

Notes to Consolidated Financial Statements

Ube Industries, Ltd. and Consolidated Subsidiaries
For the years ended March 31, 2020 and 2019

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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 ¥109=US\$1, the approximate rate of exchange on March 31, 2020. 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.

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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 (69 and 71 companies for the years ended March 31, 2020 and 2019, 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 (26 and 25 companies for the years ended March 31, 2020 and 2019, 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 ¥524 million (US\$4,807 thousand) and ¥643 million is included in “Other non-current assets” on the consolidated balance sheet at March 31, 2020 and 2019, respectively.

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 and held-to-maturity securities. 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 the Company's 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 16. 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 (101,069 thousand shares and 104,042 thousand shares for the years ended March 31, 2020 and 2019, 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 (318 thousand shares and 336 thousand shares for the years ended March 31, 2020 and 2019, respectively).

(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 order received

Provision for loss on order 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 ¥277 million (US\$2,541 thousand) and ¥457 million are included in “Other current liabilities” on the consolidated balance sheet at March 31, 2020 and 2019, 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 ¥586 million (US\$5,376 thousand) and ¥595 million are included in “Other long-term liabilities” on the consolidated balance sheet at March 31, 2020 and 2019, 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 ¥222 million (US\$2,037 thousand) and ¥600 million are included in “Other long-term liabilities” on the consolidated balance sheet at March 31, 2020 and 2019, 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 ¥2,930 million (US\$26,881 thousand) and ¥1,532 million are included in “Other long-term liabilities” on the consolidated balance sheet at March 31, 2020 and 2019, respectively.

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Accounting changes

Accounting standards issued but not yet adopted

- Accounting Standard for Revenue Recognition (Accounting Standards Board of Japan (ASBJ) Statement No. 29 issued on March 31, 2020)
- Implementation Guidance on Accounting Standard for Revenue Recognition (ASBJ Guidance No. 30 issued on March 31, 2020)
- Implementation Guidance on Disclosures about Fair Value of Financial Instruments (ASBJ Guidance No. 19 issued on March 31, 2020)

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 and No. 19 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 and No. 19 on its consolidated financial statements.

- Accounting Standard for Fair Value Measurement (ASBJ Statement No. 30 issued on July 4, 2019)
- Accounting Standard for Measurement of Inventories (ASBJ Statement No. 9 issued on July 4, 2019)
- Accounting Standard for Financial Instruments (ASBJ Statement No. 10 issued on July 4, 2019)
- Implementation Guidance on Accounting Standard for Fair Value Measurement (ASBJ Guidance No. 31 issued on July 4, 2019)
- Implementation Guidance on Disclosures about Fair Value of Financial Instruments (ASBJ Guidance No. 19 issued on March 31, 2020)

1. Overview

The IASB and the FASB have provided similar detailed guidance on fair value measurement (IFRS 13 Fair Value Measurement by IASB, and Fair Value Measurement (Topic 820) by FASB). Given this situation, the ASBJ issued "Accounting Standard for Fair Value Measurement," etc., as a result of its initiatives mainly to promote the consistency between Japanese accounting standards and international accounting standards regarding guidance for fair value measurement and required disclosures.

The basic objective of the ASBJ in developing the accounting standard for fair value measurement was to enhance comparability between financial statements of domestic and foreign entities, through a unified measuring method. Accordingly, the accounting standard fundamentally incorporates the basic policies of IFRS 13. Furthermore, where there are items that should be considered to reflect business practices in Japan, exceptional treatments have been established for certain items to the extent that comparability is not impaired.

2. Scheduled date of adoption

The Company expects to adopt ASBJ Statements No. 30, No. 9 and No. 10 and ASBJ Guidance No. 31 and No. 19 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 Statements No. 30, No. 9 and No. 10 and ASBJ Guidance No. 31 and No. 19 on its consolidated financial statements.

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Financial instruments

(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 16. 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, 2020 and 2019. 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		
	2020	2020	2020	2020	2020	2020
	Carrying amount	Fair value	Difference	Carrying amount	Fair value	Difference
Assets						
Cash and cash equivalents	¥ 40,609	¥ 40,609	¥ —	\$ 372,560	\$ 372,560	\$ —
Time deposits	617	617	—	5,660	5,660	—
Notes and accounts receivable - trade	158,140	158,140	—	1,450,826	1,450,826	—
Investment securities	9,104	9,104	—	83,523	83,523	—
Total assets	¥208,470	¥208,470	¥ —	\$1,912,569	\$1,912,569	\$ —
Liabilities						
Notes and accounts payable - trade	¥ 92,620	¥ 92,620	¥ —	\$ 849,725	\$ 849,725	\$ —
Short-term loans payable	26,009	26,009	—	238,615	238,615	—
Other payables	33,192	33,192	—	304,514	304,514	—
Income taxes payable	4,369	4,369	—	40,082	40,082	—
Long-term debt*	161,895	161,938	43	1,485,275	1,485,670	395
Total liabilities	¥318,085	¥318,128	¥43	\$2,918,211	\$2,918,606	\$395
Derivative financial transactions**	¥ 1,213	¥ 1,213	¥ —	\$ 11,128	\$ 11,128	\$ —

* Current portions of long-term borrowings of ¥17,475 million (US\$160,321 thousand) is 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 16. Derivative financial instruments in these notes to the consolidated financial statements.

	Millions of yen		
	2019		
	Carrying amount	Fair value	Difference
Assets			
Cash and cash equivalents	¥ 32,295	¥ 32,295	¥ —
Time deposits	608	608	—
Notes and accounts receivable - trade	171,611	171,611	—
Investment securities	12,585	12,585	—
Total assets	¥217,099	¥217,099	¥ —
Liabilities			
Notes and accounts payable - trade	¥102,223	¥102,223	¥ —
Short-term loans payable	32,620	32,620	—
Other payables	29,554	29,554	—
Income taxes payable	4,106	4,106	—
Long-term debt*	153,026	153,411	385
Total liabilities	321,529	321,914	¥385
Derivative financial transactions**	¥ 714	¥ 714	¥ —

* Current portions of long-term borrowings of ¥18,751 million and bonds of ¥10,000 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, 2020 and 2019 consist of the following:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Unconsolidated subsidiaries and affiliates securities	¥38,998	¥37,717	\$357,780
Non-listed equity securities	4,568	4,709	41,908
Others	656	556	6,018

Redemption schedules for financial assets and investment securities with contractual maturities subsequent to March 31, 2020 and 2019 are as follows:

	Millions of yen			
	2020			
	Within one year	After one year through five years	After five years through ten years	After ten years
Cash and cash equivalents	¥ 40,572	¥—	¥—	¥—
Time deposits	617	—	—	—
Notes and accounts receivable - trade	158,140	—	—	—
	¥199,329	¥—	¥—	¥—
	Thousands of U.S. dollars			
	2020			
	Within one year	After one year through five years	After five years through ten years	After ten years
Cash and cash equivalents	\$ 372,220	\$—	\$—	\$—
Time deposits	5,660	—	—	—
Notes and accounts receivable - trade	1,450,826	—	—	—
	\$1,828,706	\$—	\$—	\$—
	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	¥—	¥—	¥—

Redemption schedules for long-term debt and other interest-bearing debt subsequent to March 31, 2020 and 2019 are as follows:

Millions of yen						
2020						
	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	¥26,009	¥ —	¥ —	¥ —	¥ —	¥ —
Long-term debt	17,475	24,281	24,609	19,623	23,750	52,157
	¥43,484	¥24,281	¥24,609	¥19,623	¥23,750	¥52,157

Thousands of U.S. dollars						
2020						
	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	\$238,615	\$ —	\$ —	\$ —	\$ —	\$ —
Long-term debt	160,321	222,761	225,771	180,028	217,890	478,505
	\$398,936	\$222,761	\$225,771	\$180,028	\$217,890	\$478,505

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

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Securities

Investment securities at March 31, 2020 and 2019 consist of the following:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Investment securities:			
Unconsolidated subsidiaries and affiliated companies	¥38,998	¥37,717	\$357,780
Others	14,328	17,850	131,449
	¥53,326	¥55,567	\$489,229

Marketable securities classified as other securities at March 31, 2020 and 2019 are as follows:

	Millions of yen						Thousands of U.S. dollars		
	2020			2019			2020		
	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	¥7,503	¥3,929	¥3,574	¥11,304	¥5,059	¥6,245	\$68,835	\$36,046	\$32,789
Debt securities	—	—	—	—	—	—	—	—	—
Others	—	—	—	—	—	—	—	—	—
Subtotal	7,503	3,929	3,574	11,304	5,059	6,245	68,835	36,046	32,789
Securities whose acquisition cost exceeds their carrying value:									
Stock	1,601	2,287	(686)	1,281	1,547	(266)	14,688	20,982	(6,294)
Debt securities	—	—	—	—	—	—	—	—	—
Others	—	—	—	—	—	—	—	—	—
Subtotal	1,601	2,287	(686)	1,281	1,547	(266)	14,688	20,982	(6,294)
Total	¥9,104	¥6,216	¥2,888	¥12,585	¥6,606	¥5,979	\$83,523	\$57,028	\$26,495

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 ¥5,324 million (US\$48,844 thousand) and ¥5,365 million are included in "Investment securities" on the consolidated balance sheet at March 31, 2020 and 2019, respectively.

Sales of securities classified as other securities and the aggregate gain for the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen						Thousands of U.S. dollars		
	2020			2019			2020		
	Sales proceeds	Aggregate gain	Aggregate loss	Sales proceeds	Aggregate gain	Aggregate loss	Sales proceeds	Aggregate gain	Aggregate loss
Stock	¥1,359	¥1,014	¥—	¥—	¥—	¥—	\$12,468	\$9,303	\$—
Debt securities	—	—	—	—	—	—	—	—	—
Others	—	—	—	—	—	—	—	—	—
	¥1,359	¥1,014	¥—	¥—	¥—	¥—	\$12,468	\$9,303	\$—

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

Impairment losses in the amount of ¥41 million (US\$376 thousand) were recognized for the year ended March 31, 2020.

Impairment losses are recognized for securities whose fair values at the year end are less than 50% of acquisition cost, or are more than 50% but less than 70% and deemed to be unrecoverable.

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Inventories

Inventories at March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Finished goods	¥43,171	¥42,585	\$396,064
Work in process	21,200	22,611	194,495
Raw materials and supplies	29,371	31,568	269,459
	¥93,742	¥96,764	\$860,018

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Short-term loans payable and long-term debt

Short-term loans payable represent bank loans, with average interest rates of 0.43% and 0.44% per annum at March 31, 2020 and 2019, respectively.

Long-term debt at March 31, 2020 and 2019 consists of the following:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
0.33% unsecured bonds due FY 2019	¥ —	¥ 10,000	\$ —
0.53% unsecured bonds due FY 2021	10,000	10,000	91,743
0.15% unsecured bonds due FY 2022	10,000	10,000	91,743
0.15% unsecured bonds due FY 2024	10,000	—	91,743
0.31% unsecured bonds due FY 2025	10,000	10,000	91,743
0.43% unsecured bonds due FY 2026	10,000	10,000	91,743
0.375% unsecured bonds due FY 2027	10,000	10,000	91,743
Loans principally from banks and insurance companies:			
Secured, at 0.36% to 1.21%, maturing through FY 2025	1,614	—	14,808
Secured, at 0.35% to 1.35%, maturing through FY 2025	—	1,800	—
Unsecured, at 0.00% to 2.27%, maturing through FY 2033	100,281	—	920,009
Unsecured, at 0.00% to 3.60%, maturing through FY 2033	—	91,226	—
	161,895	153,026	1,485,275
Less current portion	17,475	28,751	160,321
	¥144,420	¥124,275	\$1,324,954

The Company and certain consolidated subsidiaries have entered into loan commitment agreements amounting to ¥21,600 million (US\$198,165 thousand) with certain banks. There was no loans payable outstanding at March 31, 2020 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
2022	¥ 24,281	\$ 222,761
2023	24,609	225,771
2024	19,623	180,027
2025	23,750	217,890
2026 and thereafter	52,157	478,505
	¥144,420	\$1,324,954

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Pledged assets

The assets pledged as collateral for short-term and long-term borrowings, guarantees and borrowings of affiliated companies at March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Assets pledged as collateral:			
Property, plant and equipment, at net book value	¥9,585	¥6,771	\$87,936

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Contingent liabilities

At March 31, 2020 and 2019, the Company and its consolidated subsidiaries are contingently liable as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
As endorser of trade notes discounted or endorsed	¥ 114	¥ 103	\$ 1,046
As guarantor of employees' housing loans	17	23	156
As guarantor of indebtedness principally of unconsolidated subsidiaries and affiliated companies	8,004	6,464	73,431

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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 26, 2020, the distribution of retained earnings for the year ended March 31, 2020 was approved as follows:

	Millions of yen	Thousands of U.S. dollars
Cash dividends (¥45.00 per share)	¥4,559	\$41,826

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Selling, general and administrative expenses

Major components of selling, general and administrative expenses for the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Freight and storage	¥21,168	¥22,748	\$194,202
Salaries and benefits	21,319	20,988	195,587
Research and development costs	12,137	11,783	111,349

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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, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Research and development costs	¥12,890	¥12,100	\$118,257

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Other income (expenses)

"Other income (expenses) – Others, net" for the years ended March 31, 2020 and 2019 consists of the following:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Gain on sales of investment securities, net	¥ 1,002	¥ 19	\$ 9,193
Gain on sales of property, plant and equipment, net	(8)	33	(73)
Loss on disposal of property, plant and equipment	(1,474)	(2,857)	(13,523)
Loss on impairment of fixed assets (Note 14)	(5,236)	(882)	(48,037)
Loss on valuation of investment securities	(298)	(964)	(2,734)
Gain on foreign currency exchange, net	664	910	6,091
Others, net	(1,159)	(2,135)	(10,633)
	¥(6,509)	¥(5,876)	\$(59,716)

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, 2020 consists of the following:

	Millions of yen	Thousands of U.S. dollars
	2020	2020
Assets held for sale:		
Land, buildings and structures	¥ (180)	\$ (1,651)
Business assets in use:		
Golf course (Ube Realty & Development Co., Ltd.)	(4,617)	(42,358)
Plastic materials for optical communication manufacturing plant (Ube Exsymo Co., Ltd.)	(439)	(4,028)
	¥(5,236)	\$(48,037)

(a) Assets held for sale

Among assets held for sale 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 ¥180 million (US\$1,651 thousand) was recognized for the year ended March 31, 2020. This impairment loss consisted of ¥84 million (US\$770 thousand) for land and ¥96 million (US\$881 thousand) for buildings and structures.

The recoverable amounts for land classified as assets held for sale were determined based on net selling price based using the appraisal value and those for buildings and structures classified as assets held for sale were determined based on their memorandum prices.

(b) Business assets in use

Ube Realty & Development Co., Ltd. decided to transfer a golf course business and reduced the book value of the related facilities to their recoverable amounts.

The recoverable amounts were determined based on their contract prices, and an impairment loss of ¥4,617 million (US\$42,358 thousand) was recorded.

This impairment loss consisted of ¥3,297 million (US\$30,248 thousand) for land, ¥559 million (US\$5,128 thousand) for structures, ¥548 million (US\$5,028 thousand) for buildings and ¥213 million (US\$1,954 thousand) for machinery and others.

Ube Exsymo Co., Ltd. wrote down the book values of plastic materials for optical communication manufacturing plant to its recoverable amounts due to a decline in profitability and recorded an impairment loss of ¥439 million (US\$4,028 thousand).

This impairment loss consisted of ¥240 million (US\$2,202 thousand) for machinery, ¥172 million (US\$1,578 thousand) for buildings and ¥27 million (US\$248 thousand) for others.

The recoverable amount of the asset group was measured based on value in use, but the discount rate is not disclosed because the undiscounted cash flows were negative.

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

	Millions of yen
	2019
Idle property:	
Land, machinery and equipment	¥(153)
Business assets in use:	
Organic metallic compound manufacturing plant (Ube Industries, Ltd.)	(626)
Magnesium powder manufacturing plant (Yamaishi Metal Co., Ltd.)	(103)
	¥(882)

(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 was recognized for the year ended March 31, 2019. This impairment loss consisted of ¥60 million for land and ¥93 million 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 for machinery and ¥219 million 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.

Income taxes

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 for land and ¥8 million for buildings.

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% for the years ended March 31, 2020 and 2019.

The effective tax rates reflected in the consolidated statement of income for the years ended March 31, 2020 and 2019 differ from the statutory tax rates for the following reasons.

	Percentage	
	2020	2019
Statutory tax rate	30.5%	30.5%
Effect of:		
Permanently non-deductible expenses	0.4	0.3
Permanently non-taxable items including dividend income	(11.4)	(8.1)
Loss carried forward without deferred tax assets	8.9	0.0
Deducted amount of loss without deferred tax assets	(0.7)	(1.6)
Effect of elimination of dividend income through consolidation procedures	11.0	8.2
Share of profit of entities accounted for using equity method	(2.3)	(3.4)
Tax rate difference of overseas consolidated subsidiaries	(2.6)	(2.3)
Retained earnings of foreign subsidiary companies	0.3	1.0
Deductible research and development expenses	(3.2)	(1.3)
Consolidated adjustment for allowance for doubtful accounts	(5.8)	—
Others	0.1	0.0
Effective tax rate	25.2%	23.3%

The significant components of deferred tax assets and liabilities at March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Deferred tax assets:			
Provision for bonuses	¥ 2,183	¥ 2,202	\$ 20,028
Net defined benefit liability	2,374	2,403	21,780
Allowance for doubtful accounts	269	321	2,468
Loss carried forward	6,219	3,785	57,055
Intercompany profit	10,764	10,783	98,752
Depreciation and amortization	2,728	3,044	25,027
Loss on valuation of investment securities	1,136	1,011	10,422
Disposal of fixed assets without dismantlement	2,525	2,887	23,165
Accrual for losses on business restructuring	92	122	844
Others	7,963	6,120	73,055
Gross deferred tax assets	36,253	32,678	332,596
Valuation allowance:			
Tax loss carried forward	(5,233)	(2,852)	(48,009)
Total future tax consequences of temporary differences**	(3,682)	(3,561)	(33,780)
Gross valuation allowance	(8,915)	(6,413)	(81,789)
Total deferred tax assets	27,338	26,265	250,807
Deferred tax liabilities:			
Reserve for advanced depreciation of non-current assets	(2,127)	(2,337)	(19,514)
Valuation difference on available-for-sale securities	(752)	(1,614)	(6,899)
Net defined benefit asset	(1,104)	(1,819)	(10,128)
Revaluation surplus on assets	(1,572)	(1,871)	(14,422)
Retained earnings of foreign subsidiary companies	(4,805)	(4,888)	(44,083)
Others	(3,679)	(3,549)	(33,752)
Total deferred tax liabilities	(14,039)	(16,078)	(128,798)
Net deferred tax assets*	¥ 13,299	¥ 10,187	\$ 122,009

* 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
	2020	2019	2020
Investments and other assets – Long-term deferred tax assets	¥14,516	¥12,151	\$ 133,174
Long-term liabilities – Long-term deferred tax liabilities	(1,217)	(1,964)	(11,165)

** 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
2021	¥ 222	¥ (206)	¥ 16	\$ 2,037	\$ (1,890)	\$ 147
2022	—	—	—	—	—	—
2023	96	(96)	—	881	(881)	—
2024	659	(243)	416	6,046	(2,229)	3,817
2025	452	(234)	218	4,147	(2,147)	2,000
2026 and thereafter	4,790	(4,454)	336	43,945	(40,862)	3,083
	¥6,219	¥(5,233)	¥986*	\$57,055	\$(48,009)	\$9,046

* For the tax loss carried forward of ¥6,219 million (US\$57,055 thousand) and ¥3,785 million for the years ended March 31, 2020 and 2019, respectively, the deferred tax assets of ¥986 million (US\$9,046 thousand) and ¥933 million for the years ended March 31, 2020 and 2019, respectively 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.

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Derivative financial instruments

Summarized below are the notional amounts and the estimated fair values of the derivative transactions outstanding at March 31, 2020 and 2019.

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

Currency-related transactions:

	Millions of yen						Thousands of U.S. dollars		
	2020			2019			2020		
	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	¥ 216	¥ (1)	¥ (1)	¥ 811	¥ (2)	¥ (2)	\$ 1,982	\$ (9)	\$ (9)
Buy:									
USD	9,254	1,206	1,206	11,967	723	723	84,899	11,064	11,064
EUR	—	—	—	35	(1)	(1)	—	—	—
Total	¥9,470	¥1,205	¥1,205	¥12,813	¥720	¥720	\$86,881	\$11,055	\$11,055

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	
	2020		2019		2020	
	Notional amount	Fair value	Notional amount	Fair value	Notional amount	Fair value
Principle method	Forward exchange contracts:					
	Sell:					
USD	¥ 90	¥ 2	¥ 232	¥ 2	\$ 826	\$ 18
THB	—	—	83	(2)	—	—
	Buy:					
USD	25	1	—	—	229	9
EUR	381	(6)	401	(6)	3,496	(55)
Short-cut method	Forward exchange contracts:					
	Sell:					
USD	288	5	475	5	2,642	46
THB	—	—	14	(1)	—	—
	Currency swap contracts:					
Receive/USD						
Pay/JPY	1,000	*	4,220	*	9,174	*
Total	¥1,784	¥ 2	¥5,425	¥ (2)	\$16,367	\$ 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	
	2020		2019		2020	
	Notional amount	Fair value	Notional amount	Fair value	Notional amount	Fair value
Short-cut method	Interest-rate swaps:					
	Receive/floating and pay/fixed					
	¥883	*	¥3,307	*	\$8,101	*

* 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.

3. Commodity-related transactions

The main item hedged by coal price swap contracts is coal purchased at market linked price.

	Millions of yen				Thousands of U.S. dollars	
	2020		2019		2020	
	Notional amount	Fair value	Notional amount	Fair value	Notional amount	Fair value
Principle method	Coal price swaps:					
	Receive/floating and pay/fixed:					
	¥1,100	¥11	¥—	¥—	\$10,092	\$101

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

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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 four reportable segments: "Chemicals," "Construction Materials," "Machinery," and "Others."

The operations of the Company and its consolidated subsidiaries for the years ended March 31, 2020 and 2019 are summarized by reportable segment as follows:

Year ended March 31, 2020	Millions of yen					Consolidated
	Chemicals	Construction Materials	Machinery	Others	Elimination & Corporate	
Sales:						
Outside customers	¥285,225	¥290,674	¥88,931	¥ 3,062	¥ —	¥667,892
Intersegment sales and transfers	816	12,363	1,868	1,514	(16,561)	—
Total	286,041	303,037	90,799	4,576	(16,561)	667,892
Segment operating profit	¥ 14,531	¥ 14,567	¥ 4,940	¥ 597	¥ (602)	¥ 34,033
Segment assets	¥344,834	¥286,855	¥77,548	¥13,764	¥ 4,268	¥727,269
Depreciation and amortization	21,216	13,120	1,748	236	507	36,827
Equity method investments	23,659	10,800	—	1,276	—	35,735
Capital expenditures	24,723	20,079	1,853	151	809	47,615

Year ended March 31, 2020	Thousands of U.S. dollars					Consolidated
	Chemicals	Construction Materials	Machinery	Others	Elimination & Corporate	
Sales:						
Outside customers	\$2,616,743	\$2,666,734	\$815,881	\$ 28,092	\$ —	\$6,127,450
Intersegment sales and transfers	7,486	113,422	17,137	13,890	(151,935)	—
Total	2,624,229	2,780,156	833,018	41,982	(151,935)	6,127,450
Segment operating profit	\$ 133,312	\$ 133,642	\$ 45,321	\$ 5,477	\$ (5,523)	\$ 312,229
Segment assets	\$3,163,615	\$2,631,697	\$711,450	\$126,275	\$ 39,156	\$6,672,193
Depreciation and amortization	194,642	120,367	16,037	2,165	4,651	337,862
Equity method investments	217,055	99,083	—	11,076	—	327,844
Capital expenditures	226,817	184,211	17,000	1,385	7,422	436,835

Year ended March 31, 2019	Millions of yen					Consolidated
	Chemicals	Construction Materials	Machinery	Others	Elimination & Corporate	
Sales:						
Outside customers	¥323,314	¥307,565	¥95,808	¥ 3,470	¥ —	¥730,157
Intersegment sales and transfers	955	13,439	1,456	1,465	(17,315)	—
Total	324,269	321,004	97,264	4,935	(17,315)	730,157
Segment operating profit	¥ 24,606	¥ 14,492	¥ 5,410	¥ 804	¥ (761)	¥ 44,551
Segment assets	¥356,741	¥287,670	¥78,871	¥13,101	¥ 3,903	¥740,286
Depreciation and amortization	21,188	12,362	1,761	282	827	36,420
Equity method investments	23,178	10,566	—	1,174	—	34,918
Capital expenditures	15,525	23,130	1,923	160	1,003	41,741

Sales and amounts of property, plant and equipment of the Company and its consolidated subsidiaries as of and for the years ended March 31, 2020 and 2019 by geographic area are as follows:

Year ended March 31, 2020	Millions of yen				Consolidated
	Japan	Asia	Europe	Others	
Sales	¥478,786	¥114,677	¥43,133	¥31,296	¥667,892

Year ended March 31, 2020	Thousands of U.S. dollars				Consolidated
	Japan	Asia	Europe	Others	
Sales	\$4,392,532	\$1,052,083	\$395,716	\$287,119	\$6,127,450

As of March 31, 2020	Millions of yen				Consolidated
	Japan	Thailand	Other Asia	Europe	
Property, plant and equipment	¥268,474	¥42,689	¥569	¥17,596	¥330,042

As of March 31, 2020	Thousands of U.S. dollars				Consolidated
	Japan	Thailand	Other Asia	Europe	
Property, plant and equipment	\$2,463,065	\$391,642	\$5,220	\$161,431	\$3,027,909

Year ended March 31, 2019	Millions of yen				Consolidated
	Japan	Asia	Europe	Others	
Sales	¥513,021	¥133,914	¥46,909	¥36,313	¥730,157

As of March 31, 2019	Millions of yen				Consolidated
	Japan	Thailand	Other Asia	Europe	
Property, plant and equipment	¥265,274	¥45,582	¥674	¥19,031	¥331,316

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Leases

Operating leases

Future minimum lease payments subsequent to March 31, 2020 and 2019 for non-cancelable operating leases are summarized as follows:

Years ending March 31	Millions of yen	Thousands of U.S. dollars
	2020	2020
2021	¥ 748	\$ 6,862
2022 and thereafter	4,100	37,615
	¥4,848	\$44,477

Years ending March 31	Millions of yen
	2019
2020	¥ 772
2021 and thereafter	4,637
	¥5,409

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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, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Opening balance of retirement benefit obligation	¥49,583	¥49,516	\$454,890
Service cost	2,899	2,862	26,596
Interest cost	287	291	2,633
Actuarial loss (gain)	(165)	70	(1,514)
Benefit paid	(2,937)	(3,156)	(26,945)
Prior service cost	130	—	1,193
Closing balance of retirement benefit obligation	¥49,797	¥49,583	\$456,853

The changes in plan assets during the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Opening balance of plan assets	¥53,442	¥55,091	\$490,294
Expected return on pension assets	1,182	1,178	10,844
Actuarial gain (loss)	(2,683)	(1,694)	(24,615)
Contributions by the employer	1,862	1,855	17,083
Benefit paid	(2,776)	(2,988)	(25,468)
Closing balance of plan assets	¥51,027	¥53,442	\$468,138

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, 2020 and 2019 is as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Funded retirement benefit obligations	¥ 46,740	¥ 46,916	\$ 428,807
Plan assets	(51,027)	(53,442)	(468,138)
	(4,287)	(6,526)	(39,331)
Unfunded retirement benefit obligations	3,057	2,667	28,046
Net amount of liabilities and assets for retirement benefits in the consolidated balance sheet	¥ (1,230)	¥ (3,859)	\$ (11,285)
Net defined benefit liability	¥ 3,057	¥ 2,667	\$ 28,046
Net defined benefit asset	(4,287)	(6,526)	(39,331)
Net amount of liabilities and assets for retirement benefits in the consolidated balance sheet	¥ (1,230)	¥ (3,859)	\$ (11,285)

The breakdown of the retirement benefit expenses for the years ended March 31, 2020 and 2019 is as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Service cost	¥ 2,899	¥ 2,862	\$ 26,596
Interest cost	287	291	2,633
Expected return on plan assets	(1,182)	(1,178)	(10,844)
Amortization of actuarial loss	534	403	4,899
Amortization of prior service cost	130	180	1,193
Retirement benefit expenses	¥ 2,668	¥ 2,558	\$ 24,477

The components of remeasurements of defined benefit plans in other comprehensive income (before tax effect) for the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Prior service cost	¥ —	¥ 180	\$ —
Actuarial loss (gain)	(1,984)	(1,361)	(18,202)
Total	¥(1,984)	¥(1,181)	\$(18,202)

The components of remeasurements of defined benefit plans in accumulated other comprehensive income (before tax effect) as of March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Unrecognized actuarial loss	¥5,461	¥3,477	\$50,101
Total	¥5,461	¥3,477	\$50,101

The breakdown of pension assets by major category as a percentage of total plan assets as of March 31, 2020 and 2019 is as follows:

	Ratio	
	2020	2019
Bonds	31%	37%
Equities	33	19
Insurance assets (General account)	26	26
Other	10	18
Total	100%	100%

The above total includes 7% and 10% of the retirement benefit trusts of company pension plans at March 31, 2020 and 2019, 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, 2020 and 2019 are as follows:

	Ratio	
	2020	2019
Discount rate	0.3~1.2%	0.2~1.2%
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, 2020 and 2019 is as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Opening balance of net defined benefit asset and liability	¥4,250	¥4,277	\$38,991
Benefit expenses	576	525	5,284
Benefit paid	(436)	(475)	(4,000)
Contributions to the plans	(77)	(77)	(706)
Closing balance of net defined benefit asset and liability	¥4,313	¥4,250	\$39,569

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, 2020 and 2019 is as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Funded retirement benefit obligations	¥ 1,493	¥ 1,453	\$ 13,697
Plan assets	(1,166)	(1,181)	(10,697)
	327	272	3,000
Unfunded retirement benefit obligations	3,986	3,978	36,569
Net amount of liabilities and assets for retirement benefits in the consolidated balance sheet	4,313	4,250	39,569
Net defined benefit liability	4,385	4,344	40,230
Net defined benefit asset	(72)	(94)	(661)
Net amount of liabilities and assets for retirement benefits in the consolidated balance sheet	¥ 4,313	¥ 4,250	\$ 39,569

The retirement benefit expenses under the simplified method were ¥576 million (US\$5,284 thousand) and ¥525 million for the years ended March 31, 2020 and 2019, respectively.

(b) Defined contribution plans

The contributions by consolidated subsidiaries paid to defined contribution pension plans were ¥64 million (US\$587 thousand) and ¥63 million for the years ended March 31, 2020 and 2019, respectively.

Investment and rental property

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, 2020 and 2019 are as follows:

	Millions of yen			
	2020			
	Carrying amount			Fair value at March 31, 2020
Opening balance	Net change during the year	Closing balance		
Idle property	¥ 6,530	¥(793)	¥ 5,737	¥21,720
Rental property	10,725	(83)	10,642	18,703

	Thousands of U.S. dollars			
	2020			
	Carrying amount			Fair value at March 31, 2020
Opening balance	Net change during the year	Closing balance		
Idle property	\$59,908	\$(7,275)	\$52,633	\$199,266
Rental property	98,394	(761)	97,633	171,587

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

Net change for the year ended March 31, 2020 is mainly loss on sales of ¥(670) million (US\$(6,147) thousand).

Fair value of main property at March 31, 2020 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			
	2019			
	Carrying amount			Fair value at March 31, 2019
Opening balance	Net change during the year	Closing balance		
Idle property	¥ 6,499	¥ 31	¥ 6,530	¥23,491
Rental property	10,136	589	10,725	19,451

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.

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.

The amount of income and expenses related to investment and rental property for the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen			
	2020			
	Rental income	Rental expenses	Net income	Others
Idle property	¥ —	¥ —	¥ —	¥(312)
Rental property	1,051	486	565	(13)

	Thousands of U.S. dollars			
	2020			
	Rental income	Rental expenses	Net income	Others
Idle property	\$ —	\$ —	\$ —	\$(2,862)
Rental property	9,642	4,459	5,183	(119)

Notes: Others in the above table for idle property consist of taxes and dues of ¥(175) million (US\$ (1,605) thousand), impairment loss of ¥(84) million (US\$(771) thousand) and loss on sales of ¥(53) million (US\$(486) thousand).

Others for rental property is loss on sales of ¥(13) million (US\$(119) thousand).

	Millions of yen			
	2019			
	Rental income	Rental expenses	Net income	Others
Idle property	¥ —	¥ —	¥ —	¥(218)
Rental property	1,137	506	631	—

Notes: Others in the above table for idle property consist of taxes and dues of ¥(187) million, impairment loss of ¥(59) million and gain on sales of ¥28 million.

Stock options

Stock option expenses in the amounts of ¥79 million (US\$725 thousand) and ¥85 million were recognized as “Selling, general and administrative expenses” on the consolidated statement of income for the years ended March 31, 2020 and 2019, 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, 2020, 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>
<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>
	<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>
<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>
	<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>
<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)
	<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.
	2019 stock options	<i>Position and number of grantees</i>
<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)
<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.
2020 stock options		<i>Position and number of grantees</i>
	<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
	<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.
	2021 stock options	<i>Position and number of grantees</i>
<i>Type and number of shares</i>		Common stock of the Company: 41,900 shares
<i>Date of grant</i>		July 13, 2020
<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, 2020 to June 30, 2021) Executive officers of the Company: For 1 year (From April 1, 2020 to March 31, 2021)
<i>Exercise period of rights</i>		For 25 years from the next day of grant date (From July 14, 2020 to July 13, 2045)
<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	¥2,095	¥3,880
2008 stock options	¥1	—	¥3,510
2009 stock options	¥1	¥2,329	¥3,260
2010 stock options	¥1	¥2,152	¥2,230
2011 stock options	¥1	¥2,145	¥1,860
2012 stock options	¥1	¥2,190	¥2,270
2013 stock options	¥1	¥2,102	¥1,360
2014 stock options	¥1	¥1,757	¥1,560
2015 stock options	¥1	¥1,495	¥1,350
2016 stock options	¥1	¥1,495	¥1,810
2017 stock options	¥1	¥2,337	¥1,610
2018 stock options	¥1	¥2,339	¥2,820
2019 stock options	¥1	¥2,338	¥2,584
	¥1	—	¥1,910
2020 stock options	US\$ 0.01	—	US\$17.52

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

	2020 stock options
Method of estimation	Black-Scholes model
Volatility*	30.923%
Expected remaining period**	4 years
Expected dividend	¥80 (US\$ 0.73)
Risk-free interest rate***	(0.206)%

* 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 ¥33,084 million (US\$303,523 thousand) and ¥34,629 million to Ube-Mitsubishi Cement Corporation (UMCC) for the years ended March 31, 2020 and 2019, respectively. The capital stock of UMCC is ¥8,000 million (US\$73,394 thousand), and it is accounted for by the equity method. The balances of accounts receivable were ¥12,425 million (US\$113,991 thousand) and ¥13,084 million as of March 31, 2020 and 2019, 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

Issuance of unsecured bond

The Company decided to issue the 17th domestic unsecured bond at the Board of Directors' Meeting held on March 27, 2020. Details of the bond issuance are as follows:

17th domestic unsecured bond

1. Total amount of issuance	¥10,000 million (\$91,743 thousand)
2. Issue price	¥100 (\$0.92) per par value of ¥100 for each bond
3. Interest rate	0.580%
4. Interest payment dates	May 1 and November 1 of each year
5. Payment date	May 1, 2020
6. Redemption date	May 1, 2030
7. Redemption method	Bullet payment
8. Use of funds	Funds for repayment of long-term borrowings

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Additional information

Impact of coronavirus disease 2019 (COVID-19)

With respect to the impact of coronavirus disease 2019 (COVID-19), it is difficult to predict how COVID-19 will spread and when COVID-19 will settle. However, the Company makes accounting estimates for the recoverability of deferred tax assets and related matters based on the following assumptions.

Chemicals segment

- No impact on net sales of daily essentials such as foods and pharmaceuticals, or for semiconductor applications
- Negative impact on automotive-related net sales and net sales for other industries, most significantly in Q2 through Q3, so that net sales will decrease by 10 to 15% in annual average

Construction Materials segment

- Construction materials-related net sales to decrease by 5% in annual average due to stagnant construction sector
- No impact on energy-related businesses

Machinery segment

- Net sales to decrease by more than 10% in annual average, due to postponement or suspension of capital investment projects centering on automotive-related capital investment through Q2