

Kuraray Report 2022 Financial Section

For the year ended December 31, 2021

Business Environment

In the fiscal year ended December 31, 2021 ("fiscal 2021"), the world economy continued to recover overall as economic activities have been invigorated with the easing of restrictions due to rising COVID-19 vaccination rates. However, new COVID-19 infection numbers continued to rise due to the emergence of new variants, raw material and fuel prices remaining high, and the semiconductor shortage and logistics disruptions grew more serious. Consequently, consolidated operating results for fiscal 2021 are as follows: net sales rose ¥87,573 million (US\$761,372 thousand), or 16.2%, compared with the previous fiscal year to ¥629,370 million (US\$5,471,831 thousand); operating income increased ¥27,914 million (US\$242,688 thousand), or 63.0%, to ¥72,256 million (US\$628,204 thousand); ordinary income increased ¥29,024 million (US\$252,339 thousand), or 73.0%, to ¥68,765 million (US\$597,853 thousand); and net income attributable to owners of the parent increased ¥34,691 million (US\$301,608 thousand), or 1,349.5%, to ¥37,262 million (US\$323,961 thousand). In fiscal 2021, Kuraray recorded an extraordinary loss comprising a loss on litigation of ¥4,296 million (US\$37,350 thousand) in connection with a fire in May 2018 at a Group subsidiary in the United States and a disaster loss of ¥3,284 million (US\$28,552 thousand) caused by a suspension of production at some facilities operated by a Group subsidiary in the United States due to a cold wave that swept across the southern United States.

Sales

	(Billions of yen, rounded to the nearest hundred million)				
	Fiscal 2021	Fiscal 2020	Change		
Net Sales	¥629.4	¥541.8	+¥87.6		
Operating Income ·····	72.3	44.3	+27.9		
Ordinary Income	68.8	39.7	+29.0		
Net Income Attributable to Owners of the Parent	37.3	2.6	+34.7		

Results by Business Segment

	(Billions of yen, rounded to the nearest hundred million)					
	Net	Sales	Operating Income			
	Fiscal 2021	Fiscal 2020	Fiscal 2021	Fiscal 2020		
Vinyl Acetate ·····	¥304.7	¥257.1	¥ 57.7	¥40.8		
Isoprene	61.9	50.4	5.7	3.8		
Functional Materials	139.1	125.0	8.2	3.0		
Fibers and Textiles	61.1	54.4	5.3	2.2		
Trading	144.0	124.4	4.9	3.6		
Other Business	47.6	41.7	0.9	0.2		
Elimination & Corporate	(129.1)	(111.2)	(10.4)	(9.2)		
Total	¥ 629.4	¥541.8	¥ 72.3	¥44.3		

Financial Review

Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2021

Vinyl Acetate

Sales in this segment increased 18.5% year on year to ¥304,690 million (US\$2,649,018 thousand), and segment income rose 41.6% year on year to ¥57,726 million (US\$501,878 thousand).



- (1) Although performance was impacted by high raw material and fuel prices, sales of PVA resin increased for a wide range of applications as global demand has been recovering. Sales of optical-use poval film were brisk against a backdrop of robust demand for LCD panels continuing from the second half of the previous fiscal year. The sales volume of PVB film rose year on year but were affected by a decrease in the production of automobiles caused by a shortage of semiconductors from the third quarter. Sales of water-soluble PVA film steadily expanded for use in unit dose detergent packets, including for laundry and dish detergents.
- (2) The sales volume of EVAL[™] ethylene vinyl alcohol copolymer (EVOH resin) increased due to a recovery in demand for gas tank applications and continuing solid demand for food packaging applications but were affected by high raw material and fuel prices from the beginning of the year and a decrease in the production of automobiles from the third quarter.

Isoprene

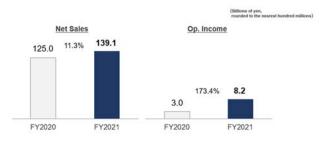
Sales in this segment increased 22.9% year on year to ¥61,940 million (US\$538,515 thousand), and segment income rose 49.5% year on year to ¥5,694 million (US\$49,504 thousand).



- The sales volume of isoprene chemicals and SEPTON[™] thermoplastic elastomer increased due to a recovery in demand.
- (2) Sales of GENESTAR[™] heat-resistant polyamide resin expanded as demand for electric and electronic device applications and automotive applications increased, despite the impact of rising costs associated with raw materials, fuel and logistics.

Functional Materials

Sales in this segment increased 11.3% year on year to \$139,078 million (US\$1,209,164 thousand), and segment income rose 173.4% year on year to \$8,189 million (US\$71,196 thousand).



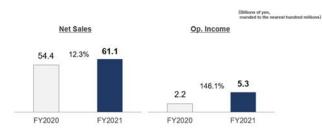
- In the methacrylate business, sales of spatter-blocking barrier panels and displays remained steady, and market conditions stayed strong.
- (2) In the medical business, demand for new Kuraray products was strong in the dental materials business, especially in Europe and the United States, and sales expanded.
- (3) In the environmental solutions business, demand increased, especially for water treatment applications in Europe and the United States, and sales of activated carbon remained steady.

Financial Review

Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2021

Fibers and Textiles

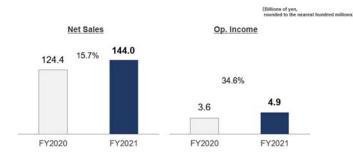
Sales in this segment rose 12.3% year on year to ¥61,082 million (US\$531,055 thousand) while segment income increased 146.1% year on year to ¥5,302 million (US\$46,096 thousand).



- Sales of CLARINO[™] man-made leather remained steady, especially for use in shoes.
- (2) In fibers and industrial materials, the sales volume of KURALON[™] and VECTRAN[™] expanded, and sales volume increased.
- (3) In consumer goods and materials, demand for KURAFLEX[™] in the restaurant industry was weak.

Trading

Sales in this segment increased 15.7% year on year to \pm 144,027 million (US \pm 1,252,191 thousand), and segment income rose 34.6% to \pm 4,852 million (US \pm 2,184 thousand).



- In fiber-related businesses, sales of sports wear and CLARINO[™] man-made leather were brisk.
- (2) Sales of resins and chemicals expanded in line with higher demand, mainly in the Chinese market.

Other Business

In other business, domestic affiliates saw sales recover, resulting in an increase in segment sales of 14.2% year on year to ¥47,615 million (US\$413,971 thousand) and segment income rising 324.0% to ¥908 million (US\$7,894 thousand).



Outlook for the Fiscal Year Ending December 31, 2022

As regards to the economic environment over the next year, it is expected that vaccinations and other measures will limit the pandemic's effects on economic activities. On the other hand, rising global geopolitical risks, soaring prices of raw materials and fuels, prolonged stagnation in logistics and continuing high logistics costs have become a source of concern for our business performance.

Furthermore, Kuraray Co., Ltd. (the "Company") recorded an extraordinary loss in fiscal 2021 related to the litigation over the fire at

the U.S. subsidiary, and the litigation is still ongoing for some plaintiffs.

Based on these circumstances, the outlook for fiscal 2022 is as follows:

	(Billions of yen, rounded to the nearest hundred million)					
	Fiscal 2021	Forecast for Fiscal 2022	Change (Adjusted)			
Net Sales	¥629.4	¥650.0	_			
Operating Income	72.3	73.0	—			
Ordinary Income ·····	68.8	69.0	—			
Net Income Attributable to Owners of the Parent	37.3	43.0	—			

For the forecast of operating results for fiscal 2022, the Company assume average exchange rates of ¥110 to the U.S. dollar and ¥130 to the euro, as well as a domestic naphtha price of ¥58,000 per kiloliter.

Due to the adoption of the "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29) from the fiscal year ending December 31, 2022, the above forecasts of consolidated performance for fiscal 2022 reflect the newly applied accounting standard. Therefore, the rate of change from the previous year is not shown.

[Reference] Forecast of Results by Segment for Fiscal 2022

	(Billions of yen, rounded to the nearest hundred million)						
	Net S	Sales	Operatii	ng Income			
	Fiscal 2021	Forecast for Fiscal 2022	Fiscal 2021	Forecast for Fiscal 2022			
Vinyl Acetate ·····	¥304.7	¥ 320.0	¥ 58.3	¥62.0			
Isoprene	61.9	65.0	6.1	6.5			
Functional Materials	142.4	145.0	8.7	9.0			
Fibers and Textiles	61.1	60.0	5.6	3.0			
Trading	144.0	58.0	4.8	5.0			
Other Business	44.3	44.0	1.2	1.0			
Elimination & Corporate	(129.1)	(42.0)	(12.4)	(13.5)			
Total	¥ 629.4	¥ 650.0	¥ 72.3	¥ 73.0			

On January 1, 2022, the Company revised its organizational structure and changed the segment classification of the environmental business from "Other" to "Functional Materials." In addition, the method of allocating eliminations of profits from some internal transactions among segments and within the corporate has been changed. In the above table, figures presented under forecast for fiscal 2022 reflect these changes. Figures presented under result for fiscal 2021 reflect changes in profit allocation method and segment classifications. Adoption of accounting standard is not reflected in fiscal 2021 figures. Figures for Trading segment net sales and elimination & corporate for fiscal 2022 have significantly changed compared to fiscal 2021, mainly due to changes in accounting methods for revenues attributable to agent transactions in the Trading segment as a result of the adoption of the Accounting Standard for Revenue Recognition and other factors. Because of these changes, revenues from such transactions, which have previously been recorded on the basis of gross transactional value, are now recorded on a net basis.

Consolidated Balance Sheet

Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2021

		Millio	ns of yen	Thousands of U.S. dollars	
		Fiscal 2021 (December 31, 2021)	Fiscal 2020 (December 31, 2020)	Fiscal 2021 (December 31, 202	
ASS	SETS				
	Current assets:				
	1 Cash and deposits	¥151,942	¥184,319	\$1,321,005	
	2 Notes and accounts receivable—trade ^{*8}	135,768	117,172	1,180,386	
	3 Short-term investment securities	3,855	7,924	33,516	
	4 Merchandise and finished goods	103,505	86,555	899,887	
	5 Work-in-process	15,699	14,105	136,489	
	6 Raw materials and supplies	38,100	31,968	331,247	
	7 Other	21,745	19,596	189,054	
	8 Allowance for doubtful accounts	(443)	(439)	(3,852)	
	Total current assets	470,174	461,202	4,087,759	
	Noncurrent assets:				
	1 Tangible fixed assets:	00.004	04.604		
	(1) Buildings and structures, net ^{*2 and 7}	88,801	84,604	772,048	
	(2) Machinery, equipment and vehicles, net ^{*2}	200,500	200,152	1,743,175	
	(3) Land ^{*2 and 7}	22,648	22,204	196,905	
	(4) Construction in progress	117,319	97,451	1,019,988	
	(5) Other, net ^{*2}	25,997	24,978	226,022	
	Total tangible fixed assets ^{*1}	455,266	429,391	3,958,146	
	2 Intangible fixed assets:				
	(1) Goodwill	52,635	51,105	457,616	
	(2) Customer-related assets	29,176	28,800	253,660	
	(3) Other	32,243	31,143	280,325	
	Total intangible fixed assets	114,055	111,049	991,610	
	2 Investments and other exects				
	3 Investments and other assets: (1) Investment securities ^{*3}	25,689	25,477	223,344	
	(2) Long-term loans receivable	121	140	1,052	
	(2) Long-term loans receivable	3,066	2,097	26,656	
	(4) Deferred tax assets	13,980	14,652	121,544	
	(4) Defend tax assets	8,686	7,597	75,517	
	(6) Allowance for doubtful accounts	(26)	(24)	(226)	
		(20)	· · · ·		
	Total investments and other assets	51 517	40 041	4 47 XYA	
	Total investments and other assets Total noncurrent assets	51,517 620,839	49,941 590,382	447,896 5,397,661	

Consolidated Balance Sheet

Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2021

		Millio	ns of yen	Thousands of U.S. dollars
		Fiscal 2021 (December 31, 2021)	Fiscal 2020 (December 31, 2020)	Fiscal 2021 (December 31, 2021)
LIA	ABILITIES			
I	Current liabilities:			
	1 Notes and accounts payable—trade ^{*8}	¥49,641	¥36,161	\$431,586
	2 Short-term borrowings ^{*7}	34,480	34,480	299,774
	3 Commercial paper		20,000	_
	4 Current portion of bonds payable	_	20,000	_
	5 Current portion of long-term borrowings	55,013	29	478,291
	6 Accrued expenses	19,863	17,956	172,692
	7 Income taxes payable	13,133	6,621	114,180
	8 Provision for bonuses	7,996	6,745	69,518
	9 Other provisions	89	202	774
	10 Other*8	39,246	52,856	341,210
	Total current liabilities	219,464	195,053	1,908,051
I	Noncurrent liabilities:			
•	1 Bonds payable	60,000	60,000	521,648
	2 Long-term borrowings	157,945	206,881	1,373,196
	3 Deferred tax liabilities	12,022	11.218	104,521
	4 Provision for directors' retirement benefits	375	375	3,260
	5 Provision for environmental measures	365	3,364	3,173
	6 Net defined benefit liabilities	25,629	25,449	222,822
	7 Asset retirement obligations	4,821	4,383	41,914
	8 Other	30,787	29,376	267,666
	Total noncurrent liabilities	291,947	341,050	2,538,228
	TOTAL LIABILITIES	511,411	536,103	4,446,279
		,		-,,
	T ASSETS			
	Shareholders' equity:			
	1 Capital stock	88,955	88,955	773,387
	2 Capital surplus	87,166	87,178	757,833
	3 Retained earnings	359,898	336,050	3,129,004
	4 Treasury stock	(15,885)	(16,006)	(138,106)
	Total shareholders' equity	520,134	496,177	4,522,118
I	Accumulated other comprehensive income:			
	1 Valuation difference on available-for-sale securities	7,273	6,847	63,232
	2 Deferred gains or losses on hedges	219	(376)	1,904
	3 Foreign currency translation adjustment	34,648	1,470	301,235
	4 Remeasurements of defined benefit plans	(2,291)	(5,321)	(19,918)
	Total accumulated other comprehensive income	39,850	2,620	346,461
Π	Subscription rights to shares	414	328	3,599
V	Noncontrolling interests	19,203	16,354	166,954
	TOTAL NET ASSETS	579,602	515,481	5,039,141
	TAL LIABILITIES AND NET ASSETS	¥1,091,014	¥1,051,584	\$9,485,429

Consolidated Statement of Income and Consolidated Statement of Comprehensive Income Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2021

C	onsolidated Statement of Income	Million	s of ven	Thousands of U.S. dollars
		Millions of yen Fiscal 2021 Fiscal 2020		Fiscal 2021
		(January 1, 2021 to December 31, 2021)	(January 1, 2020 to	(January 1, 2021 to
	Net sales	¥629,370	December 31, 2020) ¥541,797	December 31, 2021) \$5,471,831
I	Cost of sales ^{*2}	425,234	376,386	3,697,044
	Gross profit	204,136	165,411	1,774,787
п	Selling, general and administrative expenses:	204,130	105,411	1,774,707
	1 Selling expenses	38,721	31,464	336,646
	2 General and administrative expenses ^{*2}	93,157	89,604	809,920
	Total selling, general and administrative expenses ^{*1}	131,879	121,069	1,146,575
	Operating income	72,256	44,341	628,204
V	Non-operating income:	12,230	,1+0,71	020,204
	1 Interest income	141	208	1,226
	2 Dividend income	553	568	4,808
	3 Equity in earnings of affiliates	261	257	2,269
	4 Other	1,482	1,516	12,885
		2,439	2,550	
V	Total non-operating income Non-operating expenses:	2,439	2,330	21,205
•	1 Interest expenses.	1 (27	1 442	14 145
	2 Foreign exchange losses	1,627	1,442	14,145
	3 Loss on disposal of tangible fixed assets	188	514	1,634
	4 Other	639 2 475	997	5,556
		3,475	4,198	30,212
	Total non-operating expenses	5,930	7,152	51,556
VT	Ordinary income:	68,765	39,740	597,853
• 1	1 Gain on sale of investment securities	=()	027	4.005
	2 Insurance income ^{*3}	563	937	4,895
	3 Subsidy income	544	1,642	4,730
	4 Compensation for property transfer	510	—	4,434
	5 Gain on reversal of share acquisition rights	422	-	3,669
		-	285	15.52(
711	Total extraordinary income Extraordinary loss:	2,040	2,866	17,736
11	1 Loss on litigation ^{*4}	1.200	22.100	25.250
	2 Loss on disaster*5	4,296	23,196	37,350
	3 Impairment loss*6	3,284	_	28,552
	4 Costs related to the suspension of operations ^{*7}	1,569	-	13,641
	5 Loss on disposal of tangible fixed assets ^{*8}	1,350	4,460	11,737
	6 Loss on tax purpose reduction entry of non-current assets	1,183	632	10,285
	7 Loss on liquidation of businesses ^{*9}	423	-	3,678
			5,189	
	Total extraordinary loss	12,108	33,479	105,269
	Income before income taxes	58,697	9,127	510,320
	Income taxes—current	19,718	8,367	171,431
	Income taxes for prior periods ^{*10}	1,386		12,050
	Income taxes—deferred	(767)	(2,551)	(6,668)
	Total income taxes	20,336	5,815	176,804
	Net income	38,360	3,311	333,507
	Net income attributable to noncontrolling interests	1,098	740	9,546
	Net income attributable to owners of the parent	¥37,262	¥2,570	\$323,961

Consolidated Statement of Income and Consolidated Statement of Comprehensive Income

Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2021

Co	onsolidated Statement of Comprehensive Income	Million	Thousands of U.S. dollars	
		Fiscal 2021 (January 1, 2021 to December 31, 2021)	Fiscal 2020 (January 1, 2020 to December 31, 2020)	Fiscal 2021 (January 1, 2021 to December 31, 2021)
I	Net income	¥38,360	¥3,311	\$333,507
Π	Other comprehensive income:			
	1 Valuation difference on available-for-sale securities	426	(1,075)	3,704
	2 Deferred gains or losses on hedges	793	(269)	6,894
	3 Foreign currency translation adjustment	33,130	(13,314)	288,037
	4 Remeasurements of defined benefit plans	3,030	(82)	26,343
	Total other comprehensive income ^{*1}	37,380	(14,741)	324,987
Ш	Comprehensive income	¥75,741	¥ (11,430)	\$658,503
	Comprehensive income attributable to			
	1 Owners of the parent	¥74,491	¥ (11,804)	\$647,635
	2 Noncontrolling interests	1,249	374	10,859

Consolidated Statement of Changes in Net Assets Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2021

		c.	Millions of yer Shareholders' equ		
Fiscal 2021 (January 1, 2021 to December 31, 2021)	Capital stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Balance at January 1, 2021	¥88,955	¥87,178	¥336,050	¥(16,006)	¥496,177
Changes of items during the period					
Cash dividends			(13,414)		(13,414)
Net income attributable to owners					
of the parent			37,262		37,262
Purchase of treasury stock				(2)	(2)
Disposal of treasury stock		(12)		123	111
Net changes of items other than					
shareholders' equity					_
Total changes of items during the period	_	(12)	23,847	120	23,956
Balance at December 31, 2021	¥88,955	¥87,166	¥359,898	¥(15,885)	¥520,134

				Millions	of yen			
		Accumulate	d other compr	ehensive income				
	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Subscription rights to shares	Noncontrolling interests	Total net assets
Balance at January 1, 2021	¥6,847	¥(376)	¥1,470	¥(5,321)	¥2,620	¥328	¥16,354	¥515,481
Changes of items during the period								
Cash dividends					_			(13,414)
Net income attributable to								
owners of the parent					—			37,262
Purchase of treasury stock					—			(2)
Disposal of treasury stock.					—			111
Net changes of items other								
than shareholders' equity.	426	595	33,178	3,030	37,229	86	2,848	40,165
Total changes of items during the								
period	426	595	33,178	3,030	37,229	86	2,848	64,121
Balance at December 31, 2021	¥7,273	¥219	¥34,648	¥(2,291)	¥39,850	¥414	¥19,203	¥579,602

Consolidated Statement of Changes in Net Assets Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2021

			Thousands of U.S. do		
Fiscal 2021 (January 1, 2021 to December 31, 2021)	Capital stock	Capital surplus	Shareholders' eq Retained earnings	Treasury stock	Total shareholders' equity
Balance at January 1, 2021	\$773,387	\$757,938	\$2,921,666	\$(139,158)	\$4,313,832
Changes of items during the period					
Cash dividends			(116,623)		(116,623)
Net income attributable to owners					
of the parent			323,961		323,961
Purchase of treasury stock				(17)	(17)
Disposal of treasury stock		(104)		1,069	965
Net changes of items other than					
shareholders' equity					—
Total changes of items during the period	_	(104)	207,329	1,043	208,277
Balance at December 31, 2021	\$773,387	\$757,833	\$3,129,004	\$(138,106)	\$4,522,118

				Thousands of U	J.S. dollars			
		Accumulated	l other comprehe	ensive income		_		
	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Subscription rights to shares	Noncontrolling interests	Total net assets
Balance at January 1, 2021	\$59,529	\$(3,269)	\$12,780	\$(46,262)	\$22,779	\$2,852	\$142,184	\$4,481,664
Changes of items during the period								
Cash dividends					—			(116,623)
Net income attributable to								
owners of the parent					—			323,961
Purchase of treasury stock .					—			(17)
Disposal of treasury stock					—			965
Net changes of items other								
than shareholders' equity	3,704	5,173	288,454	26,343	323,674	748	24,761	349,200
Total changes of items during the								
period	3,704	5,173	288,454	26,343	323,674	748	24,761	557,477
Balance at December 31, 2021	\$63,232	\$1,904	\$301,235	\$(19,918)	\$346,461	\$3,599	\$166,954	\$5,039,141

Consolidated Statement of Changes in Net Assets Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2021

			Millions of yen				
	Shareholders' equity						
Fiscal 2020 (January 1, 2020 to December 31, 2020)	Capital stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity		
Balance at January 1, 2020	¥88,955	¥87,197	¥348,289	¥(16,286)	¥508,156		
Changes of items during the period							
Cash dividends			(14,784)		(14,784)		
Net income attributable to owners							
of the parent			2,570		2,570		
Changes resulting from additions to							
consolidation			(24)		(24)		
Purchase of treasury stock				(2)	(2)		
Disposal of treasury stock		(19)		281	262		
Other		(0)			(0)		
Net changes of items other than							
shareholders' equity					—		
Total changes of items during the period	_	(19)	(12,238)	279	(11,978)		
Balance at December 31, 2020	¥88,955	¥87,178	¥336,050	¥(16,006)	¥496,177		

				Millions	of yen			
		Accumulate	d other compre	ehensive income				
	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Subscription rights to shares	Noncontrolling interests	Total net assets
Balance at January 1, 2020	¥7,922	¥(263)	¥14,575	¥(5,238)	¥16,995	¥663	¥12,729	¥538,545
Changes of items during the period								
Cash dividends					—			(14,784)
Net income attributable to								
owners of the parent					—			2,570
Changes resulting from additions to consolidation					_			(24)
Purchase of treasury stock					_			(2)
Disposal of treasury stock.					_			262
Other					_			(0)
Net changes of items other								
than shareholders' equity.	(1,075)	(112)	(13,104)	(82)	(14,375)	(335)	3,624	(11,085)
Total changes of items during the								
period	(1,075)	(112)	(13,104)	(82)	(14,375)	(335)	3,624	(23,064)
Balance at December 31, 2020	¥6,847	¥(376)	¥1,470	¥(5,321)	¥2,620	¥328	¥16,354	¥515,481

Consolidated Statement of Cash Flows

Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2021

	Million	s of ven	Thousands of U.S. dollars
	Fiscal 2021 (January 1, 2021 to December 31, 2021)	Fiscal 2020 (January 1, 2020 to December 31, 2020)	Fiscal 2021 (January 1, 2021 to December 31, 2021
Net cash provided by (used in) operating activities:			
1 Income before income taxes	¥58,697	¥9,127	\$510,320
2 Depreciation and amortization	59,003	62,459	512,980
3 Increase (decrease) in allowance for doubtful accounts	(29)	(3)	(252)
4 Loss (gain) on sale of investment securities	(563)	(937)	(4,895)
5 Loss on litigation	4,296	23,196	37,350
6 Loss on liquidation of businesses	—	5,189	_
7 Impairment loss	1,569	_	13,641
8 Loss on disposal of tangible fixed assets	1,183	632	10,285
9 Foreign exchange losses (gains)	(2,610)	463	(22,692)
10 Interest and dividends income	(694)	(777)	(6,034)
11 Interest expenses	1,627	1,442	14,145
12 Decrease (increase) in notes and accounts receivable-trade	(13,437)	2,637	(116,823)
13 Decrease (increase) in inventories	(17,537)	16,731	(152,469)
14 Increase (decrease) in notes and accounts payable—trade	12,244	(3,224)	106,451
15 Increase (decrease) in provision for bonuses	858	274	7,460
16 Increase (decrease) in net defined benefit liabilities	2,273	2,524	19,762
17 Decrease (increase) in net defined benefit assets	(624)	(383)	(5,425)
18 Other, net	10,899	8,244	94,757
Subtotal	117,157	127,596	1,018,579
19 Interest and dividends income received	833	921	7,242
20 Interest expenses paid	(1,537)	(1,402)	(13,363)
21 Income taxes (paid) refund	(14,127)	(9,624)	(122,822)
22 Payments for loss on litigation	(24,104)	(37,543)	(209,564)
Net cash provided by (used in) operating activities	78,221	79,947	680,064
Net cash provided by (used in) investment activities:			
1 Net decrease (increase) in time deposits	(150)	4,624	(1,304)
2 Net decrease (increase) in short-term investment securities	6,000	14,625	52,165
3 Purchase of investment securities	(88)	(95)	(765)
4 Proceeds from sales and redemption of investment securities	1,647	2,760	14,319
5 Purchase of tangible fixed assets and intangible fixed assets	(68,408)	(83,490)	(594,749)
6 Payments for disposal of tangible fixed assets and intangible fixed assets	(1,774)	(1,425)	(15,423)
7 Proceeds from sales of tangible fixed assets and intangible fixed assets	92	69	800
8 Other, net	(2,912)	(1,095)	(25,317)
 Net cash provided by (used in) investment activities	(65,595)	(64,025)	(570,292)

Consolidated Statement of Cash Flows

Kuraray Co., Ltd. and its consolidated subsidiaries / Year ended December 31, 2021

		Million	s of yen	Thousands of U.S. dollars	
		Fiscal 2021 (January 1, 2021 to December 31, 2021)	Fiscal 2020 (January 1, 2020 to December 31, 2020)	Fiscal 2021 (January 1, 2021 to December 31, 2021	
Π	Net cash provided by (used in) financing activities:				
	1 Net increase (decrease) in short-term borrowings	—	(351)	-	
	2 Net increase (decrease) in commercial paper	(20,000)	(4,000)	(173,883)	
	3 Proceeds from long-term borrowings	6,212	79,274	54,008	
	4 Repayment of long-term borrowings	(29)	(34)	(252)	
	5 Proceeds from issuance of bonds	—	30,000	—	
	6 Redemption of bonds	(20,000)	—	(173,883)	
	7 Purchase of treasury stock	(2)	(2)	(17)	
	8 Proceeds from sales of treasury stock	82	105	713	
	9 Cash dividends paid	(13,414)	(14,784)	(116,623)	
	10 Proceeds from stock issuance to noncontrolling interests	1,820	3,559	15,823	
	11 Cash dividends paid to noncontrolling interests	(220)	(308)	(1,913)	
	12 Other, net	(1,894)	(1,949)	(16,467)	
	Net cash provided by (used in) financing activities	(47,447)	91,508	(412,511)	
V	Effect of exchange rate changes on cash and cash equivalents	4,224	(1,541)	36,724	
7	Net increase (decrease) in cash and cash equivalents	(30,596)	105,888	(266,006)	
/I	Cash and cash equivalents, beginning of year	182,084	75,967	1,583,064	
Π	Increase in cash and cash equivalents from newly consolidated subsidiaries	_	228	_	
/III	Cash and cash equivalents, end of year*1	¥151,487	¥182,084	\$1,317,049	

1

1 Significant Accounting Policies

1. Basis of presenting consolidated financial statements

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

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

The United States dollar amounts included herein are provided solely for the convenience of readers outside Japan and are stated, at the rate of \$115.02 = \$1, the approximate exchange rate prevailing on December 31, 2021. The translations should not be construed as representations that the Japanese yen amounts have been, could have been, or could in the future be, converted into the United States dollars at this or any other rate.

2. Scope of consolidation

(1) Number of consolidated subsidiaries

	Fiscal 2021	Fiscal 2020
Number of consolidated subsidiaries	76	78

(Major consolidated subsidiaries)

KURARAY TRADING Co., LTD., Kuraray Plastics Co., Ltd., KURARAY ENGINEERING CO., LTD., Kuraray Techno Co., Ltd., KURARAYKURAFLEX CO., LTD., KURARAY AQUA CO., LTD., TECHNO SOFT CO., LTD., Kuraray Travel Service Corporation, KURARAY SAIJO CO., LTD., KURARAY TAMASHIMA COMPANY, LIMITED, Iruma Country Club Co., Ltd., KURASHIKI KOKUSAI HOTEL LTD., KURARAY FASTENING CO., LTD., Kuraray Noritake Dental Inc., Kuraray Okayama Spinning Co., Ltd., OKAYAMA RINKOH CO., LTD., Kuraray Holdings U.S.A., Inc., Kuraray America, Inc., MonoSol Holdings, Inc., MonoSol, LLC, Calgon Carbon Corporation, Kuraray Europe GmbH, EVAL Europe N.V., OOO TROSIFOL, Kuraray Asia Pacific Pte. Ltd., Kuraray Hong Kong Co., Ltd., Kuraray (Shanghai) Co., Ltd., Kuraray Hong Kong Co., Ltd., Kuraray (Shanghai) Co., Ltd., Kuraray China Co., Ltd., Kuraray Methacrylate (Zhang Jia Gang) Co., Ltd., Kuraray Korea Ltd., Plantic Technologies Limited, Kuraray Specialities (Thailand) Co., Ltd., Kuraray Advanced Chemicals (Thailand) Co., Ltd., Kuraray SC (Thailand) Co., Ltd., Kuraray GC Advanced Materials Co., Ltd. and 41 other consolidated subsidiaries.

In the fiscal year ended December 31, 2021 (fiscal 2021), former consolidated subsidiary Calgon Carbon UV Technologies LLC has been excluded from the scope of consolidation as all its shares were transferred. In addition, former consolidated subsidiary Calgon Carbon Hong Kong Limited has been excluded from the scope of consolidation as a result of the completion of its liquidation procedures.

- (2) Names of major unconsolidated subsidiaries
 - (Major unconsolidated subsidiaries)
 - Kuraray South America Ltda.

Kuraray India Private Limited

(Reasons for excluding from the scope of consolidation)

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

3. Scope of application of equity method affiliates and subsidiaries

(1) Number of affiliates accounted for using the equity method

	Fiscal 2021	Fiscal 2020
Number of affiliates accounted for using the equity method	2	2

(Name of major affiliates, etc.)

Hexin Kuraray Micro Fiber Leather (Jiaxing) Co., Ltd. and the other

(2) Unconsolidated subsidiaries and affiliates (Kuraray South America Ltda. and Cenapro Chemical Corporation) have not been accounted for using the equity method, because their net income and loss and retained earnings (amount corresponding to the owned interest) have no material effect on the consolidated financial statements.

4. Fiscal years of consolidated subsidiaries

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

5. Accounting policies

(1) Valuation standards and methods for significant assets

a) Investment securities

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

b) Derivative financial instruments

All derivatives are stated at fair value.

c) Inventories

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

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

(2) Depreciation method of significant depreciable assets

a) Tangible fixed assets (excluding lease assets and right-of-use assets)

Depreciation is primarily computed using the straight-line method.

- The estimated useful lives of assets are primarily as follows:
- Buildings and structures..... 16 to 50 years
- Machinery, equipment and vehicles....... 4 to 10 years

b) Intangible assets (excluding lease assets and right-of-use assets)

Amortization is primarily computed using the straight-line method.

The numbers of years for amortization are primarily as follows:

- Goodwill...... 15 to 20 years

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

c) Lease assets

Leased assets related to finance leases without transfer of ownership

Amortization is primarily computed using the straight-line method that adopts the lease terms as the useful lives with the residual value being zero.

d) Right-of-use assets

Depreciation is primarily computed using the straight-line method based on the shorter of the useful lives of assets and lease terms.

Some overseas affiliates prepare their financial statements based on International Financial Reporting Standards, and they apply IFRS 16 "Leases." As a result, in principle, all leases for a borrower are recognized as assets and liabilities on consolidated balance sheets.

(3) Accounting for significant allowance

a) Allowance for doubtful accounts

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

b) Provision for bonuses

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

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

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

- (4) Accounting treatment of retirement benefit plan
 - a) Method for attributing estimated retirement benefits to individual periods of service

In calculating benefit obligation, the benefit formula basis was used to attribute estimated retirement benefits to periods up to December 31, 2021.

b) Calculation of net actuarial gain or loss and prior service cost
 Prior service cost is amortized on a straight-line basis over a certain period (mainly 15 years), which falls within the average remaining years of service of the eligible employees.
 Actuarial gains or losses are amortized on a straight-line basis

over a certain period (mainly 15 years), which falls within the average remaining years of service of the eligible employees, allocated proportionately commencing the year following the year in which each respective gain or loss occurred.

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

(5) Significant hedge accounting

a) Hedge accounting

The Company and its consolidated subsidiaries adopt the method for hedging instruments whereby any gains or losses are deferred over the period of the hedging contract and are offset against the deferred losses or gains on the related hedged items, which include forward foreign exchange contracts associated with planned transactions denominated in foreign currencies and commodity swaps associated with raw materials. However, deferral hedge accounting is applied to some forward foreign exchange contracts, and when an interest rate swap contract meets certain conditions, the net amount to be paid or received under the contract is added to or deducted from the interest on the hedged items.

b) Hedging instruments and hedged items

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

c) Hedging policy

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

d) Assessment method for hedge accounting

The Company identifies and confirms the material conditions and measures the effectiveness of forward foreign exchange contracts associated with planned transactions denominated in foreign currencies, interest rate swaps and commodity swaps associated with raw materials.

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

Hedge accounting applying the "Practical Solution on Treatment of Hedge Accounting for Financial Instruments that Reference LIBOR"

Of the above-mentioned hedging relationships, the Company applies the exceptional treatment provided in the "Practical Solution on the Treatment of Hedge Accounting for Financial Instruments that Reference LIBOR" (ASBJ Practical Issues Task Force (PITF) No. 40, September 29, 2020) to all hedging relationships covered by the said PITF No. 40, the details of which are as follows:

Hedge accounting	Exceptional treatment for interest rate swaps
Hedging instruments	Interest rate swap
	contracts
Hedged items	Interest expenses
Type of hedge transaction	Those with fixed cash
	flows

(6) Amortization of goodwill

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

(7) Cash and cash equivalents

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

(8) Other accounting policies

Accounting for consumption tax

Consumption tax and local consumption tax on goods and

services are not included in the revenue and expenses amounts.

2 Significant Accounting Estimates

Estimated loss on litigation related to fire incident at U.S.

subsidiary

 The amount recorded on the consolidated financial statements for fiscal 2021

Loss on litigation: ¥4,296 million (US\$37,350 thousand)

- (2) Information on the nature of significant accounting estimates related to the identified items
- a) Method for calculating the amount recorded on the consolidated financial statements for fiscal 2021

Several lawsuits have been filed that more than 160 contract workers and others suffered physical and/or psychological injuries as a result of a fire that occurred at one of the locations in the Group's U.S. subsidiary in May 2018. The Group has reached a settlement with certain plaintiffs to resolve some of these claims. The Group has made accruals for estimates of loss on litigation that is sufficient to cover the damages that are reasonably estimable as of the time of preparation of the consolidated financial statements. Additional losses and expenses recorded in the current fiscal year, in conjunction with settlements with plaintiffs reached during the current fiscal year and related legal fees, are included in ¥4,296 million (US\$37,350 thousand) of loss on litigation of extraordinary losses in the consolidated statements of income. Accruals of the estimated loss on litigation are recorded as a liability in the consolidated balance sheet.

b) Key assumptions used in calculating the amount recorded on the consolidated financial statements for fiscal 2021
In estimating such loss on litigation, the Group makes estimates of probable future losses based on available information regarding the extent of damages related to the fire based on the views of external experts, and the Board of Directors' views with respect to the current status of litigation activity and any agreed-

upon or pending settlements with counterparties.

c) Impact on the consolidated financial statements for the following fiscal year

Additional loss on litigation may be recorded on the consolidated financial statements for the following fiscal year or beyond due to circumstances such as that newly obtained information on the lawsuit entails revisions to the estimate or the assumptions concerned, or that settlements are reached with plaintiffs.

Assessment of whether indicators of impairment exist for goodwill recognized as a result of the acquisition of Calgon Carbon Corporation

- The amount recorded on the consolidated financial statements for fiscal 2021
 - Goodwill recorded as a result of the acquisition of Calgon Carbon Corporation in the Functional Materials segment in fiscal 2018: ¥37,395 million (US\$325,117 thousand)
- (2) Information on the nature of significant accounting estimates related to the identified items
- a) Method for calculating the amount recorded on the consolidated financial statements for fiscal 2021
- Calgon Carbon Corporation recorded net operating losses including goodwill amortization until the previous fiscal year due to the delays in capital investment and production adjustments taken by customers, which was partly due to the impact of COVID- 19. However, earnings recovered and net operating income including goodwill amortization turned positive in the current fiscal year as a result of growth in the activated carbon market and measures in response to stricter environmental regulations. Based on Calgon Carbon Corporation's business plan, the Group has concluded that there are no indicators of impairment related to goodwill as performance continues to

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recover and net operating income including goodwill amortization is projected in the following fiscal year.

b) Key assumptions used in calculating the amount recorded on the consolidated financial statements for fiscal 2021
Calgon Carbon Corporation's business plan assumes increases in revenue due to the growth in the activated carbon market, a recovery in demand for capital investments by customers, measures in response to stricter environmental regulations, as well as the impact of higher raw material and fuel costs.

c) Impact on the consolidated financial statements for the following

fiscal year

Impairment loss may be recorded on the consolidated financial statements for the following fiscal year or beyond in the event unpredictable changes in future market conditions require revisions to the estimate or the assumptions concerned.

3 Accounting Standards Issued but Not Yet Applied

The Company and its domestic subsidiaries and affiliates

- "Accounting Standard for Revenue Recognition" (ASBJ Statement No.
 29, March 31, 2020)
- "Implementation Guidance on Accounting Standard for Revenue Recognition" (ASBJ Guidance No. 30, March 26, 2021)
 - (1) Outline

These are comprehensive accounting standards for revenue recognition. Revenue is recognized by applying the following five steps:

Step 1: Identify the contract with a customer.

Step 2: Identify the performance obligations in the contract.

Step 3: Determine the transaction price.

Step 4: Allocate the transaction price to the performance obligations in the contract.

Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation.

(2) Expected Application Date

Scheduled to be introduced from the beginning of the fiscal year ending December 31, 2022.

(3) Effect of Applying the Accounting Standard

The impact is being evaluated at the time of preparation of these consolidated financial statements.

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- "Accounting Standard for Fair Value Measurement" (ASBJ Statement No. 30, July 4, 2019)
- "Implementation Guidance on Accounting Standard for Fair Value Measurement" (ASBJ Guidance No. 31, June 17, 2021)
- "Accounting Standard for Measurement of Inventories" (ASBJ Statement No. 9, July 4, 2019)
- "Accounting Standard for Financial Instruments" (ASBJ Statement No. 10, July 4, 2019)
- "Implementation Guidance on Disclosures about Fair Value of Financial Instruments" (ASBJ Guidance No. 19, March 31, 2020)
- (1) Outline
 - In order to improve the comparability between the international accounting standards and Japanese accounting standards, ASBJ has developed the "Accounting Standard for Fair Value Measurement" and the "Implementation Guidance on Accounting Standard for Fair Value Measurement" (hereinafter "Fair Value Measurement Accounting Standard, etc."), and has prescribed the guidance, etc., on the method of fair value measurement. The Fair Value Measurement Accounting Standard, etc., is applied to the fair values of the following items:
- Financial instruments in the "Accounting Standard for Financial Instruments"
- Inventories held for trading purposes in the "Accounting Standard for Measurement of Inventories"

In addition, "Implementation Guidance on Disclosures about Fair Value of Financial Instruments" was revised to prescribe items including notes regarding the breakdown by level of fair values of financial instruments. (2) Expected Application Date

Scheduled to be introduced from the beginning of the fiscal year ending December 31, 2022.

(3) Effect of Applying the Accounting Standard The impact is being evaluated at the time of preparation of these

consolidated financial statements.

Overseas subsidiaries and affiliates

Newly established or amended major accounting standards that were announced before December 31, 2021 and not applied, are as follows: The impact on the consolidated financial statements from the application of these accounting standards, etc., is being evaluated at the time of preparation of these consolidated financial statements.

Name of accounting standard	Outline	Expected application date
"Leases" (FASB ASU 2016- 02)	Revised accounting treatments of lease accounting	To be applied from the end of the fiscal year ending December 31, 2022

4 Changes in Presentation

Changes in Consolidated Balance Sheet

The "current portion of long-term borrowings," previously included in "short-term borrowings" under current liabilities, is listed as a separate line item from the year ended December 31, 2021 due to an increase in its financial significance.

The previous year's Consolidated Financial Statements have been amended to reflect this change in presentation.

As a result, on the Consolidated Balance Sheet, "short-term borrowings" of ¥34,509 million presented under current liabilities as of the previous year-end has been reclassified as "short-term borrowings" of ¥34,480 million and "current portion of long-term borrowings of ¥29 million."

Accounting Standard for Disclosure of Accounting Estimates

The Company applied the "Accounting Standard for Disclosure of Accounting Estimates" (ASBJ Statement No. 31, March 31, 2020) from fiscal 2021. Notes on accounting estimates are provided in these notes to consolidated financial statements.

However, in accordance with the transitional treatment prescribed in the proviso of paragraph 11 of the Accounting Standard, these notes do not discuss content related to consolidated fiscal 2020.

5 Changes of Accounting Estimates

Income Taxes for Prior Periods

Regarding the preferential tax programs in the Belgian tax code, which were applied to Kuraray's Belgian subsidiary in previous fiscal years, the ruling of the European General Court (which invalidated the European Commission's finding of a legal violation) was dismissed by the Court of Justice of the European Union and the case was sent back to the lower court for reassessment. As a result, the subsidiary revised its final tax burden risk ratio of ¥2,785 million (US\$24,213 thousand) (EUR21 million), which anticipates additional taxation. The estimate was changed, and the original estimate and the difference from that were recorded as income taxes for prior periods.

As a result, fiscal 2021 net income decreased ¥1,386 million (US\$12,050 thousand).

6 Notes to Consolidated Balance Sheet

*1. Accumulated depreciation of tangible fixed assets

	Million	Thousands of U.S. dollars	
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Accumulated depreciation of tangible fixed assets	¥906,213	¥843,543	\$7,878,743

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

tangible fixed assets

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Buildings and structures	¥2,737	¥2,614	\$23,796
(Deduction for this fiscal year)	(74)	(255)	(643)
Machinery, equipment and vehicles	2,082	1,750	18,101
(Deduction for this fiscal year)	(326)	(92)	(2,834)
and	1,271	1,257	11,050
(Deduction for this fiscal year)	(13)	(—)	(113)
Dther	36	22	313
(Deduction for this fiscal year)	(13)	(—)	(113)

*3. Investments in unconsolidated subsidiaries and affiliates

	Million	ns of yen	Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Investment securities (equity)	¥6,070	¥5,550	\$52,773

*4. Commitments and contingencies

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

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

	Million	s of yen	Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Social welfare corporation Ishii Kinen Aizenen	¥394	¥526	\$3,425
Kurashiki Kaihatsu K.K	5	20	43
Total	¥399	¥546	\$3,469

*5. Additional payment under share purchase agreement

The share purchase agreement with Gordon Merchant No.2 Pty Ltd. under which the Company acquired Plantic Technologies Limited and subsidiaries in April 2015 includes an earn-out provision, whereby, based on specified performance targets, up to an additional \$86.6 million may be required to be paid.

*6. Claim for damages in relation to manufacturing and sales of activated carbon

In connection with the violations of the Antimonopoly Act in the manufacture and sale of certain activated carbon, several companies including the Company and its subsidiaries have received claims for payment for damages jointly and severally from several local governments. In addition, some of these local governments have filed lawsuits seeking payment for damages and losses on delays. It is difficult at the present time to reasonably estimate the amount for which the Group is liable.

*7. Assets pledged as collateral and secured liabilities

	Million	ns of yen	Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Buildings	¥1,263	¥1,354	\$10,981
Land	1,001	1,001	8,703
Total	¥2,265	¥2,355	\$19,692

	Million	s of yen	Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Collateral for short-term borrowings	¥170	¥170	\$1,478

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

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

	Million	as of yen	Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Notes and accounts receivable—trade	¥4,999	¥5,215	\$43,462
Notes and accounts payable—trade	4,226	2,972	36,741
Other (Current liabilities)	473	444	4,112

7 Notes to Consolidated Statement of Income

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

	Million	s of yen	Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Freight and storage	¥28,397	¥21,899	\$246,887
Research and development	19,543	19,311	169,910
Salaries and legal welfare expense	28,735	26,934	249,826
Provision for bonuses	7,180	7,111	62,424
Retirement benefit expenses	1,847	1,805	16,058
Provision for directors' retirement benefits	1	2	9

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

Million	s of yen	Thousands of U.S. dollars
 Fiscal 2021	Fiscal 2020	Fiscal 2021
¥20,845	¥20,603	\$181,229

*3. Insurance income

The insurance income in fiscal 2021 is mainly the insurance received for disaster loss.

The insurance income in fiscal 2020 is mainly the insurance received for the loss on litigation.

*4. Loss on litigation

The loss on litigation is mainly the settlement relating to the fire accident that occurred in May 2018 at the Company's subsidiary in the United States.

*5. Loss on disaster

Disaster losses were due to a cold wave that occurred in the United States in February 2021.

*6. Impairment loss

The main impairment loss recorded by the Group is as follows:

Fiscal 2021

				Impairment loss		
Location	Assets	Usage	Туре	Millions of yen	Thousands of U.S. dollars	
Kurashiki city, Okayama	Assets scheduled to be suspended (Determined to be suspended due to advanced deterioration)	Power equipment	Machinery, etc.	¥810	\$7,042	

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

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

(Method for calculating the recoverable amount)

For assets scheduled to be suspended, the book value is reduced to the recoverable amount. The recoverable amount is measured based on the value in use, but the discount rate is not taken into consideration because the expected period of use is short.

Fiscal 2020

Not applicable.

*7. Costs related to the suspension of operations

The costs related to the suspension of operations are mainly the amounts equivalent to fixed costs during the period of the suspension of production.

*8. Loss on disposal of tangible fixed assets

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

*9. Loss on liquidation of businesses

The loss on liquidation of businesses in fiscal 2020 is the partial withdrawal from the business of the Company's U.S. subsidiary caused loss on liquidation of business, which comprises ¥267 million of loss on valuation of inventories, ¥4,475 million of impairment loss, etc.

The impairment loss consists primarily of ¥3,684 million of an impairment loss on goodwill associated with the said U.S. subsidiary. The impaired assets are recognized as assets held for sale and the book value has been reduced to the fair value in accordance with US GAAP.

*10. Income Taxes for Prior Periods

Regarding the preferential tax programs in the Belgian tax code, which were applied to Kuraray's Belgian subsidiary in previous fiscal years, the ruling of the European General Court (which invalidated the European Commission's finding of a legal violation) was dismissed by the Court of Justice of the European Union and the case was sent back to the lower court for reassessment. Accordingly, the Company recorded as income taxes for fiscal 2021 the difference between the initial estimate and the potential additional tax of ¥2,785 million (US\$24,213 thousand) (EUR 21 million) imposed on the Belgian subsidiary.

8 Notes to Consolidated Statement of Comprehensive Income

Reclassification adjustments and tax effect adjustments relating to other comprehensive income (loss) for the fiscal years ended December 31, 2021 and

December 31, 2020, are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Valuation difference on available-for-sale securities			
Amount recorded during the period	¥75	¥(2,149)	\$652
Reclassification adjustments	549	890	4,773
Before tax effect adjustments	625	(1,259)	5,434
Tax effect	(198)	183	(1,721)
Valuation difference on available-for-sale securities	426	(1,075)	3,704
Deferred gains or losses on hedges			
Amount recorded during the period	1,019	26	8,859
Reclassification adjustments	(58)	(13)	(504)
Adjustments to cost of assets acquired	(52)	(287)	(452)
Before tax effect adjustments	907	(274)	7,886
Tax effect	(114)	5	(991)
Deferred gains or losses on hedges	793	(269)	6,894
Foreign currency translation adjustment			
Amount recorded during the period	33,130	(13,314)	288,037
Reclassification adjustments	—	—	—
Before tax effect adjustments	33,130	(13,314)	288,037
Tax effect	—	—	—
Foreign currency translation adjustment	33,130	(13,314)	288,037
Remeasurements of defined benefit plans			
Amount recorded during the period	3,021	(1,123)	26,265
Reclassification adjustments	914	745	7,946
Before tax effect adjustments	3,936	(377)	34,220
Tax effect	(906)	294	(7,877)
Remeasurements of defined benefit plans	3,030	(82)	26,343
Total other comprehensive income	¥37,380	¥(14,741)	\$324,987

9 Notes to Consolidated Statement of Changes in Net Assets

Fiscal 2021

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

	Number of thousands of shares					
	As of January 1, 2021	Increase	Decrease	As of December 31, 2021		
Issued shares						
Common stock	354,863	_	_	354,863		
Total	354,863	—	—	354,863		
Treasury stock						
Common stock (Notes 1, 2)	10,940	2	84	10,858		
Total	10,940	2	84	10,858		

Notes: 1. The increase in treasury stock (common stock) is attributable to the purchase of less-than-one unit shares (2 thousand shares).

2. The decrease in treasury stock (common stock) of 84 thousand shares is attributable to a transfer of shares upon the exercise of subscription rights (21 thousand shares), the disposal of treasury stock as restricted stock compensation (63 thousand shares), and the sale of less-than-one unit shares by the shareholders (0 thousand shares).

2. Subscription rights to shares

The Company granted its directors and executive officers subscription rights to the Company shares as stock options. The balance of the subscription rights to shares as of December 31, 2021 is ¥414 million (US\$3,599 thousand).

3. Dividends

(1) Amount of dividends paid

Resolution	Type of share	Amount of dividends (Millions of yen)	Dividend per share (Yen)	Record date	Effective date
General shareholders' meeting held on March 25, 2021	Common stock	¥6,534 (US\$56,808 thousand)	¥19.00 (US\$0.17)	December 31, 2020	March 26, 2021
Board of directors' meeting held on August 12, 2021	Common stock	¥6,880 (US\$59,816 thousand)	¥20.00 (US\$0.17)	June 30, 2021	September 1, 2021

(2) Dividends whose effective date is after the end of Fiscal 2021 and record date is included in Fiscal 2021.

Resolution	Type of share	Source of dividends	Amount of dividends (Millions of yen)	Dividend per share (Yen)	Record date	Effective date
General shareholders'		D (1	NC 000	¥20.00	D 1 21	Nr. 1.25
meeting held on March 24,		Retained	¥6,880	¥20.00	December 31,	March 25,
2022	Common stock	earnings	(US\$59,816 thousand)	(US\$0.17)	2021	2022

Fiscal 2020

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

	Number of thousands of shares					
	As of January 1, 2020	Increase	Decrease	As of December 31, 2020		
Issued shares						
Common stock	354,863	_	_	354,863		
Total	354,863	—	—	354,863		
Treasury stock						
Common stock (Notes 1, 2)	11,130	2	192	10,940		
Total	11,130	2	192	10,940		

Notes: 1. The increase in treasury stock (common stock) is attributable to the purchase of less-than-one unit shares (2 thousand shares).

2. The decrease in treasury stock (common stock) is attributable to a transfer of shares upon the exercise of subscription rights (192 thousand shares) and the sale of less-than-one unit shares by the shareholders (0 thousand shares).

2. Subscription rights to shares

The Company granted its directors and executive officers subscription rights to the Company shares as stock options. The balance of the subscription

rights to shares as of December 31, 2020 is ¥328 million.

3. Dividends

(1) Amount of dividends paid

Resolution	Type of share	Amount of dividends (Millions of yen)	Dividend per share (Yen)	Record date	Effective date
General shareholders' meeting held on March 26, 2020	Common stock	¥7,562	¥22.00	December 31, 2019	March 27, 2020
Board of directors' meeting held on August 12, 2020	Common stock	¥7,222	¥21.00	June 30, 2020	September 1, 2020

(2) Dividends whose effective date is after the end of Fiscal 2020 and record date is included in Fiscal 2020.

Resolution	Type of share	Source of dividends	Amount of dividends (Millions of yen)	Dividend per share (Yen)	Record date	Effective date
General shareholders'						
meeting held on March 25,		Retained			December 31,	March 26,
2021	Common stock	earnings	¥6,534	¥19.00	2020	2021

10 Notes to Consolidated Statement of Cash Flows

*1. Cash and cash equivalents at December 31, 2021 and December 31, 2020 are reconciled to the accounts reported in the consolidated balance sheet as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Cash on hand and in banks	¥151,942	¥184,319	\$1,321,005
Time deposits with a deposit period of 3 months or more	(4,310)	(4,160)	(37,472)
Marketable securities with original maturities of 3 months or less	3,855	1,924	33,516
Total	¥151,487	¥182,084	\$1,317,049

11 Leases

1. Finance lease transactions

(1) Lease transactions as a lessee

Finance leases without transfer of ownership

- 1) Details of lease assets
 - · Tangible fixed assets

Mainly vehicles used at plants, including forklifts, buildings and equipment, etc., related to manufacturing ("Machinery and Equipment",

"Buildings and Structures"), OA equipment, including personal computers and printers, and servers ("Other").

2) Depreciation method of lease assets

As described in the basis of presenting consolidated financial statements "1. Significant Accounting Policies, 5. Accounting policies (2)

Depreciation method of significant depreciable assets"

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(2) Lease transactions as a lessor

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

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

1) Lease acquisition costs, accumulated depreciation and net book value as of December 31, 2021 and December 31, 2020 are as follows:

December 31, 2021

		Millions of yen	
	Acquisition cost	Accumulated depreciation	Net book value
Buildings and structures	¥52	¥51	¥0

		Thousands of U.S. dollars	
	Acquisition cost	Accumulated depreciation	Net book value
Buildings and structures	\$452	\$443	\$0

December 31, 2020

		Millions of yen	
	Acquisition cost	Accumulated depreciation	Net book value
Buildings and structures	¥197	¥115	¥82

2) Future lease payment obligations at December 31, 2021 and December 31, 2020 are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Due within one year	¥1	¥11	\$9
Due after one year	1	3	9
Total	¥3	¥15	\$26

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

3) Lease revenue and depreciation expense for the years ended December 31, 2021 and December 31, 2020 are as follows:

	Millions	of yen	Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Lease revenue	¥11	¥11	\$96
Depreciation expense	3	3	26

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2. Operating leases

Lease transactions as a lessee:

Future lease payment obligations under operating leases at December 31, 2021 and December 31, 2020 are as follows:

	Millions	s of yen	Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Due within one year	¥3,291	¥1,692	\$28,612
Due after one year	14,917	4,320	129,690
Total	¥18,208	¥6,013	\$158,303

12 Financial Instruments

1. Outline of financial instruments

(1) Policy for financial instruments

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

(2) Nature and extent of risks arising from financial instruments Receivables such as notes and accounts receivable-trade are exposed to customer credit risk. Trade receivables denominated in foreign currencies are exposed to foreign currency exchange fluctuation risk.

Short-term investment securities and investment securities, mainly consisting of bonds, certificates of deposit and stocks in companies with which the Company has a business relationship are exposed to the risk of market price fluctuations.

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

Loans, commercial paper, bonds and lease obligations, used to raise funds for working capital and capital expenditures, and lease liabilities, to which some overseas affiliates have applied IFRS 16 "Leases," have maturities of at the longest 36 years from the balance sheet date. The debts bearing floating interest rates are exposed to interest rate fluctuation risk, although a part of the exposure is hedged through use of derivatives (interest rate swaps).

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

(3) Risk management for financial instruments

a. Credit Risk Management (customers' default risk)

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

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

The Group principally uses forward foreign exchange contracts to hedge against fluctuation risks in foreign currency exchange rates, which are relevant to trade receivables and payables and are analyzed by currency and settlement month. Depending on foreign currency exchange rate conditions, trade receivables and payables denominated in foreign currencies that are expected to be generated based on export and import forecasts are hedged using forward foreign exchange contracts. The Group also hedges certain scheduled nontrading transactions denominated in foreign currencies that it expects to generate.

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

Some consolidated subsidiaries use commodity swaps to

control price fluctuation risks in connection with raw materials.

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

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

c. Liquidity Risk Management on Fund Raising

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

(4) Supplementary explanation concerning fair values of financial instruments

Fair values of financial instruments comprise values determined based on market prices and values determined reasonably when there is no market price. Since variable factors are incorporated in computing the relevant fair values, such fair values may vary depending on the different assumptions. The notional amounts and other information described in Note 13. "Derivative Financial Instruments" are not indicative of market risk exposure to derivative transactions.

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2. Fair values of financial instruments

Carrying amount, fair value and unrealized gain/loss of the financial instruments as of December 31, 2021 and December 31, 2020 are as follows:

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

Fiscal 2021

_	Millions of yen		
	Carrying amount	Fair value	Unrealized gain (loss)
(1) Cash and deposits	¥151,942	¥151,942	¥—
(2) Notes and accounts receivable—trade	135,768		
Allowance for doubtful accounts	(443)		
	135,324	135,324	_
(3) Short-term investment securities and investment securities			
Available-for-sale securities	20,772	20,772	_
Total assets	308,039	308,039	_
(1) Notes and accounts payable—trade	49,641	49,641	_
(2) Bonds	60,000	60,129	129
(3) Long-term borrowings (*1)	212,958	213,715	756
Total liabilities	322,600	323,486	886
Derivative transactions ^(*2)	(484)	(484)	

_		Thousands of U.S. dollars	
	Carrying amount	Fair value	Unrealized gain (loss)
(1) Cash and deposits	\$1,321,005	\$1,321,005	\$ <u> </u>
(2) Notes and accounts receivable—trade	1,180,386		
Allowance for doubtful accounts	(3,852)		
	1,176,526	1,176,526	_
(3) Short-term investment securities and investment securities Available-for-sale securities	180,595	180,595	_
Total assets	2,678,134	2,678,134	_
(1) Notes and accounts payable—trade	431,586	431,586	_
(2) Bonds	521,648	522,770	1,122
(3) Long-term borrowings (*1)	1,851,487	1,858,068	6,573
Total liabilities	2,804,730	2,812,433	7,703
Derivative transactions ^(*2)	(4,208)	(4,208)	_

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

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

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Fiscal 2020

_	Millions of yen		
	Carrying amount	Fair value	Unrealized gain (loss)
(1) Cash and deposits	¥184,319	¥184,319	¥
(2) Notes and accounts receivable-trade	117,172		
Allowance for doubtful accounts	(439)		
-	116,732	116,732	_
(3) Short-term investment securities and investment securities			
Available-for-sale securities	25,011	25,011	_
Total assets	326,063	326,063	_
(1) Notes and accounts payable—trade	36,161	36,161	—
(2) Bonds ^(*1)	80,000	80,285	285
(3) Long-term borrowings (*2)	206,910	208,486	1,575
Total liabilities	323,072	324,933	1,861
Derivative transactions ^(*3)	(1,138)	(1,138)	_

(*1) Bonds include the current portion of bonds payable.

(*2) Long-term borrowings include the current portion of long-term borrowings.

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

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

Assets:

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

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

(3) Short-term investment securities and investment securities

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

Liabilities:

(1) Notes and accounts payable-trade

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

(2) Bonds

The fair value of bonds is determined at the present value that is calculated by discounting the aggregated values of the principal and interest using an interest rate reflecting the remaining terms of the Company's bonds and the credit risk.

(3) Long-term borrowings

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

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

Kuraray Co., Ltd. and its Consolidated Subsidiaries / Year ended December 31, 2021

Derivative financial instruments:

Please see Note 14. "Derivative Financial Instruments."

2. Financial instruments whose fair values are not readily determinable

	Million	Thousands of U.S. dollars Carrying amount	
	Carrying		
Category	Fiscal 2021	Fiscal 2020	Fiscal 2021
Unlisted equity securities	¥8,772	¥8,390	\$76,265

These items are not included in "(3) Short-term investment securities and investment securities," because there is no market price, future

cash flows cannot be estimated and it is very difficult to identify fair values.

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

Fiscal 2021

	Millions of yen				
	Within one year	One to five years	Five to ten years	Over ten years	
Cash and deposits	¥151,942	¥—	¥—	¥—	
Notes and accounts receivable—trade Short-term investment securities and investment securities: Available-for-sale securities with contractual maturities:	135,768	_	-	_	
(1) Bonds (Corporate)	_	_	—		
(2) Bonds (Others)	_	—	_		
(3) Others	3,855	—	_		
Total	¥291,566	¥—	¥—	¥—	

	Thousands of U.S. dollars				
	Within one year	One to five years	Five to ten years	Over ten years	
Cash and deposits	\$1,321,005	\$ —	\$ —	\$ —	
Notes and accounts receivable—trade	1,180,386	—	—	—	
Short-term investment securities and investment securities: Available-for-sale securities with contractual maturities:					
(1) Bonds (Corporate)	_	—	—	—	
(2) Bonds (Others)	_	_	_	_	
(3) Others	33,516	—	—	—	
Total	\$2,534,916	\$ —	\$ —	\$ —	

Kuraray Co., Ltd. and its Consolidated Subsidiaries / Year ended December 31, 2021

Fiscal 2020

	Millions of yen						
	Within one year	One to five years	Five to ten years	Over ten years			
Cash and deposits	¥184,319	¥—	¥—	¥—			
Notes and accounts receivable—trade Short-term investment securities and investment securities: Available-for-sale securities with contractual maturities:	117,172	—	_	_			
(1) Bonds (Corporate)	4,000	—	—	—			
(2) Bonds (Others)		—	—	—			
(3) Others	3,924	—	—	—			
Total	¥309,416	¥—	¥—	¥—			

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

Fiscal 2021

	Millions of yen							
-	Within one year	One to two years	Two to three years	Three to four years	Four to five years	Over five years		
Bonds	¥—	¥10,000	¥—	¥10,000	¥—	¥40,000		
Long-term borrowings	55,013	28,444	22,191	14,861	28,821	63,625		
Lease obligations	487	404	304	207	89	126		
Lease liabilities	1,438	1,443	1,331	1,211	1,089	11,962		
Total	¥56,938	¥40,292	¥23,827	¥26,281	¥30,001	¥115,714		

	Thousands of U.S. dollars								
_	Within one year	One to two years	Two to three years	Three to four years	Four to five years	Over five years			
Bonds	<u>\$</u> —	\$86,941	\$-	\$86,941	<u>\$</u> —	\$347,766			
Long-term borrowings	478,291	247,296	192,932	129,204	250,574	553,165			
Lease obligations	4,234	3,512	2,643	1,800	774	1,095			
Lease liabilities	12,502	12,546	11,572	10,529	9,468	103,999			
Total	\$495,027	\$350,304	\$207,155	\$228,491	\$260,833	\$1,006,034			

Fiscal 2020

	Millions of yen								
	Within one	One to two	Two to three	Three to four	Four to five	Over five			
	year	years	years	years	years	years			
Bonds	¥20,000	¥—	¥10,000	¥—	¥10,000	¥40,000			
Long-term borrowings	29	55,013	27,423	21,171	13,851	89,421			
Lease obligations	468	393	310	211	145	181			
Lease liabilities	1,554	914	1,088	1,049	1,083	11,932			
Total	¥22,052	¥56,321	¥38,822	¥22,432	¥25,080	¥141,535			

Kuraray Co., Ltd. and its Consolidated Subsidiaries / Year ended December 31, 2021

13 Securities

1. Available-for-sale securities with market value

Fiscal 2021

	Million	ns of yen		Thousands	of U.S. dollars	
	Book value (estimated fair value)	Cost	Net	Book value (estimated fair value)	Cost	Net
Securities with book value exceeding	· · · · · · · · · · · · · · · · · · ·					
their acquisition cost						
Equity securities	¥16,728	¥6,783	¥9,945	\$145,436	\$58,972	\$86,463
Bonds						
Government and municipal				—		—
Corporate	_			_		_
Others	_			_		_
Others	_			_		_
Subtotal	16,728	6,783	9,945	145,436	58,972	86,463
Securities with book value not exceeding						
their acquisition cost						
Equity securities	188	205	(17)	1,634	1,782	(148)
Bonds						
Government and municipal	_	_				
Corporate	_			_		_
Others	_			_		_
Others	3,855	3,855		33,516	33,516	_
Subtotal	4,043	4,061	(17)	35,150	35,307	(148)
Total	¥20,772	¥10,844	¥9,928	\$180,595	\$94,279	\$86,315

Note: Unlisted equity securities amounting to ¥2,702 million (US\$23,492 thousand) are excluded from the above table, because there is no market price

and it is very difficult to identify fair values.

Fiscal 2020

	Million	ns of yen	
	Book value		
	(estimated fair value)	Cost	Net
Securities with book value exceeding			
their acquisition cost			
Equity securities	¥16,327	¥6,999	¥9,328
Bonds			
Government and municipal			
Corporate			
Others			
Others			—
Subtotal	16,327	6,999	9,328
Securities with book value not exceeding			
their acquisition cost			
Equity securities	759	766	(7)
Bonds			
Government and municipal			
Corporate	4,000	4,000	
Others			
Others	3,924	3,924	
Subtotal	8,683	8,691	(7)
Total	¥25,011	¥15,690	¥9,320

Note: Unlisted equity securities amounting to ¥2,839 million are excluded from the above table, because there is no market price and it is very difficult to

identify fair values.

Kuraray Co., Ltd. and its Consolidated Subsidiaries / Year ended December 31, 2021

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

Fiscal 2021

	Millio	ns of yen		Thousands of U.S. dollars			
	Proceeds from sales	Total gain	Total loss	Proceeds from sales	Total gain	Total loss	
Others (Note 1)	¥1,359	¥558	¥—	\$11,815	\$4,851	\$ —	
Total	¥1,359	¥558	¥—	\$11,815	\$4,851	\$ —	

Notes: 1. Attributable to sale of stock.

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

Fiscal 2020

	Millions of yen						
	Proceeds from sales Total gain						
Others (Note 1)	¥2,399	¥737	¥(47)				
Total	¥2,399	¥737	¥(47)				

Notes: 1. Attributable to sale of stock.

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

3. Impairment loss on securities

The Company recognized impairment loss on securities of ¥8 million (US\$70 thousand) in fiscal 2021 and ¥35 million in fiscal 2020.

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

14 Derivative Financial Instruments

1. Derivative transactions to which hedge accounting is not applied

(1) Currencies

Fiscal 2021

			Millions of	yen	
Category	Classification	Nominal amount	Nominal amount due after one year	Market value	Unrealized gain (loss)
Transactions other than	Forward foreign exchange contracts:				
market transactions	Receipts in Yen/Payments in U.S. dollar	¥8,521	¥—	¥(115)	¥(115)
	Receipts in Yen/Payments in Euro	5,058	_	(6)	(6)
	Receipts in Yen/Payments in Australian dollar Receipts in Yen/Payments in Baht	7,007 14,065	Ξ	(133) (90)	(133) (90)
	Receipts in Yen/Payments in Zloty	1,102	—	11	11
	Receipts in U.S. dollar/Payments in Yen	1,346	—	15	15
	Other Non-deliverable forward foreign exchange transaction:	2,964	_	(28)	(28)
	Receipts in Yen/Payments in Won	4,806	_	(94)	(94)
	Other	17	_	(0)	(0)
Total		¥44,891	¥—	¥(443)	¥(443)

			Thousands of U.	S. dollars	
Category	Classification	Nominal amount	Nominal amount due after one year	Market value	Unrealized gain (loss)
Transactions other than	Forward foreign exchange contracts:				
market transactions	Receipts in Yen/Payments in U.S. dollar	\$74,083	\$ —	\$(1,000)	\$(1,000)
	Receipts in Yen/Payments in Euro	43,975	_	(52)	(52)
	Receipts in Yen/Payments in Australian dollar	60,920	_	(1,156)	(1,156)
	Receipts in Yen/Payments in Baht	122,283	_	(782)	(782)
	Receipts in Yen/Payments in Zloty	9,581	_	96	96
	Receipts in U.S. dollar/Payments in Yen	11,702	_	130	130
	Other Non-deliverable forward foreign exchange transaction:	25,769	_	(243)	(243)
	Receipts in Yen/Payments in Won	41,784	_	(817)	(817)
	Other	148	_	(0)	(0)
Total		\$390,289	\$ —	\$(3,852)	\$(3,852)

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

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

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Fiscal 2020

		Millions of yen				
Category	Classification	Nominal amount	Nominal amount due after one year	Market value	Unrealized gain (loss)	
Transactions other than	Forward foreign exchange contracts:					
market transactions	Receipts in Yen/Payments in U.S. dollar	¥8,584	¥—	¥69	¥69	
	Receipts in Yen/Payments in Euro	3,136	_	(90)	(90)	
	Receipts in Yen/Payments in					
	Australian dollar	6,091	—	(148)	(148)	
	Other	2,935	—	(17)	(17)	
	Non-deliverable forward foreign exchange transaction:					
	Receipts in Yen/Payments in Won	4,702	_	(125)	(125)	
Total		¥25,450	¥—	¥(311)	¥(311)	

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

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

2. Derivative transactions to which hedge accounting is applied

(1) Currencies

Fiscal 2021

			Millions of yen			Th	ousands of U.S. doll	ars
Hedge accounting method	Classification	Major hedged items	Nominal amount	Nominal amount over one year	Market value	Nominal amount	Nominal amount over one year	Market value
Allocation method	Forward foreign exchange contracts:							
	Receipts in Yen/ Payments in U.S. dollar	Accounts receivable—trade	¥383	¥—	Note	\$3,330	\$ —	Note
	Receipts in Yen/ Payments in Baht	Loans receivable	240	—	Note	2,087	—	Note
	Other	Accounts payable—trade	100	_	Note	869	—	Note
Total			¥724	¥—		\$6,295	\$ —	

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

		-		Millions of yen		Th	ousands of U.S. doll	ars
Hedge				Nominal			Nominal	
accounting			Nominal	amount over	Market	Nominal	amount over	Market
method	Classification	Major hedged items	amount	one year	value	amount	one year	value
Deferred hedge method	Forward foreign exchange contracts:							
	Receipts in Yen/ Payments in U.S. dollar	Forecasted transactions in foreign currencies	¥3,276	¥—	¥(7)	\$28,482	\$ —	\$(61)
	Receipts in Yen/ Payments in Euro	Forecasted transactions in foreign currencies	1,788	_	(9)	15,545	—	(78)
	Receipts in U.S. dollar/ Payments in Yen	Forecasted transactions in foreign currencies	1,725	_	24	14,997	_	209
	Receipts in Yen/ Payments in Baht	Forecasted transactions in foreign currencies	1,431	_	(2)	12,441	_	(17)
	Other	Forecasted transactions in foreign currencies	415	_	(1)	3,608	_	(9)
Total			¥8,637	¥—	¥3	\$75,091	\$ —	\$26

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

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Fiscal 2020

				Millions of yen	
Hedge accounting method	Classification	Major hedged items	Nominal amount	Nominal amount over one year	Market value
Allocation method	Forward foreign exchange contracts:				
	Receipts in Yen/ Payments in U.S. dollar	Accounts receivable—trade	¥319	¥—	Note
	Receipts in Yen/ Payments in Baht	Loans receivable	12,280		Note
	Other	Accounts payable—trade	132	_	Note
Total			¥12,732	¥	

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

				Millions of yen	
Hedge accounting method	Classification	Major hedged items	Nominal amount	Nominal amount over one year	Market value
0	Forward foreign				
method	exchange contracts:				
	Receipts in Yen/ Payments in U.S. dollar	Forecasted transactions in foreign currencies	¥3,038	¥—	¥8
	Receipts in Yen/ Payments in Euro	Forecasted transactions in foreign currencies	1,218	—	(1)
	Receipts in U.S. dollar/ Payments in Euro	Forecasted transactions in foreign currencies	1,097	165	(81)
	Receipts in U.S. dollar/ Payments in Yen	Forecasted transactions in foreign currencies	1,090	_	(10)
	Receipts in Yen/ Payments in Baht	Forecasted transactions in foreign currencies	3,753	305	50
	Other	Forecasted transactions in foreign currencies	1,159	29	(9)
otal			¥11,357	¥500	¥(44)

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

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(2) Interest rate

Fiscal 2021

				Millions of yen	
Hedge accounting				Nominal amount	
method	Classification	Major hedged items	Nominal amount	over one year	Market value
Special treatment	Interest rate swaps:				
For interest rate swaps	Floating rate into fixed rate	Long-term borrowings	¥31,000	¥16,000	Note

			TI	housands of U.S. dollars	
Hedge accounting				Nominal amount	
method	Classification	Major hedged items	Nominal amount	over one year	Market value
Special treatment	Interest rate swaps:				
For interest rate swaps	Floating rate into fixed rate	Long-term borrowings	\$269,518	\$139,106	Note

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

				Millions of yen	
Hedge accounting				Nominal amount	
method	Classification	Major hedged items	Nominal amount	over one year	Market value
Deferred hedge method	Interest rate swaps:				
Defended fledge filetilod	Floating rate into fixed rate	Long-term borrowings	¥16,807	¥16,807	¥(331)

			T	housands of U.S. dollars	
Hedge accounting				Nominal amount	
method	Classification	Major hedged items	Nominal amount	over one year	Market value
Deferred had as mathed	Interest rate swaps:				
Deferred hedge method	Floating rate into fixed ra	ate Long-term borrowings	\$146,122	\$146,122	\$(2,878)

Note: Market values are calculated based on the prices provided by financial institutions the Company entered into the contracts with.

Fiscal 2020

				Millions of yen	
Hedge accounting				Nominal amount	
method	Classification	Major hedged items	Nominal amount	over one year	Market value
Special treatment	Interest rate swaps:				
For interest rate swaps	Floating rate into fixed rate	Long-term borrowings	¥31,000	¥31,000	Note
			1 0.1		

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

				Millions of yen	
Hedge accounting				Nominal amount	
method	Classification	Major hedged items	Nominal amount	over one year	Market value
Deferred hedge method	Interest rate swaps: Floating rate into fixed rate	Long-term borrowings	¥16,856	¥4,900	¥(782)

Note: Market values are calculated based on the prices provided by financial institutions the Company entered into the contracts with.

Kuraray Co., Ltd. and its Consolidated Subsidiaries / Year ended December 31, 2021

(3) Commodity

Fiscal 2021

				Millions of yen	
Hedge accounting				Nominal amount	
method	Classification	Major hedged items	Nominal amount	over one year	Market value
Deferred hedge method	Commodity swaps: Floating rate into fixed rate	Raw material	¥1,009	¥767	¥288
			т	housands of U.S. dollars	
Hedge accounting				Nominal amount	
method	Classification	Major hedged items	Nominal amount	over one year	Market value
Deferred hedge method	Commodity swaps: Floating rate into fixed rate	Raw material	\$8,772	\$6,668	\$2,504

Fiscal 2020

				Millions of yen	
Hedge accounting				Nominal amount	
method	Classification	Major hedged items	Nominal amount	over one year	Market value
Deferred hedge method	Commodity swaps: Floating rate into fixed rate	Raw material	¥769	¥479	¥0

Note: Market values are calculated based on the prices provided by financial institutions the Company entered into the contracts with.

15 Retirement Benefits

1. Summary of retirement benefit plan

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

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

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

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

In fiscal 2021, some consolidated subsidiaries revised their retirement benefit plans, resulting in prior service costs (a reduction in retirement benefit obligations).

2. Defined benefit plan

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

	Million	s of yen	Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Retirement benefit obligations at beginning of year	¥69,384	¥66,932	\$603,234
Service costs	3,065	2,853	26,648
Interest costs	931	994	8,094
Actuarial gain or loss	(967)	2,129	(8,407)
Prior service costs recorded during the period	(2,165)		(18,823)
Benefits paid	(3,553)	(2,612)	(30,890)
Other	2,638	(912)	22,935
Retirement benefit obligations at end of year	¥69,334	¥69,384	\$602,800

Note: "Other" mainly consists of foreign currency translation adjustment (change due to effects of foreign currency translation).

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

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Plan assets at beginning of year	¥48,203	¥48,562	\$419,084
Expected return on plan assets	1,401	1,279	12,180
Actuarial gain or loss	(110)	1,006	(956)
Contribution from entrepreneur	1,188	1,019	10,329
Benefits paid	(3,693)	(2,754)	(32,107)
Other	2,165	(910)	18,823
Plan assets at end of year	¥49,153	¥48,203	\$427,343

Note: "Other" mainly consists of foreign currency translation adjustment (change due to effects of foreign currency translation).

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

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Net defined benefit liabilities at beginning of year	¥2,170	¥1,856	\$18,866
Retirement benefit expenses	510	633	4,434
Benefits paid	(158)	(154)	(1,374)
Contribution to plan assets	(140)	(164)	(1,217)
Other	0	0	0
Net defined benefit liabilities at end of year	¥2,382	¥2,170	\$20,709

(4) Reconciliations of net amount of retirement benefit liabilities and plan assets and net amount of net defined benefit liabilities and net defined

benefit assets recognized on the consolidated balance sheet

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Installment type retirement benefit obligation	¥62,460	¥61,540	\$543,036
Plan assets	(50,397)	(49,338)	(438,159)
	12,063	12,201	104,877
Non installment type retirement benefit obligation	10,499	11,150	91,280
Net amount of net defined benefit liabilities and net defined benefit			
assets recognized on the consolidated balance sheet	¥22,563	¥23,352	\$196,166
Net defined benefit liabilities	¥25,629	¥25,449	\$222,822
Net defined benefit assets	(3,066)	(2,097)	(26,656)
Net amount of net defined benefit liabilities and net defined benefit			
assets recognized on the consolidated balance sheet	¥22,563	¥23,352	\$196,166

Note: Includes plan that uses the simplified method.

(5) The components of retirement benefit expenses

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Service costs	¥3,065	¥2,853	\$26,648
Interest costs	931	994	8,094
Expected return on plan assets	(1,401)	(1,279)	(12,180)
Amortization of actuarial gains or losses	927	676	8,059
Amortization of prior service costs	(12)	69	(104)
Retirement benefit expenses calculated by simplified method	510	633	4,434
Other	311	340	2,704
Retirement benefit expense pertaining to defined benefit plan	¥4,331	¥4,286	\$37,654

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

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

	Million	ns of yen	Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Prior service costs	¥2,152	¥69	\$18,710
Actuarial gain or loss	1,783	(446)	15,502
Total	¥3,936	¥(377)	\$34,220

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

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

income taxes).

	Million	ns of yen	Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Unrecognized prior service costs	¥1,677	¥(475)	\$ 14,580
Unrecognized actuarial gain or loss	(5,480)	(7,264)	(47,644)
Total	¥(3,803)	¥(7,739)	\$(33,064)

(8) Plan assets

a. The components of plan assets

	Fiscal 2021	Fiscal 2020
Debt securities	54%	54%
Equity securities	14	12
Life insurance company general accounts (Note 1)	13	15
Cash and deposits	3	3
Other assets	16	16
Total (Note 2)	100%	100%

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

2. Total retirement plan assets for the years ended December 31, 2021 and 2020 include 26% and 30%, respectively, of the retirement benefits trust established for the lump sum retirement plan.

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

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

(9) Actuarial assumptions

	Fiscal 2021	Fiscal 2020
Discount rate	Mainly 0.7% to 2.9%	Mainly 0.5% to 2.6%
Long-term expected rate of return	Mainly 1.0% to 5.5%	Mainly 1.0% to 5.5%

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3. Defined contribution plan

The amounts of required contribution to the defined contribution plan of the Company and its consolidated subsidiaries for the years ended December 31,

2021 and 2020 are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Defined contribution plan	¥1,419	¥1,156	\$12,337

4. Multi-employer plan

The contribution to the multi-employer plan, which is accounted for in the same manner as the defined contribution plan for the years ended December 31, 2021 and 2020, totaled ¥83 million (US\$722 thousand) and ¥81 million, respectively.

Multi-employer plan in which overseas consolidated subsidiaries participate

(1) Accumulated funds for the plan

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2021 (As of June 30, 2021)	Fiscal 2020 (As of June 30, 2020)	Fiscal 2021 (As of June 30, 2021)
Plan assets	¥63,402	¥57,848	\$551,226
Total of actuarial pension liabilities and plan's minimum reserve	60,850	58,714	\$529,038
Difference	¥2,551	¥(866)	\$22,179

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

Fiscal 2021 (As of June 30, 2021)	Fiscal 2020 (As of June 30, 2020)
4.2%	4.1%

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

16 Stock-Based Compensation Plans

1. Item and amount of expenses for stock options

	Millions of yen		Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Selling, general and administrative expenses	¥115	¥113	\$1,000

2. Amount recorded as profit as a result of forfeiture due to non-exercise of rights

Millions	Millions of yen		
Fiscal 2021	Fiscal 2020	Fiscal 2021	
¥—	¥285	\$ —	

3. Details including size and changes of stock options

(1) Stock options plans

T

	Stock options May 2013	Stock options May 2014	
Resolution date	April 25, 2013	April 25, 2014	
Number of eligible persons by position	Directors of the Company: 10 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 17	Directors of the Company: 10 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 17	
Total number and type of stocks granted	88,000 shares of common stock	78,500 shares of common stock	
Grant date	May 15, 2013	May 15, 2014	
Prerequisite to be vested	No vesting conditions are set.	No vesting conditions are set.	
Required service period	There is no provision for a required service period.	There is no provision for a required service period.	
Exercise period	From May 15, 2013 to May 14, 2028; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date. A holder of subscription rights to shares may exercise the subscription rights to shares within 10 days from one day after the day he/she loses his or her position as a director or an executive officer (the "Rights Commencement Date"). Notwithstanding the above, if the holder of subscription rights to shares fails to reach the Rights Commencement Date by April 15, 2028, he/she may exercise his or her rights from the following business day to the date of expiration of the above exercise period of the subscription rights to shares.	From May 15, 2014 to May 14, 2029; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date. A holder of subscription rights to shares may exercise the subscription rights to shares within 10 days from one day after the day he/she loses his or her position as a director or an executive officer (the "Rights Commencement Date"). Notwithstanding the above, if the holder of subscription rights to shares fails to reach the Rights Commencement Date by April 15, 2029, he/she may exercise his or her rights from the following business day to the date of expiration of the above exercise period of the subscription rights to shares.	
Number of subscription rights to shares (units) (Note 3)	12	17	
Type, content and number of shares subject to subscription rights to shares (Note 3)	6,000 shares of common stock	8,500 shares of common stock	
Amount paid at the time of exercise of subscription rights to shares (yen) (Note 3)	¥1/share (US\$0.01)	¥1/share (US\$0.01)	
Issue price of shares and amount to be incorporated into stated capital when issuing shares through exercise of subscription rights to shares (yen) (Note 3)	Issue price: ¥1,483 (US\$12.89) Amount to be incorporated into stated capital: ¥742 (US\$6.45)	Issue price: ¥1,120 (US\$9.74) Amount to be incorporated into stated capital: ¥560 (US\$4.87)	
Conditions for exercising subscription rights to shares (Note 3)	(No	ote 1)	
Matters related to transfer of subscription rights to shares ^(Note 3)	Acquisition of the subscription rights to shares by trar Board of Directors of the Company.	sfer shall require the approval by resolution of the	
Matters related to delivery of subscription rights to shares in association with reorganization ^(Note 3)	(No	ote 2)	
	Stock options February 2015	Stock options February 2016	

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Resolution date	January 21, 2015	January 20, 2016			
Number of eligible persons by position	Directors of the Company: 12 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 11	Directors of the Company: 12 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 10			
Total number and type of stocks granted	59,500 shares of common stock	69,000 shares of common stock			
Grant date	February 17, 2015	February 10, 2016			
Prerequisite to be vested	No vesting conditions are set.	No vesting conditions are set.			
Required service period	There is no provision for a required service period.	There is no provision for a required service period.			
Exercise period	From February 17, 2015 to February 16, 2030; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date. A holder of subscription rights to shares may exercise the subscription rights to shares within 10 days from one day after the day he/she loses his or her position as a director or an executive officer (the "Rights Commencement Date"). Notwithstanding the above, if the holder of subscription rights to shares fails to reach the Rights Commencement Date by January 17, 2030, he/she may exercise his or her rights from the following business day to the date of expiration of the above exercise period of the subscription rights to shares.	From February 10, 2016 to February 9, 2031; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date. A holder of subscription rights to shares may exercise the subscription rights to shares within 10 days from one day after the day he/she loses his or her position as a director or an executive officer (the "Rights Commencement Date"). Notwithstanding the above, if the holder of subscription rights to shares fails to reach the Rights Commencement Date by January 10, 2031, he/she may exercise his or her rights from the following business day to the date of expiration of the above exercise period of the subscription rights to shares.			
Number of subscription rights to shares (units) (Note 3)	24	41			
Type, content and number of shares subject to subscription rights to shares (Note 3)	12,000 shares of common stock	20,500 shares of common stock			
Amount paid at the time of exercise of subscription rights to shares (yen) (Note 3)	¥1/share (US\$0.01)	¥1/share (US\$0.01)			
Issue price of shares and amount to be incorporated into stated capital when issuing shares through exercise of subscription rights to shares (yen) (Note 3)	Issue price: ¥1,353 (US\$11.76) Amount to be incorporated into stated capital: ¥677 (US\$5.89)	Issue price: ¥1,201 (US\$10.44) Amount to be incorporated into stated capital: ¥601 (US\$5.23)			
Conditions for exercising subscription rights to shares (Note 3)	(No	ote 1)			
Matters related to transfer of subscription rights to shares ^(Note 3)	Acquisition of the subscription rights to shares by transfer shall require the approval by resolution of the Board of Directors of the Company.				
Matters related to delivery of subscription rights to shares in association with reorganization (Note 3)	(Note 2)				

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	Stock options February 2017	Stock options February 2018		
Resolution date	January 18, 2017	January 17, 2018		
Number of eligible persons by position	Directors of the Company: 12 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 11			
Fotal number and type of stocks granted	75,500 shares of common stock	45,000 shares of common stock		
Grant date	February 9, 2017	February 15, 2018		
Prerequisite to be vested	No vesting conditions are set.	No vesting conditions are set.		
Required service period	There is no provision for a required service period.	There is no provision for a required service period.		
Exercise period	From February 9, 2017 to February 8, 2032; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date. A holder of subscription rights to shares may exercise the subscription rights to shares within 10 days from one day after the day he/she loses his or her position as a director or an executive officer (the "Rights Commencement Date"). Notwithstanding the above, if the holder of subscription rights to shares fails to reach the Rights Commencement Date by January 9, 2032, he/she may exercise his or her rights from the following business day to the date of expiration of the above exercise period of the subscription rights to shares.	From February 15, 2018 to February 14, 2033; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date A holder of subscription rights to shares may exercise the subscription rights to shares within 10 days from one day after the day he/she loses his or her position as a director or an executive officer (the "Rights Commencement Date"). Notwithstanding the above, if the holder of subscription rights to shares fails to reach the Rights Commencement Date by January 15, 2033, he/she may exercise his or her rights from the following business day to the date of expiration of the above exercise period of the subscription rights to shares.		
Number of subscription rights to shares (units) ^(Note 3)	74	57		
Γype, content and number of shares subject to subscription rights to shares ^(Note 3)	37,000 shares of common stock	28,500 shares of common stock		
Amount paid at the time of exercise of subscription rights to shares (yen) Note 3)	¥1/share (US\$0.01)	¥1/share (US\$0.01)		
ssue price of shares and amount to be incorporated into stated capital when issuing shares through exercise of subscription rights to shares (yen) Note 3)	Issue price: ¥1,539 (US\$13.38) Amount to be incorporated into stated capital: ¥770 (US\$6.69)	Issue price: ¥1,762 (US\$15.32) Amount to be incorporated into stated capital: ¥881 (US\$7.66)		
Conditions for exercising subscription rights to shares ^(Note 3)	(No	ote 1)		
Matters related to transfer of subscription rights to shares ^(Note 3)	Acquisition of the subscription rights to shares by trar Board of Directors of the Company.	sfer shall require the approval by resolution of the		
Matters related to delivery of subscription rights to shares in association with reorganization (Note 3)	(Note 2)			

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	Stock options February 2019	Stock options February 2020		
Resolution date	January 16, 2019	January 22, 2020		
Number of eligible persons by position	Directors of the Company: 9 Executive officers of the Company (excluding those who concurrently serve as directors of the Company and those working overseas): 13	Directors of the Company: 12 Executive officers of the Company (excluding the who concurrently serve as directors of the Compa and those working overseas): 12		
Fotal number and type of stocks granted	64,500 shares of common stock	86,500 shares of common stock		
Grant date	February 14, 2019	February 14, 2020		
Prerequisite to be vested	No vesting conditions are set.	No vesting conditions are set.		
Required service period	There is no provision for a required service period.	There is no provision for a required service period.		
Exercise period	From February 14, 2019 to February 13, 2034; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date. A holder of subscription rights to shares may exercise the subscription rights to shares within 10 days from one day after the day he/she loses his or her position as a director or an executive officer (the "Rights Commencement Date"). Notwithstanding the above, if the holder of subscription rights to shares fails to reach the Rights Commencement Date by January 14, 2034, he/she may exercise his or her rights from the following business day to the date of expiration of the above exercise period of the subscription rights to shares.	From February 14, 2020 to February 13, 2035; provided that, if the final date of the exercise period is a holiday for the Company, the final date should be the business date immediately preceding the date. A holder of subscription rights to shares may exercise the subscription rights to shares within 10 days from one day after the day he/she loses his or her position as a director or an executive officer (the "Rights Commencement Date"). Notwithstanding the above, if the holder of subscription rights to shares fails to reach the Rights Commencement Date by January 14, 2035, he/she may exercise his or her rights from the following business day to the date of expiration of the above exercise period of the subscription rights to shares.		
Number of subscription rights to shares (units) ^(Note 3)	87	117		
Class, content and number of shares subject to subscription rights to shares (Note 3)	43,500 shares of common stock	58,500 shares of common stock		
Amount paid at the time of exercise of subscription rights to shares (yen) Note 3)	¥1/share (US\$0.01)	¥1/share (US\$0.01)		
ssue price of shares and amount to be incorporated into stated capital when issuing shares through exercise of subscription rights to shares (yen) Note 3)	Issue price: ¥1,467 (US\$12.75) Amount to be incorporated into stated capital: ¥734 (US\$6.38)	Issue price: ¥1,315 (US\$11.43) Amount to be incorporated into stated capital: ¥658 (US\$5.72)		
Conditions for exercising subscription rights to shares (Note 3)	(No	ote 1)		
Matters related to transfer of subscription rights to shares ^(Note 3)	Acquisition of the subscription rights to shares by tran Board of Directors of the Company.	sfer shall require the approval by resolution of the		
Matters related to delivery of subscription rights to shares in association with reorganization (Note 3)	(Note 2)			

Kuraray Co., Ltd. and its Consolidated Subsidiaries / Year ended December 31, 2021

	Stock options February 2021
Resolution date	January 20, 2021
Number of eligible persons	Directors of the Company (excluding those working
by position	overseas): 11
y position	Executive officers of the Company (excluding those
	who concurrently serve as directors of the Company
	and those working overseas): 13
Fotal number and type of	98,500 shares of common stock
stocks granted	,
Grant date	February 12, 2021
Prerequisite to be vested	No vesting conditions are set.
Required service period	There is no provision for a required service period.
Exercise period	From February 12, 2021 to February 11, 2036;
-	provided that, if the final date of the exercise period
	is a holiday for the Company, the final date should
	be the business date immediately preceding the date
	A holder of subscription rights to shares may
	exercise the subscription rights to shares within 10
	days from one day after the day he/she loses his or
	her position as a director or an executive officer (the
	"Rights Commencement Date").
	Notwithstanding the above, if the holder of
	subscription rights to shares fails to reach the Rights
	Commencement Date by January 12, 2036, he/she
	may exercise his or her rights from the following
	business day to the date of expiration of the above
	exercise period of the subscription rights to shares.
Number of subscription rights to	184
shares (units) (Note 3)	104
Class, content and number of shares	
subject to subscription rights to	92,000 shares of common stock
hares (Note 3)	, _,
Amount paid at the time of exercise	
of subscription rights to shares (yen)	$\frac{1}{2}$ ×1/share (US\$0.01)
Note 3)	¥1/share (US\$0.01)
ssue price of shares and amount to	
be incorporated into stated capital	Issue price: ¥1,175 (US\$10.22)
when issuing shares through exercise	
6 6	Amount to be incorporated into stated capital: ¥588
of subscription rights to shares (yen) Note 3)	(US\$5.11)
Conditions for exercising	(Note 1)
subscription rights to shares (Note 3)	× /
Matters related to transfer of	Acquisition of the subscription rights to shares by
subscription rights to shares (Note 3)	transfer shall require the approval by resolution of
1 0	the Board of Directors of the Company.
Matters related to delivery of	
ubscription rights to shares in	(Note 2)
ssociation with reorganization (Note 3)	(100 2)
issociation with reorganization ("""")	

Notes: 1. Conditions for exercising subscription rights to shares

(i) If the Company decides to acquire the subscription rights to shares without contribution by resolution of a shareholders' meeting or a Board

of Directors' meeting (Note 1-1), a holder of the subscription rights to shares may exercise the subscription rights to shares for a period that

is prior to the date of such gratis acquisition and is separately determined by the Board of Directors.

(ii) If a holder of the subscription rights to shares is deceased, his or her heir may exercise the subscription rights to shares pursuant to the conditions specified in the "Contracts on Subscription Rights to Shares" listed in (iii) below.

- (iii) The other exercise conditions are prescribed in the "Contracts on Subscription Rights to Shares" to be concluded between the Company and a holder of the subscription rights to shares.
- 1-1. If a proposal for approval of a merger agreement in which the Company will be a non-surviving company, an absorption-type split agreement or an incorporation-type company split plan in which the Company will be a split company, or a share exchange agreement or a share transfer plan in which the Company will be a wholly-owned subsidiary, is approved at the shareholders' meeting of the Company (if the resolution of the shareholders' meeting is not required, a resolution at the Board of Directors of the Company that approves these proposals), the Company may acquire all the remaining subscription rights to shares without consideration, as of the date separately determined by the Board of Directors.
- 2. Matters related to delivery of subscription rights to shares in association with reorganization

When the Company carries out a merger (only where the Company becomes a non-surviving company), absorption-type split, incorporation-type company split, share exchange or share transfer (collectively the "Reorganizational Acts"), the subscription rights to shares of a stock company listed in (a) to (e) in Paragraphs 1-8, Article 236 of the Companies Act ("Reorganized Company") shall be delivered to a holder of the subscription rights to shares who holds the remaining subscription rights to shares at the effective timing of the Reorganizational Acts ("Remaining Subscription Rights to Shares"), for each case, based on the conditions described below. In this case, Remaining Subscription Rights to Shares shall be extinguished, and the Reorganized Company shall newly deliver subscription rights to shares. However, the foregoing is limited to a case that a provision to deliver subscription rights to shares of the Reorganized Company pursuant to the following conditions is stipulated in an absorption-type merger agreement, an incorporation-type merger agreement, an absorption-type split agreement, an incorporation-type merger plan.

- Number of Reorganized Company's subscription rights to shares to be delivered
 The same number as that of Remaining Subscription Rights to Shares held by the holders of the subscription rights to shares shall be delivered, respectively.
- (ii) Type of shares of the Reorganized Company underlying the subscription rights to shares Common stock of the Reorganized Company.
- (iii) Number of shares of the Reorganized Company underlying the subscription rights to shares Determined in consideration for conditions of the Reorganizational Acts and other factors.
- (iv) Value of assets to be contributed upon exercise of the subscription rights to shares
 Post-reorganization paid-in amount shall be ¥1 per share of the Reorganized Company upon exercise of the subscription rights to shares. The value of assets to be contributed shall be calculated by multiplying the amount with the number of shares of the Reorganized Company determined according to (iii) above.
- (v) Exercise period of the subscription rights to shares
 From the starting day of the period for exercisable subscription rights to shares or the day when the Reorganization Action comes into effect, whichever comes later, to the expiration date of the exercise period of the subscription rights to shares above.
- (vi) Amount of capital to be increased when shares are issued upon exercise of the subscription rights to shares
 Half of the maximum amount of increase in stated capital calculated in accordance with Paragraph 1, Article 17 of the Regulation on
 Corporate Accounting, and any fraction of less than ¥1 resulting from the calculation shall be rounded up.

(vii) Restriction on acquisition of the subscription rights to shares by transfer

Acquisition of the subscription rights to shares by transfer requires the approval of the Board of Directors of the Reorganized Company.

(viii) Acquisition provision of the subscription rights to shares

Determined according to Note 1-1 above.

(ix) Other conditions for exercise of the subscription rights to shares

Determined according to "Exercise period of the subscription rights to shares" (v) and (Note 1) above.

3. Stated are details as of the end of fiscal 2021. As of the end of the month preceding the month that the filing date of the securities report belongs to

(February 28, 2022), there are no changes from the details as of the end of fiscal 2021.

(2) Size and changes of stock options

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

1) Number of stock options

	Stock options May 2013	Stock options May 2014	Stock options February 2015	Stock options February 2016	Stock options February 2017	Stock options February 2018
Unvested stock options (shares)						
At the beginning of the fiscal year	_			_	_	
Granted				_	_	
Forfeited		_	_	_	_	
Vested	_			_	_	
At the end of the fiscal year				_	_	
Vested stock options (shares)						
At the beginning of the fiscal year	6,000	9,500	13,000	21,500	39,000	30,500
Vested	_					
Exercised		1,000	1,000	1,000	2,000	2,000
Forfeited						
At the end of the fiscal year	6,000	8,500	12,000	20,500	37,000	28,500

	Stock options February 2019	Stock options February 2020	Stock options February 2021
Unvested stock options (shares)			
At the beginning of the fiscal year			_
Granted		_	98,500
Forfeited		_	
Vested		_	98,500
At the end of the fiscal year			
Vested stock options (shares)			
At the beginning of the fiscal year	47,000	63,000	
Vested		_	98,500
Exercised	3,500	4,500	6,500
Forfeited			
At the end of the fiscal year	43,500	58,500	92,000

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2) Price information

Fair value at the grant date

Τ

			Y	en		
	Stock options May 2013	Stock options May 2014	Stock options February 2015	Stock options February 2016	Stock options February 2017	Stock options February 2018
Exercise prices	¥1	¥1	¥1	¥1	¥1	¥1
Weighted-average exercise date						
stock price		1,282	1,282	1,282	1,282	1,282
Fair value at the grant date	1,482	1,119	1,352	1,200	1,538	1,761
				_		
		Yen				
	Stock options	Stock options	Stock options	-		
	February 2019	February 2020	February 2021			
Exercise prices	¥1	¥1	¥1	_		
Weighted-average exercise date						
stock price	1,282	1,282	1,282			

		U.S. dollars				
	Stock options May 2013	Stock options May 2014	Stock options February 2015	Stock options February 2016	Stock options February 2017	Stock options February 2018
Exercise prices	\$0.01	\$0.01	\$0.01	\$0.01	\$0.01	\$0.01
Weighted-average exercise date						
stock price		11.15	11.15	11.15	11.15	11.15
Fair value at the grant date	12.88	9.73	11.75	10.43	13.37	15.31

1,174

1,314

	U.S. dollars				
	Stock options February 2019	Stock options February 2020	Stock options February 2021		
Exercise prices	\$0.01	\$0.01	\$0.01		
Weighted-average exercise date					
stock price	11.15	11.15	11.15		
Fair value at the grant date	12.75	11.42	10.21		

1,466

4. Method to estimate fair value of stock options

The fair value of the February 2021 stock options, which were granted in fiscal 2021 are estimated as follows:

- (1) Valuing method: Black-Scholes model
- (2) Major basic figures and estimating method

	February 2021 stock options
Stock price volatility ^(Note 1) 36.4%	
Expected remaining life (Note 2)	1.0 year
Expected dividend (Note 3)	¥40/share (US\$0.348)
Risk-free interest rate (Note 4)	-0.12%

Notes: 1. Calculated weekly based on the weekly stock price information over a period from the week that contains February 3, 2020 to the week that contains February 8, 2021.

- 2. Calculated by subtracting the average period of service of directors and executive officers who are currently in office as of the day of grant from the past average period of service of directors and executive officers.
- 3. Based on the dividend paid for the fiscal year ended December 2020.
- 4. Government bond yield over a period corresponding to the expected remaining life.

5. Method to estimate number of vested stock options

Stock options February 2021

The number of vested stock options is the same as the number of stock options granted, since no vesting conditions are set for the February 2021 stock

options.

17 Income Taxes

1. Significant components of deferred tax assets and liabilities at December 31, 2021 and December 31, 2020

	Millions	s of yen	Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Deferred tax assets:			
Net defined benefit liabilities	¥10,566	¥10,894	\$91,862
Impairment loss	3,612	2,572	31,403
Accrued expenses	3,229	7,968	28,073
Unrealized gain on inventories	2,245	1,411	19,518
Depreciation and amortization	2,182	1,990	18,971
Provision for bonuses	1,614	1,077	14,032
Tax credit carry forward of overseas subsidiaries	1,670	880	14,519
Tax loss carry forward (Note)	13,860	7,818	120,501
Other	8,566	9,911	74,474
Subtotal deferred tax assets	47,549	44,526	413,398
Valuation allowance relating to tax loss carry forward (Note)	(6,099)	(4,974)	(53,026)
Valuation allowance for total deductible temporary differences	(5,898)	(6,486)	(51,278)
Subtotal valuation allowance	(11,997)	(11,460)	(104,304)
Total deferred tax assets	35,551	33,066	309,085
Deferred tax liabilities:			
Depreciation and amortization	(13,382)	(11,461)	(116,345)
Adjustment to book value of assets stated at fair value	(11,745)	(11,831)	(102,113)
Unrealized gain on revaluation of securities	(2,657)	(2,458)	(23,100)
Retained earnings of overseas subsidiaries	(1,192)	(807)	(10,363)
Other	(4,616)	(3,072)	(40,132)
Total deferred tax liabilities	(33,593)	(29,632)	(292,062)
Net deferred tax assets (liabilities)	¥1,958	¥3,433	\$17,023

Note: Amounts of tax loss carry forward and deferred tax assets according to the carryforward periods

Fiscal 2021 (December 31, 2021)

	Within	One to two	Two to three	Three to four	Four to five	Over five	
	one year	years	years	years	years	years	Total
Tax loss carry forward (*1)	¥89	¥35	¥107	¥120	¥160	¥13,346	¥13,860
Valuation allowance	(83)	(35)	(81)	(84)	(111)	(5,702)	(6,099
Deferred tax assets	6	_	26	35	49	7,644	^(*2) 7,761

						(Thousan	ds of U.S. dollars)
	Within	One to two	Two to three	Three to four	Four to five	Over five	
	one year	years	years	years	years	years	Total
Tax loss carry forward (*1)	\$774	\$304	\$930	\$1,043	\$1,391	\$116,032	\$120,501
Valuation allowance	(722)	(304)	(704)	(730)	(965)	(49,574)	(53,026)
Deferred tax assets	52	_	226	304	426	66,458	^(*2) 67,475
Deferred tax assets		(304)	226				

(*1) Tax loss carry forward is the amount multiplied by the normal effective tax rate.

(*2) With regard to the tax loss carry forward of ¥13,860 million (US\$120,501 thousand) (the amount multiplied by the normal effective tax rate), the amount recorded for deferred tax assets was ¥7,761 million (US\$67,475 thousand). Deferred tax assets recorded under tax loss carry forward represent the amount deemed to be recoverable based on the estimation of future taxable profit and the adequacy of the taxable temporary difference.

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Fiscal 2020 (December 31,											
	Within one year	One to two years	Two to three years	Three to four years	Four to five years	Over five years	Total				
Tax loss carry forward (*)	¥36	¥92	¥40	¥81	¥125	¥7,442	¥7,818				
Valuation allowance	(36)	(83)	(35)	(81)	(92)	(4,645)	(4,974)				
Deferred tax assets	—	8	5	_	32	2,797	2,844				

(*) Tax loss carry forward is the amount multiplied by the normal effective tax rate.

2. Reconciliation of the differences between the normal effective tax rate and the income tax rate in the accompanying consolidated statement of

income at December 31, 2021 and December 31, 2020

	Fiscal 2021	Fiscal 2020
Normal effective tax rate	30.4%	30.4%
(Adjustment)		
Non-deductible expenses for income tax purposes	1.6	10.8
Tax credit primarily for research and development expenses	(3.0)	(25.2)
Changes in valuation allowance	1.2	16.0
Amortization of goodwill	1.4	17.7
Effect of income tax rates difference	0.5	26.6
Income taxes for prior periods	2.4	_
Other	0.0	(12.6)
ncome tax rate per the consolidated statement of income	34.5%	63.7%

18 Asset Retirement Obligations

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

Overview of asset retirement obligations

Some tangible fixed assets of the Company and certain consolidated subsidiaries include assets containing asbestos and PCB which must be treated in the manner stipulated by the laws and ordinances when they are scrapped or removed. Accordingly, asset retirement obligations are recognized based on the estimated disposal costs and based on recovery expenses on rental agreements. The grounds laws, ordinances and agreements are as follows:

Disposal costs for asbestos	The Ordinance on Prevention of Asbestos Hazards
Disposal costs for equipment containing PCB	The Law concerning Special Measures for Promotion of Proper Treatment of PCB Wastes (PCB Special Measures Law)
Recovery expenses on rental properties	Rental agreements

Calculation method for the amount of asset retirement obligations

The Group determines the amounts of asset retirement obligations using discount rates ranging from 1.1% to 4.7% for the net cash flows, estimating the period of use to be 20 to 70 years after acquisition.

Increase or decrease of the total amount of asset retirement obligations during the fiscal years ended December 31, 2021 and December 31, 2020:

	Millio	ns of yen	Thousands of U.S. dollars
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Beginning balance	¥4,718	¥4,671	\$41,019
Adjustments due to the elapse of time	54	49	469
Decrease due to payment for the obligations	(788)	(216)	(6,851)
Other increase (decrease)	836	213	7,268
Ending balance	¥4,821	¥4,718	\$41,914

19 Segment Information

Segment information

1. Segment overview

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

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

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

The Vinyl Acetate segment manufactures and markets functional

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

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

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

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

Fiscal 2021 (January 1, 2021 to December 31, 2021)

Τ

-					Milli	ons of yen				Consolidated	
-	Reporting Segments Other										
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Trading	Total	Business (Note 1)	Total	Adjustment (Note 2)	Statements (Note 3)	
Net sales											
(1) Outside customers	¥254,814	¥31,994	¥118,085	¥46,023	¥141,306	¥592,224	¥37,146	¥629,370	¥—	¥629,370	
(2) Inter-segment sales and transfers	49,875	29,946	20,992	15,058	2,721	118,595	10,469	129,064	(129,064)		
Total.	304,690	61,940	139,078	61,082	144,027	710,819	47,615	758,435	(129,064)	629,370	
Segment income (loss)	57,726	5,694	8,189	5,302	4,852	81,766	908	82,674	(10,417)	72,256	
Segment assets	421,062	124,467	225,987	76,741	50,316	898,575	47,898	946,474	144,539	1,091,014	
Other items											
Depreciation and amortization (other than goodwill)	32,618	2,487	11,459	4,300	86	50,952	1,197	52,150	3,194	55,344	
Impairment loss	10	_	26	_	_	37	51	88	1,481	1,569	
Amortization of goodwill	1,290	_	2,368	_	_	3,659	_	3,659	_	3,659	
Balance of goodwill at end of current period	14,764	—	37,870	—	—	52,635	—	52,635	—	52,635	
Investments in equity method affiliates	_	—	—	2,967	—	2,967	—	2,967	—	2,967	
Increase in tangible fixed assets and intangible											
fixed assets	20,301	14,665	17,118	5,711	555	58,352	1,416	59,769	6,177	65,947	

Kuraray Co., Ltd. and its Consolidated Subsidiaries / Year ended December 31, 2021

-			Reporting Se				Consolidated			
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Trading	Total	Other Business (Note 1)	Total	Adjustment (Note 2)	Financial
Net sales										
(1) Outside customers	\$2,215,389	\$278,160	\$1,026,648	\$400,130	\$1,228,534	\$5,148,878	\$322,953	\$5,471,831	\$ —	\$5,471,831
(2) Inter-segment sales and transfers	433,620	260,355	182,507	130,916	23,657	1,031,082	91,019	1,122,101	(1,122,101)	
Total	2,649,018	538,515	1,209,164	531,055	1,252,191	6,179,960	413,971	6,593,940	(1,122,101)	5,471,831
Segment income (loss)	501,878	49,504	71,196	46,096	42,184	710,885	7,894	718,779	(90,567)	628,204
Segment assets	3,660,772	1,082,134	1,964,763	667,197	437,454	7,812,337	416,432	8,228,778	1,256,642	9,485,429
Other items										
Depreciation and amortization (other than goodwill)	283,585	21,622	99,62 6	37,385	748	442,984	10,407	453,399	27,769	481,168
Impairment loss	87	_	226	_	_	322	443	765	12,876	13,641
Amortization of goodwill	11,215	_	20,588	_	_	31,812		31,812	_	31,812
Balance of goodwill at end of current period Investments in equity	128,360	_	329,247	_	_	457,616	_	457,616	_	457,616
method affiliates Increase in tangible fixed	—	_	-	25,796	_	25,796	—	25,796	—	25,796
assets and intangible fixed assets	176,500	127,500	148,826	49,652	4,825	507,320	12,311	519,640	53,704	573,352

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

engineering business.

2. Adjustments are as follows:

- (a) Adjustments of negative ¥10,417 million (negative US\$90,567 thousand) for segment income include the elimination of intersegment transactions of ¥1,773 million (US\$15,415 thousand) and unallocated corporate expenses of negative ¥12,191 million (negative US\$105,990 thousand). These corporate expenses mainly comprise the Company's basic research expenses.
- (b) Adjustments for segment assets amounting to ¥144,539 million (US\$1,256,642 thousand) include the elimination of intersegment transactions of negative ¥32,478 million (negative US\$282,368 thousand) and unallocated corporate assets of ¥177,018 million (US\$1,539,019 thousand). These corporate assets mainly comprise the Company's surplus funds, long-term investments and assets related to basic research and administrative divisions at headquarters.
- 3. Segment income is adjusted with operating income under the Consolidated Statement of Income.

4. Adjustment of ¥1,481 million (US\$12,876 thousand) for impairment loss reflects an impairment loss related to company-wide assets.

Kuraray Co., Ltd. and its Consolidated Subsidiaries / Year ended December 31, 2021

Fiscal 2020 (January 1, 2020 to December 31, 2020)

					Millio	ons of yen						
-		Reporting Segments Other								Consolidated		
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Trading	Total	Other Business (Note 1)	Total	Adjustment (Note 2)	Financial Statements (Note 3)		
Net sales												
(1) Outside customers	¥215,702	¥26,943	¥106,650	¥40,872	¥122,012	¥512,180	¥29,617	¥541,797	¥	¥541,797		
(2) Inter-segment sales and transfers	41,412	23,447	18,330	13,536	2,426	99,152	12,089	111,242	(111,242)			
Total	257,114	50,390	124,980	54,408	124,438	611,332	41,707	653,039	(111,242)	541,797		
Segment income (loss)	40,779	3,808	2,994	2,155	3,606	53,344	214	53,559	(9,217)	44,341		
Segment assets	391,914	108,852	205,673	70,378	43,422	820,241	48,168	868,410	183,173	1,051,584		
Other items												
Depreciation and amortization (other than goodwill)	35,436	3,058	12,395	3,768	97	54,756	1,085	55,842	2,850	58,693		
Impairment loss	_	_	4,475			4,475	_	4,475	_	4,475		
Amortization of goodwill	1,244		2,521		_	3,766	_	3,766	_	3,766		
Balance of goodwill at end of current period	14,741	_	36,363	_	_	51,105	_	51,105	_	51,105		
Investments in equity method affiliates Increase in tangible fixed	_	_	_	2,472	_	2,472	_	2,472	—	2,472		
assets and intangible fixed assets	21,656	26,615	11,323	8,228	314	68,139	2,563	70,702	5,997	76,700		

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

engineering business.

2. Adjustments are as follows:

- (a) Adjustments of negative ¥9,217 million for segment income include the elimination of intersegment transactions of ¥2,017 million and unallocated corporate expenses of negative ¥11,234 million. These corporate expenses mainly comprise the Company's basic research expenses.
- (b) Adjustments for segment assets amounting to ¥183,173 million include the elimination of intersegment transactions of negative ¥32,157 million and unallocated corporate assets of ¥215,331 million. These corporate assets mainly comprise the Company's surplus funds, long-term investments and assets related to basic research and administrative divisions at headquarters.
- 3. Segment income is adjusted with operating income under the Consolidated Statement of Income.
- 4. Impairment loss of Functional Materials in the amount of ¥4,475 million is included in loss on liquidation of businesses under extraordinary loss.

Kuraray Co., Ltd. and its Consolidated Subsidiaries / Year ended December 31, 2021

(Related Information)

Fiscal 2021 (January 1, 2021 to December 31, 2021)

1. Information about products and services

			Millions	of yen		
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Other Business	Total
Net sales to outside customers	¥301,055	¥60,562	¥138,834	¥84,015	¥44,903	¥629,370
			Thousands of	U.S. dollars		
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Other Business	Total
Net sales to outside customers	\$2,617,414	\$526,535	\$1,207,042	\$730,438	\$390,393	\$5,471,831

Note: Principal products of each segment are as follows:

Vinyl Acetate	: PVA resin and film, PVB resin and film, EVAL resin and others
Isoprene	: SEPTON thermoplastic elastomers, isoprene chemicals, GENESTAR heat-resistant polyamide resin and others
Functional Materials	: Methacrylic resin, medical products, carbon materials and others
Fibers and Textiles	: PVA fiber, CLARINO man-made leather, KURAFLEX non-woven fabrics, MAGIC TAPE hook and loop
	fasteners, polyester and others
Other Business	: Environmental business, engineering business and others

2. Performance by geographical segment

(1) Net sales

			Millions of yen			
Japan	United States	China	Europe	Asia	Other Area	Total
¥170,532	¥116,400	¥86,774	¥148,405	¥77,528	¥29,729	¥629,370
			Thousands of U.S. dollars	3		
Japan	United States	China	Europe	Asia	Other Area	Total
\$1,482,629	\$1,011,998	\$754,425	\$1,290,254	\$674,039	\$258,468	\$5,471,831

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

(2) Tangible fixed assets

		Millions of yen				The	ousands of U.S. do	llars	
	United		Other			United		Other	
Japan	States	Thailand	Overseas	Total	Japan	States	Thailand	Overseas	Total
¥185,489	¥124,469	¥62,640	¥82,667	¥455,266	\$1,612,667	\$1,082,151	\$544,601	\$718,718	\$3,958,146

3. Major customers

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

Kuraray Co., Ltd. and its Consolidated Subsidiaries / Year ended December 31, 2021

Fiscal 2020 (January 1, 2020 to December 31, 2020)

1. Information about products and services

	Millions of yen						
	Vinyl Acetate	Isoprene	Functional Materials	Fibers and Textiles	Other Business	Total	
Net sales to outside customers	¥254,180	¥50,341	¥124,899	¥76,078	¥36,297	¥541,797	

Notes: Principal products of each segment are as follows:

Vinyl Acetate	: PVA resin and film, PVB resin and film, EVAL resin and others
Isoprene	: SEPTON thermoplastic elastomers, isoprene chemicals, GENESTAR heat-resistant polyamide resin and others
Functional Materials	: Methacrylic resin, medical products, carbon materials and others
Fibers and Textiles	: PVA fiber, CLARINO man-made leather, KURAFLEX non-woven fabrics, MAGIC TAPE hook and loop
	fasteners, polyester and others
Other Business	: Environmental business, engineering business and others

2. Performance by geographical segment

(1) Net sales

			Millions of yen			
Japan	United States	China	Europe	Asia	Other Area	Total
¥157,973	¥100,300	¥72,568	¥118,641	¥68,058	¥24,254	¥541,797

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

(2) Tangible fixed assets

		Millions of yen		
	United		Other	
Japan	States	Thailand	Overseas	Total
¥186,522	¥114,684	¥50,484	¥77,700	¥429,391

3. Major customers

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

Kuraray Co., Ltd. and its Consolidated Subsidiaries / Year ended December 31, 2021

Information about impairment loss of fixed assets by reporting segment

Fiscal 2021: This information is omitted since similar information is disclosed in the segment information. Fiscal 2020: This information is omitted since similar information is disclosed in the segment information.

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

Fiscal 2021: This information is omitted since similar information is disclosed in the segment information. Fiscal 2020: This information is omitted since similar information is disclosed in the segment information.

Information about gain on negative goodwill

Fiscal 2021: Not applicable.

Fiscal 2020: Not applicable.

20 Related Party Disclosures

Fiscal 2021: Not applicable

Fiscal 2020: Not applicable

21 Per Share Information

	Ye	U.S. dollars	
	Fiscal 2021	Fiscal 2020	Fiscal 2021
Net assets per share	¥1,627.84	¥1,450.32	\$14.15
Basic net income per share	108.32	7.48	0.94
Diluted net income per share	108.23	7.47	0.94

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

	Millions	of yen	Thousands of U.S. dollars	
	Fiscal 2021	Fiscal 2020	Fiscal 2021	
Basic net income per share				
Net income attributable to owners of the parent	¥37,262	¥2,570	\$323,961	
Amount unallocated to common stock	_	—	_	
Net income attributable to owners of the parent allocated to				
common stock	37,262	2,570	323,961	
Average number of common stock outstanding during the fiscal year				
(thousand shares)	343,987	343,879	343,987	
Diluted net income per share				
Adjustment made on net income attributable to owners of				
the parent	_	_	-	
Increase of common stocks (thousand shares)	295	284	295	
(New subscription rights to shares (thousand shares))	(295)	(284)	(295)	
Outline of the residual securities which were not included in the				
calculation of the diluted net income per share because there was				
no dilutive effect	_	_	_	

22 Significant Subsequent Events

Purchase of treasury stock

At a meeting of the Board of Directors held on February 9, 2022, the Company resolved to execute share buyback as follows: pursuant to Article 156 of the Companies Act as applied pursuant to Article 165, Paragraph 3, of the same act.

1. Reason for the share buyback

The Company will execute a share buyback in order to strengthen shareholder returns and improve capital efficiency, as well as to enable a flexible capital policy in the future.

2. Purchase Details

(1) Type of shares to be purchased:	Common stock of the Company
(2) Total number of shares to be purchased:	11,000 thousand shares (upper limit)
	(Ratio to the total number of issued shares (excluding treasury stock): 3.20%)
(3) Total purchase price:	¥10,000 million (US\$ 86,941 thousand) (upper limit)
(4) Purchase method:	Market purchase based on a discretionary transaction agreement for the acquisition of treasury stock
(5) Purchase period:	February 10, 2022 to June 30, 2022

Detailed Schedule of Bonds

			Million	s of Yen	Thousands of U.S. dollars			
Company name	Issue	Date of issue	Balance at beginning of period	Balance at end of period	Balance at end of period	Yield	Security	Date of redemption
	No. 4 Unsecured bonds	December 9, 2011	¥10,000	¥—	\$ —	—	None	December 9, 2021
	No. 5 Unsecured bonds	April 25, 2018	10,000	_	_		None	April 23, 2021
	No. 6 Unsecured bonds	April 25, 2018	10,000	10,000	86,941	0.09%	None	April 25, 2023
Kuraray Co., Ltd.	No. 7 Unsecured bonds	April 25, 2018	10,000	10,000	86,941	0.19%	None	April 25, 2025
	No. 8 Unsecured bonds	April 25, 2018	10,000	10,000	86,941	0.31%	None	April 25, 2028
	No. 9 Unsecured bonds	April 30, 2020	10,000	10,000	86,941	0.34%	None	April 30, 2027
	No. 10 Unsecured bonds	April 30, 2020	20,000	20,000	173,883	0.43%	None	April 30, 2030
	Total		¥80,000	¥60,000	\$521,648	_		

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

				(Millions of yen)
Due within 1 year	Due in 1-2 years	Due in 2-3 years	Due in 3-4 years	Due in 4-5 years
—	¥10,000	_	¥10,000	_
				(Thousands of U.S. dollars
Due within 1 year	Due in 1-2 years	Due in 2-3 years	Due in 3-4 years	Due in 4-5 years
_	\$86,941	_	\$86,941	_

2 Detailed Schedule of Loans Payable and Others

	Millions of Y		of Yen U.S. dollars		
Category	Balance as of January 1, 2021	Balance as of December 31, 2021	Balance as of December 31, 2021	Average Interest rate (%)	Due date
Short-term borrowings	¥34,480	¥34,480	\$299,774	0.3	—
Current portion of long-term borrowings due within one year	29	55,013	478,291	0.4	_
Current portion of lease obligations due within one year $^{(Note2)}$	468	487	4,234	—	—
Current portion of lease liabilities due within one year $^{(Note2)}$	1,554	1,438	12,502	—	—
Long-term borrowings (Excluding current portion) ^(Note 3)	206,881	157,945	1,373,196	0.8	From January 2023 to March 2030
Lease obligations (Excluding current portion) ^(Notes 2, 3)	1,241	1,133	9,850	—	From January 2023 to September 2046
Lease liabilities (Excluding current portion) ^(Notes 2, 3)	16,068	17,038	148,131	—	From January 2023 to June 2057
Other interest-bearing debts Commercial papers (Current portion)	20,000	_	_	_	_
Total	¥280,724	¥267,535	\$2,325,987	_	_

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

2. The average interest rates on lease obligations and lease liabilities are not reported, since interest payment equivalents included in total lease payments are allocated to each consolidated fiscal year using the straight-line method for some transactions.

3. Repayments of long-term borrowings, lease obligations and lease liabilities (excluding those due within one year) within five years after the consolidated balance sheet date are as follows:

				(Millions of yen)
	Due after 1 year but	Due after 2 years but	Due after 3 years but	Due after 4 years but
Category	within 2 years	within 3 years	within 4 years	within 5 years
Long-term borrowings	¥28,444	¥22,191	¥14,861	¥28,821
Lease obligations	404	304	207	89
Lease liabilities	1,443	1,331	1,211	1,089

				(Thousands of U.S. dollars)
	Due after 1 year but	Due after 2 years but	Due after 3 years but	Due after 4 years but
Category	within 2 years	within 3 years	within 4 years	within 5 years
Long-term borrowings	\$247,296	\$192,932	\$129,204	\$250,574
Lease obligations	3,512	2,643	1,800	774
Lease liabilities	12,546	11,572	10,529	9,468

3 Detailed Schedule of Asset Retirement Obligations

The schedule of asset retirement obligations is omitted since the amount of asset retirement obligations is not more than one hundredth of total liabilities and net assets as of January 1, 2021 and December 31, 2021.

4 Quarterly Information in Fiscal 2021

				(Millions of yen)
	First quarter from January 1	Second quarter from January 1	Third quarter from January 1	
Accumulated	to March 31, 2021	to June 30, 2021	to September 30, 2021	Fiscal 2021
Net sales	¥144,398	¥302,296	¥459,159	¥629,370
Income before income taxes	9,600	21,699	43,876	58,697
Net income attributable to owners				
of the parent	5,282	11,710	28,602	37,262
Net income per share (Yen)	15.36	34.04	83.15	108.32
Quarterly	First quarter from January 1 to March 31, 2021	Second quarter from April 1 to June 30, 2021	Third quarter from July 1 to September 30, 2021	Fourth quarter from October 1 to December 31, 2021
Quarterly	to Watch 51, 2021	to June 30, 2021	to September 50, 2021	to December 51, 2021
Net income per share (Yen)	¥15.36	¥18.68	¥49.11	¥25.17

				(Thousands of U.S. dollars)
	First quarter	Second quarter	Third quarter	
	from January 1	from January 1	from January 1	
Accumulated	to March 31, 2021	to June 30, 2021	to September 30, 2021	Fiscal 2021
Net sales	\$1,255,416	\$2,628,204	\$3,991,993	\$5,471,831
Income before income taxes	83,464	188,654	381,464	510,320
Net income attributable to owners				
of the parent	45,922	101,808	248,670	323,961
Net income per share (Dollars)	0.13	0.30	0.72	0.94
	First quarter from January 1	Second quarter from April 1	Third quarter from July 1	Fourth quarter from October 1
Quarterly	to March 31, 2021	to June 30, 2021	to September 30, 2021	to December 31, 2021
Net income per share (Dollars)	\$0.13	\$0.16	\$0.43	\$0.22



Independent Auditor's Report

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

Opinion

We have audited the consolidated financial statements of Kuraray Co., Ltd. (the Company) and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at December 31, 2021, and the consolidated statement of income, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at December 31, 2021, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in Japan. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Japan, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.



Estimated loss on litigation-related losses related to fire incident at U.S. subsidiary				
Key audit matter description	How our audit addressed the key audit matter			
Several lawsuits have been filed that more than	We performed the following audit procedures over			
160 contract workers and others suffered physical	the estimate of loss on litigation for the fire at the			
and/or psychological injuries as a result of a fire	U.S. subsidiary:			
that occurred at one of the locations in the	•			
Company's U.S. subsidiary in May 2018. The	• We evaluated the design and tested the			
Company has reached a settlement with certain	operating effectiveness of internal controls			
plaintiffs to resolve some of these claims. As	related to accounting for and disclosure of loss			
described in [Notes to Consolidated Financial	on litigation.			
Statements] (Significant Accounting Estimates)	• We inspected the minutes of Board of			
and (Consolidated Statement of Income), the	Directors meetings to understand the policy			
Company has made accruals for estimates of loss	for litigation and settlement and the approval			
on litigation that is sufficient to cover the	of the estimate of loss on litigation.			
damages that are reasonably estimable as of the	 We understood and reviewed the 			
time of preparation of the consolidated financial	reasonableness of the estimation method of			
statements. Additional losses and expenses	loss on litigation by inquiring with			
recorded in the current fiscal year, in conjunction	management and others, and inspecting			
with settlements with plaintiffs reached during	relevant materials.			
the current fiscal year and related legal fees, are	· Regarding the settlement amount for the			
included in ¥4,296 million of loss on litigation of	plaintiffs who agreed in the current			
extraordinary losses in the consolidated	consolidated fiscal year, we inspected the			
statements of income. Accruals of the estimated	agreements with the plaintiffs and vouched			
loss on litigation are recorded as a liability in the	payments made.			
consolidated balance sheet.	· With respect to estimates of loss on litigation			
	related to plaintiffs with which the Company			
In estimating such loss on litigation, the	has not yet reached a settlement, we			
Company makes estimates of probable future	considered whether losses expected to occur			
losses based on available information regarding	in the future are reasonably estimated based			
the extent of damages related to the fire based on	on available information such as the extent of			
the views of external experts and the Board of	damages related to the fire incident.			
Directors' views with respect to the current status	· We compared amounts estimated in the			
of litigation activity and any agreed-upon or	previous fiscal year with the actual settlement			
pending settlements with counterparties. The	amount or the estimated amount of future			
estimation requires expert knowledge and	loss on litigation at the end of the current			
subjective judgments by management. The	fiscal year to confirm any deviations are based			
amounts of loss on litigation are material to the	on reasonable factors such as new facts being			
consolidated financial statements.	identified which were not known or knowable			
	previously.			
Given these factors, we determined that the	Confirmation procedures were performed			
estimate of loss on litigation for the fire incident	with the legal counsel assisting the Company			
at the U.S. subsidiary was a key audit matter.	with the legal proceedings and litigation.			
	 We performed subsequent events procedures, 			
	including inspection of minutes of meetings of			
	the Board of Directors held subsequent to the			
	balance sheet date, as well as inquiring with			
	management and others to determine if any			
	events have occurred that would bear on the			
	estimate of losses.			
	commute of robbes.			



Assessment of whether indicators of impairment exist for goodwill recognized as a result of the acquisition of Calgon Carbon Corporation

acquisition of Calgon Carbon Corporation					
Key audit matter description	How our audit addressed the key audit matter				
The goodwill balance of ¥52,635 million (4.8% of consolidated assets) recorded in the consolidated balance sheet for the current fiscal year includes goodwill of ¥37,395 million recorded as a result of the acquisition of Calgon Carbon Corporation in the Functional Materials segment in fiscal 2018 as described in [Notes to Consolidated Financial Statements] (Significant Accounting Estimates). Calgon Carbon Corporation recorded net operating losses including goodwill amortization until the previous fiscal year due to the delays in capital investment and production adjustments taken by customers, which was partly due to the impact of COVID-19. However, earnings recovered and net operating income including goodwill amortization turned positive in the current fiscal year as a result of growth in the activated carbon market and measures in response to stricter environmental regulations. Based on Calgon Carbon Corporation's business plan, the Company has concluded that there are no indicators of impairment related to goodwill amortization is projected in the following fiscal year. Calgon Carbon Corporation's business plan assumes increases in revenue due to the growth in the activated carbon market, a recovery in demand for capital investments by customers, measures in response to stricter environmental regulations, as well as the impact of higher raw material and fuel costs; these forecasts involve subjective judgments by management. In addition, as the goodwill balance related to the acquisition of Calgon Carbon Corporation is significant, the judgment whether indicators of impairment exist related to goodwill recognized upon the acquisition of Calgon Carbon Corporation is significant, the judgment whether indicators of impairment exist related to goodwill recognized upon the acquisition of Calgon Carbon Corporation was a key audit matter.	 We performed the following audit procedures over the assessment of whether indicators of impairment for goodwill recognized as a result of the acquisition of Calgon Carbon Corporation: We evaluated the design and tested the operating effectiveness of internal controls related to the assessment of indicators of impairment. We understood Calgon Carbon Corporation's business climate, with the latest trends in the activated carbon market, by inquiring with management and others, and inspecting minutes of Board of Directors meetings. We performed the following audit procedures to evaluate the reasonableness of Calgon Carbon Corporation's business plan. We compared the business plan. We compared the progress of the performance improvement incorporated into the business plan. We examined the progress of the performance improvement incorporated into the business plan. We examined the crease in sales in the activated carbon market forecasted with third-party market research. We inquired with management regarding the prospects for capital investment demand from customers and examined them by comparing them to the status of orders received from major customers. We obtained the rationale for estimates in the business plan by discussing the impact of rising raw material and fuel prices with management and others, comparing them with market forecasts and available external data, and analysing trends in historical performance. 				



Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error. In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern and disclosing, as applicable, matters related to going concern. Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with auditing standards generally accepted in Japan will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with auditing standards generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, while the purpose of the consolidated financial statement audit is not to express an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate whether the presentation and disclosures of the consolidated financial statements are in accordance with accounting principles generally accepted in Japan, the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.



We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Convenience translation

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended December 31, 2021 are presented solely for convenience. Our audit also included the translation of Japanese yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note to the consolidated financial statements.

Interest required to be disclosed by the Certified Public Accountants Act of Japan

Our firm and its designated engagement partners do not have any interest in the Group which is required to be disclosed pursuant to the provisions of the Certified Public Accountants Act of Japan.

Hiroyuki Kawase Kazuaki Sekine **Designated Engagement Partner Certified Public Accountant**

Designated Engagement Partner Certified Public Accountant

PricewaterhouseCoopers Aarata LLC

June 23, 2022

Notes to the Reader of Independent Auditor's Report:

This is a copy of the Independent Auditor's Report and the original report is kept separately by the Company.