

Notes to Consolidated Financial Statements

Ube Industries, Ltd. and Consolidated Subsidiaries

For the years ended March 31, 2019 and 2018

1**Basis of presenting consolidated financial statements**

(a) Ube Industries, Ltd. (the "Company") and its consolidated subsidiaries (collectively, the "Group") maintain their accounting records and prepare their financial statements in accordance with accounting principles generally accepted in Japan. The accompanying consolidated financial statements have been compiled from the consolidated financial statements prepared by the Company as required under the Financial Instruments and Exchange Act of Japan and, accordingly, have been prepared in accordance with accounting principles generally accepted in Japan, which are different in certain respects as to the application and disclosure requirements of International Financial Reporting Standards.

Certain modifications have been made to the accompanying financial statements in order to present them in a form which is more familiar to readers outside Japan.

(b) The accompanying financial statements are expressed in Japanese yen and, solely for the convenience of the reader, have been translated into U.S. dollars at ¥111=US\$1, the approximate rate of exchange on March 31, 2019. The translation should not be construed as a representation that Japanese yen have been, could have been, or could in the future be converted into U.S. dollars at the above or any other rate.

2**Significant accounting policies****(a) Basis of consolidation and accounting for investments in unconsolidated subsidiaries and affiliates**

The accompanying consolidated financial statements include the accounts of the Company and significant companies controlled directly or indirectly by the Company (71 and 70 companies for the years ended March 31, 2019 and 2018, respectively). Significant companies over which the Company exercises significant influence in terms of their operating and financial policies are included in the consolidated financial statements by the equity method (25 and 24 companies for the years ended March 31, 2019 and 2018, respectively). All significant intercompany balances and transactions are eliminated in consolidation.

Certain subsidiaries are consolidated using their financial statements as of their respective fiscal year end, which falls on December 31, and necessary adjustments are made to their financial statements to reflect any significant transactions occurring during the January 1 to March 31 period.

In the initial consolidation, assets and liabilities of subsidiaries including those attributable to non-controlling interests are recorded based on fair value in the consolidated financial statements.

The difference between acquisition cost and the underlying net assets at fair value at the date of acquisition is amortized over a period of 20 years on a straight-line basis. Goodwill in the amount of ¥643 million (US\$5,793 thousand) is included in "Other non-current assets" on the consolidated balance sheet at March 31, 2019. Negative goodwill in the amount of ¥647 million is included in "Other long-term liabilities" on the consolidated balance sheet at March 31, 2018.

Investments in subsidiaries and affiliates which are not consolidated or accounted for by the equity method are carried at cost.

(b) Accounting for income taxes

Deferred tax assets and liabilities are recognized in the consolidated financial statements with respect to the differences between the financial reporting and the tax bases of the assets and liabilities.

Deferred tax assets and liabilities are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse.

Valuation allowance is provided for the deferred tax assets that are not realizable within a reasonable period.

(c) Securities

Securities other than equity securities issued by subsidiaries and affiliates are classified into three categories: "Trading," "Held-to-maturity" and "Others." The Company and its consolidated subsidiaries have no trading securities. Held-to-maturity securities are carried at amortized cost. Marketable securities classified as other securities are carried at fair value with changes in the valuation difference, net of the applicable income taxes, included directly in net assets. Non-marketable securities classified as other securities are carried at cost. Cost of securities sold is determined by the moving-average method.

(d) Derivatives and hedge accounting

All derivatives are stated at fair value, with changes in fair value recorded as gain or loss for the period in which they arise.

If derivative financial instruments are used as hedges and meet certain hedging criteria, the Group defers the recognition of gains or losses resulting from changes in the fair value of the derivative financial instruments until the related losses or gains on the hedged items are recognized.

If interest rate swap contracts meet certain hedging criteria, the net amount to be paid or received under these swap contracts is added to or deducted from the interest on the assets or liabilities for which the swap contracts were executed ("Short-cut method").

Summarized in the table below are hedging instruments and items hedged.

Hedging instruments	Items hedged
Interest rate swaps	Loans
Interest rate options	Loans
Forward foreign exchange contracts	Foreign currency receivables and payables Forecasted foreign currency transactions
Currency options	Foreign currency receivables and payables Forecasted foreign currency transactions
Currency swaps	Foreign currency loans
Coal price swaps	Coal purchased at market linked price

The Company and its consolidated subsidiaries use hedging instruments for the purpose of reducing the fluctuation risk of interest rates, foreign exchange and coal prices in accordance with Company policies.

The effectiveness of hedging activities is assessed by confirming whether each hedging instrument corresponds to the item hedged.

Additional information on derivatives is presented in Note 17. Derivative financial instruments.

(e) Retirement and pension plan

The Company attributes projected benefits based on a flat benefit formula.

Actuarial gain or loss is amortized in the following year in which the gain or loss is incurred mainly by the declining-balance method over 10-14 years, which are shorter than the average remaining service years of employees.

Prior service cost is amortized as incurred mainly by the straight-line method over 5-14 years, which are shorter than the average remaining service years of the employees.

Many consolidated subsidiaries adopt a simplified method to calculate net defined benefit liability and retirement benefit expenses based on the assumption that the benefits payable, which are calculated as if all eligible employees voluntarily terminate their employment at fiscal year end, approximates the retirement benefit obligations at year end.

(f) Allowance for doubtful accounts

Allowance for doubtful accounts is provided at an amount estimated with reference to individual uncollectible accounts plus an amount calculated using a historical rate determined based on the actual uncollectible amounts incurred in prior years.

(g) Inventories

Inventories are stated at the lower of cost or market, cost being determined principally by the weighted-average method.

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

Property, plant and equipment is stated at cost. Depreciation of property, plant and equipment is computed principally by the straight-line method for the Company and by the declining-balance method for some consolidated subsidiaries, except for certain buildings of domestic consolidated subsidiaries acquired on or after April 1, 1998, and except for certain building facilities and structures of domestic consolidated subsidiaries acquired on or after April 1, 2016, which are depreciated by the straight-line method, at rates based on the estimated useful lives of the respective assets.

The estimated useful lives of the assets are as follows:

Buildings and structures: 2 to 75 years

Machinery and equipment: 2 to 30 years

(i) Intangible assets (except for leased assets)

Mining rights are amortized by the unit-of-production method and patent rights, software and others are amortized by the straight-line method over their estimated useful lives.

(j) Leased assets

Leased property under finance leases which does not transfer ownership of the leased property to lessees is depreciated or amortized by the straight-line method over the lease terms assuming no residual value.

(k) Research and development costs

Research and development costs are charged to income when incurred.

(l) Net income per share

Basic net income per share is computed based on net income available for distribution to stockholders of common stock and the weighted average number of shares of common stock outstanding during each year (104,042 thousand shares and 105,021 thousand shares for the years ended March 31, 2019 and 2018, respectively). Diluted net income per share is computed based on net income available for distribution to the stockholders and the weighted average number of shares of common stock outstanding during each year assuming full exercise of share subscription rights (336 thousand shares and 355 thousand shares for the years ended March 31, 2019 and 2018, respectively). Also, the Company has consolidated its shares in the proportion

of 10 common shares to one common share, effective as of October 1, 2017. Net assets per share, net income per share and diluted net income per share have been calculated assuming that such share consolidation was carried out on April 1, 2017

(m) Provision for bonuses

Provision for bonuses is provided for payments to employees at the estimated amount incurred attributable to the current fiscal year.

(n) Cash and cash equivalents

Cash and cash equivalents comprise cash on hand, demand deposits and short-term investments. Short-term investments included here are readily convertible into cash, exposed to insignificant risk of changes in value and mature or become due within three months of the date of acquisition.

(o) Provision for loss on orders received

Provision for loss on orders received is provided to cover the losses that are highly likely to be incurred and the amounts of which can be reasonably estimated.

These provision for loss on order received in the amounts of ¥457 million (US\$4,117 thousand) and ¥543 million are included in "Other current liabilities" on the consolidated balance sheet at March 31, 2019 and 2018, respectively.

(p) Provision for directors' retirement benefits

Consolidated subsidiaries provide for retirement allowances for directors and audit & supervisory board members at the necessary amount at the year end based on their internal policies.

Retirement allowances of ¥595 million (US\$5,360 thousand) and ¥627 million are included in "Other long-term liabilities" on the consolidated balance sheet at March 31, 2019 and 2018, respectively.

(q) Provision for loss on business restructuring

Provision for loss on business restructuring is provided to cover the losses, which are highly likely to be incurred and the amounts of which can be reasonably estimated, related to certain businesses of the Company and its consolidated subsidiaries.

These provision for losses on business restructuring in the amounts of ¥600 million (US\$5,405 thousand) and ¥1,214 million are included in "Other long-term liabilities" on the consolidated balance sheet at March 31, 2019 and 2018, respectively.

(r) Provision for special repairs

Provision for special repairs is provided for payments of routine maintenance mainly for ammonia plants at the estimated amount.

These provision for special repairs in the amounts of ¥1,532 million (US\$13,802 thousand) and ¥2,697 million are included in "Other long-term liabilities" on the consolidated balance sheet at March 31, 2019 and 2018, respectively.

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Accounting changes

(a) Accounting standards issued but not yet adopted

- Accounting Standard for Revenue Recognition (Accounting Standards Board of Japan (ASBJ) Statement No. 29 issued on March 30, 2018)
- Implementation Guidance on Accounting Standard for Revenue Recognition (ASBJ Guidance No.30 issued on March 30, 2018)

1. Overview

In May 2014, the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) jointly issued Revenue from Contracts with Customers (IFRS 15 under IFRS and Topic 606 under U.S. GAAP), a converged standard on the recognition of revenue from contracts with customers. In light of IFRS 15's mandatory application for annual reporting periods beginning on or after January 1, 2018 and Topic 606's mandatory application for annual reporting periods beginning on or after December 16, 2017, the ASBJ had projected the development of a comprehensive accounting standard for revenue recognition and issued the corresponding accounting standard and the implementation guidance. The basic policy on development of the accounting standard by the ASBJ is basically based on IFRS 15, from the standpoint of comparability of the financial statements between IFRS and Japanese GAAP. Also, certain additional alternative treatments that do not impair comparability are provided where current practices under Japanese GAAP should be addressed.

2. Scheduled date of adoption

The Company expects to adopt ASBJ Statement No.29 and ASBJ Guidance No.30 from the beginning of the fiscal year ending March 31, 2022.

3. Effect of adoption

The Company is currently evaluating the effect of adopting ASBJ Statement No.29 and ASBJ Guidance No.30 on its consolidated financial statements.

Financial instruments

(b) Changes in presentation

Adoption of “Partial Amendments to Accounting Standard for Tax Effect Accounting”

The Company and its domestic consolidated subsidiaries have adopted “Partial Amendments to Accounting Standard for Tax Effect Accounting” (ASBJ Statement No. 28 issued on February 16, 2018) from the beginning of the fiscal year ended March 31, 2019. Accordingly, deferred tax assets are presented in the section of investments and other assets, and deferred tax liabilities are presented in the section of non-current liabilities, and related income tax disclosures have been expanded.

As the result, “deferred tax assets” under “current assets” decreased by ¥6,524 million and “deferred tax assets” under “investments and other assets” increased by ¥5,840 million in the consolidated balance sheet as of March 31, 2018. In addition, “deferred tax liabilities” under “non-current liabilities” decreased by ¥684 million.

Furthermore because deferred tax assets and deferred tax liabilities imposed on the same taxable entity were offset in the consolidated balance sheet, total assets after the said modification decreased by ¥684 million.

The Company annotates tax-effect accounting according to the tax-effect accounting provisions in Paragraphs 3 through 5 of the amended standard—specifically, the provisions in Notes 8 (other than the provision on accounting for valuation reserves) and 9. However, in accordance with the transitional measures in Paragraph 7, the Company omitted including comparative information for the fiscal year ended March 31, 2018.

(a) Policy for financial instruments

The Group manages funds by utilizing short-term deposits, etc., subject to an insignificant risk of change in value. The Group raises money by borrowing from financial institutions and by issuing commercial paper, straight bonds and bonds with warrants. The Group uses derivatives for the purpose of reducing risk and does not hold or issue derivative financial instruments for speculative purposes.

(b) Types of financial instruments and related risk

Trade receivables— Notes and accounts receivables - trade —are exposed to credit risk in relation to customers. In addition, the Group is exposed to foreign currency exchange risk arising from receivables and payables denominated in foreign currencies. The foreign currency exchange risks deriving from those receivables and payables are hedged by forward foreign exchange contracts, currency options and currency swaps.

Investment securities are exposed to market risk and credit risk in relation to issuers. Those securities are composed of the shares of common stock of other companies.

Trade payables— Notes and accounts payables – trade —have payment due dates within one year.

Short-term loans payable are raised and commercial paper is issued mainly in connection with business activities, and long-term debt is taken out principally for the purpose of making capital investments. Short-term loans payable and long-term debt with variable interest rates are exposed to interest rate fluctuation risk. However, to reduce such risk and fix interest expense for those bearing interest at variable rates, the Group utilizes interest rate swap or option transactions as a hedging instrument.

Regarding derivatives, the Group enters into derivative transactions in order to manage certain risks arising from adverse fluctuations in foreign currency exchange rates, interest rates and commodity prices.

(c) Risk management for financial instruments

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

In accordance with the internal policies of the Group for managing credit risk arising from receivables, each related division monitors the credit worthiness of their main customers periodically, and monitors due dates and outstanding balances by individual customer. In addition, the Group is making efforts to identify and mitigate risks of bad debts from customers who are having financial difficulties.

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

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

For trade receivables and payables denominated in foreign currencies, the Group identifies the foreign currency exchange risk for each currency and enters into forward foreign exchange contracts, currency options and currency swaps to hedge such risk. In order to mitigate the interest rate risk for loans payable bearing interest at variable rates, the Group may also enter into interest rate swap transactions and interest rate option transactions.

For investment securities, the Group periodically reviews the fair values of such financial instruments and the financial position of the issuers.

In conducting derivative transactions, the division in charge of derivative transactions follows the internal policies, which set forth delegation of authority and maximum upper limit on positions.

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

Based on a report from each division, the Group prepares and updates its cash flow plans on a timely basis to manage liquidity risk.

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

The fair value of financial instruments is based on their quoted market price, if available. When there is no quoted market price available, fair value is reasonably estimated. The notional amounts of derivatives in Note 17. Derivative financial instruments are not necessarily indicative of the actual market risk involved in derivative transactions.

Summarized in the table below are the carrying amounts and the estimated fair values of financial instruments outstanding at March 31, 2019 and 2018. Financial instruments for which it is extremely difficult to determine the fair value are not included in the table below.

	Millions of yen			Thousands of U.S. dollars		
	2019			2019		
	Carrying amount	Fair value	Difference	Carrying amount	Fair value	Difference
Assets						
Cash and cash equivalents	¥ 32,295	¥ 32,295	¥ —	\$ 290,946	\$ 290,946	\$ —
Time deposits	608	608	—	5,477	5,477	—
Notes and accounts receivable - trade	171,611	171,611	—	1,546,045	1,546,045	—
Investment securities	12,585	12,585	—	113,379	113,379	—
Total assets	¥217,099	¥217,099	¥ —	\$1,955,847	\$1,955,847	\$ —
Liabilities						
Notes and accounts payable - trade	¥102,223	¥102,223	¥ —	\$ 920,928	\$ 920,928	\$ —
Short-term loans payable	32,620	32,620	—	293,874	293,874	—
Other payables	29,554	29,554	—	266,252	266,252	—
Income taxes payable	4,106	4,106	—	36,991	36,991	—
Long-term debt*	153,026	153,411	385	1,378,612	1,382,081	3,469
Total liabilities	321,529	321,914	¥385	\$2,896,657	\$2,900,126	\$3,469
Derivative financial transactions**	¥ 714	¥ 714	¥ —	\$ 6,432	\$ 6,432	\$ —

* Current portions of long-term borrowings of ¥18,751 million (US\$168,928 thousand) and bonds of ¥10,000 million (US\$90,090 thousand) are included in long-term debt.

** The value of assets and liabilities arising from derivatives is shown at net value with amounts in parentheses representing net liability position.

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

Assets

- (a) "Cash and cash equivalents," "Time deposits" and "Notes and accounts receivable - trade"
These are settled in a short period of time, therefore their carrying amounts approximate fair value.

(b) "Investment securities"

The fair values of marketable securities are based on quoted market prices.

The fair values of debt securities are based on either quoted market prices or quotes provided by the financial institutions. For information on securities classified by holding purpose, please refer to Note 5. Securities in these notes to the consolidated financial statements.

Liabilities

- (c) "Notes and accounts payable - trade," "Short-term loans payable," "Other payables" and "Income taxes payable"

These are settled in a short period of time, therefore their carrying amounts approximate fair value.

(d) "Long-term debt"

The fair value of bonds is estimated based on either market price, when available, or present value of the total of principal and interest discounted by the interest rate that would be applied if similar new bonds were issued. The fair value of long-term borrowings is estimated based on present value of the total of principal and interest discounted by the interest rate that would be applied if similar new borrowings were entered into. Long-term borrowings with variable rates are hedged by interest rate swap contracts that are accounted for by the short-cut method and the fair value is estimated based on the total of principal and interest under the short-cut method discounted by the interest rate that would be applied if similar new borrowings were entered into.

Derivative financial transactions

Please refer to Note 17. Derivative financial instruments in these notes to the consolidated financial statements.

	Millions of yen		
	2018		
	Carrying amount	Fair value	Difference
Assets			
Cash and cash equivalents	¥ 48,529	¥ 48,529	¥ —
Time deposits	530	530	—
Notes and accounts receivable - trade	162,739	162,739	—
Investment securities	14,665	14,665	—
Total assets	¥226,463	¥226,463	¥ —
Liabilities			
Notes and accounts payable - trade	¥104,532	¥104,532	¥ —
Short-term loans payable	42,131	42,131	—
Other payables	34,601	34,601	—
Income taxes payable	6,027	6,027	—
Long-term debt*	151,802	151,828	26
Total liabilities	¥339,093	¥339,119	¥26
Derivative financial transactions**	¥ (32)	¥ (32)	¥ —

* Current portions of long-term borrowings of ¥27,671 million and bonds of ¥10,010 million are included in long-term debt.

** The value of assets and liabilities arising from derivatives is shown at net value with amounts in parentheses representing net liability position.

Financial instruments for which it is extremely difficult to determine the fair value at March 31, 2019 and 2018 consist of the following:

	Millions of yen	Thousands of U.S. dollars	
	2019	2018	2019
Unconsolidated subsidiaries and affiliates securities	¥37,717	¥34,959	\$339,793
Non-listed equity securities	4,709	4,658	42,423
Others	556	522	5,009

Redemption schedules for financial assets and investment securities with contractual maturities subsequent to March 31, 2019 and 2018 are as follows:

	Millions of yen			
	2019			
	Within one year	After one year through five years	After five years through ten years	After ten years
Cash and cash equivalents	¥ 32,252	¥—	¥—	¥—
Time deposits	608	—	—	—
Notes and accounts receivable - trade	171,611	—	—	—
	¥204,471	¥—	¥—	¥—
	Thousands of U.S. dollars			
	2019			
	Within one year	After one year through five years	After five years through ten years	After ten years
Cash and cash equivalents	\$ 290,559	\$—	\$—	\$—
Time deposits	5,477	—	—	—
Notes and accounts receivable - trade	1,546,045	—	—	—
	\$1,842,081	\$—	\$—	\$—
	Millions of yen			
	2018			
	Within one year	After one year through five years	After five years through ten years	After ten years
Cash and cash equivalents	¥ 48,483	¥—	¥—	¥—
Time deposits	530	—	—	—
Notes and accounts receivable - trade	162,739	—	—	—
	¥211,752	¥—	¥—	¥—

Redemption schedules for long-term debt and other interest-bearing debt subsequent to March 31, 2019 and 2018 are as follows:

	Millions of yen					
	2019					
	Within one year	After one year through two years	After two years through three years	After three years through four years	After four years through five years	After five years
Short-term loans payable	¥32,620	¥—	¥—	¥—	¥—	¥—
Long-term debt	28,751	16,249	22,990	23,318	13,384	48,334
	¥61,371	¥16,249	¥22,990	¥23,318	¥13,384	¥48,334
	Thousands of U.S. dollars					
	2019					
	Within one year	After one year through two years	After two years through three years	After three years through four years	After four years through five years	After five years
Short-term loans payable	\$293,874	\$—	\$—	\$—	\$—	\$—
Long-term debt	259,018	146,387	207,117	210,072	120,577	435,441
	\$552,892	\$146,387	\$207,117	\$210,072	\$120,577	\$435,441
	Millions of yen					
	2018					
	Within one year	After one year through two years	After two years through three years	After three years through four years	After four years through five years	After five years
Short-term loans payable	¥42,131	¥—	¥—	¥—	¥—	¥—
Long-term debt	37,681	26,344	13,858	20,488	18,654	34,777
	¥79,812	¥26,344	¥13,858	¥20,488	¥18,654	¥34,777

Securities

Investment securities at March 31, 2019 and 2018 consist of the following:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	2019
Investment securities:			
Unconsolidated subsidiaries and affiliated companies	¥37,717	¥34,959	\$339,793
Others	17,850	19,845	160,811
	¥55,567	¥54,804	\$500,604

Marketable securities classified as other securities at March 31, 2019 and 2018 are as follows:

	Millions of yen						Thousands of U.S. dollars		
	2019			2018			2019		
	Carrying value	Acquisition costs	Unrealized gain (loss)	Carrying value	Acquisition costs	Unrealized gain (loss)	Carrying value	Acquisition costs	Unrealized gain (loss)
Securities whose carrying value exceeds their acquisition cost:									
Stock	¥11,304	¥5,059	¥6,245	¥13,857	¥5,776	¥8,081	\$101,838	\$45,577	\$56,261
Debt securities	—	—	—	—	—	—	—	—	—
Others	—	—	—	—	—	—	—	—	—
Subtotal	11,304	5,059	6,245	13,857	5,776	8,081	101,838	45,577	56,261
Securities whose acquisition cost exceeds their carrying value:									
Stock	1,281	1,547	(266)	808	822	(14)	11,541	13,937	(2,396)
Debt securities	—	—	—	—	—	—	—	—	—
Others	—	—	—	—	—	—	—	—	—
Subtotal	1,281	1,547	(266)	808	822	(14)	11,541	13,937	(2,396)
Total	¥12,585	¥6,606	¥5,979	¥14,665	¥6,598	¥8,067	\$113,379	\$59,514	\$53,865

Non-listed equity securities and others are not included in the above table because there were no quoted market prices available and their fair value is deemed to be extremely difficult to determine.

These non-listed equity securities and others in the amounts of ¥5,365 million (US\$48,333 thousand) and ¥5,280 million are included in "Investment securities" on the consolidated balance sheet at March 31, 2019 and 2018, respectively.

Sales of securities classified as other securities and the aggregate gain for the years ended March 31, 2019 and 2018 are as follows:

	Millions of yen						Thousands of U.S. dollars		
	2019			2018			2019		
	Sales proceeds	Aggregate gain	Aggregate loss	Sales proceeds	Aggregate gain	Aggregate loss	Sales proceeds	Aggregate gain	Aggregate loss
Stock	¥—	¥—	¥—	¥20	¥11	¥—	\$—	\$—	\$—

Acquisition costs in the tables above represent the amounts after deduction of impairment losses.

There were no impairment losses for the years ended March 31, 2019 and 2018.

Inventories

Inventories at March 31, 2019 and 2018 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	2019
Finished goods	¥42,585	¥40,390	\$383,649
Work in process	22,611	20,084	203,703
Raw materials and supplies	31,568	30,455	284,396
	¥96,764	¥90,929	\$871,748

Short-term loans payable and long-term debt

Short-term loans payable represent bank loans, with average interest rates of 0.44% and 0.56% per annum at March 31, 2019 and 2018, respectively.

Long-term debt at March 31, 2019 and 2018 consists of the following:

	Millions of yen	Thousands of U.S. dollars	
	2019	2018	2019
0.60% to 0.63% unsecured bonds due FY 2018	¥ —	¥ 10,010	\$ —
0.33% unsecured bonds due FY 2019	10,000	10,000	90,090
0.53% unsecured bonds due FY 2021	10,000	10,000	90,090
0.15% unsecured bonds due FY 2022	10,000	10,000	90,090
0.31% unsecured bonds due FY 2025	10,000	—	90,090
0.43% unsecured bonds due FY 2026	10,000	10,000	90,090
0.375% unsecured bonds due FY 2027	10,000	10,000	90,090
Loans principally from banks and insurance companies:			
Secured, at 0.39% to 1.65%, maturing through FY 2022	—	2,310	—
Secured, at 0.35% to 1.35%, maturing through FY 2025	1,800	—	16,216
Unsecured, at 0.00% to 2.27%, maturing through FY 2033	—	89,482	—
Unsecured, at 0.00% to 3.60%, maturing through FY 2033	91,226	—	821,856
	153,026	151,802	1,378,612
Less current portion	28,751	37,681	259,018
	¥124,275	¥114,121	\$1,119,594

The Company and certain consolidated subsidiaries have entered into loan commitment agreements amounting to ¥22,628 million (US\$203,856 thousand) with certain banks. There was no loans payable outstanding at March 31, 2019 under these loan commitment agreements.

The aggregate annual maturities of the non-current portion of long-term debt are as follows:

Years ending March 31	Millions of yen	Thousands of U.S. dollars
2021	¥ 16,249	\$ 146,387
2022	22,990	207,117
2023	23,318	210,072
2024	13,384	120,577
2025 and thereafter	48,334	435,441
	¥124,275	\$1,119,594

Pledged assets

The assets pledged as collateral for short-term and long-term borrowings, guarantees and borrowings of affiliated companies at March 31, 2019 and 2018 are as follows:

	Millions of yen	Thousands of U.S. dollars	
	2019	2018	2019
Assets pledged as collateral:			
Property, plant and equipment, at net book value	¥6,771	¥105,776	\$61,000
Others	—	173	—

Contingent liabilities

At March 31, 2019 and 2018, the Company and its consolidated subsidiaries are contingently liable as follows:

	Millions of yen	Thousands of U.S. dollars	
	2019	2018	2019
As endorser of trade notes discounted or endorsed	¥ 103	¥ 87	\$ 928
As guarantor of employees' housing loans	23	36	207
As guarantor of indebtedness principally of unconsolidated subsidiaries and affiliated companies	6,464	5,155	58,234

10**Net assets**

The Corporation Law of Japan provides that an amount equal to 10% of the amount to be distributed as distributions of capital surplus (other than the capital reserve) and retained earnings (other than the legal reserve) shall be transferred to the capital reserve and the legal reserve, respectively, until the sum of the capital reserve and the legal reserve equals 25% of the capital stock account. Such distributions can be made at any time by resolution of the shareholders or by the Board of Directors if certain conditions are met, but neither the capital reserve nor the legal reserve is available for distributions.

At the general shareholders' meeting of the Company held on June 27, 2019, the distribution of retained earnings for the year ended March 31, 2019 was approved as follows:

	Millions of yen	Thousands of U.S. dollars
Cash dividends (¥80.00 per share)	¥8,101	\$72,982

11**Selling, general and administrative expenses**

Major components of selling, general and administrative expenses for the years ended March 31, 2019 and 2018 are as follows:

	Millions of yen	Thousands of U.S. dollars
	2019	2018
Freight and storage	¥22,748	¥21,477
Salaries and benefits	20,988	20,494
Research and development costs	11,783	13,016

12**Research and development costs**

Research and development costs, all of which are included in "Selling, general and administrative expenses" and "Cost of sales" for the years ended March 31, 2019 and 2018 are as follows:

	Millions of yen	Thousands of U.S. dollars
	2019	2018
Research and development costs	¥12,100	¥13,206

13**Other income (expenses)**

"Other income (expenses) – Others, net" for the years ended March 31, 2019 and 2018 consists of the following:

	Millions of yen	Thousands of U.S. dollars
	2019	2018
Gain on sales of investment securities, net	¥ 19	¥ 11
Gain on sales of property, plant and equipment, net	33	42
Loss on disposal of property, plant and equipment	(2,857)	(2,777)
Loss on impairment of fixed assets (Note 14)	(882)	(3,667)
Loss on valuation of investment securities	(964)	(163)
Loss on business restructuring	—	(468)
Gain on foreign currency exchange, net	910	55
Others, net	(2,135)	(1,885)
	¥(5,876)	¥(8,852)

14**Loss on impairment of fixed assets**

Fixed assets of the Company and its consolidated subsidiaries are grouped at the business unit or department level for impairment testing.

Loss on impairment of fixed assets for the year ended March 31, 2019 consists of the following:

	Millions of yen	Thousands of U.S. dollars
	2019	2019
Idle property:		
Land, machinery and equipment	¥(153)	\$(1,378)
Business assets in use:		
Organic metallic compound manufacturing plant (Ube Industries, Ltd.)	(626)	(5,640)
Magnesium powder manufacturing plant (Yamaishi Metal Co., Ltd.)	(103)	(928)
	¥(882)	\$7,946

(a) Idle property

Among idle property by the Company, there were certain assets whose book values exceeded their recoverable amounts. These assets were written down to their recoverable amounts and an impairment loss of ¥153 million (US\$1,378 thousand) was recognized for the year ended March 31, 2019. This impairment loss consisted of ¥60 million (US\$540 thousand) for land and ¥93 million (US\$838 thousand) for machinery and equipment.

The recoverable amounts for land in the idle property were determined at net selling price based on appraisal and those for machinery and equipment in the idle property were determined at their memorandum prices.

(b) Business assets in use

Ube Industries, Ltd. decided to withdraw from the organic metallic compound business and reduced the book value of the related facilities to their recoverable amounts.

The recoverable amounts for machinery and equipment were determined at their memorandum prices.

This impairment loss consisted of ¥407 million (US\$3,667 thousand) for machinery and ¥219 million (US\$1,973 thousand) for buildings and others.

Yamaishi Metal Co., Ltd. decided to close a magnesium powder manufacturing plant and reduced the book value of the related facilities to their recoverable amounts.

The recoverable amounts for buildings were determined at their memorandum prices and those for land were determined at net selling price based on appraisal.

This impairment loss consisted of ¥95 million (US\$856 thousand) for land and ¥8 million (US\$72 thousand) for buildings.

Loss on impairment of fixed assets for the year ended March 31, 2018 consists of the following:

	Millions of yen
	2018
Idle property and assets held for sales:	
Land, buildings and structures	¥(2,236)
Business assets in use:	
Concrete pile manufacturing plant (Ube Concrete Co., Ltd.)	(487)
Electrolyte manufacturing plant (AET Electrolyte Technologies (Zhangjiagang) Co., Ltd.)	(560)
Ready-mixed concrete manufacturing plant (Nantong UBE Concrete Co., Ltd.)	(384)
	<u>¥(3,667)</u>

(a) Idle property and assets held for sales

Among idle property and assets held for sales owned by the Company and its consolidated subsidiaries, there were certain assets whose book values exceeded their recoverable amounts. These assets were written down to their recoverable amounts and an impairment loss of ¥2,236 million was recognized for the year ended March 31, 2018. This impairment loss consisted of ¥1,960 million for land and ¥276 million for buildings and structures.

The recoverable amounts for land in the idle property were determined at net selling price based on appraisal and those for buildings and structures in the idle property were determined at their memorandum prices. The recoverable amounts of land classified as assets held for sales were determined based on their contract prices.

(b) Business assets in use

Ube Concrete Co., Ltd. decided to withdraw from the concrete pile business and reduced the book values of the related facilities to their recoverable amounts.

The recoverable amounts for land were determined at net selling price based on appraisal.

This impairment loss consisted of ¥487 million for land.

AET Electrolyte Technologies (Zhangjiagang) Co., Ltd. decided to close the electrolyte manufacturing plant due to its dissolution and reduced the book values of the related facilities to their recoverable amounts.

The recoverable amounts for machinery and equipment were determined at their memorandum prices.

This impairment loss consisted of ¥560 million for machinery and equipment.

Nantong UBE Concrete Co., Ltd. wrote down the book values of the ready-mixed concrete manufacturing plant to its recoverable amounts due to a decline in profitability and recorded an impairment loss of ¥384 million.

The recoverable amounts for the asset group were determined at their memorandum prices and market prices.

This impairment loss consisted of ¥181 million for equipment, ¥127 million for buildings, and ¥76 million for others.

Income taxes applicable to the Company comprise corporation, enterprise and inhabitants' taxes which, in the aggregate, resulted in statutory tax rates of approximately 30.5% and 30.7% for the years ended March 31, 2019 and 2018, respectively.

The effective tax rates reflected in the consolidated statement of income for the years ended March 31, 2019 and 2018 differ from the statutory tax rate for the following reasons.

	Percentage	
	2019	2018
Statutory tax rate	30.5%	30.7%
Effect of:		
Permanently non-deductible expenses	0.3	0.3
Permanently non-taxable items including dividend income	(8.1)	(5.6)
Loss carried forward without deferred tax assets	0.0	0.5
Deducted amount of loss without deferred tax assets	(1.6)	(0.5)
Effect of elimination of dividend income through consolidation procedures	8.2	5.7
Share of profit of entities accounted for using equity method	(3.4)	(2.5)
Tax rate difference of overseas consolidated subsidiaries	(2.3)	(2.5)
Retained earnings of foreign subsidiary companies	1.0	2.3
Deductible research and development expenses	(1.3)	(2.9)
Others	0.0	0.9
Effective tax rate	23.3%	26.4%

The significant components of deferred tax assets and liabilities at March 31, 2019 and 2018 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	2019
Deferred tax assets:			
Provision for bonuses	¥ 2,202	¥ 2,223	\$ 19,838
Net defined benefit liability	2,403	2,403	21,649
Allowance for doubtful accounts	321	279	2,892
Loss carried forward	3,785	4,939	34,099
Intercompany profit	10,783	11,028	97,144
Depreciation and amortization	3,044	3,062	27,423
Loss on valuation of investment securities	1,011	527	9,108
Disposal of fixed assets without dismantlement	2,887	3,108	26,009
Accrual for losses on business restructuring	122	196	1,099
Others	6,120	7,182	55,135
Gross deferred tax assets	32,678	34,947	294,396
Valuation allowance:			
Tax loss carried forward	(2,852)	—	(25,694)
Total future tax consequences of temporary differences**	(3,561)	—	(32,081)
Gross valuation allowance	(6,413)	(7,382)	(57,775)
Total deferred tax assets	26,265	27,565	236,621
Deferred tax liabilities:			
Reserve for advanced depreciation of non-current assets	(2,337)	(2,508)	(21,054)
Valuation difference on available-for-sale securities	(1,614)	(2,240)	(14,541)
Net defined benefit asset	(1,819)	(2,336)	(16,387)
Revaluation surplus on assets	(1,871)	(2,044)	(16,856)
Retained earnings of foreign subsidiary companies	(4,888)	(4,449)	(44,036)
Others	(3,549)	(3,424)	(31,973)
Total deferred tax liabilities	(16,078)	(17,001)	(144,847)
Net deferred tax assets*	¥ 10,187	¥ 10,564	\$ 91,774

* Net deferred tax assets in the preceding table are classified as follows in the accompanying consolidated balance sheet.

	Millions of yen		Thousands of U.S. dollars
	2019	2018	2019
Investments and other assets – Long-term deferred tax assets	¥12,151	¥12,358	\$109,468
Long-term liabilities – Long-term deferred tax liabilities	(1,964)	(1,794)	(17,694)

** Tax loss carried forward and deferred tax assets by carry-forward period are as follows:

Years ending March 31	Millions of yen			Thousands of U.S. dollars		
	Tax loss carried forward	Valuation allowance	Deferred tax assets	Tax loss carried forward	Valuation allowance	Deferred tax assets
2020	¥ 572	¥ (507)	¥ 65	\$ 1,513	\$ (4,568)	\$ 585
2021	400	(208)	192	3,604	(1,874)	1,730
2022	24	(24)	—	216	(216)	—
2023	64	(64)	—	577	(577)	—
2024	807	(264)	543	7,270	(2,378)	4,892
2025 and thereafter	1,918	(1,785)	133	17,279	(16,081)	1,198
	¥3,785	¥(2,852)	¥933*	\$34,099	\$ (25,694)	\$ 8,405

* For the tax loss carried forward of ¥3,785 million (US\$34,099 thousand), the deferred tax assets of ¥933 million (US\$8,405 thousand) have been recorded. The tax loss carried forward was determined to be recoverable as future taxable income is anticipated, and therefore a valuation allowance has not been recognized.

Note: Tax loss carried forward is measured using the statutory effective tax rate.

Business combinations**Common control transactions**

The Company's Board of Directors resolved at its meeting held on November 1, 2018 to integrate its separators business for lithium-ion rechargeable batteries. In the integration, the Company split off its separators business, which would be succeeded by Ube Maxell Co., Ltd. (hereafter "Ube Maxell"), a joint venture between the Company and Maxell Co., Ltd. (hereafter "Maxell"). The integration took effect on January 1, 2019. Upon the integration, Ube Maxell issued 49,600 ordinary shares to be delivered in their entirety to the Company in exchange for the rights and obligations subject to succession. Ube Maxell increased capital of ¥4,200 million (US\$37,838 thousand) attributable to Maxell and issued 22,700 ordinary shares to be delivered in their entirety to Maxell.

As a result of these transactions, the Company's ownership ratio in Ube Maxell has changed from 51% to 66%.

1. Outline of transaction**(1) Name and business of combined entities**

Name: the Company's separators business

Business: Production, sales and R&D of lithium-ion battery separators

(2) Date of transaction

January 1, 2019

(3) Legal form of transaction

The integration took the form of an absorption-type company split, with the Company as the split company and Ube Maxell as the succeeding company.

(4) Company names after business combination

Unchanged

(5) Other matters concerning transaction summary

With these changes, Ube Maxell has an integrated framework for production and supply starting from separator base films, while offering both coated and non-coated separators. Ube Maxell leverages its expanded product lineup to efficiently meet a wide range of market needs. By integrating the separators business under the joint venture with Maxell, the Company seeks to further strengthen competitiveness and expand and develop the joint venture business in the separators market, which continues to see rapid growth in automotive applications.

2. Summary of accounting procedures

The integration was accounted for as a business combination of entities under common control based on the "Revised Accounting Standard for Business Combinations" (ASBJ Statement No. 21 of September 13, 2013) and the "Revised Guidance on Accounting Standard for Business Combinations and Accounting Standard for Business Divestitures" (ASBJ Guidance No.10 of September 13, 2013).

3. Details about the change in shareholders' equity due to the transaction with non-controlling shareholders**(1) Main reason for the change in capital surplus**

Company split and third party allotment of shares in capital surplus

(2) Increase in capital surplus due to the transaction with non-controlling shareholders

¥1,971 million (US\$17,757 thousand)

Business combination through acquisitions**1. Outline of business combination****(1) Name of acquired company**

Repol S.L. (hereafter "Repol")

(2) Business description

Manufacturing and sales of thermoplastic compound resins for injection and extrusion applications

(3) Main reason for business combination

Repol operates a compound business in Europe using nylon 6, nylon 66, polypropylene, polyacetal, and other resin raw materials. These products are mainly used for automobiles but are also broadly used in industrial materials and for the electrical and electronics industries. The Company's consolidated subsidiary, UBE Corporation Europe S.A.U. acquired 75% of the shares of Repol under the agreement for the transfer of shares.

The Company has positioned the nylon 6 business as an active growth business and is currently strengthening the nylon 6 business in the market for extrusion applications, where the Company has a competitive edge. At the same time, the Company is expanding the scope of the nylon 6 business in the market for injection applications. The acquisition establishes a complementary relationship in the nylon 6

business while also giving the Company access to Repol's compound technologies and product development capabilities for non-nylon resins. Additionally, Repol's recycling technologies are anticipated to be an asset to future business development amid tightening environmental regulation of plastic packaging materials.

(4) Date of business combination

January 1, 2019

(5) Legal form of business combination

Acquisition of shares in exchange for cash

(6) Company name after business combination

Unchanged

(7) Percentage of voting rights acquired

Percentage of voting rights before business combination: —%

Percentage of voting rights after business combination: 75%

(8) Basis for determining acquiring company

Because a wholly-owned subsidiary of the Company acquired shares of Repol in exchange for cash

2. Period for which acquired company's operating results are included in consolidated statement of income

The acquired company's operating results are not included in the consolidated statement of income.

3. Acquisition cost

	Millions of yen	Thousands of U.S. dollars
Cash	¥1,763	\$15,883
Total acquisition cost	¥1,763	\$15,883

4. Acquisition-related cost

	Millions of yen	Thousands of U.S. dollars
Advisory fees	¥61	\$550

5. Amount of goodwill recognized, reason for recognition, method of amortization, and period of amortization

(1) Amount of goodwill recognized

¥1,015 million (US\$9,144 thousand)

(2) Reason for recognized

The goodwill recognized resulted from the difference between the net fair value of assets acquired and liabilities assumed and the acquisition cost of the shares.

(3) Method of amortization and period of amortization

Straight-line method over 10 years

6. Details on assets acquired and liabilities assumed

	Millions of yen	Thousands of U.S. dollars
Current assets	¥1,668	\$15,027
Non-current assets	577	5,198
Total assets	¥2,245	\$20,225
	Millions of yen	Thousands of U.S. dollars
Current liabilities	¥ 817	\$ 7,360
Non-current liabilities	431	3,883
Total liabilities	¥1,248	\$11,243

7. Effects on the consolidated statement of income for the fiscal year assuming the business combination was completed at the beginning of the fiscal year and accounting method

A pro forma disclosure relating to the business combination is omitted because the impact on the consolidated financial statements was immaterial.

Furthermore, this impact was unaudited.

Derivative financial instruments instruments

Summarized below are the notional amounts and the estimated fair values of the derivative transactions outstanding at March 31, 2019 and 2018.

(a) Derivative financial instruments for which deferred hedge accounting has not been applied

Currency-related transactions:

	Millions of yen						Thousands of U.S. dollars		
	2019			2018			2019		
	Notional amount	Fair value	Unrealized gain (loss)	Notional amount	Fair value	Unrealized gain (loss)	Notional amount	Fair value	Unrealized gain (loss)
Forward exchange contracts:									
Sell:									
USD	¥ 811	¥ (2)	¥ (2)	¥ 137	¥ (1)	¥ (1)	\$ 7,306	\$ (18)	\$ (18)
JPY	—	—	—	14	0	0	—	—	—
Buy:									
USD	11,967	723	723	1,366	(21)	(21)	107,811	6,513	6,513
EUR	35	(1)	(1)	167	(2)	(2)	315	(9)	(9)
Total	¥12,813	¥720	¥720	¥1,684	¥(24)	¥(24)	\$115,432	\$6,486	\$6,486

Note: Calculation of fair value is based on the forward rate.

(b) Derivative financial instruments for which deferred hedged accounting has been applied

1. Currency-related transactions

Main items hedged by forward foreign exchange contracts are trade accounts receivable and payable.

		Millions of yen				Thousands of U.S. dollars		
		2019		2018		2019		
		Notional amount	Fair value	Notional amount	Fair value	Notional amount	Fair value	
Principle method Forward exchange contracts:								
Sell:								
USD	¥ 232	¥ 2	¥ —	¥ —	¥ —	\$ 2,090	\$ 18	
THB	83	(2)	37	(0)	—	748	(18)	
Buy:								
EUR	401	(6)	363	(8)	—	3,613	(54)	
Short-cut method Forward exchange contracts:								
Sell:								
USD	475	5	1,249	57	—	4,279	45	
THB	14	(1)	—	—	—	126	(9)	
Currency swap contracts:								
Receive/USD								
Pay/JPY	4,220	*	7,952	*	—	38,018	*	
Total	¥5,425	¥ (2)	¥9,601	¥49	—	\$48,874	\$(18)	

* The fair value of currency swaps accounted for by the short-cut method is included in the fair value of long-term debt, which is designated as the hedged item.

Note: Calculation of fair value is based on the forward rate.

2. Interest-related transactions

Main items hedged by interest-rate swap and interest-cap contracts are short-term loans payable and long-term debt.

		Millions of yen				Thousands of U.S. dollars		
		2019		2018		2019		
		Notional amount	Fair value	Notional amount	Fair value	Notional amount	Fair value	
Short-cut method Interest-rate swaps:								
Receive/floating and pay/fixed								
	¥3,307	*	¥7,252	*	—	\$29,793	*	

* The fair value of interest-rate swaps accounted for by the short-cut method is included in the fair value of long-term debt, which is designated as the hedged item.

Note: Calculation of fair value is based on the prices provided by the financial institutions.

Segment information

Reportable segments of the Company consist of the business units for which independent financial information is available. They are regularly monitored by the Board of Directors in order to decide the distribution of business resources and evaluate the business results.

The Company classifies its products and services into six reportable segments: "Chemicals," "Pharmaceutical," "Cement & Construction Materials," "Machinery," "Energy & Environment" and "Other."

The operations of the Company and its consolidated subsidiaries for the years ended March 31, 2019 and 2018 are summarized by reportable segment as follows:

Year ended March 31, 2019	Millions of yen							Elimination & Corporate	Consolidated
	Chemicals	Pharmaceutical	Cement & Construction Materials	Machinery	Energy & Environment	Other			
Sales:									
Outside customers	¥313,226	¥10,088	¥244,132	¥95,808	¥63,433	¥ 3,470	¥ —	¥730,157	
Intersegment sales and transfers	1,758	41	6,118	1,456	12,420	1,465	(23,258)	—	—
Total	314,984	10,129	250,250	97,264	75,853	4,935	(23,258)	730,157	
Segment operating profit	¥ 23,751	¥ 855	¥ 11,893	¥ 5,410	¥ 2,565	¥ 804	¥ (727)	¥ 44,551	
Segment assets	¥343,981	¥12,954	¥237,304	¥78,871	¥51,892	¥13,101	¥ 2,183	¥740,286	
Depreciation and amortization	20,293	895	9,332	1,761	3,030	282	827	36,420	
Equity method investments	23,178	—	9,329	—	1,237	1,174	—	34,918	
Capital expenditures	14,889	636	20,564	1,923	2,566	160	1,003	41,741	
 Sales:									
 Thousands of U.S. dollars									
Year ended March 31, 2019	Thousands of U.S. dollars							Elimination & Corporate	Consolidated
	Chemicals	Pharmaceutical	Cement & Construction Materials	Machinery	Energy & Environment	Other			
Sales:									
Outside customers	\$2,821,856	\$ 90,883	\$2,199,388	\$863,135	\$571,468	\$ 31,261	\$ —	\$6,577,991	
Intersegment sales and transfers	15,838	369	55,117	13,117	111,892	13,198	(209,531)	—	—
Total	2,837,694	91,252	2,254,505	876,252	683,360	44,459	(209,531)	6,577,991	
Segment operating profit	\$ 213,973	\$ 7,703	\$ 107,144	\$ 48,739	\$ 23,108	\$ 7,243	\$ (6,550)	\$ 401,360	
Segment assets	\$3,098,928	\$116,703	\$2,137,874	\$710,549	\$467,495	\$118,027	\$ 19,667	\$6,669,243	
Depreciation and amortization	182,820	8,063	84,072	15,865	27,297	2,541	7,450	328,108	
Equity method investments	208,811	—	84,045	—	11,144	10,577	—	314,577	
Capital expenditures	134,135	5,730	185,261	17,324	23,117	1,442	9,036	376,045	
 Sales:									
Year ended March 31, 2018	Millions of yen							Elimination & Corporate	Consolidated
	Chemicals	Pharmaceutical	Cement & Construction Materials	Machinery	Energy & Environment	Other			
Sales:									
Outside customers	¥303,653	¥10,173	¥232,167	¥88,418	¥57,636	¥ 3,527	¥ —	¥695,574	
Intersegment sales and transfers	1,779	40	6,687	1,722	13,725	1,270	(25,223)	—	—
Total	305,432	10,213	238,854	90,140	71,361	4,797	(25,223)	695,574	
Segment operating profit	¥ 28,974	¥ 2,107	¥ 12,340	¥ 5,511	¥ 2,350	¥ 872	¥ (1,904)	¥ 50,250	
Segment assets	¥346,339	¥12,419	¥225,153	¥78,359	¥52,109	¥13,143	¥14,923	¥742,445	
Depreciation and amortization	19,969	880	8,889	1,700	2,834	271	810	35,353	
Equity method investments	19,950	—	9,391	—	1,239	1,075	—	31,655	
Capital expenditures	20,350	566	10,755	2,710	4,683	211	1,061	40,336	

Sales and amounts of property, plant and equipment of the Company and its consolidated subsidiaries as of and for the years ended March 31, 2019 and 2018 by geographic area are as follows:

	Millions of yen				
Year ended March 31, 2019	Japan	Asia	Europe	Other area	Consolidated
Sales	¥513,021	¥133,914	¥46,909	¥36,313	¥730,157
Thousands of U.S. dollars					
Year ended March 31, 2019	Japan	Asia	Europe	Other area	Consolidated
Sales	\$4,621,811	\$1,206,432	\$422,604	\$327,144	\$6,577,991
As of March 31, 2019	Millions of yen				
Property, plant and equipment	Japan	Thailand	Other Asia	Europe	Other area
	¥265,274	¥45,582	¥674	¥19,031	¥755
	¥331,316				
Thousands of U.S. dollars					
As of March 31, 2019	Japan	Thailand	Other Asia	Europe	Other area
Property, plant and equipment	\$2,389,856	\$410,649	\$6,072	\$171,450	\$6,802
	\$2,984,829				
Year ended March 31, 2018	Millions of yen				
Sales	Japan	Asia	Europe	Other area	Consolidated
	¥484,481	¥135,071	¥40,338	¥35,684	¥695,574
As of March 31, 2018	Millions of yen				
Property, plant and equipment	Japan	Thailand	Other Asia	Europe	Other area
	¥264,888	¥48,518	¥755	¥19,696	¥405
	¥334,262				

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Leases

Operating leases

Future minimum lease payments subsequent to March 31, 2019 and 2018 for non-cancelable operating leases are summarized as follows:

Years ending March 31	Millions of yen		Thousands of U.S. dollars
	2019	2019	
2020		¥ 772	\$ 6,955
2021 and thereafter		4,637	41,775
		¥5,409	\$48,730
Millions of yen			
Years ending March 31			2018
2019			¥ 642
2020 and thereafter			4,044
			¥4,686

Retirement benefits

The Company and certain domestic consolidated subsidiaries have funded and unfunded defined benefit company pension plans. Certain domestic consolidated subsidiaries have defined contribution pension plans.

Under the defined benefit pension plans, employees terminating their employment are entitled to retirement benefits determined based on the rate of pay and years of service. The retirement benefit trusts have been established for some defined benefit pension plans.

Under the lump-sum retirement benefit of defined pension plans, benefits are determined based on the rate of pay and years of service.

Defined contribution plans are mainly defined contribution pension plans.

(a) Defined benefit plans

The changes in the retirement benefit obligation during the years ended March 31, 2019 and 2018 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	2019
Opening balance of retirement benefit obligation	¥49,516	¥48,869	\$446,090
Service cost	2,862	2,885	25,784
Interest cost	291	287	2,622
Actuarial loss	70	26	630
Benefit paid	(3,156)	(2,551)	(28,432)
Closing balance of retirement benefit obligation	¥49,583	¥49,516	\$446,694

The changes in plan assets during the years ended March 31, 2019 and 2018 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	2019
Opening balance of plan assets	¥55,091	¥54,157	\$496,315
Expected return on pension assets	1,178	1,161	10,612
Actuarial gain (loss)	(1,694)	236	(15,261)
Contributions by the employer	1,855	1,911	16,712
Benefit paid	(2,988)	(2,374)	(26,919)
Closing balance of plan assets	¥53,442	¥55,091	\$481,459

The reconciliation of the retirement benefit obligations and plan assets to the liabilities and assets for retirement benefits recognized in the consolidated balance sheet as of March 31, 2019 and 2018 is as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	2019
Funded retirement benefit obligations	¥ 46,916	¥ 46,975	\$ 422,667
Plan assets	(53,442)	(55,091)	(481,459)
	(6,526)	(8,116)	(58,792)
Unfunded retirement benefit obligations	2,667	2,541	24,027
Net amount of liabilities and assets for retirement benefits in the consolidated balance sheet	(3,859)	¥ (5,575)	(34,765)
Net defined benefit liability	2,667	¥ 2,541	24,027
Net defined benefit asset	(6,526)	(8,116)	(58,792)
Net amount of liabilities and assets for retirement benefits in the consolidated balance sheet	¥ (3,859)	¥ (5,575)	\$ (34,765)

The breakdown of the retirement benefit expenses for the years ended March 31, 2019 and 2018 is as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2018	2019
Service cost	¥ 2,862	¥ 2,885	\$ 25,784
Interest cost	291	287	2,622
Expected return on plan assets	(1,178)	(1,161)	(10,612)
Amortization of actuarial loss	403	520	3,630
Amortization of prior service cost	180	182	1,621
Retirement benefit expenses	¥ 2,558	¥ 2,713	\$ 23,045

The components of remeasurements of defined benefit plans in other comprehensive income (before tax effect) for the years ended March 31, 2019 and 2018 are as follows:

	Millions of yen	Thousands of U.S. dollars
	2019	2018
Prior service cost	¥ 180	¥182
Actuarial loss (gain)	(1,361)	730
Total	¥(1,181)	¥912
		\$ (10,640)

The components of remeasurements of defined benefit plans in accumulated other comprehensive income (before tax effect) as of March 31, 2019 and 2018 are as follows:

	Millions of yen	Thousands of U.S. dollars
	2019	2018
Unrecognized prior service cost	¥ —	¥ 180
Unrecognized actuarial loss	3,477	2,116
Total	¥3,477	¥2,296
		\$31,324

The breakdown of pension assets by major category as a percentage of total plan assets as of March 31, 2019 and 2018 is as follows:

	Ratio	
	2019	2018
Bonds	37%	35%
Equities	19	22
Insurance assets (General account)	26	25
Other	18	18
Total	100%	100%

The above total includes 10% and 13% of the retirement benefit trusts of company pension plans at March 31, 2019 and 2018, respectively.

The expected return rate on plan assets is estimated based on the current and anticipated allocations to each asset class and current and anticipated long-term returns on assets held in each category.

The items of actuarial assumptions for the years ended March 31, 2019 and 2018 are as follows:

	Ratio	
	2019	2018
Discount rate	0.2~1.2%	0.3~1.2%
Expected long-term return on plan assets:		
Pension assets	2.0~2.5	2.0~2.5
Retirement benefit trusts	0.0	0.0

The schedule of the defined benefit obligation and pension assets accounted for by the simplified method for the years ended March 31, 2019 and 2018 is as follows:

	Millions of yen	Thousands of U.S. dollars
	2019	2018
Opening balance of net defined benefit asset and liability	¥4,277	¥4,332
Benefit expenses	525	592
Benefit paid	(475)	(559)
Contributions to the plans	(77)	(88)
Closing balance of net defined benefit asset and liability	¥4,250	¥4,277
		\$38,288

The reconciliation of the retirement benefit obligations and plan assets to the liabilities and assets for retirement benefits by the simplified method recognized in the consolidated balance sheet as of March 31, 2019 and 2018 is as follows:

	Millions of yen	Thousands of U.S. dollars
	2019	2018
Funded retirement benefit obligations	¥ 1,453	¥ 1,523
Plan assets	(1,181)	(1,222)
	272	301
Unfunded retirement benefit obligations	3,978	3,976
Net amount of liabilities and assets for retirement benefits in the consolidated balance sheet	4,250	¥ 4,277
Net defined benefit liability	4,344	¥ 4,356
Net defined benefit asset	(94)	(79)
Net amount of liabilities and assets for retirement benefits in the consolidated balance sheet	¥ 4,250	¥ 4,277
		\$ 38,288

Investment and rental property

The retirement benefit expenses under the simplified method were ¥525 million (US\$4,730 thousand) and ¥592 million for the years ended March 31, 2019 and 2018, respectively.

(b) Defined contribution plans

The contributions by consolidated subsidiaries paid to defined contribution pension plans were ¥63 million (US\$568 thousand) and ¥43 million for the years ended March 31, 2019 and 2018, respectively.

The Company and its consolidated subsidiaries own idle property and rental property in Yamaguchi prefecture, Japan and other areas. The carrying amount, net changes and fair value of investment and rental property for the years ended March 31, 2019 and 2018 are as follows:

	Millions of yen		
	2019		
	Carrying amount		
	Opening balance	Net change during the year	Closing balance
Idle property	¥ 6,499	¥ 31	¥ 6,530
Rental property	10,136	589	10,725

	Thousands of U.S. dollars		
	2019		
	Carrying amount		
	Opening balance	Net change during the year	Closing balance
Idle property	\$58,550	\$ 279	\$58,829
Rental property	91,315	5,306	96,621

Notes: Carrying amounts represent the acquisition costs less accumulated depreciation and impairment losses.

Net change for the year ended March 31, 2019 is mainly change of use of classification of ¥1,113 million (US\$10,027 thousand).

Fair value of main property at March 31, 2019 is based on external appraisal, and fair value of other property is estimated based on the index prices deemed to reflect the market price accurately.

	Millions of yen		
	2018		
	Carrying amount		
	Opening balance	Net change during the year	Closing balance
Idle property	¥8,287	¥(1,788)	¥ 6,499
Rental property	9,135	1,001	10,136

Notes: Carrying amounts represent the acquisition costs less accumulated depreciation and impairment losses.

Net change for the year ended March 31, 2018 is mainly loss on sales of ¥(427) million.

Fair value of main property at March 31, 2018 is based on external appraisal, and fair value of other property is estimated based on the index prices deemed to reflect the market price accurately.

The amount of income and expenses related to investment and rental property for the years ended March 31, 2019 and 2018 are as follows:

	Millions of yen		
	2019		
	Rental income	Rental expenses	Net income
Idle property	¥ —	¥ —	¥ —
Rental property	1,137	506	631

Thousands of U.S. dollars

	2019		
	Rental income	Rental expenses	Net income
Idle property	\$ —	\$ —	\$ —
Rental property	10,243	4,558	5,685

Notes: Others in the above table for idle property consist of taxes and dues of ¥(187) million (US\$ 1,685) thousand, impairment loss of ¥(59) million (US\$532 thousand) and gain on sales of ¥28 million (US\$252 thousand).

	Millions of yen		
	2018		
	Rental income	Rental expenses	Net income
Idle property	¥ —	¥ —	¥ —
Rental property	1,099	508	591

Notes: Others in the above table for idle property consist of taxes and dues of ¥(172) million, impairment loss of ¥(126) million, and loss on sales of ¥(62) million.

Others for rental property is impairment loss of ¥(24) million and gain on sales of ¥85 million.

Stock options

Stock option expenses in the amounts of ¥85 million (US\$766 thousand) and ¥115 million were recognized as "Selling, general and administrative expenses" on the consolidated statement of income for the years ended March 31, 2019 and 2018, respectively.

The Company has consolidated its shares in the proportion of 10 common shares to one common share, effective as of October 1, 2017. Information on stock options at March 31, 2019, which reflects such share consolidation, is as follows:

2007 stock options	<i>Position and number of grantees</i>	Directors of the Company: 5 Executive officers of the Company: 12
	<i>Type and number of shares</i>	Common stock of the Company: 26,900 shares
	<i>Date of grant</i>	February 22, 2007
	<i>Settlement of rights</i>	After providing service for the period
	<i>Period of providing service for stock option</i>	For 1 year (From July 1, 2006 to June 30, 2007)
	<i>Exercise period of rights</i>	For 25 years from grant date (From February 22, 2007 to February 21, 2032)
	<i>Condition of exercise of rights</i>	A holder of share acquisition rights may only exercise rights within a maximum of 8 years, within the exercise period of rights described above, from the next day when such holder no longer holds a position as a director and/or an executive officer.
2008 stock options	<i>Position and number of grantees</i>	Directors of the Company: 5 Executive officers of the Company: 17
	<i>Type and number of shares</i>	Common stock of the Company: 23,700 shares
	<i>Date of grant</i>	July 13, 2007
	<i>Settlement of rights</i>	After providing service for the period
	<i>Period of providing service for stock option</i>	Directors of the Company: For 1 year (From July 1, 2007 to June 30, 2008) Executive officers of the Company: For 9 months (From July 1, 2007 to March 31, 2008) Newly designated executive officers of the Company: For 1 year (From April 1, 2007 to March 31, 2008)
	<i>Exercise period of rights</i>	For 25 years from grant date (From July 13, 2007 to July 12, 2032)
	<i>Condition of exercise of rights</i>	A holder of share acquisition rights may only exercise rights within a maximum of 8 years, within the exercise period of rights described above, from the next day when such holder no longer holds a position as a director and/or an executive officer.
2009 stock options	<i>Position and number of grantees</i>	Directors of the Company: 6 Executive officers of the Company: 16
	<i>Type and number of shares</i>	Common stock of the Company: 24,300 shares
	<i>Date of grant</i>	July 14, 2008
	<i>Settlement of rights</i>	After providing service for the period
	<i>Period of providing service for stock option</i>	Directors of the Company: For 1 year (From July 1, 2008 to June 30, 2009) Executive officers of the Company: For 1 year (From April 1, 2008 to March 31, 2009)
	<i>Exercise period of rights</i>	For 25 years from grant date (From July 14, 2008 to July 13, 2033)
	<i>Condition of exercise of rights</i>	A holder of share acquisition rights may only exercise rights within a maximum of 8 years, within the exercise period of rights described above, from the next day when such holder no longer holds a position as a director and/or an executive officer.
2010 stock options	<i>Position and number of grantees</i>	Directors of the Company: 6 Executive officers of the Company: 17
	<i>Type and number of shares</i>	Common stock of the Company: 32,200 shares
	<i>Date of grant</i>	July 13, 2009
	<i>Settlement of rights</i>	After providing service for the period
	<i>Period of providing service for stock option</i>	Directors of the Company: For 1 year (From July 1, 2009 to June 30, 2010) Executive officers of the Company: For 1 year (From April 1, 2009 to March 31, 2010)
	<i>Exercise period of rights</i>	For 25 years from grant date (From July 13, 2009 to July 12, 2034)
	<i>Condition of exercise of rights</i>	A holder of share acquisition rights may only exercise rights within a maximum of 8 years, within the exercise period of rights described above, from the next day when such holder no longer holds a position as a director and/or an executive officer.
2011 stock options	<i>Position and number of grantees</i>	Directors of the Company: 5 Executive officers of the Company: 17
	<i>Type and number of shares</i>	Common stock of the Company: 36,600 shares
	<i>Date of grant</i>	July 14, 2010
	<i>Settlement of rights</i>	After providing service for the period
	<i>Period of providing service for stock option</i>	Directors of the Company: For 1 year (From July 1, 2010 to June 30, 2011) Executive officers of the Company: For 1 year (From April 1, 2010 to March 31, 2011)
	<i>Exercise period of rights</i>	For 25 years from grant date (From July 14, 2010 to July 13, 2035)
	<i>Condition of exercise of rights</i>	A holder of share acquisition rights may only exercise rights within a maximum of 8 years, within the exercise period of rights described above, from the next day when such holder no longer holds a position as a director and/or an executive officer.

2012 stock options	<i>Position and number of grantees</i>	Directors of the Company: 5 Executive officers of the Company: 18
	<i>Type and number of shares</i>	Common stock of the Company: 35,500 shares
	<i>Date of grant</i>	July 14, 2011
	<i>Settlement of rights</i>	After providing service for the period
	<i>Period of providing service for stock option</i>	Directors of the Company: For 1 year (From July 1, 2011 to June 30, 2012) Executive officers of the Company: For 1 year (From April 1, 2011 to March 31, 2012)
	<i>Exercise period of rights</i>	For 25 years from grant date (From July 14, 2011 to July 13, 2036)
	<i>Condition of exercise of rights</i>	A holder of share acquisition rights may only exercise rights within a maximum of 8 years, within the exercise period of rights described above, from the next day when such holder no longer holds a position as a director and/or an executive officer.
2013 stock options	<i>Position and number of grantees</i>	Directors of the Company: 4 Executive officers of the Company: 19
	<i>Type and number of shares</i>	Common stock of the Company: 37,700 shares
	<i>Date of grant</i>	July 13, 2012
	<i>Settlement of rights</i>	After providing service for the period
	<i>Period of providing service for stock option</i>	Directors of the Company: For 1 year (From July 1, 2012 to June 30, 2013) Executive officers of the Company: For 1 year (From April 1, 2012 to March 31, 2013)
	<i>Exercise period of rights</i>	For 25 years from grant date (From July 13, 2012 to July 12, 2037)
	<i>Condition of exercise of rights</i>	A holder of share acquisition rights may only exercise rights within a maximum of 8 years, within the exercise period of rights described above, from the next day when such holder no longer holds a position as a director and/or an executive officer.
2014 stock options	<i>Position and number of grantees</i>	Directors of the Company: 4 Executive officers of the Company: 20
	<i>Type and number of shares</i>	Common stock of the Company: 48,100 shares
	<i>Date of grant</i>	July 12, 2013
	<i>Settlement of rights</i>	After providing service for the period
	<i>Period of providing service for stock option</i>	Directors of the Company: For 1 year (From July 1, 2013 to June 30, 2014) Executive officers of the Company: For 1 year (From April 1, 2013 to March 31, 2014)
	<i>Exercise period of rights</i>	For 25 years from grant date (From July 12, 2013 to July 11, 2038)
	<i>Condition of exercise of rights</i>	A holder of share acquisition rights may only exercise rights within a maximum of 8 years, within the exercise period of rights described above, from the next day when such holder no longer holds a position as a director and/or an executive officer.
2015 stock options	<i>Position and number of grantees</i>	Directors of the Company: 4 Executive officers of the Company: 19
	<i>Type and number of shares</i>	Common stock of the Company: 43,000 shares
	<i>Date of grant</i>	July 14, 2014
	<i>Settlement of rights</i>	After providing service for the period
	<i>Period of providing service for stock option</i>	Directors of the Company: For 1 year (From July 1, 2014 to June 30, 2015) Executive officers of the Company: For 1 year (From April 1, 2014 to March 31, 2015)
	<i>Exercise period of rights</i>	For 25 years from grant date (From July 14, 2014 to July 13, 2039)
	<i>Condition of exercise of rights</i>	A holder of share acquisition rights may only exercise rights within a maximum of 8 years, within the exercise period of rights described above, from the next day when such holder no longer holds a position as a director and/or an executive officer.
2016 stock options	<i>Position and number of grantees</i>	Directors of the Company: 4 Executive officers of the Company: 19
	<i>Type and number of shares</i>	Common stock of the Company: 50,000 shares
	<i>Date of grant</i>	July 13, 2015
	<i>Settlement of rights</i>	After providing service for the period
	<i>Period of providing service for stock option</i>	Directors of the Company: For 1 year (From July 1, 2015 to June 30, 2016) Executive officers of the Company: For 1 year (From April 1, 2015 to March 31, 2016)
	<i>Exercise period of rights</i>	For 25 years from grant date (From July 13, 2015 to July 12, 2040)
	<i>Condition of exercise of rights</i>	A holder of share acquisition rights may only exercise rights within a maximum of 8 years, within the exercise period of rights described above, from the next day when such holder no longer holds a position as a director and/or an executive officer.
2017 stock options	<i>Position and number of grantees</i>	Directors of the Company: 4 Executive officers of the Company: 19
	<i>Type and number of shares</i>	Common stock of the Company: 39,500 shares
	<i>Date of grant</i>	July 14, 2016
	<i>Settlement of rights</i>	After providing service for the period
	<i>Period of providing service for stock option</i>	Directors of the Company: For 1 year (From July 1, 2016 to June 30, 2017) Executive officers of the Company: For 1 year (From April 1, 2016 to March 31, 2017)
	<i>Exercise period of rights</i>	For 25 years from the next day of grant date (From July 15, 2016 to July 14, 2041)
	<i>Condition of exercise of rights</i>	A holder of share acquisition rights may only exercise rights within a maximum of 10 days, within the exercise period of rights described above, from the next day when such holder no longer holds a position as a director and/or an executive officer.

2018 stock options	<i>Position and number of grantees</i>	Directors of the Company: 4 Executive officers of the Company: 20
	<i>Type and number of shares</i>	Common stock of the Company: 42,100 shares
	<i>Date of grant</i>	July 14, 2017
	<i>Settlement of rights</i>	After providing service for the period
	<i>Period of providing service for stock option</i>	Directors of the Company: For 1 year (From July 1, 2017 to June 30, 2018) Executive officers of the Company: For 1 year (From April 1, 2017 to March 31, 2018)
	<i>Exercise period of rights</i>	For 25 years from the next day of grant date (From July 15, 2017 to July 14, 2042)
2019 stock options	<i>Condition of exercise of rights</i>	A holder of share acquisition rights may only exercise rights within a maximum of 10 days, within the exercise period of rights described above, from the next day when such holder no longer holds a position as a director and/or an executive officer.
	<i>Position and number of grantees</i>	Directors of the Company: 4 Executive officers of the Company: 22
	<i>Type and number of shares</i>	Common stock of the Company: 32,100 shares
	<i>Date of grant</i>	July 13, 2018
	<i>Settlement of rights</i>	After providing service for the period
	<i>Period of providing service for stock option</i>	Directors of the Company: For 1 year (From July 1, 2018 to June 30, 2019) Executive officers of the Company: For 1 year (From April 1, 2018 to March 31, 2019)
2020 stock options	<i>Exercise period of rights</i>	For 25 years from the next day of grant date (From July 14, 2018 to July 13, 2043)
	<i>Condition of exercise of rights</i>	A holder of share acquisition rights may only exercise rights within a maximum of 10 days, within the exercise period of rights described above, from the next day when such holder no longer holds a position as a director and/or an executive officer.
	<i>Position and number of grantees</i>	Directors of the Company: 4 Executive officers of the Company: 21
	<i>Type and number of shares</i>	Common stock of the Company: 41,500 shares
	<i>Date of grant</i>	July 12, 2019
	<i>Settlement of rights</i>	After providing service for the period
2020 stock options	<i>Period of providing service for stock option</i>	Directors of the Company: For 1 year (From July 1, 2019 to June 30, 2020) Executive officers of the Company: For 1 year (From April 1, 2019 to March 31, 2020)
	<i>Exercise period of rights</i>	For 25 years from the next day of grant date (From July 13, 2019 to July 12, 2044)
	<i>Condition of exercise of rights</i>	A holder of share acquisition rights may only exercise rights within a maximum of 10 days, within the exercise period of rights described above, from the next day when such holder no longer holds a position as a director and/or an executive officer.

	Exercise price	Average stock price at exercise	Fair value at grant date
2007 stock options	¥1	¥2,840	¥3,880
2008 stock options	¥1	¥2,581	¥3,510
2009 stock options	¥1	¥2,637	¥3,260
2010 stock options	¥1	¥2,697	¥2,230
2011 stock options	¥1	¥2,648	¥1,860
2012 stock options	¥1	¥2,633	¥2,270
2013 stock options	¥1	¥2,673	¥1,360
2014 stock options	¥1	¥2,631	¥1,560
2015 stock options	¥1	¥2,524	¥1,350
2016 stock options	¥1	¥2,805	¥1,810
2017 stock options	¥1	¥2,959	¥1,610
2018 stock options	¥1	¥2,959	¥2,820
2019 stock options	¥1	—	¥2,584
	US\$0.01	—	US\$23.28

Assumptions used in estimation of the fair value of stock options were as follows:

	2019 stock options
Method of estimation	Black-Scholes model
Volatility*	26.458%
Expected remaining period**	4 years
Expected dividend	¥75 (US\$ 0.68)
Risk-free interest rate***	(0.129)%

* Volatility is calculated based on the monthly closing prices of common stock of the Company for 4 years prior to the last month ahead of each date of grant.

** Mid-term between date of grant and estimated exercisable period

*** Interest rate for a government bond with 4 years remaining

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Related parties

Related party transactions

The Company sold cement and related products for resale in the amounts of ¥34,629 million (US\$311,973 thousand) and ¥33,564 million to Ube-Mitsubishi Cement Corporation (UMCC) for the years ended March 31, 2019 and 2018, respectively. The capital stock of UMCC is ¥8,000 million (US\$72,072 thousand), and it is accounted for by the equity method. The balances of accounts receivable were ¥13,084 million (US\$117,874 thousand) and ¥12,558 million as of March 31, 2019 and 2018, respectively.

Selling prices are negotiated based on the amount of goods sold after deducting UMCC's selling costs and logistics costs from its net sales.

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Subsequent events

Not applicable