Challenge for Growth and Evolution

Ishihara Sangyo Kaisha

Annual Report 2018

Year Ended March 31, 2018

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, 2018

	Millions of yen			Thousands of U.S. dollars (Note)
	2018	2017	2016	2018
For the years ended March 31,				
Net sales:				
Domestic	¥ 50,309	¥ 46,734	¥ 48,982	$ 473,496
Overseas	57,692	54,867	53,921	542,984
Total	108,001	101,601	102,903	1,016,480
Sales classified by business segment:				
Inorganic chemicals	54,441	47,504	49,922	512,386
Organic chemicals	50,461	51,064	49,509	474,927
Other businesses	3,099	3,033	3,472	29,167
Total	108,001	101,601	102,903	1,016,480
Operating income	10,022	8,416	8,315	94,325
Net income	3,442	3,804	9,152	32,395
Depreciation and amortization of property, plant and equipment	4,639	4,660	5,350	43,661
Research and development costs	8,707	8,173	8,989	81,948
As of March 31,				
Current assets	105,554	104,005	110,494	993,449
Total assets	159,767	156,871	163,056	1,503,689
Current liabilities	47,991	47,311	49,726	451,680
Net assets	67,137	62,981	58,934	631,877

	Yen			U.S. dollars (Note)
Per share data				
Net income	¥ 86.12	¥ 95.15	¥ 228.88	$ 0.81
Net assets	1,679.77	1,575.53	1,474.01	15.81
Number of employees (as of March 31)	1,578	1,581	1,604	–

Note: The U.S. dollar amounts in this report have been translated from the yen amounts, for convenience only, at ¥106.25 =U.S.$1.00, the rate of exchange prevailing on March 31, 2018.

To Our Shareholders and Friends

Kenichi Tanaka
President & CEO

The global markets in fiscal 2017, ended March 2018, saw stable economic growth in the USA on growth in personal consumption and capital investments, and a steady trend towards economic recovery in Europe. In Asia, the economy overall continued on a trend of mild recovery thanks to steady economic growth in China on improved infrastructure investments and exports. The Japanese economy maintained a trend of mild growth underpinned by favorable corporate earnings, increased capital investments, and steady consumer spending.

The market influencing the main businesses of the ISK Group saw improvement in the sales environment by continued growth in overseas markets due to a tightening of the global supply and demand balance for titanium dioxide. On the other hand, rising titanium ore prices and a clear trend towards rising raw materials costs have created conditions that make it impossible to avoid the impact on costs in the future. Agrochemical market demand was stagnant overall and general inconsistency between regions. It was firm in North America and Asia on increases in land used for crop planting area and the impact of good weather. However, the demand in South America was kept low due to continuously high inventory stock at distribution levels in Brazil.

Under such conditions, the ISK Group entered into the final year of our 6th Medium-Term Business Plan (MTP). The inorganic chemicals business worked on technology development and sales development in high value-added fields. The organic chemicals business advanced efforts related to launching new agrochemicals to market and strengthening our overseas sales offices.

As a result, net sales for the year under review increased to ¥108.0 billion [US$1,016 million] (up ¥6.3 billion YoY), operating income increased to ¥10.0 billion [US$94 million] (up ¥1.6 billion YoY), and ordinary income increased to ¥8.4 billion [US$79 million] (up ¥2.4 billion YoY), representing increased revenues and income compared to the previous fiscal year. On the other hand, net income attributable to parent company shareholders decreased to ¥3.4 billion [US$32 million] (down ¥0.3 billion YoY). Income declined due to having recorded extraordinary losses in the form of a provision for environmental and safety arrangements incidental to becoming able to make reasonable estimates of the expenses required in relation to soil and groundwater pollution at the Yokkaichi Plant, which were announced following a general compliance inspection conducted in 2008. These expenses include costs related to landfill construction, future response, and removal.

This year represented the first time in 13 fiscal years that we were able to eliminate losses carried forward for nonconsolidated accounting.

Under the slogan of “Challenge for 2020”, to aim for the realization of the ideal model of “a company with a brand power as strong and responsible chemical company” for our Group by 2020, the year of our 100th anniversary, the ISK Group has outlined our 7th MTP, a three-year plan for fiscal 2018 through fiscal 2020.

Ideal model for the ISK Group ahead of our 100th anniversary (2020)

A strong and responsible chemical company with excellent brand power

“A strong chemical company”

- Use proprietary technology to develop a globally competitive business
- Develop high value-added and highly profitable businesses that realize continuous growth and stable income supported by technical innovation

“A responsible chemical company”

- As a good corporate citizen, conduct environment activities and social contribution activities, communicate with local residents, focus on increasing value for stakeholders, and be a company of which employees be proud.

Policies of MTP

This MTP continues to undertake the business issues outlined in the previous MTP - strengthening existing businesses and growth platforms. We will firmly protect existing businesses while enhancing aggressive initiatives aimed at growth. We will aim for the realization of a chemical company that is appealing for all our stakeholders.

In the final year of the MTP in fiscal 2020, we will aim for consolidated net sales of ¥131.0 billion [US$1,191 million] and consolidated operating income of ¥12.1 billion [US$110 million]. We will steadily accumulate fiscal year income and enhance shareholder capital while also building a firm income platform and financial platform capable of withstanding changes in the external environment in order to achieve the resumption of dividends as soon as possible during this three-year period of the MTP.

For the inorganic chemicals business, we will use our record of providing a stable supply of titanium dioxide in the domestic paint and ink industries as a platform for developing original materials with the value required by the market and users. Aiming to launch these materials globally, we will focus on building a framework of protection and aggression that maintains our existing profitability while enabling us to pursue growth. Specifically, we will continue to solidify our top share on the domestic market and technical superiority for titanium dioxide. We also will implement aggressive initiatives aimed at expanding sales of highly functional, high value-added products that take advantage of our proprietary particle synthesis technology and surface treatment technology, including our super weatherability pigments, which are steadily increasing sales on the domestic markets, as well as our newly developed matte finishes and creative pigments. For functional materials, we will utilize the strengths of our advanced microparticulation technology and vast product line to accelerate sales growth, particularly for electronic component materials and conducive materials, areas that are expected to grow in the future. For development, we will not be bound by the business domains of inorganic and organic. We will advance development into new materials and technology based on innovative ideas that account for the changing times.

For the organic chemicals business, we will enhance our capabilities in the areas of organic synthesis technology, which has enabled us to create highly safe and highly effective products, increase registration of agrochemicals in countries around the world, and strengthen our development and registration capabilities in local markets. Through these initiatives, we will grow into an R&D-oriented manufacturer with a presence on global agrochemical markets. Specifically, amid strengthening global regulation of agrochemicals, we will steadily work to obtain and maintain registrations for proprietary agents in countries around the world. For sales, we will enhance our internal network of sales promotion sites in Japan and overseas to reinforce sales promotion policies for proprietary agents. For production, we will work to further reduce costs and increase competitiveness. For R&D, we will focus on elevating R&D to a stage of environmentally and people friendly innovation for new agrochemicals. Through these initiatives, we will soundly protect our existing business platform while advancing aggressive initiatives aimed at expanding sales of new agents in major markets and capturing growth demand in emerging markets.

As a new growth platform, we are developing new businesses in fields such as animal health products and biopharmaceuticals. Looking to generate income from an early stage, we will reduce the impact on our financial structure while promoting efficient business development. Specifically, we will gain solid results from the launch of animal health product sales in Japan during 2018 and accelerate development in Europe and America. The biopharmaceutical HVJ-E we are developing in collaboration with the University of Osaka is steadily progressing with clinical trials. We will quickly establish partnerships with external companies to compensate for functions we cannot fulfill within our Group in order to develop our Group’s first cancer drug into a major product.

Management targets (consolidated)

	100 millions of yen			Millions of U.S. dollars (Note)		
	FY2018 Target	FY2019 Target	FY2020 Target	FY2018 Target	FY2019 Target	FY2020 Target
Net sales	¥1,090	¥1,200	¥1,310	$ 991	$ 1,091	$ 1,191
Operating income (margin)	44 (4%)	80 (7%)	121 (9%)	40 (4%)	73 (7%)	110 (9%)
Ordinary income	33	69	108	30	63	98
Net income attributable to owners of parent	18	49	81	16	45	74
ROE (return on equity)	3%	7%	10%	3%	7%	10%

Note: The US$ amounts in this table are converted based on ¥110 = US$1, the assumed rate for the three-year period between fiscal 2018 and fiscal 2020.

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.

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Kenichi Tanaka
President & CEO

Business Overview

Inorganic Chemicals

Sales volume of titanium dioxide outperformed the previous year both in Japan and overseas thanks to a tightening of the global demand and supply balance, resulting in net sales of ¥43.3 billion [US$408 million] (up ¥6.2 billion YoY).

Functional materials recorded net sales of ¥11.1 billion [US$105 million] (up ¥0.6 billion YoY) on increased sales due to strong demand for electronic components and favorable sales of conducive materials.

Income increased thanks to sales volume growth pushed by firm demand for titanium dioxide and functional materials, continued efforts to revise the sales price for titanium dioxide, and the benefits of cost reduction efforts.

As a result, net sales for the inorganic chemicals business increased to ¥54.4 billion [US$512 million] (up ¥6.9 billion YoY) and operating income increased to ¥7.9 billion [US$75 million] (up ¥2.9 billion YoY).

Organic Chemicals

For agrochemicals, sales in Japan were largely unchanged year on year thanks to domestic and overseas sales activities aimed at the launch of new products and promoting products immediately after launch to market. However, overseas sales decreased year on year. In recent years, sales in North America and Asia, where we have worked to increased sales promotion, have been firm supported by increased demand for insecticides and herbicides. However, in Europe sales decreased for insecticides, for which sales were favorable last year, and sales of fungicides decreased due to the influence of weather.

Sales of contracted active pharmaceutical ingredients were largely unchanged from the previous year.

Income decreased due to a decline in overseas sales of agrochemicals and increased R&D expenses.

As a result, net sales for the organic chemicals business decreased to ¥50.4 billion [US$475 million] (down ¥0.6 billion YoY) and operating income decreased to ¥3.5 billion [US$34 million] (down ¥1.3 billion YoY).

Other Businesses

Net sales from other businesses were largely unchanged at ¥3.0 billion [US$29 million] and operating income increased to ¥0.6 billion [US$6 million] (up ¥0.1 billion YoY).

Consolidated Balance Sheet

As of March 31, 2018

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2018	2017	2018
Assets			
Current assets:			
Cash and deposits (Notes 3, 9 and 18)	¥ 30,297	¥ 28,347	$ 285,148
Trade receivables (Notes 4 and 18):			
Notes	2,636	1,885	24,809
Accounts	27,245	23,523	256,424
	29,881	25,408	281,233
Less allowance for doubtful receivables	(414)	(195)	(3,897)
Trade receivables, net	29,467	25,213	277,336
Inventories (Note 6)	41,494	47,105	390,532
Deferred income taxes (Note 13)	2,167	1,439	20,395
Other current assets	2,129	1,901	20,038
Total current assets	105,554	104,005	993,449
Property, plant and equipment:			
Land (Notes 8 and 9)	5,709	5,313	53,732
Buildings and structures (Notes 8 and 9)	36,810	35,923	346,447
Machinery and equipment (Notes 7, 8 and 9)	113,348	113,235	1,066,805
Leased assets (Note 8)	2,763	3,078	26,005
Construction in progress	3,972	2,970	37,383
	162,602	160,519	1,530,372
Less accumulated depreciation	(121,759)	(121,335)	(1,145,967)
Property, plant and equipment, net (Note 24)	40,843	39,184	384,405
Investments and other assets:			
Investments in securities (Notes 5, 9 and 18):			
Unconsolidated subsidiaries and affiliates	2,137	1,893	20,113
Other	2,048	1,883	19,275
Total investments in securities	4,185	3,776	39,388
Deferred income taxes (Note 13)	7,421	7,963	69,845
Asset for retirement benefits (Note 11)	15	16	141
Other	1,749	1,927	16,461
Total investments and other assets	13,370	13,682	125,835
Total assets (Note 24)	¥ 159,767	¥ 156,871	$ 1,503,689

See notes to consolidated financial statements.

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2018	2017	2018
Liabilities and net assets			
Current liabilities:			
Short-term bank loans (Notes 9 and 18)	¥ 10,410	¥ 13,650	$ 97,976
Current portion of long-term bank loans (Notes 9 and 18)	13,538	13,490	127,416
Current portion of bonds (Notes 9 and 18)	390	280	3,671
Trade payables (Notes 4 and 18):			
Notes	2,979	1,236	28,038
Accounts	9,110	9,106	85,741
	12,089	10,342	113,779
Lease obligations (Notes 9 and 18)	449	478	4,226
Accrued income taxes (Note 13)	1,291	348	12,151
Accrued expenses	4,337	3,718	40,819
Accrued bonuses for employees	768	654	7,228
Reserve for sales returns	36	31	339
Reserve for implementation of environmental and safety arrangements	133	358	1,252
Provision for maintenance	261	–	2,456
Provision for loss on liquidation of a subsidiary	1	6	9
Other current liabilities	4,288	3,956	40,358
Total current liabilities	47,991	47,311	451,680
Long-term liabilities:			
Long-term bank loans (Notes 9 and 18)	20,575	27,501	193,647
Bonds (Notes 9 and 18)	2,010	280	18,918
Lease obligations (Notes 9 and 18)	721	878	6,786
Liability for retirement benefits (Note 11)	12,778	12,603	120,264
Long-term deposits received	1,198	1,173	11,275
Reserve for implementation of environmental and safety arrangements (Note 16)	3,642	1,052	34,278
Asset retirement obligations (Note 10)	717	781	6,748
Liabilities from application of equity method	908	605	8,546
Other long-term liabilities	2,090	1,706	19,670
Total long-term liabilities	44,639	46,579	420,132
Contingent liabilities (Note 12)			
Net assets:			
Shareholders' equity (Note 14):			
Common stock:			
Authorized: 100,000 thousand shares in 2018 and 2017			
Issued: 40,384 thousand shares in 2018 and 2017	43,421	43,421	408,668
Capital surplus	10,627	10,627	100,019
Retained earnings	14,736	11,294	138,691
Less treasury stock, at cost:			
416 thousand shares in 2018 and 409 thousand shares in 2017	(720)	(710)	(6,776)
Total shareholders' equity	68,064	64,632	640,602
Accumulated other comprehensive income (loss):			
Net unrealized holding gain on securities	670	566	6,306
Unrealized deferred loss on hedges	–	(0)	–
Translation adjustments	(1,072)	(1,671)	(10,090)
Retirement benefits liability adjustments	(525)	(546)	(4,941)
Total accumulated other comprehensive loss	(927)	(1,651)	(8,725)
Total net assets	67,137	62,981	631,877
Total liabilities and net assets	¥ 159,767	¥ 156,871	$ 1,503,689

See notes to consolidated financial statements.

Consolidated Statement of Income

For the year ended March 31, 2018

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2018	2017	2018
Net sales (Note 24)	¥ 108,001	¥ 101,601	$ 1,016,480
Cost of sales (Notes 6 and 15)	74,071	70,623	697,139
Gross profit	33,930	30,978	319,341
Selling, general and administrative expenses (Note 15)	23,908	22,562	225,016
Operating income (Note 24)	10,022	8,416	94,325
Other income:			
Interest and dividend income	218	127	2,052
Gain on sales of raw materials	100	104	941
Commission fee	150	187	1,412
Other	182	214	1,713
	650	632	6,118
Other expenses:			
Interest expense	919	1,125	8,649
Foreign exchange loss, net	709	372	6,673
Equity in losses of affiliates	51	951	480
Other	579	652	5,450
	2,258	3,100	21,252
Ordinary income	8,414	5,948	79,191
Extraordinary gains:			
Subsidy income	7	33	66
	7	33	66
Extraordinary losses:			
Loss on disposal of fixed assets	613	566	5,769
Reserve for implementation of environmental and safety arrangements (Note 16)	2,783	2	26,193
Loss on impairment of fixed assets (Notes 8 and 24)	55	967	518
Other	53	33	499
	3,504	1,568	32,979
Income before income taxes	4,917	4,413	46,278
Income taxes (Note 13):			
Current	1,563	940	14,711
Deferred	(88)	(331)	(828)
	1,475	609	13,883
Net income (Note 22)	3,442	3,804	32,395
Net income attributable to:			
Owners of parent	¥ 3,442	¥ 3,804	$ 32,395

See notes to consolidated financial statements.

Consolidated Statement of Comprehensive Income

For the year ended March 31, 2018

	Millions of yen				Thousands of U.S. dollars (Note 1)	
	2018		2017		2018	
Net income	¥	3,442	¥	3,804	$	32,395
Other comprehensive income (Note 20):						
Net unrealized holding gain on securities		104		322		979
Unrealized deferred gain (loss) on hedges		0		(0)		0
Translation adjustments		719		(419)		6,767
Retirement benefits liability adjustments		21		235		198
Other comprehensive (loss) income of affiliates accounted for by the equity method attributable to the Company		(120)		112		(1,130)
Total other comprehensive income		724		250		6,814
Comprehensive income	¥	4,166	¥	4,054	$	39,209
Total comprehensive income attributable to:						
Owners of parent	¥	4,166	¥	4,054	$	39,209

See notes to consolidated financial statements.

Consolidated Statement of Changes in Net Assets

Year ended March 31, 2018

	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 loss on hedges	Translation adjustments	Retirement benefits liability adjustments	Total net assets
Balance at April 1, 2016	403,839,431	¥ 43,421	¥ 10,627	¥ 7,490	¥ (703)	¥ 244	¥ –	¥ (1,364)	¥ (781)	¥ 58,934
Net income attributable to owners of parent for the period	–	–	–	3,804	–	–	–	–	–	3,804
Acquisition of treasury stock	–	–	–	–	(7)	–	–	–	–	(7)
Disposition of treasury stock	–	–	0	–	0	–	–	–	–	0
Other changes	(363,455,488)	–	–	–	–	322	(0)	(307)	235	250
Balance at April 1, 2017	40,383,943	¥ 43,421	¥ 10,627	¥ 11,294	¥ (710)	¥ 566	¥ (0)	¥ (1,671)	¥ (546)	¥ 62,981
Net income attributable to owners of parent for the period	–	–	–	3,442	–	–	–	–	–	3,442
Acquisition of treasury stock	–	–	–	–	(10)	–	–	–	–	(10)
Disposition of treasury stock	–	–	0	–	0	–	–	–	–	0
Other changes	–	–	–	–	–	104	0	599	21	724
Balance at March 31, 2018	40,383,943	¥ 43,421	¥ 10,627	¥ 14,736	¥ (720)	¥ 670	¥ –	¥ (1,072)	¥ (525)	¥ 67,137

	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, 2017	$ 408,668	$ 100,019	$ 106,296	$ (6,682)	$ 5,327	$ (0)	$ (15,727)	$ (5,139)	$ 592,762
Net income attributable to owners of parent for the period	–	–	32,395	–	–	–	–	–	32,395
Acquisition of treasury stock	–	–	–	(94)	–	–	–	–	(94)
Disposition of treasury stock	–	0	–	0	–	–	–	–	0
Other changes	–	–	–	–	979	0	5,637	198	6,814
Balance at March 31, 2018	$ 408,668	$ 100,019	$ 138,691	$ (6,776)	$ 6,306	$ –	$ (10,090)	$ (4,941)	$ 631,877

See notes to consolidated financial statements.

Consolidated Statement of Cash Flows

For the year ended March 31, 2018

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2018	2017	2018
Cash flows from operating activities			
Income before income taxes	¥ 4,917	¥ 4,413	$ 46,278
Adjustments for:			
Depreciation and amortization	4,639	4,660	43,661
Loss on disposal or sales of fixed assets, net	219	240	2,061
Loss on impairment of fixed assets	55	967	518
Decrease in provision for loss on liquidation of a subsidiary	(5)	(16)	(47)
Foreign exchange loss, net	212	146	1,995
Increase (decrease) in liabilities for retirement benefits, net	199	(2)	1,873
Increase (decrease) in reserve for implementation of environmental and safety arrangements	2,365	(473)	22,259
Interest and dividend income	(218)	(127)	(2,052)
Interest expense	919	1,125	8,649
Equity in losses of affiliates, net	84	1,087	791
Other	587	(120)	5,525
Changes in operating assets and liabilities:			
Trade receivables	(4,061)	(617)	(38,221)
Inventories	6,089	5,267	57,308
Other current assets	90	5	847
Trade payables	1,579	585	14,861
Accrued expenses and other current liabilities	241	(443)	2,268
Subtotal	17,911	16,697	168,574
Interest and dividends received	127	117	1,195
Interest paid	(874)	(1,143)	(8,226)
Insurance claim received	7	16	66
Income taxes paid	(564)	(1,055)	(5,308)
Net cash provided by operating activities	¥ 16,607	¥ 14,632	$ 156,301
Cash flows from investing activities			
Increase in time deposits	¥ (0)	¥ (0)	$ (0)
Proceeds from withdrawal of time deposits	190	–	1,788
Purchase of investment securities	(74)	(1,095)	(696)
Purchases of property, plant and equipment	(5,851)	(5,303)	(55,068)
Proceeds from sales of property, plant and equipment	161	581	1,515
Increase in long-term loans receivable	(664)	(362)	(6,249)
Collection of long-term loans receivables	261	256	2,456
Other	(53)	(27)	(499)
Net cash used in investing activities	(6,030)	(5,950)	(56,753)
Cash flows from financing activities			
Proceeds from issuance of bonds	2,400	–	22,588
Redemption of bonds	(560)	(280)	(5,271)
Decrease in short-term bank loans, net	(3,240)	(208)	(30,494)
Proceeds from long-term bank loans	8,980	5,890	84,518
Repayment of long-term bank loans	(15,857)	(14,160)	(149,242)
Repayment of lease obligations	(512)	(558)	(4,819)
Repayment of installment payable	(134)	(91)	(1,261)
Proceeds from deposits received	2,744	1,611	25,826
Repayment of deposits received	(2,319)	(1,826)	(21,826)
Increase in treasury stock, net	(10)	(6)	(94)
Net cash used in financing activities	(8,508)	(9,628)	(80,075)
Effect of exchange rate changes on cash and cash equivalents	71	(106)	668
Increase (decrease) in cash and cash equivalents	2,140	(1,052)	20,141
Cash and cash equivalents at the beginning of the year	28,157	29,209	265,007
Cash and cash equivalents at the end of the year (Note 3)	¥ 30,297	¥ 28,157	$ 285,148

See notes to consolidated financial statements.

Notes to Consolidated Financial Statements

Year ended March 31, 2018

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 ¥106.25 = U.S.$1.00, the approximate rate of exchange in effect on March 31, 2018. 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 two categories: held-to-maturity debt securities and other securities. 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.

In addition, the Company has also provided the reserve for the expenses related to the remediation of soil and groundwater contamination and measures for buried waste at Yokkaichi Plant.

(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 following 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 as incurred 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.

(s) Accounting standard issued but not effective

<u>Accounting Standard and Implementation Guidance on Revenue Recognition</u>

On March 30, 2018, the ASBJ issued "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29) and "Implementation Guidance on Accounting Standard for Revenue Recognition" (ASBJ Guidance No. 30).

(1) Overview

This is a comprehensive accounting standard for revenue recognition. Specifically, the accounting standard establishes the following five-step model that will apply to revenue from customers:

1. Identify the contract(s) with a customer
2. Identify the performance obligations in the contract
3. Determine the transaction price
4. Allocate the transaction price to the performance obligations in the contract
5. Recognize revenue when (or as) the entity satisfies a performance obligation

(2) Scheduled date of adoption

The Company expects to adopt the accounting standard and implementation guidance from the beginning of the fiscal year ending March 31, 2022.

(3) Impact of the adoption of accounting standard and implementation guidance

The Company is currently evaluating the effect of the adoption of this accounting standard and implementation guidance on its consolidated financial statements.

3. 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, 2018 and 2017 is presented as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Cash and deposits	¥ 30,297	¥ 28,347	$ 285,148
Time deposits with maturities in excess of three months	–	(190)	–
Cash and cash equivalents	¥ 30,297	¥ 28,157	$ 285,148

4. Notes Receivable and Notes Payable

As the balance sheet date for the year ended March 31, 2018 fell on a bank holiday, notes receivable, trade of ¥245 million ($2,306 thousand) and notes payable, trade of ¥549 million ($5,167 thousand) with due dates of March 31, 2018 were included in the respective balances in the consolidated balance sheet at March 31, 2018 and were settled on the next business day.

5. Investments in Securities

Marketable securities classified as held-to-maturity debt securities and other securities at March 31, 2018 and 2017 were as follows:

(a) Held-to-maturity debt securities

	Millions of yen					
	2018			2017		
	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		
	2018		
	Carrying value	Estimated fair value	Unrealized gain
Securities whose estimated fair value exceeds their carrying value	$ 94	$ 94	$ 0
Total	$ 94	$ 94	$ 0

(b) Other securities

	Millions of yen					
	2018			2017		
	Carrying value	Acquisition cost	Unrealized gain (loss)	Carrying value	Acquisition cost	Unrealized gain (loss)
Securities whose carrying value exceeds their acquisition cost: Equity securities	¥ 1,591	¥ 692	¥ 899	¥ 1,461	¥ 720	¥ 741
Subtotal	1,591	692	899	1,461	720	741
Securities whose acquisition cost exceeds their carrying value: Equity securities	78	86	(8)	40	46	(6)
Subtotal	78	86	(8)	40	46	(6)
Total	¥ 1,669	¥ 778	¥ 891	¥ 1,501	¥ 766	¥ 735

	Thousands of U.S. dollars		
	2018		
	Carrying value	Acquisition cost	Unrealized gain (loss)
Securities whose carrying value exceeds their acquisition cost: Equity securities	$ 14,974	$ 6,513	$ 8,461
Subtotal	14,974	6,513	8,461
Securities whose acquisition cost exceeds their carrying value: Equity securities	734	809	(75)
Subtotal	734	809	(75)
Total	$ 15,708	$ 7,322	$ 8,386

Proceeds from sales of other securities and the aggregate gain for the years ended March 31, 2018 and 2017 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Proceeds from sales	¥ –	¥ 2	$ –
Aggregate gain	–	1	–

The redemption schedule subsequent to March 31, 2018 for held-to-maturity debt securities classified as other securities is described in Note 18.

6. Inventories

Inventories at March 31, 2018 and 2017 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Finished goods and merchandise	¥ 22,908	¥ 30,243	$ 215,605
Work in process	4,526	3,932	42,598
Raw materials and supplies	14,060	12,930	132,329
Total	¥ 41,494	¥ 47,105	$ 390,532

Net gain on reversal of devaluation of inventories included in cost of sales for the years ended March 31, 2018 and 2017 amounted to ¥637 million ($5,995 thousand) and ¥538 million, respectively.

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, 2018 and 2017 totaled ¥7 million ($66 thousand) and ¥33 million, respectively.

8. Loss on Impairment of Fixed Assets

For the year ended March 31, 2018, 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		2018		2018
Hiratsuka Plant (Hiratsuka City, Kanagawa Prefecture)	Company-owned housing	Land	¥	55	$	518

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.

Fuji Titanium Industry Co., Ltd., a consolidated subsidiary of the Company, plans to sell land used for company-owned housing located at the Hiratsuka Plant in the above table. The Company recognized the land as an asset held for sale and recorded a loss on impairment.

The recoverable amount of the land was measured at net selling value, which was reasonably estimated by considering the market value.

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	
Location	Major use	Classification		2017
Yokkaichi Plant	Production equipment	Buildings and structures	¥	13
(Yokkaichi City, Mie Prefecture)		Machinery and equipment		339
		Leased asset		13
		Demobilization cost		602
		Total	¥	967

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.

The recoverably amounts of these assets were measured at net selling value and the net book value of these assets were reduced to zero.

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, 2018 and 2017 was approximately 1.5%.

Long-term bank loans, including the current portion of long-term bank loans, at March 31, 2018 and 2017 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Secured bank loans	¥ 15,351	¥ 18,081	$ 144,480
Unsecured bank loans	18,762	22,910	176,583
Subtotal	34,113	40,991	321,063
Less amounts due within one year	(13,538)	(13,490)	(127,416)
Total	¥ 20,575	¥ 27,501	$ 193,647

The annual average interest rates applicable to long-term bank loans due within one year presented in the above table at March 31, 2018 and 2017 were 1.8% and 1.9%, 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, 2018 and 2017 were 1.4% and 1.8%, respectively.

These bank loans become due from April 2018 through to March 2025.

Bonds at March 31, 2018 and 2017 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Unsecured bonds, payable in yen at rate of 0.256%, due 2024	¥ 2,400	¥ 560	$ 22,589
Less amounts due within one year	(390)	(280)	(3,671)
Total	¥ 2,010	¥ 280	$ 18,918

Lease obligations at March 31, 2018 and 2017 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Finance lease obligations (ownership not transferred to the lessee)	¥ 1,170	¥ 1,356	$ 11,012
Less amounts due within one year	(449)	(478)	(4,226)
Total	¥ 721	¥ 878	$ 6,786

Information on the payment schedules of long-term bank loans, bonds, and lease obligations subsequent to March 31, 2018 is described in Notes 17 and 18.

At March 31, 2018 and 2017, 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
	2018	2017	2018
Property, plant and equipment, net of accumulated depreciation	¥ 21,255	¥ 25,518	$ 200,047
Investments in securities	95	98	894
Cash and deposits	–	190	–
Total	¥ 21,350	¥ 25,806	$ 200,941

Short-term bank loans, the current portion of long-term bank loans and long-term bank loans secured by such collateral at March 31, 2018 and 2017 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Short-term bank loans	¥ 6,690	¥ 7,240	$ 62,965
Current portion of long-term bank loans	8,443	4,844	79,464
Long-term bank loans	6,908	13,237	65,016
Total	¥ 22,041	¥ 25,321	$ 207,445

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, 2018 and 2017.

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Asset retirement obligation balance at the beginning of the year	¥ 781	¥ 828	$ 7,350
Accretion expense	0	0	0
Liabilities settled	(64)	(47)	(602)
Asset retirement obligation balance at the end of the year	¥ 717	¥ 781	$ 6,748

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, 2018 and 2017 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Retirement benefit obligations at the beginning of the year	¥ 11,856	¥ 12,199	$ 111,586
Service cost	606	623	5,704
Interest cost	10	11	94
Actuarial loss (gain)	78	(229)	734
Retirement benefits paid	(499)	(737)	(4,696)
Other	17	(11)	160
Retirement benefit obligations at the end of the year	¥ 12,068	¥ 11,856	$ 113,582

The changes in plan assets during the years ended March 31, 2018 and 2017 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Plan assets at the beginning of the year	¥ 153	¥ 140	$ 1,440
Expected return on plan assets	1	1	9
Actuarial gain (loss)	16	(5)	151
Contributions paid by the Company and subsidiaries	27	24	254
Retirement benefits paid	(19)	(7)	(179)
Other	0	0	0
Plan assets at the end of the year	¥ 178	¥ 153	$ 1,675

The changes in retirement benefit obligations calculated by the Simplified Method during the years ended March 31, 2018 and 2017 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Retirement benefit obligations at the beginning of the year	¥ 884	¥ 883	$ 8,320
Retirement benefit expenses	94	95	885
Retirement benefits paid	(105)	(94)	(989)
Retirement benefit obligations at the end of the year	¥ 873	¥ 884	$ 8,216

The following table sets forth the funded status of the plans and the amounts recognized in the consolidated balance sheet as of March 31, 2018 and 2017 for the Company's and the consolidated subsidiaries' defined benefit plans:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Funded retirement benefit obligation	¥ 313	¥ 298	$ 2,946
Plan assets at fair value	(178)	(153)	(1,675)
	135	145	1,271
Unfunded retirement benefit obligation	12,628	12,442	118,852
Net amount of asset and liability for retirement benefits in the consolidated balance sheet	12,763	12,587	120,123
Liability for retirement benefits	12,778	12,603	120,264
Asset for retirement benefits	(15)	(16)	(141)
Net amount of asset and liability for retirement benefits in the consolidated balance sheet	¥ 12,763	¥ 12,587	$ 120,123

The components of retirement benefit expenses for the years ended March 31, 2018 and 2017 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Service cost	¥ 606	¥ 623	$ 5,704
Interest cost	10	11	94
Expected return on plan assets	(1)	(1)	(9)
Amortization:			
Actuarial loss	79	96	743
Prior service cost	19	20	179
Retirement benefit expenses calculated by the Simplified Method	94	95	885
Retirement benefit expenses	¥ 807	¥ 844	$ 7,596

The components of retirement benefits liability adjustments included in other comprehensive income (before tax effect) for the years ended March 31, 2018 and 2017 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Actuarial gain and loss	¥ 17	¥ 320	$ 160
Prior service cost	19	20	179
Others	(3)	(5)	(28)
Total	¥ 33	¥ 335	$ 311

The components of retirement benefits liability adjustments included in accumulated other comprehensive income (before tax effect) as of March 31, 2018 and 2017 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Unrecognized actuarial gain and loss	¥ 593	¥ 607	$ 5,581
Unrecognized prior service cost	152	171	1,431
Total	¥ 745	¥ 778	$ 7,012

The fair value of plan assets, by major category, as a percentage of total plan assets as of March 31, 2018 and 2017 are as follows:

	2018	2017
Debt securities	85%	84%
Equity securities	10	11
Cash and deposits	5	5
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, 2018 and 2017 are as follows:

	2018	2017
Discount rate	Principally 0.1%	Principally 0.1%
Expected long-term rate of return on plan assets	Principally 1.5%	Principally 1.3%
Expected rates of salary increase	Principally 6.3%	Principally 6.1%

Total contributions paid by the Company and certain consolidated subsidiaries to the defined contribution pension plans for the years ended March 31, 2018 and 2017 amounted to ¥89 million ($838 thousand) and ¥87 million, respectively.

12. Contingent Liabilities

Guarantees

At March 31, 2018, the Company was contingently liable for the following:

	Millions of yen	Thousands of U.S. dollars
	2018	2018
Trade notes receivable discounted with banks	¥ 99	$ 932

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 rate in Japan for the years ended March 31, 2018 and 2017 was, in the aggregate, approximately 30.4%. 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, 2018 and 2017 differs from the above statutory tax rate for the following reasons:

	2018	2017
Statutory tax rate	–%	30.4%
Permanently non-deductible expenses	–	0.7
Permanently non-taxable income	–	(1.0)
Per capita portion of inhabitants' taxes	–	0.7
Tax deduction for experiment and research expenses	–	(2.1)
Investment gains from equity method	–	7.4
Unrealized gain on intercompany transactions	–	1.7
Changes in valuation allowance	–	(29.5)
Difference tax rates applied to subsidiaries	–	0.2
Other	–	5.3
Effective tax rate	–%	13.8%

Since the difference between the normal effective statutory tax rate and the actual effective tax rate was not significant, the reconciliation for the year ended March 31, 2018 was omitted.

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, 2018 and 2017 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Deferred tax assets:			
Tax loss carryforwards	¥ 11,543	¥ 15,391	$ 108,640
Liability for retirement benefits	3,878	3,825	36,499
Loss on devaluation of inventories	218	211	2,052
Unrealized gain on intercompany transactions	1,832	1,253	17,242
Accrued expenses	514	498	4,838
Accrued bonuses for employees	234	197	2,202
Reserve for implementation of environmental and safety arrangements	1,171	428	11,021
Asset retirement obligations	216	235	2,033
Loss on liquidation of a subsidiary	16	16	151
Other	2,150	2,203	20,234
Gross deferred tax assets	21,772	24,257	204,913
Less valuation allowance	(11,575)	(14,246)	(108,941)
Total deferred tax assets	10,197	10,011	95,972
Deferred tax liabilities:			
Property, plant and equipment	(21)	(21)	(198)
Unrealized holding gain on securities	(200)	(152)	(1,882)
Other	(436)	(447)	(4,104)
Total deferred tax liabilities	(657)	(620)	(6,184)
Net deferred tax assets	¥ 9,540	¥ 9,391	$ 89,788

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, 2018 and 2017 are summarized as follows:

	Thousands of shares			
	2018			
	April 1, 2017	Increase	Decrease	March 31, 2018
Common stock	40,384	–	–	40,384
Treasury stock	409	7	0	416

	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

The increases in treasury stock were due to purchases of shares of less than one voting unit for the years ended March 31, 2018 and 2017. The decrease in treasury stock for the year ended March 31, 2018 was mainly due to sales of shares at requests of shareholders who own less than one voting unit. 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.

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, 2018 and 2017 totaled ¥8,707 million ($81,948 thousand) and ¥8,173 million, respectively.

16. Reserve for Implementation of Environmental and Safety Arrangements

In terms of the remediation measures on the contaminated soil, underground water and buried waste at Yokkaichi Plant of the Company, which was announced after a comprehensive compliance test in 2008, the Company had recorded costs for the remediation including the investigation as extraordinary losses to the extent that they were paid or reasonably estimated to be incurred. On the other hand, the Company had disclosed costs that could not be reasonably estimated as contingent liabilities.

During the year ended March 31, 2018, since the Company completed the discussions with the responsible governmental agency and finalized the plan for the removal of contaminated soil, underground water and buried waste, the corresponding costs can now be reasonably estimated. As result, the Company additionally recorded reserve for implementation of environmental and safety arrangements in the amount of ¥2,580 million ($24,282 thousand).

17. Leases

Operating lease transactions

Future minimum lease payments subsequent to March 31, 2018 under non-cancelable operating leases are summarized as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2019	¥ 296	$ 2,786
2020 and thereafter	542	5,101
Total	¥ 838	$ 7,887

18. 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 19 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, 2018 and 2017 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 18(b) below)

(a) Estimated fair value of financial instruments

	Millions of yen					
	2018			2017		
	Carrying value	Estimated fair value	Difference	Carrying value	Estimated fair value	Difference
Assets:						
(1) Cash and deposits	¥ 30,297	¥ 30,297	¥ –	¥ 28,347	¥ 28,347	¥ –
(2) Trade receivables	29,881	29,881	–	25,408	25,408	–
(3) Securities and investments in securities:						
Held-to-maturity debt securities	10	10	0	10	10	0
Other securities	1,669	1,669	–	1,501	1,501	–
Total assets	¥ 61,857	¥ 61,857	¥ 0	¥ 55,266	¥ 55,266	¥ 0
Liabilities:						
(1) Trade payables	12,089	12,089	–	10,342	10,342	–
(2) Short-term bank loans	10,410	10,410	–	13,650	13,650	–
(3) Long-term bank loans, including current portion	34,113	34,248	135	40,991	41,136	145
Total liabilities	¥ 56,612	¥ 56,747	¥ 135	¥ 64,983	¥ 65,128	¥ 145
Derivatives (*)	¥ 70	¥ 70	¥ –	¥ 37	¥ 37	¥ –

	Thousands of U.S. dollars		
	2018		
	Carrying value	Estimated fair value	Difference
Assets:			
(1) Cash and deposits	$ 285,148	$ 285,148	$ –
(2) Trade receivables	281,233	281,233	–
(3) Securities and investments in securities:			
Held-to-maturity debt securities	94	94	0
Other securities	15,708	15,708	–
Total assets	$ 582,183	$ 582,183	$ 0
Liabilities:			
(1) Trade payables	113,779	113,779	–
(2) Short-term bank loans	97,976	97,976	–
(3) Long-term bank loans, including current portion	321,063	322,334	1,271
Total liabilities	$ 532,818	$ 534,089	$ 1,271
Derivatives (*)	$ 659	$ 659	$ –

(*) 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 19 “Derivatives.”

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

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Unlisted equity securities	¥ 2,485	¥ 2,241	$ 23,388
Investments in limited partnerships	21	24	198

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			
	2018				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	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	¥ 30,288	¥ –	¥ –	¥ –	¥ 28,336	¥ –	¥ –	¥ –
Trade receivables	29,881	–	–	–	25,408	–	–	–
Investments in securities:								
Held-to-maturity debt securities	–	10	–	–	–	–	10	–
Total	¥ 60,169	¥ 10	¥ –	¥ –	¥ 53,744	¥ –	¥ 10	¥ –

	Thousands of U.S. dollars			
	2018			
	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	$ 285,064	$ –	$ –	$ –
Trade receivables	281,233	–	–	–
Investments in securities:				
Held-to-maturity debt securities	–	94	–	–
Total	$ 566,297	$ 94	$ –	$ –

(d) Redemption schedule of long-term debt

	Millions of yen					
	2018					
	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	¥ 13,538	¥ 9,628	¥ 4,436	¥ 3,029	¥ 1,903	¥ 1,579
Bonds	390	390	390	390	390	450
Lease obligations	449	354	237	108	22	–
Total	¥ 14,377	¥ 10,372	¥ 5,063	¥ 3,527	¥ 2,315	¥ 2,029

	Thousands of U.S. dollars					
	2018					
	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	$ 127,416	$ 90,616	$ 41,750	$ 28,508	$ 17,911	$ 14,862
Bonds	3,671	3,671	3,671	3,671	3,671	4,234
Lease obligations	4,226	3,332	2,231	1,016	207	–
Total	$ 135,313	$ 97,619	$ 47,652	$ 33,195	$ 21,789	$ 19,096

19. 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, 2018 and 2017 were as follows:

(a) Currency-related transactions

Forward foreign exchange contracts:

	Millions of yen					
	2018			2017		
	Notional amount	Estimated fair value	Unrealized gain (loss)	Notional amount	Estimated fair value	Unrealized gain (loss)
Sell:						
Euro	¥ 1,349	¥ 56	¥ 56	¥ 3,767	¥ 49	¥ 49
U.S. dollars	–	–	–	343	7	7
Buy:						
Japanese yen	580	(10)	(10)	372	(19)	(19)
U.S. dollars	90	(1)	(1)	18	0	0
Total	¥ 2,019	¥ 45	¥ 45	¥ 4,500	¥ 37	¥ 37

	Thousands of U.S. dollars		
	2018		
	Notional amount	Estimated fair value	Unrealized gain
Sell:			
Euro	$ 12,696	$ 527	$ 527
U.S. dollars	–	–	–
Buy:			
Japanese yen	5,459	(94)	(94)
U.S. dollars	847	(9)	(9)
Total	$ 19,002	$ 424	$ 424

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

Forward foreign exchange contracts:

			Millions of yen					
			2018			2017		
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	Sell: Euro	Accounts receivable	¥ 645	¥ –	¥ 24	¥ –	¥ –	¥ –
	Sell: U.S. dollars	Accounts payable	–	–	–	5	–	(0)
The allocation method	Sell: Euro	Accounts receivable	50	–	(**)	–	–	–
	Buy: U.S. dollars	Accounts payable	5	–	(**)	27	–	(**)
Total			¥ 700	¥ –	¥ 24	¥ 32	¥ –	¥ (0)

Method of accounting	Classification	Hedged item	Thousands of U.S. dollars 2018 Notional amount	Notional amount (over one year)	Estimated fair value (*)
Deferred hedge method	Sell: Euro	Accounts receivable	$ 6,070	$ –	$ 226
	Sell: U.S. dollars	Accounts payable	–	–	–
The allocation method	Sell: Euro	Accounts receivable	471	–	(**)
	Buy: U.S. dollars	Accounts payable	47	–	(**)
Total			$ 6,588	$ –	$ 226

(*) 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					
			2018			2017		
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	¥ 7,261	¥ 3,588	¥ (**)	¥ 9,492	¥ 6,161	¥ (**)

			Thousands of U.S. dollars		
			2018		
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	¥ 68,339	¥ 33,769	$ (**)

(*) 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.

20. Other Comprehensive Income

The following table presents reclassification adjustments and tax effects for components of other comprehensive loss for the years ended March 31, 2018 and 2017:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Net unrealized holding gain on securities:			
Amount arising during the year	¥ 152	¥ 401	$ 1,431
Before tax effect	152	401	1,431
Tax effect	(48)	(79)	(452)
Total	104	322	979
Unrealized deferred gain (loss) on hedges:			
Amounts arising during the year	0	(0)	0
Reclassification adjustments for gains and losses included in net income	0	–	0
Before tax effect	0	(0)	0
Tax effect	(0)	0	(0)
Total	0	(0)	0
Translation adjustment:			
Amount arising during the year	719	(419)	6,767
Before tax effect	719	(419)	6,767
Tax effect	–	–	–
Total	719	(419)	6,767
Retirement benefits liability adjustments:			
Amount arising during the year	(64)	219	(602)
Reclassification adjustments for gains and losses included in net income	98	116	922
Before tax effect	33	335	311
Tax effect	(12)	(100)	(113)
Total	21	235	198
Other comprehensive (loss) income of affiliates accounted for by the equity method attributable to the Company	(120)	112	(1,130)
Total other comprehensive income	¥ 724	¥ 250	$ 6,814

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 ¥302 million ($2,842 thousand) and ¥434 million and lease obligations of ¥325 million ($3,059 thousand) and ¥469 million under finance leases for the years ended March 31, 2018 and 2017, respectively.

22. Amounts per Share

	Yen		U.S. dollars
	2018	2017	2018
Net assets per share	¥ 1,679.77	¥ 1,575.53	$ 15.81
Net income attributable to owners of parent per share	86.12	95.15	0.81

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, 2018 and 2017 is not presented since no potentially dilutive securities have been issued.

The financial data for the computation of basic net income attributable to owners of parent per share for the years ended March 31, 2018 and 2017 in the table above is summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Information on basic net income attributable to owners of parent per share:			
Net income attributable to owners of parent	¥ 3,442	¥ 3,804	$ 32,395
Net income not attributable to common shareholders	–	–	–
Adjusted net income attributable to common shareholders	¥ 3,442	¥ 3,804	$ 32,395

	Thousands of shares	
	2018	2017
Weighted-average number of shares of common stock outstanding during the year	39,971	39,979

The financial data for the computation of net assets per share at March 31, 2018 and 2017 in the above table is summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Total net assets	¥ 67,138	¥ 62,981	$ 631,887
Deductions from total net assets:			
Non-controlling interests	–	–	–
Total net assets used in the calculation of net assets per share	¥ 67,138	¥ 62,981	$ 631,887

	Thousands of shares	
	2018	2017
Number of shares used in the calculation of net assets per share	39,968	39,975

23. Related Party Transactions

Major transactions and balances between the Company and an affiliated company for the years ended and as of March 31, 2018 and 2017 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	2018	2017	2018	Account	2018	2017	2018
BELCHIM CROP PROTECTION N.V.	Sales of products	¥ 399	¥ 465	$ 3,755	Trade receivables	¥ –	¥ 154	$ –

Major transactions and balances between a consolidated subsidiary and an affiliated company for the years ended and as of March 31, 2018 and 2017 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	2018	2017	2018	Account	2018	2017	2018
BELCHIM CROP PROTECTION N.V.	Sales of products	¥17,038	¥18,189	$160,358	Trade receivables	¥ 4,118	¥ 2,545	$38,758

The condensed financial statements of BELCOM CROP PROTECTION N.V as the significant related party as of and for the years ended March 31, 2018 and 2017 are as follows:

	Millions of yen		Thousands of U.S. dollars
	March 31		March 31
	2018	2017	2018
Current assets	¥ 52,689	¥ 39,438	$ 495,943
Fixed assets	7,843	5,675	73,824
Total assets	¥ 60,532	¥ 45,113	$ 569,767
Current liabilities	¥ 52,313	¥ 40,145	$ 492,404
Long-term liabilities	8,855	4,649	83,349
Total liabilities	61,168	44,794	575,753
Total net assets	(636)	319	(5,986)
Total liabilities and net assets	¥ 60,532	¥ 45,113	$ 569,767

	Millions of yen		Thousands of U.S. dollars
	For the years ended March 31		For the years ended March 31
	2018	2017	2018
Net sales	¥ 59,280	¥ 57,273	$ 557,982
Income before income taxes	560	2,552	5,271
Net (loss) income	(478)	1,538	(4,499)

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					
	2018					
	Reportable segments					
	Inorganic chemicals	Organic chemicals	Other businesses	Subtotal	Elimination and corporate (*1)	Consolidated (*2)
Net sales and operating income:						
Net sales:						
External customers	¥ 54,441	¥ 50,461	¥ 3,099	¥ 108,001	¥ –	¥ 108,001
Intersegment	–	–	4,937	4,937	(4,937)	–
Net sales	54,441	50,461	8,036	112,938	(4,937)	108,001
Segment income	¥ 7,984	¥ 3,576	¥ 618	¥ 12,178	¥ (2,156)	¥ 10,022
Segment assets	¥ 69,542	¥ 51,706	¥ 2,798	¥ 124,046	¥ 35,721	¥ 159,767
Other items:						
Depreciation and amortization of intangible assets	3,178	873	49	4,100	114	4,214
Loss on impairment of fixed assets	55	–	–	55	–	55
Increase in fixed tangible and intangible assets	5,335	788	24	6,147	293	6,440

	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	¥ 52,390	¥ 2,944	¥ 122,889	¥ 33,982	¥ 156,871
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

	Thousands of U.S. dollars					
	2018					
	Reportable segments					
	Inorganic chemicals	Organic chemicals	Other businesses	Subtotal	Elimination and corporate (*1)	Consolidated (*2)
Net sales and operating income:						
Net sales:						
External customers	$ 512,386	$ 474,927	$ 29,167	$1,016,480	$ –	$1,016,480
Intersegment	–	–	46,466	46,466	(46,466)	–
Net sales	512,386	474,927	75,633	1,062,946	(46,466)	1,016,480
Segment income	$ 75,144	$ 33,656	$ 5,816	$ 114,616	$ (20,291)	$ 94,325
Segment assets	$ 654,513	$ 486,645	$ 26,334	$1,167,492	$ 336,197	$1,503,689
Other items:						
Depreciation and amortization of intangible assets	29,911	8,216	461	38,588	1,073	39,661
Loss on impairment of fixed assets	518	–	–	518	–	518
Increase in fixed tangible and intangible assets	50,212	7,416	226	57,854	2,758	60,612

(*1) The elimination and corporate applicable to segment income amounted to ¥2,156 million ($20,291 thousand) and ¥2,031 million in the above tables and includes ¥79 million ($743 thousand) and ¥43 million of eliminations of intersegment transactions and ¥2,077 million ($19,548 thousand) and ¥1,988 million of corporate expenses, which are not allocable to the reportable segments for the years ended March 31, 2018 and 2017, 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 ¥35,721 million ($336,197 thousand) and ¥33,982 million includes ¥959 million ($9,026 thousand) and ¥763 million of offset of inter-segment receivables and payables, and ¥36,680 million ($345,223 thousand) and ¥34,745 million of corporate assets, which are not allocable to a reportable segment as of March 31, 2018 and 2017, respectively. Corporate assets consist of investments of surplus funds (cash and securities), long-term investments (investments in securities), assets of the administration department and 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, 2018 and 2017.

Geographical information

Net sales by geographical segment for the years ended March 31, 2018 and 2017 are summarized as follows:

	Millions of yen					
	Year ended March 31, 2018					
	Japan	Asia	America	Europe	Other	Total
Net sales	¥ 50,309	¥ 22,928	¥ 12,384	¥ 22,097	¥ 283	¥ 108,001

	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

	Thousands of U.S. dollars					
	Year ended March 31, 2018					
	Japan	Asia	America	Europe	Other	Total
Net sales	$ 473,496	$ 215,793	$ 116,555	$ 207,972	$ 2,664	$1,016,480

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, 2018 and 2017 are summarized as follows:

	Millions of yen				
	At March 31, 2018				
	Japan	Asia	America	Europe	Total
Property, plant and equipment	¥ 39,810	¥ 141	¥ 849	¥ 43	¥ 40,843

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

	Thousands of U.S. dollars				
	At March 31, 2018				
	Japan	Asia	America	Europe	Total
Property, plant and equipment	$ 374,682	$ 1,327	$ 7,991	$ 405	$ 384,405

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

Sales transactions with a major customer for the year ended March 31, 2018 are as follows:

		Millions of yen	Thousands of U.S. dollars
Customer name	Relevant reportable segments	2018	2018
MITSUI & CO., LTD.	Inorganic chemicals and Organic chemicals..............	¥ 11,717	$ 110,278

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.

Report of Independent Public Accountants

EY
Building a better working world

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, 2018, 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, 2018, and their consolidated financial performance and cash flows for the year then ended in conformity with accounting principles generally accepted in Japan.

Convenience Translation

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

June 28, 2018
Osaka, Japan

Ernst & Young ShinNihon LLC

Corporate Data

(As of June 29, 2018)

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
Kiyomitsu Yoshida

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
Kiyomitsu Yoshida
Masanari Kato
Yasunobu Kawazoe
Hideo Takahashi

Executive Officers
Yoichi Kobayashi
Kiyoshi Masuda
Hisashi Takenaka
Masaki Shimojo
Hiroshi Kimura
Yasuhiro Fujii
Mikiya Horie
Shigeru Mitani

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.

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