9703, U.S.A.
Tel: +1-440-357-4600 Fax: +1-440-357-4611

ISK Biosciences Corporation
7470 Auburn Road, Suite A
Concord, OH 44077-9703, U.S.A.
Tel: +1-440-357-4640 Fax: +1-440-357-4661

ISK Biocides, Inc.
416 East Brooks Road, Memphis, TN
38109-0158, U.S.A.
Tel: +1-901-344-5350 Fax: +1-901-344-5387

ISHIHARA CORPORATION (U.S.A.)
601 California Street Suite 1700
San Francisco, CA 94108, U.S.A.
Tel: +1-415-421-8207 Fax: +1-415-397-5403

ISK Biosciences Europe N.V.
Pegasus Park Building 6, 4th Floor De
Kleetlaan 12B – Box9 1831 Diegem Belgium
Tel: +32-2-627-8611 Fax: +32-2-627-8600

Ishihara Sangyo Kaisha, Ltd.

Printed in Japan