Novelis Korea Limited

Financial Statements
December 31, 2018 and 2017

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Independent Auditor's Report
(English Translation of a Report Originally Issued in Korean)

To the Board of Directors and Shareholders of
Novelis Korea Limited

Opinion

We have audited the accompanying financial statements of Novelis Korea Limited (the "Company"), which comprise the statements of financial position as at December 31, 2018 and 2017, and the statements of profit or loss, statements of changes in equity and statements of cash flows for the years then ended, and notes to the financial statements, including a summary of significant accounting policies and other explanatory information.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of Novelis Korea Limited as at December 31, 2018 and 2017, and its financial performance and its cash flows for the years then ended in accordance with Accounting Standards for Non-Public Entities in the Republic of Korea.

Basis for Opinion

We conducted our audits in accordance with Korean Standards on Auditing. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Company in accordance with the ethical requirements of the Republic of Korea that are relevant to our audit of the financial statements and we have fulfilled our other ethical responsibilities in accordance with the ethical requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Other Matter

Accounting principles and auditing standards and their application in practice vary among countries. The accompanying financial statements are not intended to present the financial position, financial performance and cash flows in conformity with accounting principles and practices generally accepted in countries and jurisdictions other than the Republic of Korea. In addition, the procedures and practices used in the Republic of Korea to audit such financial statements may differ from those generally accepted and applied in other countries.

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

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Accounting Standards for Non-Public Entities in the Republic of Korea, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

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

As part of an audit in accordance with Korean Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

·Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

·Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control.

·Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

·Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going

concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

·Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

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

Samil PricewaterhouseCoopers

March 27, 2019

Seoul, Korea

This report is effective as of March 27, 2019, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying financial statements and notes thereto. Accordingly, the readers of the audit report should understand that there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

Novelis Korea Limited
Statements of Financial Position
December 31, 2018 and 2017

(in millions of Korean won)		2018		2017
Assets				
Current assets				
Cash and cash equivalents (Note 14)	₩	208,911	₩	384,087
Short-term investment assets (Note 4)		-		11
Trade accounts and notes receivable, net (Notes 5, 14 and 30)		418,448		400,957
Other accounts receivable (Notes 14 and 30)		69,584		88,125
Prepaid expenses		2,118		1,946
Prepaid value added taxes		13,418		12,104
Short-term loans to employees		69		99
Loans to affiliated companies (Notes 14 and 30)		-		69,641
Derivative instrument assets (Note 27)		24,257		41,417
Firm commitment assets (Note 27)		-		3
Current deferred income tax assets (Note 17)		6,269		5,874
Advance payments		18,567		823
Other current assets		3,033		1,808
Inventories, net (Notes 6 and 9)		203,477		112,467
Total current assets		968,153		1,119,362
Non-current assets				
Long-term investment assets (Notes 3 and 4)		4		21
Investment accounted for using the equity method (Note 7)		192,190		184,010
Derivative instrument assets (Note 27)		80		47
Long-term loans to employees		240		280
Plan assets for severane benefits (Note 13)		-		192
Property, plant and equipment, net (Notes 8 and 9)		317,620		327,437
Intangible assets, net (Note 10)		1,872		2,234
Deferred tax assets (Note 17)		418		4,113
Deposits provided		3,429		3,398
Long-term prepaid expenses		-		168
Total non-current assets		515,853		521,900
Total assets	₩	1,484,006	₩	1,641,262

Novelis Korea Limited
Statements of Financial Position
December 31, 2018 and 2017

(in millions of Korean won)		2018		2017
Liabilities and Equity				
Current liabilities				
Trade accounts and notes payable (Notes 12, 14 and 30)	₩	800,715	₩	810,414
Other accounts payable (Notes 12, 14 and 30)		28,349		24,633
Advance receipts		117		190
Withholdings		1,232		1,343
Accrued expenses (Note 16)		20,978		27,280
Short-term borrowings (Note 12)		-		-
Current portion of long-term liabilities (Note 12)		16,689		118,281
Derivative instrument liabilities (Notes 12 and 27)		23,973		31,207
Income taxes payable		11,956		55,175
Dividends payable		33		33
Carbon Emission liabilities (Note 28)		403		107
Unearned revenue		-		190
Total current liabilities		904,445		1,068,853
Non-current liabilities				
Long-term borrowings (Note 12)		13,748		31,841
Asset retirement obligation liabilities (Note 8)		14,374		18,692
Derivative instrument liabilities (Notes 12 and 27)		1,121		200
Long-term accrued expenses (Notes 16)		6,326		5,854
Provision for severance benefits, net (Note 13)		1,993		-
Long-term unearned revenues		4,010		6,283
Total non-current liabilities		41,572		62,870
Total liabilities		946,017		1,131,723
Equity				
Share capital (Notes 1 and 18)				
Common stock		17,536		17,536
Capital Surplus				
Share premium		399,241		399,241
Capital adjustment				
Loss on capital reduction		-		(232,971)
Accumulated other comprehensive income				
Loss on valuation of cash flow hedge (Notes 24 and 27)		100		(3,554)
Retained earnings				
Legal reserve		29,834		29,834
Unappropriated retained earnings (Note 19)		91,278		299,453
Total equity		537,989		509,539
Total liabilities and equity	₩	1,484,006	₩	1,641,262

The above statements of financial position should be read in conjunction with the accompanying notes.

Novelis Korea Limited
Statements of Profit or Loss
Years ended December 31, 2018 and 2017

(in millions of Korean won, except per share amounts)		2018		2017
Sales (Notes 20 and 30)	₩	2,206,141	₩	2,102,007
Cost of sales (Notes 21, 23 and 30)		2,027,480		1,936,628
Gross profit		178,661		165,379
Selling and administrative expenses (Notes 22 and 23)		106,547		125,546
Operating profit		72,114		39,833
Non-operating income				
Interest income		4,476		6,365
Gain on foreign currency transactions		22,764		13,250
Gain on foreign currency translation		1,343		5,355
Gain on disposal of property, plant and equipment		85		97
Gain on disposal of investments accounted for using the equity method (Note 7)		118		162,217
Share of profit of investments accounted for using the equity method (Note 7)		8,763		2,404
Gain on derivative transactions		106,658		112,890
Gain on valuation of derivatives (Note 27)		19,086		34,645
Gain on valuation of firm commitments (Note 27)		-		5
Reversal of asset retirement obligation liabilities		4,635		-
Others		5,161		3,231
		173,089		340,459
Non-operating expenses				
Interest expense		2,725		6,023
Loss on foreign currency transactions		14,294		30,891
Loss on foreign currency translation		2,713		11,529
Loss on disposal of trade accounts and notes receivable		1,460		1,038
Loss on disposal of property, plant and equipment		1,383		734
Impairment loss on property, plant and equipment		-		317
Provision for asset retirement obligation liabilities		478		155
Depreciation of assets not in use		182		489
Loss on derivative transactions		110,659		89,785
Loss on valuation of derivatives (Note 27)		19,087		20,711
Loss on valuation of firm commitments (Note 27)		-		5
Others		17,425		3,480
		170,405		165,157
Profit before income tax expense		74,798		215,135
Income tax expense (Note 17)		14,463		65,585
Profit for the period (Note 24)	₩	60,335	₩	149,550
Basic and diluted earnings per share (Note 25)	₩	1,290	₩	3,198

The above statements of profit or loss should be read in conjunction with the accompanying notes.

Novelis Korea Limited

Statements of Changes in Equity
Years ended December 31, 2018 and 2017

(in millions of Korean won)

	Share capital	Capital Surplus	Capital adjustment	Accumulated other comprehensive income	Retained earnings	Total
Balances as of January 1, 2017	₩ 116,905	₩ 399,241	₩ -	₩ (3,172)	₩ 179,737	₩ 692,712
Capital reduction by cash distribution (Note 18)	(99,369)	-	(232,971)	-	-	(332,340)
Loss on valuation of cash flow hedge (Note 26)	-	-	-	(383)	-	(383)
Profit for the period	-	-	-	-	149,550	149,550
Balances as of December 31, 2017	₩ 17,536	₩ 399,241	₩ (232,971)	₩ (3,555)	₩ 329,287	₩ 509,539
Balances as of January 1, 2018	₩ 17,536	₩ 399,241	₩ (232,971)	₩ (3,555)	₩ 329,287	₩ 509,539
Dividends (Note 19 and 26)	-	-	–	-	(35,539)	(35,539)
Loss from capital reduction (Note 19)	-	-	232,971	-	(232,971)	-
Loss on valuation of cash flow hedge (Note 26)	-	-	-	3,655	-	3,655
Profit for the period	-	-	-	-	60,335	60,335
Balances as of December 31, 2018	₩ 17,536	₩ 399,241	₩ -	₩ 100	₩ 121,112	₩ 537,989

The above statements of changes in equity should be read in conjunction with the accompanying notes.

Novelis Korea Limited
Statements of Cash Flows
Years ended December 31, 2018 and 2017

(in millions of Korean won)	2018	2017
Cash flows from operating activities		
Profit for the period	₩ 60,335	₩ 149,550
Adjustments to reconcile profit for the period to net cash provided by operating activities		
Severance benefits expenses	6,316	10,326
Impairment loss on property, plant and equipment	-	317
Depreciation and amortization	41,456	66,134
Loss on foreign currency translation	2,713	11,529
Bad debt expenses	(270)	514
Loss on disposal of property, plant and equipment	1,383	734
Loss on disposal of trade and notes receivable	1,460	1,038
Loss on valuation of derivatives	19,087	20,711
Loss on valuation of firm commitments	-	5
Provision for asset retirement obligation liabilities	478	155
Gain on foreign currency translation	(1,343)	(5,354)
Gain on disposal of property, plant and equipment	(85)	(97)
Gain on valuation of derivatives	(19,086)	(34,645)
Gain on valuation of firm commitments	-	(5)
Gain on disposal of investments accounted for using the equity method	(118)	(162,217)
Share of profit of investments accounted for using the equity method	(8,763)	(2,404)
Reversal of asset retirement obligation liabilities	(4,635)	-
	38,593	(93,259)
Changes in operating assets and liabilities		
Increase in trade receivables	(20,716)	(132,639)
Decrease (increase) in other accounts receivable	18,540	(2,483)
Decrease (increase) in prepaid expenses	(4)	8,684
Increase in prepaid value added taxes	(1,314)	(4,333)
Decrease in derivative instrument assets	35,504	10,093
Decrease in firm commitment assets	3	155
Decrease (increase) in current deferred tax assets	(1,562)	2,227
Decrease (increase) in other current assets	(18,970)	2,346
Increase in inventories	(91,010)	(28,048)
Decrease (increase) in non-current deferred tax assets	3,695	(294)
Increase (decrease) in trade payables	(12,492)	272,125
Increase (decrease) in other accounts payable	4,027	(1,168)
Increase (decrease) in advance receipts	(91)	37
Decrease in withholdings	(111)	(59)
Decrease in accrued expenses	(6,302)	(1,516)
Decrease in derivative instrument liabilities	(19,869)	(16,409)
Decrease in firm commitment liabilities	-	(163)
Increase (decrease) in income taxes payable	(43,220)	42,382
Increase in long-term accrued expenses	472	2,132
Payments of severance benefits	(2,898)	(4,715)
Increase in pension plan assets	(1,241)	(5,586)
Decrease in contributions to the National Pension Fund	7	4
Increase (decrease) in carbon emission liabilities	295	(2,257)
Decrease in carbon emissions rights	-	784
Decrease in long-term unearned revenues	(2,463)	(15)
Decrease in asset retirement obligation liabilities	(161)	-
	(159,878)	141,284
Net cash outflow from operating activities	(60,950)	197,575

Novelis Korea Limited
Statements of Cash Flows
Years ended December 31, 2018 and 2017

(in millions of Korean won)		2018		2017
Cash flows from investing activities				
Proceeds from disposal of short-term and long-term investment	₩	28	₩	9
Proceeds from short-term loans to employees		69		201
Proceeds from guarantee deposits		4		15
Proceeds from disposal of property, plant and equipment		3		128
Repayments of loans provided to affiliates		69,641		24,170
Proceeds from disposal of investments accounted for using the equity method		701		347,020
Acqusition of long-term investment		-		(3)
Long-term loans provided to employees		-		(60)
Acquisition of property, plant and equipment		(31,656)		(36,002)
Acquisition of intangible assets		(683)		(593)
Payment of guarantee deposits		(35)		(12)
Loans provided to affiliates		-		(22,250)
Net cash inflow from investing activities		38,073		312,623
Cash flows from financing activities				
Net decrease in short-term borrowings		-		(13,500)
Repayments of current portion of long-term borrowings		(116,760)		(73,260)
Capital reduction by cash distribution		-		(332,337)
Dividends paid		(35,539)		-
Net cash outflow from financing activities		(152,299)		(419,097)
Net decrease in cash and cash equivalents		(175,176)		91,101
Cash and cash equivalents				
Beginning of the year (Note 28)		384,087		292,986
End of the year (Note 28)	₩	208,911	₩	384,087

The above statements of cash flows should be read in conjunction with the accompanying notes.

1. General information

Novelis Korea Limited (the "Company"), a spin-off from Taihan Electric Wire Co., Ltd., was incorporated in 1999 under the Commercial Code of the Republic of Korea to manufacture and market aluminum and related products. The company's headquarter is located in Yeongju City, North Gyeongsang Province.

As at December 31, 2018, the Company has share capital amounting to ₩ 17,536 million after several capital increases and reduction, which was ₩ 16,500 million upon establishment.

The Company's common major shareholders and their respective ownership as at December 31, 2018, are as follows:

	Number of shares owned	Percentage of ownership (%)
4260848 Canada Inc.[1]	12,770,000	27.309
4260856 Canada Inc. [1]	19,052,400	40.743
8018227 Canada Inc. [1]	14,939,200	31.947
Other shareholders	400	0.001
	46,762,000	100.000

[1] Owned by Novelis Inc. which was acquired by Hindalco Industries Limited on May 15, 2007.

2. Significant Accounting Policies

The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all the periods presented, unless otherwise stated.

2.1 Basis of Preparation

The Company maintains its accounting records in Korean won and prepares statutory financial statements in the Korean language (Hangul). The financial statements of the Company for the annual period beginning on January 1, 2011, have been prepared in accordance with Korean Accounting Standards for Non-Public Entities (KAS-NPEs), which apply to those companies which are subject to the Act on External Audit of Stock Companies but do not prepare their financial statements in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS). Certain accounting principles applied by the Company that conform with financial accounting standards and accounting principles in the Republic of Korea may not conform with generally accepted accounting principles in other countries. The accompanying financial statements have been condensed, restructured and translated into English from the Korean language financial statements.

Certain information attached to the Korean language financial statements, but not required for a fair presentation of the Company's financial position, financial performance or cash flows, is not presented in the accompanying financial statements.

2.2 Changes in Accounting Policies and Disclosures

(a) Amended standards adopted by the Company

The Company has applied the following amendments for the first time for its annual reporting period commencing January 1, 2018.

- KAS-NPEs No. 16 Revenue
In accordance with the amendment to KAS-NPEs No. 16 Revenue, an entity recognizes a refund liability for the expected amount of sale returns at the point of sales, and an asset for the right to the returned goods on settling the refund liability separately from the refund liabilities. Adoption of the amendment standards does not have material impact on the financial statements.

- KAS-NPEs No. 32 Transactions under Common Control
In accordance with the amendment to KAS-NPEs No. 32 Transactions under Common Control, the entity includes the investee it controls in the scope of subsidiaries for the purpose of applying this standard (No.32), even though the investee is excluded from subsidiaries according to relevant regulations based on the criteria such as size of assets, liabilities or number of employees, and is accounted for using equity method. Adoption of the amendment standards does not have material impact on the financial statements.

2.3 Foreign Currency Translation

(a) Functional and presentation currency

Items included in the Company's financial statements are measured using the currency of the primary economic environment in which the entity operates (the functional currency). The financial statements are presented in Korean won, which is the Company's functional and presentation currency.

(b) Foreign currency transactions and translations

Foreign currency transactions are translated into the functional currency using the exchange rates at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at year end exchange rates are generally recognized in profit or loss. They are recognized as other comprehensive income equity if they relate to qualifying cash flow hedges and available-for-sale debt securities denominated foreign currencies.

2.4 Cash and Cash Equivalents

Cash and cash equivalents includes cash on hand, deposits held at call with financial institutions, other short-term and highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash without significant transaction costs which are subject to an insignificant risk of changes in value.

2.5 Investments in Securities

Costs of securities are determined using the moving-weighted average method. Investments in equity securities or debt securities are classified into trading securities, available-for-sale securities and held-to-maturity securities, depending on the acquisition and holding purpose. Investments in equity securities of companies, over which the Company exercises a significant control or influence, are recorded using the equity method of accounting. Trading securities are classified as short-term investments while available-for-sale securities and held-to-maturity securities are classified as long-term investments, excluding those securities that mature or are certain to be disposed of within one year, which are then classified as short-term investments.

Held-to-maturity securities are measured at amortized cost while available-for-sale and trading securities are measured at fair value. However, equity instruments that do not have a quoted price in an active market, classified as available-for-sale securities, are measured at cost if their fair value cannot be measured reliably.

Gains and losses arising from valuation of trading securities are recognized in profit or loss and gains and losses from valuation of available-for-sale securities are recognized in accumulated other comprehensive income and loss. When securities classified as available-for-sale are sold or impaired, the accumulated fair value adjustments recognized in other comprehensive income are reclassified to profit or loss.

2.6 Entity under joint control

In case the Company holds interests in a joint venture that involves the establishment of a corporation, partnership or other entity in which each participant has interest and joint control over the economic activity of the entity by a contractual arrangement between the participants, such interests are accounted for under the equity method as investments in jointly controlled entities.

The Company has a 50.0% interest in a joint venture, Ulsan Aluminum Limited, which supplies aluminum products. The Company applies the equity method of accounting for this investment.

2.7 Derivatives

All derivative instruments are accounted for at their fair value according to the rights and obligations associated with the related derivative contracts. Changes in fair value of derivative instruments are recognized either under the statement of profit or loss or equity, depending on whether the derivative instruments qualify as a cash flow hedge. For hedging purpose, changes in the fair value of derivatives that hedge a particular risk associated with the fair value of recognized assets or liabilities or a firm commitment are recognized in profit or loss, and changes in the fair value of derivatives that hedge cash flow risk on forecast transaction are recognized in other comprehensive income.

2.8 Allowance for Doubtful Accounts

The Company recognizes allowance for doubtful accounts for uncollectible trade receivables based on a reasonable and objective standard. When an allowance for uncollectible trade receivables is established or increased based on revised estimates, bad debt expense is charged (debited). Bad debts expense for trade receivables from commercial transactions is accounted for as selling and administrative expenses, while bad debts expense from other receivables is accounted for as non-operating expense. Uncollectible receivables are offset against allowance for doubtful accounts and in case of insufficient amount of allowance, bad debts expense is recognized.

2.9 Inventories

The quantities of inventories are determined using the perpetual method and periodic inventory count, while the costs of inventories are determined using the monthly-average method, except for inventories in-transit which is determined using the specific identification method. Inventories are stated at the lower of cost or net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less applicable variable selling expense. Replacement cost is used for the estimate of net realizable value of raw materials. If, however, the circumstances which caused the valuation loss cease to exist, the valuation loss is reversed, but not exceeding the original carrying amount before valuation. The said reversal is deducted from cost of sales.

2.10 Property, Plant and Equipment

Property, plant and equipment are stated at cost, which includes acquisition cost, production cost and other costs required to prepare the asset for its intended use. The cost of an item of property, plant and equipment should include the present value of estimated cost of dismantling and removing the asset and restoring the site, to the extent that it is recognized as a provision.

Property, plant and equipment are stated at acquisition cost, less accumulated depreciation. Depreciation is calculated over estimated useful lives and depreciation method as follows:

Description	Estimated useful lives	Depreciation Method
Buildings	9 - 47 years	Straight-line method
Structures	8 - 40 years	Straight-line method
Machinery and equipment	8 - 22 years	Straight-line method
Vehicles	5 - 8 years	Straight-line method
Tools and furniture	4 - 10 years	Straight-line method

Expenditures incurred after the acquisition or completion of assets are capitalized only when it is probable that future economic benefits associated with the item will flow to the Company, which includes any increase in productivity, extension of the useful life of the related assets, significant reduction of cost or enhancement of the value of the related assets over their recently appraised value and the fair value for the related cost can be reliably measured. All other routine maintenance and repairs are charged to expense as incurred.

2.11 Borrowing Costs

The Company capitalizes the interest it incurs on borrowings used to finance the cost of manufacturing, acquisition, and construction of property, plant and equipment, intangible assets, investment property and inventories that require more than one year to complete from the initial date of manufacture, acquisition, and construction (qualifying assets).

2.12 Intangible Assets

Intangible assets are stated at cost, which includes acquisition cost, production cost and other costs required to prepare the asset for its intended use. Intangible assets are stated at cost less accumulated amortization. Amortization is calculated over estimated useful lives and depreciation method as follows:

Description	Estimated useful lives	Depreciation Method
Software	4 - 8 years	Straight-line method

2.13 Finance leases

Leases, where the Company has substantially all the risks and rewards of ownership, are classified as finance leases. Finance leases are capitalized at the commencement of the lease term at the lower of the fair value of the leased property and the present value of the minimum lease payments and recognized as finance lease assets and finance lease liabilities.

2.14 Impairment of Non-financial Assets

Intangible assets not yet available for use are tested annually for impairment. Goodwill acquired in a business combination is tested for impairment at the end of each reporting period by assessing its recoverable amount. Assets that are subject to amortization or depreciation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Property, plant and equipment are reviewed for impairment under the above circumstances and when gross estimated future cash flows expected from the use and disposal of property, plant and equipment (individual assets or cash-generating units) are less than the carrying amount. Impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell, and its value-in-use. For the purposes of assessing impairment, assets are grouped at the lowest levels (cash-generating units) for which there are separate and identifiable cash flows.

Non-financial assets, other than goodwill, that suffered impairment are reviewed for possible reversal of the impairment at each reporting date. Reversal of impairment of goodwill is not allowed.

2.15 Provisions and Contingent Liabilities

Provisions are recognized when it is probable that an outflow of resources will occur due to a present obligation resulting from a past event or transaction, and the amount can be reliably estimated. However, when such outflow is dependent upon a future event, is not certain to occur, or cannot be reliably estimated, a disclosure regarding the contingent liability is made in the notes to the financial statements.

Provisions are measured at the present value of the expenditures expected to be settled using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. Provisions are reviewed at the end of each reporting period and adjusted to reflect the current best estimate. The discount rate used in the present value measurement is the discount rate adjusted to reflect the current best estimate at the end of each reporting period.

2.16 Income Tax and Deferred Income Tax

Income tax expense includes the current income tax under the relevant income tax law and the changes in deferred tax assets or liabilities. Deferred tax assets and liabilities represent temporary differences between financial reporting and the tax bases of assets and liabilities. Deferred tax assets are recognized for temporary differences which will decrease future taxable income or operating loss to the extent that it is probable that future taxable income will be available against which the temporary differences can be utilized. Deferred tax effects applicable to items in the equity are directly reflected in the equity.

2.17 Employee Benefits

(a) Provision for severance benefits

Employees and directors with at least one year of service are entitled to receive a lump-sum payment upon termination of their employment with the Company based on their length of service and rate of pay at the time of termination. Provision for severance benefits represent the amount which would be payable assuming all eligible employees and directors were to terminate their employment as at the date of the statement of financial position.

The Company contributes a certain portion of the severance benefits to the National Pension Service according to the National Pension Law. The contribution amount is recorded as a deduction from the provision for severance benefits.

The Company has a defined contribution pension plan with the related contribution to the pension plan recorded as severance benefit expense.

The Company also has a defined benefit pension plan, and accrues severance benefits for current employees and pension payables for retired employees.

Pension plan assets are presented as a deduction from the total of provision for severance benefits and pension payables. The excess portion of pension plan assets over provision for severance benefits and pension plan liabilities is recorded as investment assets.

(b) Annual paid leave obligations

The Company recognizes expenses and liabilities related to annual paid leave during an accounting period when an employee has rendered service that gives rise to employee's entitlement to future annual paid leave.

The Company recognizes expenses and liabilities for the entire annual paid leave resulting from the rendered service as the Company compensates for unused annual leave.

2.18 Revenue Recognition

Revenue is measured as the fair value of the consideration received or receivable, and represents amounts receivable for the sale of goods and rendering of services, stated net of value-added tax, sales discounts and sales returns. The Company recognizes revenue when the amount of revenue can be reliably measured, and it is probable that future economic benefits will flow into the Company.

Revenue from the sale of goods is recognized when the significant risks and rewards of ownership of goods are transferred to the customer. Interest income is recognized using the effective interest method.

2.19 Share-based Payments

For equity-settled share-based payment, the fair value of the goods or employee services received in exchange for the grant of the options is recognized as an expense and a capital adjustment. If the fair value of goods or employee services cannot be reliably estimated, the fair value is estimated based on the fair value of the equity granted.

For cash-settled share-based payment, the fair value of the obligation the Company will assume is determined by the fair value of the goods or employee services received in exchange for the grant of the options. Until the liability is settled, the Company remeasures the fair value of the liability at each reporting date and at the date of settlement, with any changes in fair value recognized as an expense in income statement.

Share-based payment transactions with an option for the parties to choose between cash and equity settlement are accounted for based on the substance of the transaction.

2.20 Carbon Emission Rights (Allowances) and Liabilities

With Enforcement of Allocation and Trading of Carbon Emissions Allowances, allowances that are received free of charge from the government are measured at zero while allowances purchased are measured at acquisition cost and stated net of accumulated impairment loss. Emissions liabilities are measured as the sum of the carrying amount of the allocated allowances that will be submitted to the government and the best estimate of expenditure required to settle the obligation at the end of reporting period for any excess emission. The allowances and emissions liabilities are classified as intangible assets and provisions, respectively, in the statement of financial position.

2.21 Measurement of Financial Assets and Financial Liabilities

(a) Initial measurement

Financial assets and financial liabilities are measured at the fair value at the initial recognition. Generally, the transaction price (that is, the fair value of the consideration paid for financial assets and received for financial liabilities) is treated as fair value. In addition, if there is any significant difference between the fair value and the nominal amount of receivable and payable from long-

term lending and borrowing transactions or sales transactions with long-term deferred payment conditions, total amount of receivable and payable is carried at fair value.

If the consideration paid (or received) includes any amount other than the fair value, the fair value of the financial instrument is carried at the market price. When market price is not available, the fair value is estimated using valuation techniques (including present value based techniques). However, although the consideration consists of the amount other than the fair value, the whole amount is initially recognized if a benefit in return from using the funds is imposed or there is a certain relationship between raising and using the funds. Also for lease deposits, the whole transaction price is recognized at the initial recognition. Trading securities and derivatives (except for derivatives designated as hedging instruments in cash flow hedges) are subsequently measured at fair value after initial recognition, and changes in fair value are recognized in profit and loss. In case of other financial assets and liabilities, any transaction costs related to acquisition of financial assets or issuance of financial liabilities are added to or deducted from initially recognized fair value.

When measuring the present value of financial instruments, the Company uses the internal interest rate of transactions that occurred in the current period. If the internal interest rate is not available or the difference from the market interest rate is significant, the market interest rate is applied. If the market interest rate cannot be calculated, then the weighted average interest rate which is calculated by reasonable and objective standards is used. If reasonable and objective standards are unavailable, the Company applies the financing costs which are reasonably estimated using the distribution rate of corporate bonds, reflecting the Company's credit rating.

(b) Subsequent measurement

Financial assets and financial liabilities other than derivatives (Note 2.7) are measured at amortized cost using the effective interest method.

3. Restricted Financial Instruments

As at December 31, 2018 and 2017, restricted financial instruments related to bank overdraft agreements amounted to ₩ 4 million.

4. Short-term and Long-term Investment Assets

Short-term and Long-term investment assets as at December 31, 2018 and 2017, are as follows:

(in millions of Korean won)	**2018**	**2017**
Short-term investment assets		
Held-to-maturity securities	₩ -	₩ 11
Long-term investment assets		
Bank deposits	4	4
Held-to-maturity securities	-	17
	4	21
	₩ 4	₩ 32

Held-to-maturity securities amounting to ₩ 17 million as at December 31, 2017 were sold during 2018.

Maturities of long-term held-to-maturity securities as at December 31, 2018 and 2017, are as follows:

(in millions of Korean won)	**2018**	**2017**
Maturity period		
Within one year	₩ -	₩ 11
More than one year to five years	-	17
	₩ -	₩ 28

5. Trade Receivables

Trade receivables as at December 31, 2018 and 2017, are as follows:

(in millions of Korean won)	**2018**	**2017**
Trade receivables	₩ 419,038	₩ 401,817
Less: Allowance for doubtful accounts	(590)	(860)
	₩ 418,448	₩ 400,957

As at December 31, 2018 and 2017, trade receivables transferred through financial institutions that have not yet matured are as follows:

(in millions of Korea won, in thousands of US dollars)	**2018**	**2017**	
Forfeiture of export receivables of US$ 79,940 (2017:US$ 86,707)	₩ 89,381	₩ 92,898	Without recourse
Financing of domestic receivables	16,853	25,302	Without recourse
	₩ 106,234	₩ 118,200	

6. Inventories

Details of inventories as at December 31, 2018 and 2017, are as follows:

(in millions of Korean won)	**2018**	**2017**
Finished goods	₩ 47,474	₩ 29,040
Merchandise	22,233	6,714
Work-in-process	44,703	36,493
Raw materials	56,035	26,020
Supplies	12,924	12,525
Materials in transit	21,171	2,376
	204,540	113,168
Less: Valuation allowance[1]	(1,063)	(700)
	₩ 203,477	₩ 112,468

[1] As at December 31, 2018, valuation allowance of inventory and work-in-process amounted to ₩ - million (2017: ₩ - million) and ₩ - million (2017: ₩ - million), respectively. In addition, valuation allowance of supplies amounted to ₩ 1,063 million (2017: ₩ 700 million).

7. Entity under joint control

Details of entity under joint control as at December 31, 2018, are as follows:

				Ordinary share		
	Location	**Main business**	**Closing month**	**Number of shares held by the Company**	**Number of shares outstanding**	**Percentage of ownership**
Ulsan Aluminum Limited	Korea	Rolling of Aluminium	March 31	5,000 shares	10,000 shares	50.00%

Movements in investments accounted for using the equity method for the year ended December 31, 2018, are as follows:

(in millions of Korean won)	2018				
	Beginning balance	**Acquisition (disposal)**	**Share of profit of investment accounted for using the equity method**	**Other changes**	**Ending balance**
Investments accounted for using the equity method					
Ulsan Aluminum Limited	₩ 184,010	₩ (583)	₩ 8,763	₩ -	₩ 192,190

(*) The Company sold 0.1% of its shares to Kobe Steel Ltd. in September, 2018.

Summary of financial information of investment accounted for using the equity method as at and for the year ended December 31, 2018, is as follows:

(in millions of Korean won)	**Ulsan Aluminum Limited**
Current assets	₩ 242,357
Non-current assets	571,847
Total assets	814,204
Current liabilities	205,932
Non-current liabilities	12,863
Total liabilities	218,795
Sales	838,706
Profit for the period	5,352

The Company entered into a contract with Kobe Steel to establish a joint venture. Under the joint venture contract, the Company established Ulsan Aluminum Limited, wholly owned subsidiary of the Company, in April 2017. In September 2017, the Company has completed in-kind contribution of the assets of the manufacturing plant in Ulsan, which was owned by the Company, into Ulsan Aluminum Limited.

Details of assets and liabilities that were transferred through in-kind contribution, are as follows:

(in millions of Korean won)		**Book amount**
Property, plant and equipment	₩	362,377
Intangible assets		76
Cumulative contribution to the National Pension Fund		33
Pension plan assets		21,906
Provision for severance benefit		(21,906)

In September 2017, the Company disposed of 49.9% of shares of Ulsan Aluminum Limited, amounting to ₩ 360,488 million, to Kobe Steel Ltd. In accordance with the transaction, the Company recognized gain on disposal of investments accounted for using the equity method amounting to ₩ 162,217 million. In September 2018, the Company disposed additional 0.1% of shares of Ulsan Aluminum Limited to Kobe Steel Ltd.

Upon the completion of the transaction, the Company and Kobe Steel Ltd. supply aluminum metal to Ulsan Aluminum Limited under the joint venture agreement, and Ulsan Aluminum Limited manufactures and supplies products for the company and Kobe Steel Ltd. The Company and Kobe Steel Ltd. provide free of charge technology such as intellectual property rights necessary for production of each exclusive product.

Furthermore, the production capacity of each machine center in Ulsan Aluminum Limited is allocated between the Company and Kobe Steel Ltd in accordance with the joint venture agreement, and such ratio would be mutually negotiated in the future.

In accordance with the Joint Venture Agreement, the Company may make new investments in Ulsan Aluminum Limited, if needed, by the way such as increasing of preferred stock with mutual agreement in the future. Investor participating in the capital increase may preferentially participate in the increased capacity due to the new investment.

Under the non-compete covenant in the agreement, the Company and Kobe steel Ltd. could not sell the products produced from Ulsan Aluminum Limited to certain regions for mutual business protection.

8. Property, Plant and Equipment

Changes in property, plant and equipment for the periods ended December 31, 2018 and 2017, are as follows:

(in millions of Korean won)	2018							
	Land	Buildings	Structures	Machinery & Equipment	Vehicles	Tools	Construction-in-progress	Total
Balance as at January 1, 2018	₩ 14,052	₩ 58,401	₩ 9,517	₩ 236,689	₩ 669	₩ 5,071	₩ 3,037	₩ 327,436
Acquisition	-	131	821	9,807	306	1,104	20,702	32,871
Disposal	-	-	-	(2,270)	-	(4)	-	(2,274)
Transfer	-	-	62	8,367	-	1,058	(9,487)	-
Depreciation	-	(2,105)	(686)	(35,279)	(294)	(2,048)	-	(40,412)
Balance as at December 31, 2018	₩ 14,052	₩ 56,427	₩ 9,714	₩ 217,314	₩ 681	₩ 5,180	₩ 14,252	₩ 317,620
Acquisition cost	₩ 14,052	₩ 83,597	₩ 17,953	₩ 653,676	₩ 4,839	₩ 36,049	₩ 14,252	₩ 824,418
Accumulated depreciation	-	(27,170)	(8,239)	(436,045)	(4,158)	(30,869)	-	(506,481)
Accumulated impairment	-	-	-	(317)	-	-	-	(317)

(in millions of Korean won)	2017							
	Land	Buildings	Structures	Machinery & Equipment	Vehicles	Tools	Construction-in-progress	Total
Balance as at January 1, 2017	₩ 75,999	₩ 136,105	₩ 22,702	₩ 437,558	₩ 2,369	₩ 8,053	₩ 4,501	₩ 687,287
Acquisition	-	165	391	29,726	165	2,022	17,874	50,343
Disposal	(61,947)	(73,587)	(12,457)	(188,648)	(1,356)	(2,063)	(4,775)	(344,833)
Transfer	-	73	207	14,167	347	(231)	(14,563)	-
Depreciation	-	(4,355)	(1,326)	(55,797)	(856)	(2,710)	-	(65,044)
Impairment loss	-	-	-	(317)	-	-	-	(317)
Balance as at December 31, 2017	₩ 14,052	₩ 58,401	₩ 9,517	₩ 236,689	₩ 669	₩ 5,071	₩ 3,037	₩ 327,436
Acquisition cost	₩ 14,052	₩ 83,466	₩ 17,069	₩ 639,354	₩ 4,610	₩ 35,757	₩ 3,037	₩ 797,345
Accumulated depreciation	-	(25,065)	(7,552)	(402,348)	(3,941)	(30,686)	-	(469,592)
Accumulated impairment	-	-	-	(317)	-	-	-	(317)

As at December 31, 2018, the book amount of the Company's land is recorded at ₩ 14,052 million (2017: ₩ 14,052 million). And, the value of the Company's land, as determined by the local government for property tax assessment purposes, amounts to approximately ₩ 31,913 million (2017: ₩ 30,448 million).

During 2017, due to the requirements such as development of new technology, the recoverable value of some machinery was below its net book value and was not expected to be recovered in the near future. The amount of its net book value exceeding the recoverable value, ₩ 317 million, was therefore recognized as an impairment loss on the machinery in 2017. The recoverable value of the machinery is calculated based on the estimated disposal value of the asset.

Investigation of the land contamination at Ulsan factory was conducted in the course of establishing a joint venture with Kobe Steel Ltd., and land contamination was confirmed during investigation. Therefore, the present value of estimated expense, ₩ 14,330 million (2017: ₩ 18,649 million) for restoring the land was recognized as restoration liability.

Meanwhile, in accordance with the applicable law, the Company has to dismantle and remove the assets and restore the site relating to the wastewater facilities after the end of the assets' useful lives. The present value of estimated expenses for restoration, ₩ 44 million (2017: ₩ 43 million), was therefore recognized applied in the carrying amount of property, plant and equipment.

Finance lease

Details of machinery classified as finance lease assets as at December 31, 2018, are as follows:

(in millions of Korean won)	2018	2017
Beginning balance	₩ 18,132	₩ 18,640
Disposal	(974)	
Depreciation	(1,952)	(508)
Ending balance	15,206	18,132
Acquisition cost	₩ 17,629	₩ 18,640
Less: Accumulated depreciation	(2,423)	(508)

Details of future minimum lease payments as at December 31, 2018 and 2017, are as follows:

(in millions of Korean won)	2018	2017
	Minimum lease payment	
No later than 1 year	₩ 1,928	₩ 1,521
Later than 1 year and no later than 5 years	5,623	6,676
Later than 5 years	7,655	9,935
	₩ 15,206	₩ 18,132

9. Insured Assets

The details of the insurance as at December 31, 2018 and 2017, are as follows:

(in millions of Korean won, in thousands of US dollars)

Type of Insurance	Asset Insured	Amount Insured 2018	Amount Insured 2017	Insurance Company	Beneficiary
General property insurance	Inventories and property, plant and equipment, excluding land and certain construction-in-progress	US$ 1,021,970	US$ 1,727,991	Hyundai Marine & Fire Insurance Co., Ltd.	The Company
General insurance for losses from product liability	-	US$ 10,000	US$ 10,000	Hyundai Marine & Fire Insurance Co., Ltd.	The Company
General insurance for losses from gas accidents	-	KR₩ 6,460,000	KR₩ 13,300,000	Hyundai Marine & Fire Insurance Co., Ltd.	The Company
Short-term Export Insurance	Trade Receivables	US$ 610,000	US$ 466,949	Korea Trade Insurance Corporation	The Company and others

Besides the above insurance, the Company has marine insurance for the export transactions. In addition, the Company has car liability insurance and comprehensive insurance for its vehicles and accident insurance for the benefit of its employees.

10. Intangible Assets

Details of intangible assets as at December 31, 2018 and 2017, are as follows:

(in millions of Korean won)	2018			
	Software	Carbon Emissions Rights	Construction-in-progress intangible assets	Total
Beginning balance	₩ 2,105	₩ 14	₩ 115	₩ 2,234
Acquisition	43	107	641	791
Transfer	452	(107)	(452)	(107)
Amortization	(1,045)	-	-	(1,045)
Ending balance	₩ 1,555	₩ 14	₩ 304	₩ 1,872
Acquisition cost	₩ 11,288	₩ 14	₩ 304	₩ 11,605
Accumulated amortization	(9,733)	-	-	(9,733)

(in millions of Korean won)	2017			
	Software	Carbon Emissions Rights	Construction-in-progress intangible assets	Total
Beginning balance	₩ 2,794	₩ 798	₩ 1	₩ 3,593
Acquisition	208	1,483	385	2,076
Disposal	(77)	-	-	(77)
Transfer	271	(2,267)	(271)	(2,267)
Amortization	(1,091)	-	-	(1,091)
Ending balance	₩ 2,105	₩ 14	₩ 115	₩ 2,234
Acquisition cost	₩ 10,794	₩ 14	₩ 115	₩ 10,923
Accumulated amortization	(8,689)	-	-	(8,689)

For the year ended December 31, 2018, the Company classified the amortization amounting to ₩ 612 million as cost of sales, and ₩ 433 million as selling and administrative expenses.

11. Capitalization of borrowing costs

For the year ended December 31, 2018, the Company has borrowings amounting to ₩ 8 million used to finance the cost of acquiring the Company's property, plant and equipment.

Effects on statements of financial position and statements of profit or loss as at and for the periods ended December 31, 2018 and 2017, are as follows:

	2018		2017	
(in millions of Korean won)	**Capitalized**	**Expensed**	**Capitalized**	**Expensed**
Acquisition cost	₩ 824,418	₩ 820,436	₩ 797,345	₩ 797,355
Accumulated depreciation	(506,798)	(505,181)	(469,909)	(468,597)
Net book amounts	317,620	315,255	327,436	324,758
Equity	537,989	535,624	509,539	506,860

	2018		2017	
(in millions of Korean won)	**Capitalized**	**Expensed**	**Capitalized**	**Expensed**
Depreciation	₩ 40,412	₩ 40,098	₩ 65,045	₩ 64,523
Interest expense	2,724	2,732	6,023	6,023
Profit for the period	60,335	60,642	149,550	150,071

12. Borrowings

Long-term borrowings as at December 31, 2018 and 2017, are as follows:

(in millions of Korean won)	**Lender**	**Interest rate (%) as at December 31, 2018**	**2018**	**2017**
Facility loans	Bank of China	2.90	₩ 14,000	₩ 20,000
Facility loans	KEB Hana Bank	1.75	600	1,000
Facility loans	KEB Hana Bank	1.75	630	990
Facility loans	Korea Development Bank	-	-	20,000
General loans	Korea Development Bank	-	-	30,000
Facility loans	Shinhan Bank	-	-	44,500
General loans	Shinhan Bank	-	-	15,500
Finance lease liabilities	-	-	15,207	18,132
			30,437	150,122
Less: Current portion of long-term liabilities			(16,689)	(118,281)
			₩ 13,748	₩ 31,841

Liquidity risk is defined as the risk that the Company is unable to meet its short-term payment obligations on time due to deterioration of its business performance or inability to access financing. The Company forecasts its cash flow and liquidity status such as sufficient cash level to meet operational needs and sets action plans on a monthly basis to manage liquidity risk proactively.

In addition, the Company copes with potential financial distress by maintaining adequate amount of cash and committed credit facilities. The balance of cash and cash equivalents, and current-

financial deposits at December 31, 2018, is ₩ 208,911 million (2017: ₩ 384,087 million). The Company maintains total committed credit lines of ₩ 708,730 million and US$ 208,100 thousand in Korea Exchange Bank and Citibank in Korea and other financial institutions at December 31, 2018 (2017: ₩ 903,590 million and US$ 184,100 thousand).

The Company forfeits its trade receivables to financial institutions during short-term liquidity needs. Thus, it secures financing and manages credit risk of the receivables.

Details of the Company's maturity analysis as at December 31, 2018, are as follows:

	2018					
(in millions of Korean won)	**Less than 6 months**	**Between 6 months and 1 year**	**Between 1 and 2 years**	**Between 2 and 5 years**	**Over 5 years**	**Total**
Trade payables	₩ 800,715	₩ -	₩ -	₩ -	₩ -	₩ 800,715
Other accounts payable	28,349	-	-	-	-	28,349
Derivative liabilities	19,027	4,946	1,121	-	-	25,095
Borrowings	15,456	1,351	2,385	3,712	7,655	30,558
	₩ 863,547	₩ 6,297	₩ 3,506	₩ 3,712	₩ 7,655	₩ 884,717

The table above analyses the Company's non-derivative financial liabilities and net-settled derivative financial liabilities into relevant maturity based on the remaining period at the date of the statement of financial position to the contractual maturity date. Derivative financial liabilities are included in the analysis if their contractual maturities are essential for an understanding of the timing of the cash flows. The amounts disclosed in the table are the contractual undiscounted cash flows.

13. Provision for Severance Benefits

Changes in provision for severance benefits for the periods ended December 31, 2018 and 2017, are as follows:

(in millions of Korean won)	**2018**	**2017**
Beginning balance	₩ 44,287	₩ 60,582
Increase	6,316	10,326
Payment	(2,898)	(26,621)
Ending balance	47,706	44,287
Less: Cumulative contribution to the National Pension Fund	(61)	(68)
Less: Pension Plan assets	(45,652)	(44,411)
Provision for severance benefits	₩ 1,993	₩ (192)

As at December 31, 2018, the Company estimates severance payable to all employees to be ₩ 47,706 million (2017: ₩ 44,287 million) and records the corresponding amount as provision for severance benefits. Also, the Company funded 96% of severance payable through severance insurance deposits with Korea Investment & Securities and other financial institutions.

Changes in the fair value of plan assets for the periods ended December 31, 2018 and 2017, are as follows:

(in millions of Korean won)		**2018**		**2017**
Beginning balance	₩	44,411	₩	60,732
Employer contributions		3,868		6,869
Benefits paid		(2,627)		(23,190)
Ending balance	₩	45,652	₩	44,411

Plan assets as at December 31, 2018 and 2017, are as follows:

(in millions of Korean won)		**2018**		**2017**
Cash	₩	107	₩	362
Time deposits		7,282		11,662
Securities combined with derivatives (guaranteed)		38,263		32,387
	₩	45,652	₩	44,411

14. Foreign Currency Denominated Assets and Liabilities

Significant monetary assets and liabilities denominated in foreign currencies as at December 31, 2018 and 2017, are as follows:

(In millions of Korean won, foreign currencies in thousands)

	2018				**2017**			
	Foreign currencies		**Won equivalents**		**Foreign currencies**		**Won equivalents**	
Foreign currency deposits	US$	45	₩	50	US$	131	₩	140
	HK$	458		65	HK$	554		76
Trade receivables	US$	235,768	₩	263,612	US$	170,168		₩182,318
	JP¥	90,607		918	JP¥	78,239		743
Other receivables	US$	5,320	₩	5,949	US$	1,724	₩	1,847
	EUR	75		96	EUR	18		23
Loans	US$	-	₩	-	US$	65,000	₩	69,641
Trade payables	US$	139,041	₩	155,462	US$	108,468	₩	116,213
	EUR	11		14	EUR	23		29
	JP¥	4,968		50	JP¥	22,748		216
	CAD$	-		-	CAD$	19		17
Other payables	US$	13,806	₩	15,437	US$	12,154	₩	13,022
	EUR	66		85	EUR	35		45
	AUD	26		20	AUD	20		17

15. Contingencies and Commitments

The Company has bank overdraft agreements with Citibank Korea amounting to US$ 5,000 thousand as at December 31, 2018. The Company also has entered into agreements with Kookmin Bank and Shinhan Bank in relation to the opening of letters of credit of up to ₩ 22 billion and US$ 10,000 thousand as at December 31, 2018.

The Company has bank loan agreements with Shinhan Bank, Korea Development Bank, KEB Hana Bank, NongHyup Bank, and Kookmin Bank amounting to ₩ 135,230 million as at December 31, 2018.

The Company has agreements with Shinhan Bank and other financial institutions regarding a purchase card program of up to ₩ 551.5 billion and US$ 193,100 thousand as at December 31, 2018.

The Company has provided a payment guarantee in relation to Payment of customs duties of Novelis Vietnam from Shinhan Bank amounting up to US$ 4,000 thousand. In addition, the company has provided a payment guarantee to Korean National Tax Service amounting up to ₩ 22 billion as at December 31, 2018 in relation to the Mutual agreed procedure between Korean Tax Authority and Canadian Tax Authority.

As at December 31, 2018, the Company has accounts receivable forfaiting agreements with Export-Import Bank of Korea and six other financial institutions.

As at December 31, 2018, the Company has a technical assistance agreement with Novelis Inc. for the manufacture of aluminum products and accordingly, the Company recognized royalty fee amounting to ₩ 11,420 million (2017: ₩ 11,782 million) which was included in research expenses and royalties (Notes 22 and 30).

As at December 31, 2018, the Company has a “Novelis” brand license agreement with Novelis Limited UK and accordingly, royalty expense amounting ₩ 4,753 million (2017: ₩ 4,845 million) was recognized (Notes 22 and 30).

A management fee refers to a type of commission received in return for the services Novelis Inc. provides to its subsidiaries, which include managerial and strategic consulting services, sales and marketing support, IT and Public Relations services, and others. Novelis Inc. annually imposes such management fee to its subsidiaries pursuant to the Strategic Management Services Agreement that specifically stipulates the above mentioned services (Notes 22 and 30).

The company has entered into a Shared Service Agreement with Ulsan Aluminum Limited and provides HR, Logistics, Communication, Non-metal purchasing and IT related services to Ulsan Aluminum Limited. The commission income recognized during the year is ₩ 3,200 million.

The company has signed long-term sales contract with several customers and supplies aluminum coil products. In response, the Company also entered into long-term contracts for the purchase of aluminum raw materials with several suppliers in order to supply stable raw materials for aluminum.

16. Share-Based Payments

As at December 31, 2018, the Company’s parent company, Novelis Inc., has granted cash-settled share-based payments based on the share of the parent company, Novelis Inc., and restricted stock units (“RSU”) based on the share of the ultimate parent company, Hindalco Industries Limited, to the employees and directors of the company. The company introduced a new performance-based compensation unit (“Performance Unit”) to give an option for employees to

choose between Performance Unit and RSU. The Company is responsible for the compensation cost of said grants.

As at December 31, 2018, details of cash-settled share-based payments and restricted stock unit for employees and directors are as follows:

- Hindalco Industries Limited

		Cash-settled share-based payment						
Grant years		**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Remaining number of grants		17,868	36,349	241,109	255,397	132,734	173,452	174,567
Maturity years		2019	2020	2021	2022	2023	2024	2025
Exercise price		INR 109.58	INR 104.88	INR 145.50	INR 134.58	INR 91.05	INR 187.70	INR 230.98
Vesting conditions	Service period	1 ~ 4 yrs	1 ~ 4 yrs	1 ~ 4 yrs	1 ~ 4 yrs	1 ~ 3 yrs	1 ~ 3 yrs	1 ~ 3 yrs
	Non-market conditions	Achievement of target EBITDA for one year of individual service period						
Cap (maximum share price at the exercise gain calculation)		INR 264.93	INR 255.81	INR 341.19	INR 308.38	INR 223.23	INR 453.93	INR 524.08

		Restricted Stock Unit			
Grant years		**2015**	**2016**	**2017**	**2018**
Remaining number of grants		-	138,987	140,410	176,575
Maturity years		2018	2019	2020	2021
Exercise price		INR 135	INR 91	INR 188	INR 231
Vesting conditions	Service period	3 yrs	3 yrs	3 yrs	3 yrs
	Non-market conditions	-			
Cap (maximum share price at the exercise gain calculation)		INR 308.38	INR 223.23	INR 453.93	INR 524.08

- Novelis Inc.

		Cash-settled share-based payment				
Grant years		**2011**	**2012**	**2013**	**2014**	**2015**
Remaining number of grants		-	3,561	7,098	9,851	1,141
Maturity years		2018	2019	2020	2021	2022
Exercise price		USD 73.55	USD 101.81	USD 91.87	USD 94.40	USD 65.35
Vesting conditions	Service period	1 ~ 4 yrs	1 ~ 4 yrs	1 ~ 4 yrs	1 ~ 4 yrs	1 ~ 4 yrs
	Non-market conditions	Achievement of target EBITDA for one year of individual service period				
Cap (maximum share price at the exercise gain calculation)		$189.50	$246.25	$174.82	$164.93	$112.40

In May, 2013, upon approval of the Company's executives and employees, Novelis Inc. decided to cancel and pay certain cash-settled share-based payments that were based on shares of Hindalco Industries Limited and then exchange the remaining share based payments to the share based payment based on shares of Novelis Inc. In May 2016, upon approval of Novelis Inc., the Company provided an option for the executives and employees of the Company to cancel Novelis Inc.'s share-based payments for selecting the new Performance Units. These changes are reflected in the information described above.

Changes in the number of grants and weighted average exercised price of grants for the year ended December 31, 2018, are as follows:

	Hindalco Industries Limited		Novelis Inc.	
	Number of grants	Weighted average exercised price of grants	Number of grants	Weighted average exercised price of grants
Beginning balance	1,110,647	INR 137.90	23,298	$ 76.30
Vested	174,567	INR 230.98	-	$ -
Cancelled	(19,473)	INR 137.36	-	$ -
Transferred	(1,598)	INR 192.55	-	$ -
Exercised	(232,667)	INR 138.69	(1,647)	$ 68.72
Ending balance	1,031,476	INR 153.40	21,651	$ 76.51
Exercisable balance as at December 31, 2017	540,799	INR 134.81	21,276	$ 76.71

The number of grants are subject to change as transfer of executives and employees to and from affiliated companies.

The Company calculated the fair value of the grant, whose service period requirement has not been met using the Monte Carlo method, as follows:

	2015	2016	2017		2018		
	Tranche4	Tranche3	Tranche2	Tranche3	Tranche1	Tranche2	Tranche3
Hindalco	INR 89.70	INR 108.57	INR 70.64	INR 77.21	INR 64.43	INR 68.79	INR 69.57
Novelis	$16.62	-	-	-	-	-	-

The assumptions used for determination of fair value are as follows:

- Hindalco Industries Limited

	2013 Grant	2014 Grant	2015 Grant	2016 Grant	2017 Grant	2018 Grant
Stock price [1]	INR 217.85	INR 217.85	INR 217.85	INR 217.85	INR 217.85	INR 217.85
Expected share price volatility [2]	32%	35%	38%	39%	39%	39%
Risk-free interest rate	6.94%	6.94%	7.05%	7.12%	7.22%	7.33%
Expected dividend rate	0.55%	0.55%	0.55%	0.55%	0.55%	0.55%

[1] The stock price of Hindalco Industries Limited as at December 31, 2018.
[2] The expected exercise period and historical share price as at December 31, 2018, were considered in the calculation of volatility.

- Novelis Inc.

	2013 Grant	2014 Grant	2015 Grant
Stock price [1]	$ 85.40	$ 85.40	$ 85.40
Expected share price volatility [2]	20%	18%	20%
Risk-free interest rate	2.59%	2.55%	2.56%
Expected dividend rate	0.00%	0.00%	0.00%

[1] The stock fair value of Novelis Inc. as at December 31, 2018.

[2] The expected exercise period and historical share price of 11 competitors of Novelis Inc. as at December 31, 2018, were considered in the calculation of volatility.

The difference between the stock price of underlying shares at the reporting period end date and the exercise price is used for the fair value for the 2012 Tranche 1, Tranche 2, Tranche 3 and Tranche 4; 2013 Tranche 1, Tranche 2, Tranche 3 and Tranche 4; 2014 Tranche 1 and Tranche 2, Tranche 3 and Tranche 4; 2015 Tranche 1, Tranche 2 and Tranche 3; 2016 Tranche 1 and Tranche 2; 2017 Tranche 1 whose service requirement period has been met.

The restricted stock unit vested to the employees and directors is calculated based on the fair value of the underlying shares at valuation date.

For the year ended December 31, 2018, the Company recognized the compensation cost on cash-settled share-based payments and restricted stock unit amounting to ₩ 1,061 million as selling and administrative expense, and related liabilities amounting to ₩ 1,865 million as accrued expense.

17. Income Taxes

Income tax expense for the periods ended December 31, 2018 and 2017, consists of:

(in millions of Korean won)		**2018**		**2017**
Current income taxes	₩	19,958	₩	63,652
Deferred income tax due to temporary differences		3,301		1,811
Total tax effect		23,259		65,463
Deferred income tax charged to equity		(1,167)		122
Expected income tax return on unappropriated earnings		(7,629)		-
Income tax expense	₩	14,463	₩	65,585

Deferred income taxes charged directly to the equity as at December 31, 2018 and 2017, are as follows:

(in millions of Korean won)		**2018**		**2017**
Gain (loss) on valuation of derivative instruments	₩	(1,167)	₩	122

Reconciliation between profit before tax and income tax expense for the periods ended December 31, 2018 and 2017, is as follows:

(in millions of Korean won)	**2018**	**2017**
Profit before tax	₩ 74,798	₩ 215,135
Income tax based on statutory rate	₩ 18,101	₩ 52,603
Add (deduct):		
Non-deductible expense	452	551
Income tax on unappropriated earnings	(4,872)	8,588
Others	782	4,383
Income tax expense	₩ 14,463	₩ 65,585
Effective tax rate		
(Income tax expense/profit before tax)	19.34%	30.49%

Changes in the temporary differences and related deferred tax assets and liabilities for the periods ended December 31, 2018 and 2017, are as follows:

	Temporary differences			**Deferred tax assets (liabilities)**		
(in millions of Korean won)	**Beginning balance**	**Increase (Decrease)**	**Ending balance**	**Beginning balance**	**Increase (Decrease)**	**Ending balance**
Derivatives	₩ 5,912	₩ (7,751)	₩ (1,839)	₩ (1,431)	₩ 1,878	₩ 445
Allowance for carbon emission rights	(107)	(296)	(403)	26	71	97
Accrued expenses	(31,133)	5,868	(25,265)	7,534	(1,420)	6,114
Property, plant and equipment	(6,242)	(2,461)	(8,703)	1,511	595	2,106
Loss on valuation of inventories	(700)	(363)	(1,063)	169	88	257
Gain or loss on foreign currency translation	(24)	-	(24)	6	-	6
Accrued Revenue	1,467	1,023	2,490	(355)	(248)	(603)
Investment in kind	(7,027)	4,650	(2,377)	1,700	(1,125)	575
Gain or loss on equity method	2,404	8,763	11,167	(407)	(2,036)	(2,443)
Others	(424)	(122)	(546)	102	30	132
	(35,874)	9,311	(26,563)	8,855	(2,169)	6,686
	(1,414)	1,414	-	1,131	(1,131)	-
Tax credits	₩ (37,288)	₩ 10,725	₩ (26,563)	₩ 9,986	₩ (3,300)	₩ 6,686

(in millions of Korean won)	Temporary differences			Deferred tax assets (liabilities)		
	Beginning balance	**Increase (Decrease)**	**Ending balance**	**Beginning balance**	**Increase (Decrease)**	**Ending balance**
Derivatives	₩ (4,573)	₩ 10,485	₩ 5,912	₩ 1,107	₩ (2,538)	₩ (1,431)
Allowance for carbon emission rights	(2,365)	2,258	(107)	572	(546)	26
Accrued expenses	(26,558)	(4,575)	(31,133)	6,427	1,107	7,534
Property, plant and equipment	(11,033)	4,791	(6,242)	2,670	(1,159)	1,511
Loss on valuation of inventories	(2,483)	1,783	(700)	601	(432)	169
Gain or loss on foreign currency translation	(24)	-	(24)	6	-	6
Accrued Revenue	2,886	(1,419)	1,467	(698)	343	(355)
Investment in kind	-	(7,027)	(7,027)	-	1,700	1,700
Gain or loss on equity method	-	2,404	2,404	-	(407)	(407)
Others	(382)	(42)	(424)	92	11	103
	(44,532)	8,658	(35,874)	10,777	(1,922)	8,855
	(1,276)	(138)	(1,414)	1,021	110	1,131
Tax credits	₩ (45,808)	₩ 8,520	₩ (37,288)	₩ 11,798	₩ (1,811)	₩ 9,987

Realization of the future tax benefits related to the deferred tax assets is dependent on many factors, including the Company's ability to generate taxable income within the period during which the temporary differences reverse, the outlook of the Korean economic environment, and the overall future industry outlook. Management periodically considers these factors in reaching its conclusion and recognized the deferred income tax asset since all the future deductible tax benefits are determined to be realizable as at December 31, 2018.

The gross balances of deferred tax assets and liabilities as at December 31, 2018 and 2017, are as follows:

(in millions of Korean won)	2018		2017	
	Deferred tax Assets	**Deferred tax liabilities**	**Deferred tax assets**	**Deferred tax liabilities**
Current	₩ 6,474	₩ (206)	₩ 7,735	₩ (1,861)
Non-current	2,286	(1,868)	4,520	(407)
	₩ 8,760	₩ (2,074)	₩ 12,255	₩ (2,268)

18. Share Capital

The Company is authorized to issue 80,000,000 shares with the par value per share of ₩ 375. The Company has issued and outstanding 46,762,000 shares of common stock.

Changes in share capital, share premium and capital adjustments for the years ended December 31, 2018 and 2017, are as follows:

(in millions of Korean won)	Number of shares (in thousands)	Share capital	Share premium	Capital adjustments
			Paid-in capital in excess of par value	Loss on capital reduction
January 1, 2016	46,762,000	₩ 116,905	₩ 399,241	₩ -
December 31, 2016	46,762,000	116,905	399,241	-
Capital reduction by cash distribution[1]	-	(99,369)	-	(232,971)
December 31, 2017	46,762,000	17,536	399,241	(232,971)
December 31, 2018	46,762,000	17,536	399,241	-

[1] On October 13, 2017, through the temporary shareholders' meeting, the Company conducted capital reduction by cash distribution which reduced its par value per share from ₩ 2,500 to₩ 375, and paid cash of ₩ 7,107 per share. As a result, the Company's share capital decreased by ₩ 99,369 million, and the difference between the amount of cash payment for capital reduction by ₩ 332,340 million and the amount of share capital decrease by ₩ 99,369 million was recorded as a loss on capital reduction amounting to ₩ 232,971 million. Such loss on capital reduction was disposed with retained earnings following the resolution of 2017 shareholders' meetings.

19. Retained Earnings

Appropriation of Retained Earnings

Date of Appropriation: March 28, 2019 and March 27, 2018 for the periods ended December 31, 2018 and 2017, respectively.

Retained earnings as at December 31, 2018 and 2017, consist of:

(in millions of Korean won)	2018	2017
Retained earnings before appropriation		
Unappropriated retained earnings carried over from prior year	₩ 30,942	₩ 149,902
Profit for the period	60,335	149,550
	91,277	299,452
Appropriation of retained earnings		
Loss on capital reduction	-	(232,971)
Cash dividends	-	(35,539)
Dividends(ratio) per share common stock:		
46,762,000 shares, ₩ - (-%) in 2018		
46,762,000 shares, ₩ 760 (203%) in 2017	-	-
	-	(268,510)
Unappropriated retained earnings carried forward to subsequent year	₩ 91,227	₩ 30,942

20. Sales

Sales for the periods ended December 31, 2018 and 2017, consist of:

(in millions of Korean won)		**2018**		**2017**
Domestic sales of finished goods	₩	304,616	₩	588,548
Export sales of finished goods		1,049,325		1,274,493
Sales of merchandise		822,551		211,632
Other sales		29,649		27,334
	₩	2,206,141	₩	2,102,007

21. Cost of Sales

Cost of sales for the periods ended December 31, 2018 and 2017, consists of:

(in millions of Korean won)		**2018**		**2017**
Cost of finished goods sold				
Finished goods, beginning	₩	29,040	₩	38,851
Manufacturing cost		1,260,355		1,762,444
Loss on valuation of inventories		-		328
Finished goods, ending		(47,474)		(29,040)
Transfer to other accounts		(37,602)		(64,810)
Refunded customs duties		(702)		(1,242)
		1,203,617		1,706,531
Cost of merchandise sold				
Merchandise, beginning		6,714		1
Purchases		797,686		210,384
Merchandise, ending		(22,233)		(6,714)
Transfer to other accounts		21,039		7,770
		803,206		211,441
Other cost of sales		20,657		18,656
	₩	2,027,480	₩	1,936,628

22. Selling and Administrative Expenses

Selling and administrative expenses for the periods ended December 31, 2018 and 2017, are as follows:

(in millions of Korean won)	2018	2017
Personnel expenses	₩ 18,119	₩ 20,489
Severance benefits	1,123	1,441
Welfare expenses	3,006	3,216
Travel expenses	1,654	1,681
Communication expenses	1,021	1,248
Fees	4,611	4,634
Rental charges	1,376	1,376
Freight costs	4,572	5,245
Depreciation and amortization	1,052	1,127
Export expenses	28,171	22,821
Overseas offices expenses	801	1,106
Research expenses and royalties	13,866	13,092
Claim expenses	5,705	6,948
Brand fees	4,753	4,845
Management service fees	12,927	28,312
Computer expenses	2,993	3,593
Others	796	4,372
	₩ 106,547	₩ 125,546

23. Value Added Information

Value added information for the periods ended December 31, 2018 and 2017, follows:

	2018			2017		
(in millions of Korean won)	Manufacturing Costs	Selling and Administrative Expenses	Total	Manufacturing Costs	Selling and Administrative Expenses	Total
Personnel expenses	₩ 59,728	₩ 18,119	₩ 77,847	₩ 88,626	₩ 20,489	₩ 109,115
Severance benefits	5,198	1,123	6,321	9,317	1,441	10,758
Welfare expenses	9,170	3,006	12,176	15,804	3,216	19,020
Depreciation and Amortization	40,222	1,052	41,274	64,519	1,127	65,646
Tax and dues	710	214	924	1,366	1,586	2,952
Rental charges	69	1,376	1,445	111	1,376	1,487
	₩ 115,098	₩ 24,891	₩ 139,987	₩ 179,743	₩ 29,235	₩ 208,978

(*) Including amortization expense and depreciation expense transferred to other accounts, excluding depreciation expense for idle assets, ₩ 182 million. (2017: ₩ 489 million).

24. Comprehensive Income

Comprehensive income for the periods ended December 31, 2018 and 2017, consists of:

(in millions of Korean won)	2018	2017
Profit for the period	₩ 60,335	₩ 149,550
Other comprehensive income		
Cash flow hedge, net of tax of ₩ (1,167) million (2017: ₩ 122 million)	3,655	(383)
Comprehensive income	₩ 63,990	₩ 149,167

25. Earnings Per Share

Basic ordinary income per share and earnings per share for the periods ended December 31, 2018 and 2017, are calculated as follows:

	2018	2017
Profit for the period	₩ 60,335,038,711	₩ 149,549,811,687
Ordinary income and net income allocated to common stock (A)	60,335,038,711	149,549,811,687
Weighted-average number of common shares outstanding during the year[1] (B)	46,762,000 shares	46,762,000 shares
Basic earnings per share ((A)/(B))	₩ 1,290	₩ 3,198

[1] Since the Company has not issued any convertible securities such as convertible bonds, diluted ordinary income per share and diluted earnings per share are identical to basic ordinary income per share and basic earnings per share, respectively.

26. Dividends

(1) Annual dividend

	2018	2017
Shares to be paid (par value ₩ 375)	46,762,000 shares	46,762,000 shares
Dividend per share (rate)	- (-%)	₩ 760 (203%)
Amount of dividend ((1)x(2))	-	₩ 35,539,120,000

(2) Dividend payout ratio

The dividend payout ratio of the Company is as follows:

	2018	2017
Amount of dividend	-	₩ 35,539,120,000
Net income	₩ 64,335,038,711	₩ 149,549,811,687
Dividend payout ratio((1)÷(2))	-%	23.8%

27. Derivatives

In order to hedge against price fluctuation in sales contracts with fixed-prices, the Company enters into futures contracts. Also to hedge against price fluctuation in inventories, the Company has futures contracts. The Company entered into derivative instrument contracts including currency forward to hedge the exposure to changes in foreign exchange rates for assets and liabilities and future cash flows denominated in foreign currencies.

The gains and losses on valuation of derivatives mentioned above for the periods ended December 31, 2018 and 2017, are as follows:

(in millions of Korean won)	2018					
	Statement of profit or loss				Other comprehensive income and expense[1]	
	Valuation Gain		Valuation Loss			
Commodity futures	₩	16,499	₩	17,159	₩	16,485
Firm commitment		-		-		-
Currency forward		2,587		1,928		(11,686)
Interest rate swap		-		-		23
	₩	19,086	₩	19,087	₩	4,821

[1] The ₩ 3,655 million, net of tax, was recorded in other comprehensive income and expense.

(in millions of Korean won)	2017					
	Statement of profit or loss				Other comprehensive income and expense[1]	
	Valuation Gain		Valuation Loss			
Commodity futures	₩	18,908	₩	12,949	₩	(11,607)
Firm commitment		5		5		-
Currency forward		15,735		7,762		10,756
Interest rate swap		2		-		346
	₩	34,650	₩	20,716	₩	(505)

[1] The ₩ (383) million, net of tax, was recorded in other comprehensive income and expense.

There is no gain or loss on valuation of derivatives, which is the ineffective portion of derivatives of the hedging instrument but meets the hedge effectiveness for the application of fair-value hedge accounting criteria as at December 31, 2018.

The Company recognized gain or loss on valuation of derivatives amounting ₩ 5,358 million and ₩ 366 million, respectively, which are the ineffective portion of derivatives as hedging instrument but meet the hedge effectiveness criteria for the application of cash-flow hedge accounting as at December 31, 2018. The Company applies cash flow hedge accounting and is exposed to fluctuations in cash flows up to March 31st, 2020.

Total accumulated other comprehensive income and loss recognized amount to ₩ 6,213 million and ₩ 6,081 million, respectively, of which ₩ 6,133 million and ₩ 5,380 million are expected to be recognized as gain and loss, respectively, within 12 months from December 31, 2019.

Also, the realized gain and loss on derivative transactions recognized upon the expiration of

contracts for the year ended December 31, 2017, which were reflected in sales, amounted to ₩ 7,155 million and ₩ 8,807 million, respectively, while gain and loss reflected as cost of sales amounted to ₩ 6,692 million and ₩ 13,870 million, respectively. Realized loss on derivative transactions reflected as interest expenses amounted to ₩ 26 million.

28. Carbon Emissions Rights (Allowances) and Liabilities

(1) Details of emissions rights in 2017 and 2018, are as follows:

(in millions of Korean won,	2017		2018		Total	
except quantities for ton)	Quantity	Amount	Quantity	Amount	Quantity	Amount
At January 1	294,262	₩ -	261,971	₩ -	556,233	₩ -
Adjustments	(10,000)	-	-	-	(10,000)	-
Free assignment	139,574	-	-	-	139,574	-
Purchase (Offset)	738	14	-	-	738	14
Purchase	4,950	107			4,950	107
Sale	-	-	-	-	-	-
Carryforward (Allocations)	(811)	-	811	-	-	-
Carryforward (Offset)	(738)	(14)	738	14		
Submitted to the government	(427,975)	(107)	-	-	(427,975)	(107)
At December 31	-	₩ -	263,520	₩ 14	263,520	₩ 14

(2) Details of emissions liabilities for the year ended December 31, 2018, are as follows:

(in millions of Korean won)	2018	2017
At January 1	₩ 107	₩ 2,365
Reverse of emission liabilities	-	(98)
Additional addition (excess emissions)	403	107
Used (submitted to the government)	(107)	(2,267)
At December 31	₩ 403	₩ 107

29. Significant Transactions Not Affecting Cash Flows

Significant transactions not affecting cash flows for the periods ended December 31, 2018 and 2017, are as follows:

(In millions of Korean won)	2018	2017
Reclassification of construction-in-progress to property, plant and equipment	₩ 9,487	₩ 14,563
Increase in other accounts payable related to acquisition of property, plant and equipment and intangible assets	1,214	(4,272)
Reclassification of long-term borrowings to current portion of long-term borrowings	14,570	116,760
Reclassification of finance lease liabilities to current portion of finance lease liabilities	1,929	1,512
Property, plant and equipment invested through in kind contribution	-	362,377
Intangible assets invested through in kind contribution	-	77
Increase (decrease) in finance lease assets	(2,926)	18,132
Increase (decrease) in finance lease liabilities	(2,926)	18,132
Offset of loss from capital reduction with retained earnings	232,971	-

30. Related Party Transactions

The Company's parent company, Novelis Inc., is a foreign registrant and there is no intermediate domestic company which prepares financial statements for external users.

Details of related parties that have sales and other transactions with the Company or have receivables and payables balances as at December 31, 2018 and 2017, are as follows:

	2018	2017
Ultimate parent company	Hindalco Industries Limited	Hindalco Industries Limited
Parent company	Novelis Inc.	Novelis Inc.
Other related parties	Novelis Switzerland-SA,Novelis AG,Novelis Deutschland GMBH,Novelis UK Ltd.,Novelis Corporation(Texas),Novelis MEA Ltd,Novelis Services Limited,ALUMINUM COMPANY OF MALAYSIA BERHAD,Novelis Vietnam Company Limited,Novelis Madeira, Unipessoal Lda,Novelis Shanghai Aluminum Trading Company,Novelis (China) Aluminum Products Co Ltd,Novelis Italia SpA,Novelis do Brazil Ltda.,Novelis PAE SAS	Novelis Switzerland-SA,Novelis AG, Novelis Deutschland GMBH, Novelis UK Ltd., Novelis Corporation(Texas), Novelis MEA Ltd, Novelis Services Limited, ALUMINUM COMPANY OF MALAYSIA BERHAD, Novelis Vietnam Company Limited, Novelis Madeira, Unipessoal Lda, Novelis Shanghai Aluminum Trading Company, Novelis (China) Aluminum Products Co Ltd, Novelis Italia SpA, Novelis do Brazil Ltda., Novelis PAE SAS
Entity under joint control	Ulsan Aluminum Limited	Ulsan Aluminum Limited

Sales and purchases with related parties for the periods ended December 31, 2018 and 2017, are as follows:

(in millions of Korean won)	Counter party	Sales [1]	Purchase [2]	Acquisition of property, plant and equipment	Acquisition of intangibles	Other income (expense)
Ultimate parent company	Hindalco Industries Limited	₩ -	₩ 135	₩ -	₩ -	₩ -
Parent company	Novelis Inc.	-	31,156	-	83	2,490
Other related parties	Novelis AG	-	41,301	-	-	(445)
	Novelis Deutschland GMBH	48,387	2,210	-	-	(30)
	Novelis Corporation	104	51	91	-	(1,442)
	Novelis MEA Ltd.	428,711	14,104	-	-	(1,421)
	Novelis Services Limited	-	4,848	-	-	-
	Novelis Vietnam Company Limited	-	2,177	-	-	20
	Novelis Shanghai Aluminum Trading Company	-	-	-	-	(489)
	Novelis (China) Aluminum Products Co Ltd	192,761	5,727	-	-	(1,025)
	Novelis Italia SpA	-	-	-	-	(175)
	Novelis do Brazil Ltda.	1,395	-	-	-	(114)
	Novelis PAE SAS	-	2	155	-	-
	Ulsan Aluminum Limited	595,206	744,355	-	-	(2,341)
Entity under joint control	2018	₩ 1,266,564	₩ 846,066	₩ 246	₩ 83	₩ (4,971)
	2017	₩ 669,209	₩ 277,363	₩ -	–	₩ (8,115)

[1] Sales of goods and rendering of services are included in sales.
[2] Purchases of goods and services (management services) are included in purchases (Note 15).

Year-end balances of receivables and payables arising from sales and purchases of goods and services as at December 31, 2018 and 2017, are as follows:

(in millions of Korean won)	Counter party	Receivables			Payables	
		Trade receivables	Loans	Other receivables	Trade payables	Other payables
Parent company	Novelis Inc.	₩ -	₩ -	₩ 276	₩ -	₩ 1,408
Other related parties	Novelis Switzerland-SA	-	-	-	-	-
	Novelis Deutschland GMBH	17,105	-	-	(2)	334
	Novelis Corporation	141	-	190	4	276
	Novelis MEA Ltd.	115,510	-	-	3,304	-
	Novelis Vietnam Company Limited	1,189	-	102	1,755	-
	Novelis AG	-	-	96	30,969	39
	Novelis Shanghai Aluminum Trading Company	-	-	-	-	97
	Novelis (China) Aluminum Products Co Ltd.	16,999	-	158	2,207	6,305
	Novelis do Brazil Ltda.	1,369	-	1	-	3
	Novelis PAE SAS	-	-	-	-	-
Entity under joint control	Ulsan Aluminum Limited	79,035	-	45,916	97,538	3,124
	2018	₩ 231,347	₩ -	₩ 46,738	₩ 135,775	₩ 11,586
	2017	₩ 203,687	₩ 69,641	₩ 85,029	₩ 163,127	₩ 6,302

Details of payment guarantees provided by the Company for the related parties as at December 31, 2018, are stated in Note 15.

Details of loan transactions and contribution between the Company and the related parties for the year ended December 31, 2018 and 2017, are as follows:

(in millions of Korean won)		2018					
		Beginning balance	Loans	Collection	Foreign exchange	Contribution in kind	Ending balance
Other related parties	Novelis Corporation	69,641	-		(69,322)	(319)	-

(in millions of Korean won)		2017					
		Beginning balance	Loans	Collection	Foreign exchange	Contribution in kind	Ending balance
Parent company	Novelis Inc.	₩ 24,170	₩ -	₩ (22,284)	₩ (1,886)	₩ -	₩ -
Other related parties	Novelis Corporation	54,383	22,250		(6,992)	-	69,641
Entity under joint control	Ulsan Aluminum Limited	-	-	-	-	362,486	-

31. Approval of Financial Statements

The December 31, 2018 financial statements of the Company were approved by the Board of Directors on February 1, 2019, and may be modified and approved by Regular shareholders' meeting.

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RESPECTED TRUSTED PROFESSIONAL SAMIL

Report on Independent Accountants'
Review of Internal Accounting Control System

To the President of
Novelis Korea Limited

We have reviewed the accompanying management's report on the operations of the Internal Accounting Control System ("IACS") of Novelis Korea Limited (the "Company") as at December 31, 2018. The Company's management is responsible for designing and operating IACS and for its assessment of the effectiveness of IACS. Our responsibility is to review the management's report on the operations of the IACS and issue a report based on our review. The management's report on the operations of the IACS of the Company states that "based on its assessment of the operations of the IACS as at December 31, 2018, no material weaknesses are identified as at December 31, 2018, in all material respects, in accordance with the IACS standards established by the Internal Accounting Control System Operations Committee (IACSOC) of the Korea Listed Companies Association."

Our review was conducted in accordance with the IACS review standards established by the Korean Institute of Certified Public Accountants. Those standards require that we plan and perform, in all material respects, the review of management's report on the operations of the IACS to obtain a lower level of assurance than an audit. A review is to obtain an understanding of a company's IACS and consists principally of inquiries of management and, when deemed necessary, a limited inspection of underlying documents, which is substantially less in scope than an audit. However, in accordance with Chapter 5, Application for small- and medium-sized companies of the IACS standards, the design, operation and assessment of its IACS are limited compared with those of public large-sized companies as the Company is a non-public large- sized company. As such, we performed our review in accordance with Chapter 14, Review standards for small- and medium-sized companies.

A company's IACS is a system to monitor and operate those policies and procedures designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with Accounting Standards for Non-Public Entities in the Republic of Korea. Because of its inherent limitations, IACS may not prevent or detect a material misstatement of the financial statements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Based on our review, nothing has come to our attention that causes us to believe that management's report on the operations of the IACS, referred to above, is not presented fairly, in all material respects, in accordance with Chapter 5, Application for small- and medium-sized companies', of the IACS standards established by IACSOC.

Our review is based on the Company's IACS as at December 31, 2018, and we did not review management's assessment of its IACS subsequent to December 31, 2018. This report has been prepared pursuant to the Acts on External Audit for Stock Companies in Korea and may not be appropriate for other purposes or for other users.

Samil PricewaterhouseCoopers

March 27, 2019

Report on the Operations of the Internal Accounting Control System

To the Board of Directors and Auditor of
Novelis Korea Limited

I, as the Internal Accounting Control Officer ("IACO") of Novelis Korea Limited ("the Company"), assessed the status of the design and operations of the Company's internal accounting control system ("IACS") for the year ended December 31, 2018.

The Company's management including IACO is responsible for designing and operating IACS. I, as the IACO, assessed whether the IACS has been effectively designed and is operating to prevent and detect any error or fraud which may cause any misstatement of the financial statements, for the purpose of establishing the reliability of financial reporting and the preparation of financial statements for external purposes. I, as the IACO, applied Chapter 5, Application to small & medium sized companies of the IACS standards for the assessment of design and operations of the IACS.

Based on the assessment on the operation of the IACS, no material weakness has been identified as at December 31, 2018, in all material respect, in accordance with the IACS standards.

February 22, 2019

Alejandro Bisogno

Internal Accounting Control Officer

Sachin Satpute

Chief Executive Officer