As filed with the Securities and Exchange Commission on April 29, 2021

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 20-F

(Mark One)

☐ **REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2020

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

☐ **SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Date of event requiring this shell company report ______

For the transition period from ______ to ______

Commission file number 1-13368

POSCO

(Exact name of Registrant as specified in its charter)

POSCO	**The Republic of Korea**
(Translation of Registrant's name into English)	*(Jurisdiction of incorporation or organization)*

POSCO Center, 440 Teheran-ro, Gangnam-gu
Seoul, Republic of Korea 06194
(Address of principal executive offices)

Sohn, Kyle
POSCO Center, 440 Teheran-ro, Gangnam-gu
Seoul, Republic of Korea 06194
Telephone: +82-2-3457-1386; E-mail: sohnkangil@posco.com; Facsimile: +82-2-3457-1997
(Name, telephone, e-mail and/or facsimile number and address of company contact person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of Each Class	Trading symbol	Name of Each Exchange on Which Registered
American Depositary Shares, each representing one-fourth of one share of common stock	PKX	New York Stock Exchange, Inc.
Common Stock, par value Won 5,000 per share *	PKX	New York Stock Exchange, Inc. *

Securities registered or to be registered pursuant to Section 12(g) of the Act.

None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

None

As of December 31, 2020, there were 76,015,472 shares of common stock, par value Won 5,000 per share, outstanding (not including 11,171,363 shares of common stock held by the company as treasury shares)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. **Yes** ☒ **No** ☐

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. **Yes** ☐ **No** ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. **Yes** ☒ **No** ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). **Yes** ☒ **No** ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or an emerging growth company. See definition of "large accelerated filer," "accelerated filer" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☒ **Accelerated filer** ☐ **Non-accelerated filer** ☐ **Emerging growth company** ☐

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. **Yes** ☒ **No** ☐

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing. **U.S. GAAP** ☐ **IFRS** ☒ **Other** ☐

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. **Item 17** ☐ **Item 18** ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). **Yes** ☐ **No** ☒

* Not for trading, but only in connection with the registration of the American Depositary Shares.

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GLOSSARY

"ADR"	American Depositary Receipt evidencing ADSs.
"ADR depositary"	Citibank, N.A.
"ADS"	American Depositary Share representing one-fourth of one share of Common Stock.
"Commercial Code"	Commercial Code of the Republic of Korea.
"common stock"	Common stock, par value Won 5,000 per share, of POSCO.
"deposit agreement"	Deposit Agreement, dated as of July 19, 2013, among POSCO, the ADR Depositary and all holders and beneficial owners from time to time of ADRs issued thereunder.
"Dollars," "$" or "US$"	The currency of the United States of America.
"FSCMA"	Financial Investment Services and Capital Markets Act of the Republic of Korea.
"Government"	The government of the Republic of Korea.
"IASB"	International Accounting Standards Board.
"IFRS"	International Financial Reporting Standards.
"Yen"	The currency of Japan.
"Korea"	The Republic of Korea.
"Gwangyang Works"	Gwangyang Steel Works.
"We"	POSCO and its consolidated subsidiaries.
"Pohang Works"	Pohang Steel Works.
"POSCO Group"	POSCO and its consolidated subsidiaries.
"Renminbi"	The currency of the People's Republic of China.
"Securities Act"	The United States Securities Act of 1933, as amended.
"Securities Exchange Act"	The United States Securities Exchange Act of 1934, as amended.
"SEC"	The United States Securities and Exchange Commission.
"tons"	Metric tons (1,000 kilograms), equal to 2,204.6 pounds.
"U.S. GAAP"	Generally accepted accounting principles in the United States of America.
"Won" or "₩"	The currency of the Republic of Korea.

Any discrepancies in any table between totals and the sums of the amounts listed are due to rounding.

PART I

Item 1. *Identity of Directors, Senior Managers and Advisers*

Item 1.A. *Directors and Senior Management*

Not applicable

Item 1.B. *Advisers*

Not applicable

Item 1.C. *Auditor*

Not applicable

Item 2. *Offer Statistics and Expected Timetable*

Not applicable

Item 2.A. *Offer Statistics*

Not applicable

Item 2.B. *Method and Expected Timetable*

Not applicable

Item 3. *Key Information*

Item 3.A. *Selected Financial Data*

The selected financial data presented below should be read in conjunction with our Consolidated Financial Statements and related notes thereto and "Item 5. Operating and Financial Review and Prospects" included elsewhere in this annual report. The selected financial data in Won as of December 31, 2019 and 2020 and for each of the years in the three-year period ended December 31, 2020 were derived from our Consolidated Financial Statements included elsewhere in this annual report. Our Consolidated Financial Statements are prepared in accordance with IFRS as issued by the IASB.

In addition to preparing financial statements in accordance with IFRS as issued by the IASB included in this annual report, we prepare financial statements in accordance with Korean International Financial Reporting Standards ("K-IFRS") as adopted by the Korean Accounting Standards Board (the "KASB"), which we are required to file with the Financial Services Commission and the Korea Exchange under the FSCMA. English translations of such financial statements are furnished to the SEC under Form 6-K. K-IFRS differs in certain respects from IFRS as issued by the IASB in the presentation of operating profit. For example, under K-IFRS, revenue from the development and sale of certain real estate is recognized using the percentage of completion method. However, under IFRS as issued by the IASB, revenue from the development and sale of real estate is recognized when an individual unit of residential real estate is delivered to the buyer. As a result, our consolidated statements of comprehensive income and our consolidated statements of financial position prepared in accordance with IFRS as issued by the IASB included in this annual report differ from our consolidated statements of comprehensive income and consolidated statements of financial position prepared in accordance with K-IFRS. See "Item 5.A. Operating Results — Explanatory Note Regarding Presentation of Certain Financial Information under K-IFRS."

The information set forth below is not necessarily indicative of the results of future operations and should be read in conjunction with "Item 5. Operating and Financial Review and Prospects" and our consolidated financial statements and related notes included in this annual report.

Selected consolidated statement of comprehensive income data

	For the Year Ended December 31,				
	2016	2017	2018 [1]	2019 [2]	2020
	(In billions of Won, except per share data)				
Revenue	₩ 52,940	₩ 60,187	₩ 65,155	₩ 64,786	₩ 57,467
Cost of sales	46,271	51,916	57,129	58,462	52,799
Gross profit	6,668	8,271	8,026	6,324	4,668
Impairment loss (reversal of impairment loss) on trade accounts and notes receivable	165	174	75	(28)	1
Other administrative expenses	2,126	2,003	1,986	2,041	1,940
Selling expenses	1,554	1,557	369	368	377
Impairment loss on other receivables	38	98	63	80	53
Other operating income	215	448	524	451	402
Other operating expenses	718	691	2,014	1,090	646
Operating profit	2,282	4,196	4,042	3,223	2,054
Share of profit (loss) of equity-accounted investees, net	(89)	11	113	274	133
Finance income	2,232	2,373	1,706	1,872	2,677
Finance costs	3,014	2,484	2,244	2,242	2,892
Profit before income tax	1,412	4,095	3,616	3,127	1,973
Income tax expense	380	1,186	1,684	1,088	224
Profit	1,032	2,909	1,932	2,038	1,748
Total comprehensive income	1,486	2,348	1,504	2,185	1,531
Profit (loss) for the period attributable to:					
Owners of the controlling company	1,355	2,756	1,712	1,864	1,581
Non-controlling interests	(323)	153	220	174	167
Total comprehensive income (loss) attributable to:					
Owners of the controlling company	1,814	2,184	1,293	2,027	1,394
Non-controlling interests	(328)	164	211	158	136
Basic and diluted earnings per share [3]	16,521	34,040	21,177	23,189	19,900
Dividends per share of common stock	8,000	8,000	10,000	10,000	8,000

Selected consolidated statements of financial position data

	As of December 31,				
	2016	2017	2018 [1]	2019 [2]	2020
	(In billions of Won)				
Working capital [4]	₩ 10,711	₩ 12,354	₩ 14,721	₩ 18,593	₩ 19,193
Total current assets	29,655	31,844	34,152	35,144	36,405
Property, plant and equipment, net	33,770	31,884	30,018	29,926	29,400
Total non-current assets	50,483	47,941	44,625	44,226	43,279
Total assets	80,138	79,786	78,777	79,371	79,684
Short-term borrowings and current installments of long-term borrowings	10,195	11,275	10,290	8,548	8,678
Long-term borrowings, excluding current installments	12,510	9,789	9,920	11,893	11,820
Total liabilities	34,372	32,459	32,104	31,608	32,080
Share capital	482	482	482	482	482
Total equity	45,765	47,327	46,673	47,763	47,604

Selected consolidated statements of cash flows data

	For the Year Ended December 31,				
	2016	2017	2018 (1)	2019 (2)	2020
	(In billions of Won)				
Net cash provided by operating activities	₩ 5,269	₩ 5,607	₩ 5,870	₩ 6,005	₩ 8,686
Net cash used in investing activities	(3,755)	(3,818)	(2,648)	(3,683)	(6,259)
Net cash used in financing activities	(3,951)	(1,566)	(3,195)	(1,512)	(1,091)
Net increase (decrease) in cash and cash equivalents	(2,424)	165	31	871	1,240
Cash and cash equivalents at beginning of the year	4,871	2,448	2,613	2,644	3,515
Cash and cash equivalents at end of the year	2,448	2,613	2,644	3,515	4,756

(1) We have adopted IFRS No. 15 "Revenue from Contracts with Customers" and IFRS No. 9 "Financial Instruments" in the fiscal year beginning on January 1, 2018. We have adopted IFRS No. 15 and IFRS No. 9 by recognizing the cumulative effect of initially applying IFRS No. 15 and IFRS No. 9 as adjustments to the opening balance of retained earnings as of January 1, 2018. Accordingly, the comparative information presented for 2016 and 2017 has not been restated.

(2) We have adopted IFRS No. 16 "Leases" from January 1, 2019 using the modified retrospective approach, under which the cumulative effect of initial application is recognized in our retained earnings at January 1, 2019. Accordingly, the comparative information presented for 2016, 2017 and 2018 has not been restated and is presented under IAS No. 17 and related interpretations.

(3) See Note 36 to the Consolidated Financial Statements for method of calculation. The weighted average number of common shares outstanding used to calculate basic and diluted earnings per share was, 79,996,389 shares as of December 31, 2016, 79,998,600 shares as of December 31, 2017, 80,000,606 shares as of December 31, 2018, 80,113,759 shares as of December 31, 2019 and 79,120,963 shares as of December 31, 2020.

(4) "Working capital" means current assets minus current liabilities.

Item 3.B. *Capitalization and Indebtedness*

Not applicable

Item 3.C. *Reasons for Offer and Use of Proceeds*

Not applicable

Item 3.D. *Risk Factors*

You should carefully consider the risks described below.

The global economic downturn may adversely affect our business and performance. The global economic outlook for the near future remains uncertain.

Our business is affected by highly cyclical market demand for our steel products from a number of industries, including the construction, automotive, shipbuilding and electrical appliances industries as well as downstream steel processors, which are sensitive to general conditions in the global economy. Macroeconomic factors, such as the economic growth rate, employment levels, interest rates, inflation rates, exchange rates, commodity prices, demographic trends and fiscal policies of governments can have a significant effect on such industries. From time to time, these industries have experienced significant and sometimes prolonged downturns, which in turn have negatively impacted our steel business. Global economic conditions have deteriorated in recent years, with global financial and capital markets experiencing substantial volatility. In particular, the ongoing global pandemic of a new strain of coronavirus ("COVID-19") has materially and adversely affected the global economy and financial markets starting in early 2020. See "— Earthquakes, tsunamis, floods, severe health epidemics (including the ongoing global COVID-19 pandemic and any possible recurrence of other types of widespread infectious diseases) and other natural calamities could materially adversely affect our business, results of operations or financial condition." Such developments have also been caused by, and continue to be exacerbated by, among other things, the slowdown of economic growth in China and other major emerging market economies, adverse economic and political conditions in Europe and Latin America and continuing geopolitical and social instability in North Korea and various parts of the Middle East, as well as a deterioration in economic and trade relations between the United States and its major trading partners, particularly China.

An actual or anticipated further deterioration of global economic conditions may result in a decline in demand for our products. In the case of a prolonged decrease in demand, we may need to rationalize our production capacity and reduce fixed costs, and we will likely face pressure to reduce prices of our products. From time to time, we have adjusted our crude steel production levels and sales prices in response to sluggish demand from our customers in industries adversely impacted by the deteriorating economic conditions. In particular, the global recession exacerbated by COVID-19 and the resulting decline in demand for steel products have adversely affected the overall sales volume of our principal steel products produced by us and directly sold to external customers in 2020 compared to 2019 as well as our sales prices. We produced 42.9 million tons of crude steel in each of 2018 and 2019 but reduced our production to 40.6 million in 2020 in response to a decrease in demand for our products. The weighted average unit sales prices for our semi-finished and finished steel products produced by us and directly sold to external customers were Won 933,990 per ton in 2018 and Won 955,209 per ton in 2019 but decreased to Won 898,008 per ton in 2020. Primarily reflecting such decreases, our revenue decreased by 11.3%, or Won 7,319 billion, from Won 64,786 billion in 2019 to Won 57,467 billion in 2020, and our profit decreased by 14.2%, or Won 290 billion, from Won 2,038 billion in 2019 to Won 1,748 billion in 2020.

We expect fluctuation in demand for our steel products and trading services to continue to prevail at least in the near future. We may decide to further adjust our future crude steel production or our sales prices on an on-going basis subject to market demand for our products, the production outlook of the global steel industry and global economic conditions in general. In addition, economic downturns in the Korean and global economies could result in market conditions characterized by weaker demand for steel products from a number of industries as well as falling prices for export and import products and reduced trade levels. Deterioration of market conditions may result in changes in assumptions underlying the carrying value of certain assets, which in turn could result in impairment of such assets, including intangible assets such as goodwill. Our ability to reduce expenditures for production facilities and research and development during an industry downturn is limited because of the need to maintain our competitive position. If we are unable to reduce our expenses sufficiently to offset reductions in price and sales volume, our margins will suffer and our business, financial condition and results of operations may be materially and adversely affected.

Earthquakes, tsunamis, floods, severe health epidemics (including the ongoing global COVID-19 pandemic and any possible recurrence of other types of widespread infectious diseases) and other natural calamities could materially adversely affect our business, results of operations or financial condition.

If earthquakes, tsunamis, floods, severe health epidemics or any other natural calamities were to occur in the future in any area where any of our assets, suppliers or customers are located, our business, results of operations or financial condition could be adversely affected. A number of suppliers of our raw materials and customers of our products are located in countries that have historically suffered natural calamities from time to time, such as Australia, China and Japan, as well as Korea. Any occurrence of such natural calamities in countries where our suppliers are located may lead to shortages or delays in the supply of raw materials. In addition, natural calamities in areas where our customers are located, including China, Southeast Asia, Japan, Europe, North America and Korea, may cause disruptions in their businesses, which in turn could adversely impact their demand for our products.

In particular, COVID-19, an infectious disease caused by severe acute respiratory syndrome coronavirus 2 that was first reported to have been transmitted to humans in late 2019 and has spread globally, has materially and adversely affected the global economy and financial markets in recent months. In light of government recommendations for social distancing, we have periodically implemented remote work arrangements for a portion of our workforce, particularly for employees in areas severely impacted by the pandemic, minimized business travel and assisted our employees with quarantine measures.

The World Health Organization declared the COVID-19 as a pandemic in March 2020. While we do not believe that such disruptions and arrangements have had a material adverse impact on our business, a prolonged outbreak of COVID-19 may result in further disruptions in the normal operations of our business, including disruptions in the operation of our production facilities, delays in our production facility expansion projects, implementation of further work arrangements requiring employees to work remotely and restrictions on overseas and domestic business travel, which may lead to a reduction in labor productivity.

Other risks associated with prolonged outbreak of COVID-19 or other types of widespread infectious disease include:

- an increase in unemployment among, and/or decrease in disposable income of, consumers who purchase the products manufactured by our customers and a decline in overall consumer confidence and spending levels, which in turn may decrease demand for our products;
- disruption in the normal operations of the businesses of our customers, which in turn may decrease demand for our products;
- disruption in supply of raw materials from our vendors;
- disruption in delivery of our products to our customers;
- disruption in the normal operations of our business resulting from contraction of COVID-19 by our employees or quarantine measures imposed by governments, which may necessitate our employees to be quarantined and/or our manufacturing facilities, construction projects, energy and mineral development projects or offices to be temporarily shut down;
- disruption resulting from the necessity for social distancing, including implementation of temporary adjustment of work arrangements requiring employees to work remotely, which may lead to a reduction in labor productivity (for example, from time to time, we implemented staggered remote working arrangements for our employees at our headquarters);
- depreciation of the Won against major foreign currencies, which in turn may increase the cost of imported raw materials;
- unstable global and Korean financial markets, which may adversely affect our ability to meet our funding needs on a timely and cost-effective basis; and
- impairments in the fair value of our investments in companies that may be adversely affected by the pandemic.

It is not possible to predict the duration or full magnitude of harm from COVID-19. In the event that COVID-19 or other types of widespread infectious diseases cannot be effectively and timely contained, our business, financial condition and results of operations may be materially adversely affected.

Korea is our most important market, and our current business and future growth could be materially and adversely affected if economic conditions in Korea deteriorate.

We are incorporated in Korea, and a substantial portion of our operations and assets are located in Korea. Korea is our most important market, accounting for 38.6% of our revenue from steel products produced and sold by us in 2020. Domestic demand for our products is affected by the condition of major steel consuming industries, such as construction, shipbuilding, automotive, electrical appliances and downstream steel processors, and the Korean economy in general. In addition, the trading operations of POSCO International Corporation (“POSCO International”) are affected by the general level of trade between Korea and other countries, which in turn tends to fluctuate based on general conditions in the Korean and global economies. As a result, we are subject to political, economic, legal and regulatory risks specific to Korea, and our performance and successful fulfillment of our operational strategies are largely dependent on the overall Korean economy. The economic indicators in Korea in recent years have shown mixed signs, and future growth of the Korean economy is subject to many factors beyond our control, including developments in the global economy.

In particular, the on-going COVID-19 pandemic has had an adverse impact on the Korean economy. Following the Government's announcement of the first confirmed case of COVID-19 in Korea in January 2020, it has implemented a number of measures in order to contain the spread of the COVID-19 disease, including a nationwide order for social distancing, implementation of strict self-isolation and quarantine measures for those who may be infected, and the temporary closure of all school and other public facilities. In addition, the Government has undertaken a series of actions to mitigate the adverse impact of the COVID-19 pandemic on the Korean economy, including (i) lowering of The Bank of Korea's policy rates, (ii) execution of a bilateral currency swap agreement with the U.S. Federal Reserve, (iii) provision of loans, guarantees and maturity extensions to eligible financial institutions, small- and medium business enterprises and self-employed business owners facing liquidity crises; (iv) offering emergency relief payments for those impacted by the COVID-19 pandemic; and (v) establishment of the Key Industry Stabilization Fund in May 2020 to support businesses in certain key industries, such as the air transport and maritime industries. However, the impact of the on-going COVID-19 pandemic to the Korean economy in 2021 and for the foreseeable future remains highly uncertain.

Other developments that could have an adverse impact on Korea's economy include:

- declines in consumer confidence and a slowdown in consumer spending;
- the occurrence of additional severe health epidemics and pandemics in Korea or other parts of the world;
- deterioration in economic or diplomatic relations between Korea and its trading partners or allies, including deterioration resulting from territorial or trade disputes or disagreements in foreign policy (such as the ongoing trade disputes with Japan);
- adverse conditions or developments in the economies of countries and regions that are important export markets for Korea, such as China, the United States, Europe and Japan, or in emerging market economies in Asia or elsewhere, including as a result of deteriorating economic and trade relations between the United States and China as well as increased uncertainties resulting from the United Kingdom's exit from the European Union on January 31, 2020;
- adverse changes or volatility in foreign currency reserve levels, commodity prices (including oil prices), exchange rates (including fluctuation of the U.S. dollar, Euro or Japanese Yen exchange rates or revaluation of the Chinese Renminbi), interest rates, inflation rates or stock markets;
- increased sovereign default risk in select countries and the resulting adverse effects on the global financial markets;
- investigations of large Korean business groups and their senior management for possible misconduct;
- a continuing rise in the level of household debt and increasing delinquencies and credit defaults by retail and small- and medium-sized enterprise borrowers in Korea;
- social and labor unrest;
- decreases in the market prices of Korean real estate;

- the economic impact of any pending or future free trade agreements or of any changes to existing free trade agreements;
- a decrease in tax revenue or a substantial increase in the Government's expenditures for fiscal stimulus measures, unemployment compensation and other economic and social programs that would lead to an increased government budget deficit;
- financial problems or lack of progress in the restructuring of Korean business groups, other large troubled companies, their suppliers or the financial sector;
- loss of investor confidence arising from corporate accounting irregularities or corporate governance issues concerning certain Korean companies;
- increases in social expenditures to support an aging population in Korea or decreases in economic productivity due to the declining population size in Korea;
- geo-political uncertainty and risk of further attacks by terrorist groups around the world;
- natural or man-made disasters that have a significant adverse economic or other impact on Korea or its major trading partners;
- political uncertainty or increasing strife among or within political parties in Korea;
- hostilities or political or social tensions involving oil producing countries in the Middle East (including a potential escalation of hostilities between the U.S. and Iran) and Northern Africa and any material disruption in the global supply of oil or sudden increase in the price of oil;
- increased reliance on exports to service foreign currency debts, which could cause friction with Korea's trading partners;
- the continued growth of the Chinese economy, to the extent its benefits (such as increased exports to China) are outweighed by its costs (such as competition in export markets or for foreign investment and the relocation of manufacturing bases from Korea to China);
- political or social tensions involving Russia and any resulting adverse effects on the global supply of oil or the global financial markets; and
- an increase in the level of tensions or an outbreak of hostilities between North Korea and Korea or the United States.

We rely on export sales for a significant portion of our total sales. Adverse economic and financial developments in Asia in the future may have an adverse effect on demand for our products in Asia and increase our foreign exchange risks.

Our export sales and overseas sales to customers abroad accounted for 61.4% of our total revenue from steel products produced and sold by us in 2020. Our export sales to customers in Asia, including China, Japan, Indonesia, Thailand and Malaysia, accounted for 65.5% of our total export sales revenue from steel products produced and exported by us in 2020, and we expect our sales to these countries to remain important in the future. In particular, our export sales to China accounted for 35.8% of our total export sales revenue from steel products produced and exported by us in 2020. Accordingly, adverse economic and financial developments in these countries may have an adverse effect on demand for our products. Unfavorable or uncertain economic and market conditions, which can be caused, among others, by difficulties in the financial sector, corporate, political or other scandals that may reduce confidence in the markets, declines in business confidence, increases in inflation, natural disasters or pandemics, outbreaks of hostilities or other geopolitical instability. Deterioration in economic or diplomatic relations between Korea and its trading partners or allies, including deterioration resulting from territorial or trade disputes or disagreements in foreign policy (such as the ongoing trade disputes with Japan), or a combination of these or other factors, have, in the past adversely affected, and may in the future adversely affect, demand for our products.

Economic weakness in Asia may also adversely affect our sales to the Korean companies that export to the region, especially companies in the construction, shipbuilding, automotive, electrical appliances and downstream steel processing industries. Weaker demand in these countries, combined with an increase in global production capacity, may also reduce export prices in Dollar terms of our principal products sold to customers in Asia. For a discussion of production over-capacity in the global steel industry, see "— We operate in the highly competitive steel, trading and construction industries, and our failure to successfully compete would adversely affect our market position and business." We attempt to maintain and expand our export sales to generate foreign currency receipts to cover our foreign currency purchases and debt service requirements. Consequently, any decrease in our export sales could also increase our foreign exchange risks.

Depreciation of the value of the Won against the Dollar and other major foreign currencies may have a material adverse effect on the results of our operations and on the price of the ADSs.

Our consolidated financial statements are prepared from our local currency denominated financial results, assets and liabilities and our subsidiaries around the world, which are then translated into Won. A substantial proportion of our consolidated financial results is accounted for in currencies other than the Won. Accordingly, our consolidated financial results and assets and liabilities may be materially affected by changes in the exchange rates of foreign currencies. In 2020, 61.4% of our total revenue from steel products produced and sold by us was in overseas markets outside of Korea. To the extent that we incur costs in one currency and make sales in another, our profit margins may be affected by changes in the exchange rates between the two currencies. Since the currency in which sales are recorded may not be the same as the currency in which expenses are incurred, foreign exchange rate fluctuations may materially affect our results of operations. Depreciation of the Won may materially affect the results of our operations because, among other things, it causes:

- an increase in the amount of Won required for us to make interest and principal payments on our foreign currency-denominated debt;
- an increase in Won terms in the costs of raw materials and equipment that we purchase from overseas sources and a substantial portion of our freight costs, which are denominated primarily in Dollars; and
- foreign exchange translation losses on foreign-currency denominated liabilities, which lower our earnings for accounting purposes.

Appreciation of the Won against major currencies, on the other hand, causes:

- our export products to be less competitive by raising our prices in Dollar, Yen and Renminbi terms; and
- a reduction in net sales and accounts receivables in Won from export sales, which are primarily denominated in Dollars and to a lesser extent in Yen and Renminbi.

The overall net impact from fluctuations of the Won against major currencies is difficult to estimate and varies from year to year. We strive to naturally offset our foreign exchange risk by matching foreign currency receivables with our foreign currency payables and our overseas subsidiaries have sought to further mitigate the adverse impact of exchange rate fluctuations by conducting business transactions in the local currency of the respective market in which the transactions occur. In particular, POSCO International's exposure to fluctuations in exchange rates, including the Won/Dollar exchange rate, is limited because trading transactions typically involve matched purchase and sale contracts, which result in limited settlement exposure, and because POSCO International's contracts with domestic suppliers of products for export and with domestic purchasers of imported products are generally denominated in Dollars. Although the impact of exchange rate fluctuations is partially mitigated by such strategies, we and our subsidiaries, particularly POSCO International and POSCO Engineering & Construction Co., Ltd. ("POSCO E&C"), also periodically enter into derivative contracts, primarily foreign currency swaps and forward exchange contracts, to further hedge some of our foreign exchange risks. However, our results of operations have historically been affected by exchange rate fluctuations and there can be no assurance that such strategies will be sufficient to reduce or eliminate the adverse impact of such fluctuations in the future.

Fluctuations in the exchange rate between the Won and the Dollar will also affect the Dollar equivalent of the Won price of the shares of our common stock on the KRX Korea Composite Stock Price Index (the "KOSPI") Market and, as a result, will likely affect the market price of the ADSs. These fluctuations will also affect the Dollar conversion by the depositary for the ADRs of cash dividends, if any, paid in Won on shares of common stock represented by the ADSs.

We are dependent on imported raw materials, and significant increases in market prices of essential raw materials could adversely affect our margins and profits.

We purchase substantially all of the principal raw materials we use from sources outside Korea, including iron ore and coal. POSCO imported approximately 51 million dry metric tons of iron ore and 27 million wet metric tons of coal in 2020. Iron ore is imported primarily from Australia, Brazil and Canada. Coal is imported primarily from Australia, Canada and Russia. Although we have not experienced significant unanticipated supply disruptions in the past, supply disruptions, which could be caused by political or other events in the countries from which we import these materials, could adversely affect our operations. In addition, we are particularly exposed to increases in the prices of coal, iron ore and nickel, which represent the largest components of our cost of goods sold. The prices of our key raw materials have fluctuated significantly in recent years. For example, the average market price of coal per wet metric ton (Premium Low Vol Coking Coal, FOB Australia Index announced by Platts) was US$207 in 2018, US$176 in 2019 and US$124 in 2020. The average market price of iron ore per dry metric ton (Iron Ore 62% Fe, CFR China Index announced by Platts) was US$69 in 2018, US$93 in 2019 and US$109 in 2020.

Our long-term supply contracts generally have terms of three to ten years and provide for periodic price adjustments to the then-market prices. We typically adjust the prices on a quarterly basis and maintain approximately one month of inventory of raw materials. Such price adjustments are driven by various factors, including the global economic outlook, global market prices of raw materials and steel products, supply and demand outlook of raw materials and production costs of raw materials. For both coal and iron ore, we typically agree on the purchase price with the suppliers primarily based on the spot market price periodically announced by Platts (Premium Low Vol Coking Coal, FOB Australia Index and Iron Ore 62% Fe, CFR China Index). As of December 31, 2020, 57 million tons of iron ore and 10 million tons of coal remained to be purchased under long-term supply contracts. Future increases in prices of our key raw materials and our inability to pass along such increases to our customers could adversely affect our margins and profits. Increased prices may also cause potential customers to defer purchase of steel products, while rapidly falling prices may increase loss on valuation of raw material inventory purchased when prices were higher, either of which could have an adverse effect on our business, financial condition and results of operations.

We operate in the highly competitive steel, trading and construction industries, and our failure to successfully compete would adversely affect our market position and business.

Steel. The markets for our steel products are highly competitive and we face intense global competition. China is the largest steel producing country in the world by a significant margin, with the balance between its domestic production and demand being an important factor in the determination of global steel prices. In recent years, a slowdown in domestic demand for steel products in China resulting from slowed economic growth as well as the impact from the COVID-19 pandemic, combined with an expansion in steel production capacity, has led to production over-capacity in the Chinese steel industry, which in turn has led the Chinese government to pursue aggressive consolidation in the Chinese steel industry, such as the consolidation of Baosteel Group and Wuhan Iron and Steel in 2016, that has resulted in fewer but larger steel manufacturers that are able to compete more effectively in the global steel industry. In addition, the global steel industry has experienced consolidation in the past. Competition from such global steel manufacturers with expanded production capacity as well as competitors from emerging markets, especially from China and India, has resulted in significant price competition and may result in declining margins and reductions in revenue in the future. Our larger competitors may use their resources, which may be greater than ours, against us in a variety of ways, including by making additional acquisitions, investing more aggressively in product development and capacity and displacing demand for our export products.

Increased production capacity, combined with decreased demand resulting from a slowdown of the global economy, has from time to time resulted in production over-capacity in the global steel industry which in turn has resulted in downward pressure on global steel prices. Such production over-capacity in the global steel industry was exacerbated in 2020 due to a decrease in demand caused by the COVID-19 pandemic. Although demand for steel products has shown signs of recovery in select regions starting in the second half of 2020, production over-capacity in global steel industry may intensify if global economic recovery slows or demand from developing countries, particularly from China, continues to lag behind the growth in production capacity. Production over-capacity in the global steel industry is likely to:

- reduce export prices in Dollar terms of our principal products, which in turn may reduce our sales prices in Korea;
- increase competition in the Korean market as foreign producers seek to export steel products to Korea as other markets experience a slowdown;
- negatively affect demand for our products abroad and our ability to expand export sales; and
- affect our ability to increase steel production in general.

Steel also competes with other natural and synthetic materials that may be used as steel substitutes, such as aluminum, cement, composites, glass, plastic and wood. Government regulatory initiatives mandating the use of such materials instead of steel, whether for environmental or other reasons, as well as the development of attractive alternative substitutes for steel products, may reduce demand for steel products and increase competition in the global steel industry.

As part of our strategy to compete in this challenging landscape, we will continue to invest in developing innovative products that offer the greatest potential returns and enhance the overall quality of our products, as well as make additional investments in the development of new manufacturing technologies. However, there is no assurance that we will be able to continue to compete successfully in this economic environment or that the prolonged slowdown of the global economy or production over-capacity will not have a material adverse effect on our business, results of operations or financial condition.

Trading. POSCO International competes principally with other Korean general trading companies that are affiliated with major domestic business groups, as well as global trading companies based in other countries. In the domestic market, competition for export transactions on behalf of domestic suppliers and import transactions on behalf of domestic purchasers was limited, as most affiliated general trading companies of large Korean business groups generally relied on affiliate transactions for the bulk of their trading business. However, in recent years, many of these Korean general trading companies have reduced their reliance on their affiliated business group and transactions carried out on behalf of their member companies and instead have generally evolved to focus on segments of the import and export markets in which they have a competitive advantage. As a result, competition among Korean general trading companies in the area of traditional trade has become more intense.

The overseas trading markets in which POSCO International operates are also highly competitive. POSCO International's principal competitors in overseas trading markets include Korean trading companies that operate in various international markets, as well as foreign trading companies, particularly those based in Japan. As POSCO International diversifies into businesses other than traditional trading such as natural resources development, it also increasingly competes with other Korean and international companies involved in these businesses. Some of POSCO International's competitors may be more experienced and have greater financial resources and pricing flexibility than POSCO International, as well as more extensive global networks and wider access to customers. There is no assurance that POSCO International will be able to continue to compete successfully in this economic environment or that the prolonged slowdown of the global economy will not have a material adverse effect on its business, results of operations or financial condition. In 2018, 2019 and 2020, we recognized impairment of goodwill of Won 158 billion, Won 55 billion and Won 189 billion, respectively, related to a decrease in value-in-use of POSCO International.

Construction. POSCO E&C, our consolidated subsidiary, operates in the highly competitive construction industry. Competition is based primarily on price, reputation for quality, reliability, punctuality and financial strength of contractors. Intense competition among construction companies may result in, among other things, a decrease in the price POSCO E&C can charge for its services, difficulty in winning bids for construction projects, an increase in construction costs and difficulty in obtaining high-quality contractors and qualified employees.

In Korea, POSCO E&C's main competition in the construction of residential and non-residential buildings, EPC (or engineering, procurement and construction) projects, urban planning and development projects and civil works projects consists of approximately ten major domestic construction companies, many of which are member companies of other large business groups in Korea and are capable of undertaking larger-scale, higher-value-added projects that offer greater potential returns. A series of measures introduced by the Government over the past several years to regulate housing prices in Korea, as well as increasing popularity of low-bid contracts in civil works project mandates, have contributed to increased competition in the Korean construction industry in recent years.

Competition for new project awards in overseas markets is also intense. In these markets, POSCO E&C faces competition from local construction companies and other major Korean construction companies with overseas operations, as well as international construction companies from other countries. Construction companies from other developed countries may be more experienced, have greater financial resources and possess more sophisticated technology than POSCO E&C, while construction companies from developing countries often have the advantage of lower wage costs. Some of these competitors have achieved higher market penetration than POSCO E&C has in specific markets in which it competes, and POSCO E&C may need to accept lower margins in order for it to compete successfully against them. POSCO E&C's failure to successfully compete in the domestic or overseas construction markets could adversely affect its market position and its results of operations and financial condition.

We may not be able to successfully execute our diversification strategy.

In part to prepare for the eventual maturation of the Korean steel market, we have made investments in the past decade to secure new growth engines by diversifying into new businesses related to our steel operations that we believe will offer greater potential returns, such as participation in EPC projects in the steel sector and natural resources development, as well as entering into new businesses not related to our steel operations such as power generation and alternative energy solutions, LNG and agricultural trading and production of anode and cathode materials for rechargeable batteries as well as other comprehensive materials such as lithium. From time to time, we may selectively acquire or invest in companies to pursue such diversification strategy.

The success of our diversification strategy will depend, in part, on our ability to realize the anticipated growth opportunities and synergies. Some of our diversification efforts have not been successful. For example, in 2018, we incurred impairment loss of Won 810 billion related to our synthetic natural gas production facility in Gwangyang due to our discontinuation of the business which we had launched in 2011, which was adversely impacted by a decline in the market price of liquefied natural gas ("LNG"). In 2019, we incurred impairment loss of Won 74 billion related to the discontinued operation of a ferrosilicon facility in Pohang and Won 70 billion related to the discontinued operation of a compact endless cast-rolling mill facility in Gwangyang. The realization of the anticipated benefits from our diversification efforts depends on numerous factors, some of which are outside our control, including the availability of qualified personnel, establishment of new relationships and expansion of existing relationships with various customers and suppliers, procurement of necessary technology and know-how to engage in such businesses and decreases in the prices of competing products or services that make our products or services less competitive. The realization of the anticipated benefits may be impeded, delayed or reduced as a result of numerous factors, some of which are outside our control. These factors include:

- difficulties in integrating the operations of the acquired business, including information and accounting systems, personnel, policies and procedures, and in reorganizing or reducing overlapping operations, marketing networks and administrative functions, which may require significant amounts of time, financial resources and management attention;
- unforeseen contingent risks or latent liabilities relating to the acquisition that may become apparent in the future;
- difficulties in managing a larger business; and
- loss of key management personnel or customers.

In addition, in order to finance these acquisitions, we intend to use cash on hand, funds from operations, issuances of equity and debt securities, and, if necessary, financings from banks and other sources as well as entering into consortiums with financial investors. However, no assurance can be given that we will be able to obtain sufficient financing for such acquisitions or investments on terms commercially acceptable to us or at all. We cannot assure you that our diversification strategy can be completed profitably or that the diversification efforts will not adversely affect our combined business, financial condition and results of operations.

Our international expansion efforts may not be successful.

We conduct international trading and construction operations abroad, and our business relies on a global trading network comprised of overseas subsidiaries, branches and representative offices. Although many of our subsidiaries and overseas branches are located in developed countries, we also operate in numerous countries with developing economies. In addition, we intend to continue to expand our steel production operations internationally by carefully seeking out promising investment opportunities, particularly in China, India, Southeast Asia and Latin America, in part to prepare for the eventual maturation of the Korean steel market. We may enter into additional joint ventures with foreign steel producers that would enable us to rely on these businesses to conduct our operations, establish local networks and coordinate our sales and marketing efforts abroad. To the extent that we enter into these arrangements, our success will depend in part on the willingness of our partner companies to dedicate sufficient resources to their partnership with us.

In other situations, we may decide to establish manufacturing facilities by ourselves instead of relying on partners. The demand and market acceptance for our products produced abroad are subject to a high level of uncertainty and are substantially dependent upon the market condition of the global steel industry. We cannot assure you that our international expansion plan will be profitable or that we can recoup the costs related to such investments.

Expansion of our trading, construction and production operations abroad requires management attention and resources. In addition, we face additional risks associated with our expansion outside Korea, including:

- challenges caused by distance, language and cultural differences;
- higher costs associated with doing business internationally;
- legal and regulatory restrictions, including foreign exchange controls that might prevent us from repatriating cash earned in countries outside Korea;
- longer payment cycles in some countries;
- credit risk and higher levels of payment fraud;
- currency exchange risks;
- potentially adverse tax consequences;
- political and economic instability; and
- seasonal reductions in business activity during the summer months in some countries.

We have limited insurance coverage and may incur significant losses resulting from operating hazards, product liability claims from customers or business interruptions.

The normal operation of our manufacturing facilities may be interrupted by accidents caused by operating hazards, power supply disruptions and equipment failures, as well as natural disasters. As with other industrial companies, our operations involve the use, handling, generation, processing, storage, transportation and disposal of hazardous materials, which may result in fires, explosions, spills and other unexpected or dangerous accidents causing property damage as well as personal injuries or death. We are also exposed to risks associated with product liability claims in the event that the use of the products we sell results in injury. We maintain property insurance for our property, plant and equipment that we believe to be consistent with market practice in Korea. However, we may not have adequate resources to satisfy a judgment in excess of our insurance coverage in the event of a successful claim against us. Any occurrence of accidents or other events affecting our operations could result in potentially significant monetary damages, diversion of resources, production disruption and delay in delivery of our products, which may have a material adverse effect on our business, financial condition and results of operations.

Further increases in, or new impositions of, anti-dumping, safeguard or countervailing duty proceedings may have an adverse impact on our export sales.

As a steel producer with global sales and operations, we are involved in trade remedy proceedings in markets worldwide, including in the United States. We actively participate in such proceedings to minimize any adverse effects and associated risks. While there has been an increase in the number of trade cases in recent years, and an increased focus on trade issues by government officials, such cases have been limited in scope relative to our global sales and operations. We continue to carefully monitor developments with respect to trade remedy policy in all markets in which we participate and, where necessary, vigorously defend our rights through litigation before tribunals such as the U.S. Court of International Trade. Our products that are subject to anti-dumping duties, safeguard duties, countervailing duties, quotas or tariffs in the aggregate currently have not had a material adverse impact on our business and operations in recent years. However, there can be no assurance that increases in, or new impositions of, anti-dumping duties, safeguard duties, countervailing duties, quotas or tariffs on our exports of products abroad may not have a material adverse impact on our exports in the future.

We participate in overseas natural resources exploration, development and production projects, which expose us to various risks.

As part of our efforts to diversify our operations, we carefully seek out promising overseas natural resources exploration, development and production opportunities. We also participate in natural resources projects as part of consortia or through acquisitions of minority interests, such as a gas field exploration project in Myanmar through POSCO International. We may also selectively acquire or invest in companies or businesses that engage in such activities. To the extent that we enter into these arrangements, our success in these endeavors will depend in part on the willingness of our partner companies to dedicate sufficient resources to their partnership with us, as well as our ability to finance such investments.

The demand and market acceptance for such activities abroad are subject to a substantially higher level of uncertainty than our traditional steel business and are substantially dependent upon the market condition of the global natural resources industry as well as the political and social environment of the target countries. The performance of projects in which we participate may be adversely affected by the occurrence of military hostility, political unrest or acts of terrorism. For example, in February 2021, Myanmar's military declared a state of emergency for a year with detention of Myanmar's national adviser Aung San Suu Kyi and senior members of the ruling party's National League for Democracy. See Note 41(b) to the Consolidated Financial Statements. In addition, some of our current exploration, development and production projects involve drilling exploratory wells on properties with no proven amount of natural resource reserves. Although all drilling, whether developmental or exploratory, involves risks, exploratory drilling involves greater risks of dry holes or failure to find commercial quantities of natural resources. Other risks to which such activities are subject include obtaining required regulatory approvals and licenses, securing and maintaining adequate property rights to land and natural resources, and managing local opposition to project development. A decrease in the market price of raw materials may also adversely impact the value of our investments related to natural resources projects, potentially resulting in impairment losses. For example, in 2019, we recognized impairment loss of Won 118 billion related to the termination of the Block AD-7 exploration project in Myanmar by POSCO International. We have limited experience in this business, and we cannot assure you that our overseas natural resources exploration, development and production projects will be profitable, that we will be able to meet the financing requirements for such projects, that the performance of our projects will not be adversely affected by the occurrence of military hostility, political unrest or acts of terrorism, or that we can recoup the costs related to such investments, which in turn could materially and adversely affect our business, financial condition and results of operations.

We may encounter problems with joint overseas natural resources exploration, development and production projects and large-scale infrastructure projects, which may materially and adversely affect our business.

We typically pursue our natural resources exploration, development and production projects jointly with consortium partners or through acquisition of minority interests in such projects, and we expect to be involved in other joint projects in the future. We sometimes hold a majority interest in the projects among the consortium partners, but we often lack a controlling interest in the joint projects. Therefore, we may not be able to require that our joint ventures sell assets or return invested capital, make additional capital contributions or take any other action without the vote of at least a majority of our consortium partners. If there are disagreements between our consortium partners and us regarding the business and operations of the joint projects, we cannot assure you that we will be able to resolve them in a manner that will be in our best interests. Certain major decisions, such as selling a stake in the joint project, may require the consent of all other partners. These limitations may adversely affect our ability to obtain the economic and other benefits we seek from participating in these projects.

In addition, our consortium partners may:

- have economic or business interests or goals that are inconsistent with ours;

- take actions contrary to our instructions, requests, policies or objectives;
- be unable or unwilling to fulfill their obligations;
- have financial difficulties; or
- have disputes with us as to their rights, responsibilities and obligations.

Any of these and other factors may have a material adverse effect on the performance of our joint projects and expose us to a number of risks, including the risk that the partners may be incapable of providing the required financial support to the partnerships and the risk that the partners may not be able to fulfill their other obligations, resulting in disputes not only between our partners and us, but also between the joint ventures and their customers. Such a material adverse effect on the performance of our joint projects may in turn materially and adversely affect our business, results of operations and financial condition.

Cyclical fluctuations based on macroeconomic factors may adversely affect POSCO E&C's business and performance.

We engage in engineering and construction activities through POSCO E&C. The Construction Segment is highly cyclical and tends to fluctuate based on macroeconomic factors, such as consumer confidence and income, employment levels, interest rates, inflation rates, demographic trends and policies of the Government. From time to time, the construction industry has experienced significant and sometimes prolonged downturns, and our construction revenues have fluctuated in the past depending on the level of public and private sector construction activities in Korea and abroad. In addition, the performance of POSCO E&C's domestic residential property business is highly dependent on the general condition of the real estate market in Korea. The overall prospects for Korean construction companies in 2021 and beyond remain uncertain, and a prolonged general downturn in the construction market resulting in weaker demand may adversely affect our business, results of operations or financial condition.

Many of POSCO E&C's domestic and overseas construction projects are on a fixed-price basis, which could result in losses for us in the event that unforeseen additional expenses arise with respect to the project.

Many of POSCO E&C's domestic and overseas construction projects are carried out on a fixed-price basis according to a predetermined timetable, pursuant to the terms of a fixed-price contract. Under such fixed-price contracts, POSCO E&C retains all cost savings on completed contracts but is also liable for the full amount of all cost overruns and may be required to pay damages for late delivery. The pricing of fixed-price contracts is crucial to POSCO E&C's profitability, as is its ability to quantify risks to be borne by it and to provide for contingencies in the contract accordingly.

POSCO E&C attempts to anticipate costs of labor, raw materials, parts and components in its bids on fixed-price contracts. However, the costs incurred and gross profits realized on a fixed-price contract may vary from its estimates due to factors such as:

- unanticipated variations in labor and equipment productivity over the term of a contract;
- unanticipated increases in labor, raw material, parts and components, subcontracting and overhead costs, including as a result of bad weather;
- delivery delays and corrective measures for poor workmanship; and
- errors in estimates and bidding.

If unforeseen additional expenses arise over the course of a construction project, such expenses are usually borne by POSCO E&C, and its profit from the project will be correspondingly reduced or eliminated. If POSCO E&C experiences significant unforeseen additional expenses with respect to its fixed price projects, it may incur losses on such projects, which could have a material adverse effect on its financial condition and results of operations.

We are subject to environmental regulations, and our operations could expose us to substantial liabilities.

We are subject to national and local environmental laws and regulations, including increasing pressure to reduce emission of carbon dioxide relating to our manufacturing process, and our steel manufacturing and construction operations could expose us to risk of substantial liability relating to environmental or health and safety issues, such as those resulting from discharge of pollutants and carbon dioxide into the environment, the handling, storage and disposal of solid or hazardous materials or wastes and the investigation and remediation of contaminated sites. We may be responsible for the investigation and remediation of environmental conditions at currently and formerly operated manufacturing or construction sites. We may also be subject to associated liabilities, including liabilities for natural resource damage, third party property damage or personal injury resulting from lawsuits brought by the Government or private litigants. In the course of our operations, hazardous wastes may be generated at third party-owned or operated sites, and hazardous wastes may be disposed of or treated at third party-owned or operated disposal sites. If those sites become contaminated, we could also be held responsible for the cost of investigation and remediation of such sites, for any associated natural resource damage, and for civil or criminal fines or penalties.

Significant breaches of information security could lead to legal and financial exposure, damage to our reputation and a loss of confidence by our customers.

Our business relies heavily on mission-critical, complex and interdependent information technology systems that support our business processes. It involves the storage and transmission of confidential information relating to us as well as our customers and suppliers. Any significant breach in our information security could expose us to a risk of loss, improper use or disclosure of such information, and could give rise to significant liability or litigation, any of which could harm our reputation and adversely affect our business.

We believe that there has been no instance of a material breach in our information security to date that resulted in significant disruption of our operations and had a significant adverse effect on our operational results, or on third parties, including our customers and suppliers. However, there can be no assurance that we will be able to continue to prevent security incidents or other breaches in our information security from having a material adverse effect on our business, results of operation, financial viability or reputation. In addition, our information security measures may fail due to external and internal security threats, outages, malicious intrusions and attacks, programming or human errors and malfeasance, or other similar events.

Instituting appropriate access controls and safeguards across our information technology infrastructure is challenging. Furthermore, outside parties may attempt to fraudulently induce employees to divulge sensitive information to gain access to our data or our customers' data or access credentials. Because the techniques used to obtain unauthorized access, disable or degrade services or sabotage systems change frequently and often are not recognized until attacks are launched against a target, we may be unable to anticipate these techniques or implement adequate preventative measures. If an actual or perceived breach of our cybersecurity occurs or the market perception of the effectiveness of our information security measures is compromised, this may lead to significant legal and financial exposure, including legal claims and regulatory fines and penalties, reputational harm and a loss of confidence of our customers, which could have an adverse effect on our business, financial condition and results of operations.

Failure to protect our intellectual property rights could impair our competitiveness and harm our business and future prospects.

We believe that developing new steel manufacturing technologies that can be differentiated from those of our competitors, such as FINEX, automotive steel manufacturing technology and high-manganese steel manufacturing technology, is critical to the success of our business. We take active measures to obtain protection of our intellectual property by obtaining patents and undertaking monitoring activities in our major markets. However, we cannot assure you that the measures we take will effectively deter competitors from improper use of our proprietary technologies. Our competitors may misappropriate our intellectual property, disputes as to ownership of intellectual property may arise and our intellectual property may otherwise become known or independently developed by our competitors. Any failure to protect our intellectual property could impair our competitiveness and harm our business and future prospects.

We rely on trade secrets and other unpatented proprietary know-how to maintain our competitive position, and unauthorized disclosure of our trade secrets or other unpatented proprietary know-how could negatively affect our business.

We rely on trade secrets and unpatented proprietary know-how and information. We enter into confidentiality agreements with each of our employees and consultants upon the commencement of an employment or consulting relationship. These agreements generally provide that all inventions, ideas, discoveries, improvements and patentable material made or conceived by the individual arising out of the employment or consulting relationship and all confidential information developed or made known to the individual during the term of the relationship is our exclusive property. We cannot assure the enforceability of these types of agreements, or that they will not be breached. We also cannot be certain that we will have adequate remedies for any breach. The disclosure of our trade secrets or other know-how as a result of such a breach could adversely affect our business.

We face the risk of litigation proceedings relating to infringement of intellectual property rights of third parties, which, if determined adversely to us, could cause us to lose significant rights, pay significant damage awards or suspend the sale of certain products.

Our success depends largely on our ability to develop and use our technology and know-how in a proprietary manner without infringing the intellectual property rights of third parties. The validity and scope of claims relating to technology and patents involve complex scientific, legal and factual questions and analysis and, therefore, may be highly uncertain. In addition, because patent applications in many jurisdictions are kept confidential for an extended period before they are published, we may be unaware of other persons' pending patent applications that relate to our products or manufacturing processes. Accordingly, we face the risk of litigation proceedings relating to infringement of intellectual property rights of third parties.

The plaintiffs in actions relating to infringement of intellectual property rights typically seek injunctions and substantial damages. Although patent and other intellectual property disputes are often settled through licensing or similar arrangements, there can be no assurance that such licenses can be obtained on acceptable terms or at all. Accordingly, regardless of the scope or validity of disputed patents or the merits of any patent infringement claims by potential or actual litigants, we may have to engage in protracted litigation. The defense and prosecution of intellectual property suits, patent opposition proceedings and related legal and administrative proceedings can be both costly and time consuming and may significantly divert the efforts and resources of our technical and management personnel. An adverse determination in any such litigation or proceedings could subject us to pay substantial damages to third parties, require us to seek licenses from third parties and pay ongoing royalties or redesign certain products, or subject us to injunctions prohibiting the manufacture and sale of our products or the use of technologies in certain jurisdictions. The occurrence of any of the foregoing could have a material adverse effect on our reputation, business, financial condition and results of operations.

We may be exposed to potential claims for unpaid wages and become subject to additional labor costs arising from the Supreme Court of Korea's interpretation of ordinary wages.

Under the Labor Standards Act, an employee's "ordinary wage" is used as the basis for calculating various statutory benefits. Prior to the Supreme Court of Korea's decision described below, we and other companies in Korea had interpreted the previous guidelines issued by the Ministry of Employment and Labor as excluding fixed bonuses that are paid other than on a monthly basis, such as bi monthly, quarterly or biannually paid bonuses, from employees' ordinary wages.

In December 2013, the Supreme Court of Korea ruled that regularly paid bonuses, including those that are paid other than on a monthly basis, are included in the scope of employees' ordinary wages if these bonuses are paid (i) "regularly," (ii) "uniformly" and (iii) on a "fixed basis," notwithstanding differential amounts based on seniority. Under this decision, any provision of a collective bargaining agreement or other agreements that attempt to exclude such regular bonuses from employees' ordinary wages will be deemed void for violation of the mandatory provisions of Korean law.

The Supreme Court of Korea's decision clarified that if payment of a regular bonus is limited only to those working for the employer on a specific date, such bonus is not fixed and thus does not constitute part of an employee's ordinary wage. The Ministry of Employment and Labor subsequently published guidelines in January 2014 (the "Guidelines"). According to the Guidelines, the Government excludes, from ordinary wages, regular bonuses contingent on employment on a specific date. Based on the Supreme Court of Korea's decision and the Guidelines, we believe that regular bonuses we have paid to our employees are likely not required to be included in their ordinary wages because we have paid regular bonuses only to those working for us on the date of payment calculation, the 15th day of each month. However, if we are nonetheless determined to have underpaid employees by under-calculating their ordinary wages over the past three years or in the future, we may be liable for additional payments reflecting the expanded scope of employees' ordinary wages. Any such additional payments may have an adverse effect on our financial condition and results of operations.

Escalations in tensions with North Korea could have an adverse effect on us and the market value of our common shares and ADSs.

Relations between Korea and North Korea have been tense throughout Korea's modern history. The level of tension between the two Koreas has fluctuated and may increase abruptly as a result of current and future events. In particular, there have been heightened security concerns in recent years stemming from North Korea's nuclear weapon and ballistic missile programs as well as its hostile military actions against Korea. Some of the significant incidents in recent years include the following:

- North Korea renounced its obligations under the Nuclear Non-Proliferation Treaty in January 2003 and conducted six rounds of nuclear tests since October 2006, including claimed detonations of hydrogen bombs, which are more powerful than plutonium bombs, and warheads that can be mounted on ballistic missiles. Over the years, North Korea has also conducted a series of ballistic missile tests, including missiles launched from submarines and intercontinental ballistic missiles that it claims can reach the United States mainland. In response, the Government has repeatedly condemned the provocations and flagrant violations of relevant United Nations Security Council resolutions. In February 2016, the Government also closed the inter-Korea Gaesong Industrial Complex in response to North Korea's fourth nuclear test in January 2016. Internationally, the United Nations Security Council has passed a series of resolutions condemning North Korea's actions and significantly expanding the scope of sanctions applicable to North Korea, most recently in

December 2017 in response to North Korea's intercontinental ballistic missile test in November 2017. Over the years, the United States and the European Union have also expanded their sanctions applicable to North Korea.

- In March 2010, a Korean naval vessel was destroyed by an underwater explosion, killing many of the crewmen on board. The Government formally accused North Korea of causing the sinking, while North Korea denied responsibility. Moreover, in November 2010, North Korea fired more than one hundred artillery shells that hit Korea's Yeonpyeong Island near the Northern Limit Line, which acts as the de facto maritime boundary between Korea and North Korea on the west coast of the Korean peninsula, causing casualties and significant property damage. The Government condemned North Korea for the attack and vowed stern retaliation should there be further provocation.

North Korea's economy also faces severe challenges, which may further aggravate social and political pressures within North Korea.

Although bilateral summit meetings were held between Korea and North Korea in April, May and September 2018 and between the United States and North Korea in June 2018, February 2019 and June 2019, there can be no assurance that the level of tensions affecting the Korean peninsula will not escalate in the future. Any increase in tensions, which may occur, for example, if North Korea experiences a leadership crisis, high-level contacts between Korea or the United States and North Korea break down or further military hostilities occur, could have a material adverse effect on the Korean economy and on our business, financial condition and results of operations and the market value of our common stock and ADSs.

If you surrender your ADRs to withdraw shares of our common stock, you may not be allowed to deposit the shares again to obtain ADRs.

Under the deposit agreement, holders of shares of our common stock may deposit those shares with the ADR depositary's custodian in Korea and obtain ADRs, and holders of ADRs may surrender ADRs to the ADR depositary and receive shares of our common stock. However, under current Korean laws and regulations, the depositary bank is required to obtain our prior consent for the number of shares to be deposited in any given proposed deposit that exceeds the difference between (i) the aggregate number of shares deposited by us for the issuance of ADSs (including deposits in connection with the initial and all subsequent offerings of ADSs and stock dividends or other distributions related to these ADSs) and (ii) the number of shares on deposit with the depositary bank at the time of such proposed deposit. It is possible that we may not give the consent. As a result, if you surrender ADRs and withdraw shares of common stock, you may not be able to deposit the shares again to obtain ADRs. See "Item 10. Additional Information — Item 10.D. Exchange Controls."

You may not be able to exercise preemptive rights for additional shares of common stock and may suffer dilution of your equity interest in us.

The Commercial Code and our articles of incorporation require us, with some exceptions, to offer shareholders the right to subscribe for new shares in proportion to their existing ownership percentage whenever new shares are issued. If we issue new shares to persons other than our shareholders (See "Item 10.B. Memorandum and Articles of Association — Preemptive Rights and Issuance of Additional Shares"), a holder of our ADSs will experience dilution of such holding. If none of these exceptions is available, we will be required to grant preemptive rights when issuing additional common shares under Korean law. Under the deposit agreement governing the ADSs, if we offer any rights to subscribe for additional shares of our common stock or any rights of any other nature, the ADR depositary, after consultation with us, may make the rights available to you or use reasonable efforts to dispose of the rights on your behalf and make the net proceeds available to you. The ADR depositary, however, is not required to make available to you any rights to purchase any additional shares unless it deems that doing so is lawful and feasible and:

- a registration statement filed by us under the Securities Act is in effect with respect to those shares; or
- the offering and sale of those shares is exempt from or is not subject to the registration requirements of the Securities Act.

We are under no obligation to file any registration statement under the Securities Act to enable you to exercise preemptive rights in respect of the common shares underlying the ADSs, and we cannot assure you that any registration statement would be filed or that an exemption from the registration requirement under the Securities Act would be available. Accordingly, if a registration statement is required for you to exercise preemptive rights but is not filed by us, you will not be able to exercise your preemptive rights for additional shares and may suffer dilution of your equity interest in us.

U.S. investors may have difficulty enforcing civil liabilities against us and our directors and senior management.

We are incorporated in Korea with our principal executive offices located in Seoul. The majority of our directors and senior management are residents of jurisdictions outside the United States, and the majority of our assets and the assets of such persons are located outside the United States. As a result, U.S. investors may find it difficult to effect service of process within the United States upon us or such persons or to enforce outside the United States judgments obtained against us or such persons in U.S. courts, including actions predicated upon the civil liability provisions of the U.S. federal securities laws. It may also be difficult for an investor to enforce in U.S. courts judgments obtained against us or such persons in courts in jurisdictions outside the United States, including actions predicated upon the civil liability provisions of the U.S. federal securities laws. It may also be difficult for a U.S. investor to bring an action in a Korean court predicated upon the civil liability provisions of the U.S. federal securities laws against our directors and senior management and non-U.S. experts named in this annual report.

We expect to continue operations and investments relating to countries targeted by United States and European Union economic sanctions.

The U.S. Department of the Treasury's Office of Foreign Assets Control, or "OFAC," enforces certain laws and regulations ("OFAC Sanctions") that impose restrictions upon U.S. persons and, in some instances, foreign entities owned or controlled by U.S. persons, with respect to activities or transactions with certain countries, governments, entities and individuals that are the subject of OFAC Sanctions ("U.S. Sanctions Targets"). U.S. persons are also generally strictly prohibited from facilitating such activities or transactions. Similarly, the European Union enforces certain laws and regulations ("E.U. Sanctions") that impose restrictions upon nationals of E.U. member states, persons located within E.U. member states, entities incorporated or constituted under the law of an E.U. member state, or business conducted in whole or in part in E.U. member states with respect to activities or transactions with certain countries, governments, entities and individuals that are the subject of E.U. Sanctions ("E.U. Sanctions Targets" and together with U.S. Sanctions Targets, "Sanctions Targets"). E.U. persons are also generally prohibited from activities that promote such activities or transactions.

We engage in limited business activities in countries that are deemed Sanctions Targets, including Iran and Cuba. We produce and export, typically through our sales subsidiaries, steel products to such countries, including automotive steel sheets and other steel materials to Iranian entities. Our subsidiaries also engage in limited business activities in countries that are deemed Sanctions Targets. In particular, POSCO Coated & Color Steel Co., Ltd. ("POSCO Coated & Color Steel") engages in sales of coated steel sheets with entities in Iran. We believe that such activities and investments do not involve any U.S. goods or services. Our activities in Iran and Cuba accounted for approximately 0.3% of our consolidated revenues in 2018, 0.01% in 2019 and 0.00005% in 2020. POSCO Coated & Color Steel also holds a 70% interest in Myanmar POSCO C&C Co., Ltd. ("Myanmar POSCO C&C"), a joint venture with Myanma Economic Holdings Public Company Limited that was designated as a U.S. Sanctions Target by OFAC on March 25, 2021. Myanmar POSCO C&C engages in the production and sale of coated steel roofing sheets in Myanmar, and its sales accounted for approximately 0.03% of our consolidated revenues in 2018, 0.04% in 2019 and 0.05% in 2020. POSCO Coated & Color Steel is currently reassessing the future of this joint venture.

We expect to continue to engage in business activities and make investments in countries that are deemed Sanctions Targets over the foreseeable future. Although we believe that OFAC Sanctions under their current terms are not applicable to our current activities, our reputation may be adversely affected, and some of our U.S. investors may be required to divest their investments in us under the laws of certain U.S. states or under internal investment policies or may decide for reputational reasons to divest such investments. We are aware of initiatives by U.S. governmental entities and U.S. institutional investors, such as pension funds, to adopt or consider adopting laws, regulations or policies prohibiting transactions with or investment in, or requiring divestment from, entities doing business with countries identified as state sponsors of terrorism. We cannot assure you that the foregoing will not occur or that such occurrence will not have a material adverse effect on the value of our securities.

Uncertainty relating to benchmark regulation reforms may adversely affect our securities linked to a benchmark.

The London Interbank Offered Rate ("LIBOR") and the Euro Interbank Offered Rate ("EURIBOR") and other indices which are deemed to be "benchmarks" are the subject of recent national, international and other regulatory guidance and proposals for reform. Some of these reforms are already effective while others have yet to be implemented. These reforms may cause such benchmarks to perform differently than in the past, or to disappear entirely, or have other consequences which cannot be predicted. Any such consequence could have a material adverse effect on any securities linked to such benchmarks.

Regulation (EU) 2016/1011 (the "Benchmark Regulation") was published in the Official Journal of the European Union on June 29, 2016 and has been in force since January 1, 2018. The Benchmark Regulation applies to the provision of benchmarks, the contribution of input data to a benchmark and the use of a benchmark, within the European Union. Among other things, (i) it requires benchmark administrators (such as ICE Benchmark Administration Limited and the European Money Market Institute, which currently administer LIBOR and EURIBOR, respectively) to be authorized or registered (or, if non-European Union based, to be subject to an equivalent regime or otherwise recognized or endorsed) and (ii) it prevents certain uses by European Union-supervised entities of benchmarks of administrators that are not authorized or registered (or, if non-European Union based, not deemed equivalent or recognized or endorsed). In March 2021, the U.K. Financial Conduct Authority (the "FCA"), which has regulatory authority with respect to LIBOR, announced that all LIBOR settings will either cease to be provided by any administrator or no longer be representative (i) after December 31, 2021 in the case of all Sterling, Euro, Swiss Franc and Japanese Yen settings and the one-week and two-month Dollar settings and (ii) after June 30, 2023 in the case of remaining Dollar settings. While the ICE Benchmark Administration may publish certain LIBOR settings on the basis of a synthetic methodology for "tough legacy" contracts, there is no guarantee that such rates will be determined and published after the announced deadlines nor confirmed to be representative by the FCA.

The Benchmark Regulation could have a material impact on any securities linked to a rate or index deemed to be a benchmark, in particular, if the methodology or other terms of the benchmark are changed in order to comply with the requirements of the Benchmark Regulation. Such changes could, among other things, have the effect of reducing, increasing or otherwise affecting the volatility of the published rate or level of the benchmark. More broadly, any of the international, national or other proposals for reform, or the general increased regulatory scrutiny of benchmarks, could increase the costs and risks of administering or otherwise participating in the setting of a benchmark and complying with any such regulations or requirements.

Such factors may have the following effects on certain benchmarks: (i) discourage market participants from continuing to administer or contribute to such benchmark; (ii) trigger changes in the rules or methodologies used in the benchmarks or (iii) lead to the disappearance of the benchmark. Any of the above changes or any other consequential changes as a result of international, national or other proposals for reform or other initiatives or investigations, could have a material adverse effect on the value of and return on any securities linked to a benchmark. Moreover, if a benchmark ceases to be calculated or administered and no replacement base rate is identified or selected, the fallback provisions for the interest rate calculations under the securities may result in interest accruing at a fixed rate based on the rate which applied in the previous period when the benchmark was available, effectively converting the securities into fixed rate securities.

U.S. investors could be subject to adverse U.S. federal income tax consequences if we are treated as a passive foreign investment company ("PFIC") for any taxable year during which they hold our common stock of ADSs.

We will be classified as a PFIC for U.S. federal income tax purposes if, for any taxable year, either (i) 75 percent or more of our gross income for the taxable year is passive income or (ii) at least 50 percent of the average gross quarterly value of our assets is attributable to assets that produce or are held for the production of passive income. The determination of whether we are a PFIC must be made annually based on the facts and circumstances at the relevant time, some of which may be beyond our control, including the valuation of our assets as implied by the market price for our common stock or ADSs. Accordingly, it is possible that we could become a PFIC.

If we were to be classified as a PFIC in any taxable year during which a U.S. holder (as defined in "Item 10.E. Taxation — United States Taxation") holds our common stock or ADSs, such U.S. holder could be subject to a special tax at ordinary income rates on "excess distributions," including certain distributions by us and gain that the U.S. holder recognizes on the sale of our common stock or ADSs. The amount of income tax on any excess distributions would be increased by an interest charge to compensate for tax deferral, calculated as if the excess distributions were earned ratably over the period the U.S. holder held the common stock or ADSs. See "Item 10.E. Taxation — United States Taxation — Shares of Common Stock and ADSs — Passive Foreign Investment Company Rules."

This annual report contains "forward-looking statements" that are subject to various risks and uncertainties.

This annual report contains "forward-looking statements" that are based on our current expectations, assumptions, estimates and projections about our company and our industry. The forward-looking statements are subject to various risks and uncertainties. These forward-looking statements include, but are not limited to, those statements using words such as "anticipate," "believe," "continues," "expect," "estimate," "intend," "project," "aim," "plan," "likely to," "target," "contemplate," "predict," "potential" and similar expressions and future or conditional verbs such as "will," "would," "should," "could," "might," "can," "may," or similar expressions generally intended to identify forward-looking statements. Those statements include, among other things, the discussions of our business strategy and expectations concerning our market position, future operations, margins, profitability, liquidity and capital resources. We caution you that reliance on any forward-looking statement involves risks and uncertainties, and that although we believe that the assumptions on which our forward-looking statements are based are reasonable, any of those assumptions could prove to be inaccurate, and, as a result, the forward-looking statements based on those assumptions could be incorrect. The uncertainties in this regard include, but are not limited to, those identified in the risk factors discussed above. In light of these and other uncertainties, you should not conclude that we will necessarily achieve any plans and objectives or projected financial results referred to in any of the forward-looking statements. We do not undertake to release the results of any revisions of these forward-looking statements to reflect future events or circumstances.

Item 4. *Information on the Company*

Item 4.A. *History and Development of the Company*

We were established by the Government on April 1, 1968, under the Commercial Code, to manufacture and distribute steel rolled products and plates in the domestic and overseas markets. The Government owned more than 70% of our equity until 1988, when the Government reduced its ownership of our common stock to 35% through a public offering and listing our shares on the KRX KOSPI Market. In December 1998, the Government sold all of our common stock it owned directly, and The Korea Development Bank completed the sale of our shares that it owned in September 2000. The Government no longer holds any direct interest in us, and our outstanding common stock is currently held by individuals and institutions. See "Item 7. Major Shareholders and Related Party Transactions — Item 7A. Major Stockholders."

Our legal and commercial name is POSCO. Our principal executive offices are located at POSCO Center, 440 Teheran-ro, Gangnam-gu, Seoul, Korea 06194, and our telephone number is +82-2-3457-0114. The address of our English website is *http://www.posco.com*.

The SEC maintains a website (*http://www.sec.gov*), which contains reports, information statements and other information regarding issuers that file electronically with the SEC.

Item 4.B. *Business Overview*

The Company

We are the largest fully integrated steel producer in Korea, and one of the largest steel producers in the world, based on annual crude steel production. We produced approximately 40.6 million tons of crude steel and stainless steel in 2020, a substantial portion of which was produced at Pohang Works and Gwangyang Works. As of December 31, 2020, we had approximately 45.3 million tons of annual crude steel and stainless steel production capacity, including 40.7 million tons of production capacity in Korea. We believe Pohang Works and Gwangyang Works are two of the most technologically advanced integrated steel facilities in the world. We manufacture and sell a diversified line of steel products, including cold rolled and hot rolled products, stainless steel products, plates, wire rods and silicon steel sheets, and we are able to meet a broad range of customer needs from manufacturing industries that consume steel, including automotive, shipbuilding, home appliance, engineering and machinery industries.

Korea is our most important market. Domestic sales accounted for 38.6% of our total revenue from steel products produced and sold by us in 2020 and 37.3% in 2019. On a non-consolidated basis, we believe that our steel products constituted approximately 51% of the total sales volume of such steel products sold in Korea in 2020 and approximately 48% in 2019. Our export sales and overseas sales to customers abroad accounted for 61.4% of our total revenue from steel products produced and sold by us in 2020 and 62.7% in 2019. Our major export market is Asia, with China accounting for 35.8%, Asia other than China and Japan accounting for 20.4%, and Japan accounting for 9.3% of our total steel export revenue from steel products produced and exported by us in 2020, and China accounting for 29.3%, Asia other than China and Japan accounting for 22.5%, and Japan accounting for 10.8% of our total steel export revenue from steel products produced and exported by us in 2019.

We also engage in businesses that complement our steel manufacturing operations as well as carefully seek out promising investment opportunities to diversify our businesses both vertically and horizontally, in part to prepare for the eventual maturation of the Korean steel market. POSCO International is a global trading company that primarily engages in trading of steel and raw materials as well as investing in energy and mineral development projects throughout the world. POSCO E&C is one of the leading engineering and construction companies in Korea that primarily engages in the planning, design and construction of industrial plants and architectural works and civil engineering. POSCO Energy Corporation is the largest private power generation company in Korea.

We generated revenue of Won 57,467 billion and profit of Won 1,748 billion in 2020, compared to revenue of Won 64,786 billion and profit of Won 2,038 billion in 2019. We had total assets of Won 79,684 billion and total equity of Won 47,604 billion as of December 31, 2020, compared to total assets of Won 79,371 billion and total equity of Won 47,763 billion as of December 31, 2019.

Major Products

We manufacture and sell a broad line of steel products, including the following:

- cold rolled products;
- hot rolled products;
- stainless steel products;
- plates;
- wire rods; and
- silicon steel sheets.

The table below sets out our revenue of steel products produced by us and directly sold to external customers which are recognized as external revenue of the Steel Segment, by major steel product categories for the periods indicated. Such amounts do not include steel products produced by us and sold to our consolidated subsidiaries (including POSCO International).

	For the Year Ended December 31,					
	2018		2019		2020	
Steel Products	**Billions of Won**	**%**	**Billions of Won**	**%**	**Billions of Won**	**%**
Cold rolled products	₩ 10,585	32.7%	₩ 10,057	31.4%	₩ 8,539	29.6%
Hot rolled products	5,620	17.4	5,252	16.4	5,148	17.8
Stainless steel products	6,624	20.5	6,956	21.7	6,779	23.5
Plates	3,587	11.1	4,070	12.7	3,128	10.8
Wire rods	1,882	5.8	1,749	5.5	1,489	5.2
Silicon steel sheets	1,012	3.1	923	2.9	1,118	3.9
Sub-total	29,309	90.6	29,007	90.6	26,201	90.7
Others	3,049	9.4	3,070	9.4	2,692	9.3
Total	₩ 32,358	100.0%	₩ 32,078	100.0%	₩ 28,893	100.0%

The table below sets out our sales volume of the principal categories of steel products produced by us and directly sold to external customers, which are recognized as external sales volume of the Steel Segment, by major steel product categories for the periods indicated. Such amounts do not include steel products produced by us and sold to our consolidated subsidiaries (including POSCO International).

	For the Year Ended December 31,					
	2018		2019		2020	
Steel Products	**Thousands of Tons**	**%**	**Thousands of Tons**	**%**	**Thousands of Tons**	**%**
Cold rolled products	12,300	39.2%	11,196	36.9%	10,341	35.4%
Hot rolled products	8,153	26.0	7,891	26.0	8,237	28.2
Stainless steel products	2,853	9.1	2,973	9.8	2,990	10.2
Plates	4,957	15.8	5,399	17.8	4,768	16.3
Wire rods	2,227	7.1	2,095	6.9	1,955	6.7
Silicon steel sheets	892	2.8	816	2.7	886	3.0
Total (1)	31,381	100.0%	30,369	100.0%	29,177	100.0%

(1) Not including sales volume of steel products categorized under "others."

In addition to steel products produced by us and directly sold to external customers, we engage our consolidated sales subsidiaries (including POSCO International) to sell our steel products produced by us. Our revenue from steel products produced by us and sold to our consolidated sales subsidiaries that in turn sold them to their external customers amounted to Won 7,492 billion in 2018, Won 7,740 billion in 2019 and Won 7,018 billion in 2020. Sales of such steel products by our consolidated sales subsidiaries to external customers are recognized as external revenue of the Trading Segment.

Cold Rolled Products

Cold rolled coils and further refined galvanized cold rolled products are used mainly in the automotive industry to produce car body panels. Other users include the household goods, electrical appliances, engineering and metal goods industries.

Our deliveries of cold rolled products produced by us and directly sold to external customers amounted to 10.3 million tons in 2020, representing 35.4% of our total sales volume of principal steel products produced by us and directly sold to external customers.

Cold rolled products constitute our largest product category in terms of sales volume and revenue from steel products produced by us and directly sold to external customers. In 2020, our sales volume of cold rolled products produced by us and directly sold to external customers decreased by 7.6% compared to our sales volume in 2019 primarily due to decreases in sales of cold rolled products manufactured and sold by our subsidiaries in Mexico, India and Thailand as a result of the ongoing global COVID-19 pandemic.

Including sales of cold rolled products produced by us and sold through our consolidated sales subsidiaries in addition to cold rolled products produced by us and directly sold to external customers, we believe we had a domestic market share for cold rolled products of approximately 64% on a non-consolidated basis in 2020.

Hot Rolled Products

Hot rolled coils and sheets have many different industrial applications. They are used to manufacture structural steel used in the construction of buildings, industrial pipes and tanks, and automobile chassis. Hot rolled coil is also manufactured in a wide range of widths and thicknesses as the feedstock for higher value-added products such as cold rolled products and silicon steel sheets.

Our deliveries of hot rolled products produced by us and directly sold to external customers amounted to 8.2 million tons in 2020, representing 28.2% of our total sales volume of principal steel products produced by us and directly sold to external customers. The largest customers of our hot rolled products are downstream steelmakers in Korea which use the products to manufacture pipes and cold rolled products.

Hot rolled products constitute our second largest product category in terms of sales volume and third largest product category in terms of revenue from steel products produced by us and directly sold to external customers. In 2020, our sales volume of hot rolled products produced by us and directly sold to external customers increased by 4.4% compared to our sales volume in 2019 primarily due to an increase in sales of hot rolled products manufactured and sold by our subsidiaries in China.

Including sales of hot rolled products produced by us and sold through our consolidated sales subsidiaries in addition to hot rolled products produced by us and directly sold to external customers, we believe we had a domestic market share for hot rolled products of approximately 55% on a non-consolidated basis in 2020.

Stainless Steel Products

Stainless steel products are used to manufacture household goods and are also used by the chemical industry, paper mills, the aviation industry, the automotive industry, the construction industry and the food processing industry.

Our deliveries of stainless steel products produced by us and directly sold to external customers amounted to 3.0 million tons in 2020, representing 10.2% of our total sales volume of principal steel products produced by us and directly sold to external customers.

Stainless steel products constitute our second largest product category in terms of revenue from steel products produced by us and directly sold to external customers. Although sales of stainless steel products accounted for only 10.2% of total sales volume of the principal steel products produced by us and directly sold to external customers in 2020, they represented 23.5% of our total revenue from steel products in 2020. In 2020, our sales volume of stainless steel products produced by us and directly sold to external customers increased by 0.6% compared to our sales volume in 2019 primarily due to an increase in sales of stainless steel products manufactured and sold by POSCO (Zhangjiagang) Stainless Steel Co., Ltd. ("POSCO (Zhangjiagang)" and formerly known as Zhangjiagang Pohang Stainless Steel Co., Ltd.).

Including sales of stainless steel products produced by us and sold through our consolidated sales subsidiaries in addition to stainless steel products produced by us and directly sold to external customers, we believe we had a domestic market share for stainless steel products of approximately 41% on a non-consolidated basis in 2020.

Plates

Plates are used in shipbuilding, structural steelwork, offshore oil and gas production, power generation, mining, and the manufacture of earth-moving and mechanical handling equipment, boiler and pressure vessels and other industrial machinery.

Our deliveries of plates produced by us and directly sold to external customers amounted to 4.8 million tons in 2020, representing 16.3% of our total sales volume of principal steel products produced by us and directly sold to external customers. The Korean shipbuilding industry, which uses plates to manufacture chemical tankers, rigs, bulk carriers and containers, and the construction industry are our largest customers of plates.

In 2020, our sales volume of plates produced by us and directly sold to external customers decreased by 11.7% compared to our sales volume in 2019 primarily due to a decrease in sales of plates manufactured and sold by our subsidiaries in Southeast Asia as a result of the ongoing global COVID-19 pandemic.

Including sales of plates produced by us and sold through our consolidated sales subsidiaries in addition to plates produced by us and directly sold to external customers, we believe we had a domestic market share for plates of approximately 50% on a non-consolidated basis in 2020.

Wire Rods

Wire rods are used mainly by manufacturers of wire, fasteners, nails, bolts, nuts and welding rods. Wire rods are also used in the manufacture of coil springs, tension bars and tire cords in the automotive industry.

Our deliveries of wire rods produced by us and directly sold to external customers amounted to 2.0 million tons in 2020, representing 6.7% of our total sales volume of principal steel products produced by us and directly sold to external customers. The largest customers for our wire rods are manufacturers of wire ropes and fasteners.

In 2020, our sales volume of wire rods produced by us and directly sold to external customers decreased by 6.7% compared to 2019 primarily due to a decrease in sales of wire rods manufactured and sold by our subsidiaries in India as a result of the ongoing global COVID-19 pandemic.

Including sales of wire rods produced by us and sold through our consolidated sales subsidiaries in addition to wire rods produced by us and directly sold to external customers, we believe we had a domestic market share for wire rods of approximately 60% on a non-consolidated basis in 2020.

Silicon Steel Sheets

Silicon steel sheets are used mainly in the manufacture of power transformers and generators and rotating machines.

Our deliveries of silicon steel sheets produced by us and directly sold to external customers amounted to 0.9 million tons in 2020, representing 3.0% of our total sales volume of principal steel products produced by us and directly sold to external customers.

In 2020, our sales volume of silicon steel sheets produced by us and directly sold to external customers increased by 8.6% compared to 2019 primarily due to an increase in sales of silicon steel sheets manufactured and sold by our subsidiaries in China.

Including sales of silicon steel sheets produced by us and sold through our consolidated sales subsidiaries in addition to silicon steel sheets produced by us and directly sold to external customers, we believe we had a domestic market share for silicon steel sheets of approximately 80% on a non-consolidated basis in 2020.

Others

Other products include lower value-added semi-finished products such as pig iron, billets, blooms and slab.

Markets

Korea is our most important market. Domestic sales represented 38.6% of our total revenue from steel products produced and sold by us in 2020. Our export sales and overseas sales to customers abroad represented 61.4% of our total revenue from steel products in 2020. Our sales strategy has been to devote our production primarily to satisfy domestic demand, while seeking export sales to utilize capacity to the fullest extent and to expand our international market presence.

Domestic Market

We primarily sell in Korea higher value-added and other finished products to end-users and semi-finished products to other steel manufacturers for further processing. Local distribution companies and sales affiliates sell finished steel products to low-volume customers. We provide service technicians for large customers and distributors in each important product area.

The table below sets out our estimate of the market share of our steel products in Korea for the periods indicated based on sales volume.

	For the Year Ended December 31,		
Source	**2018**	**2019**	**2020**
POSCO's sales [(1)]	49.2%	48.1%	51.0%
Other domestic steel companies' sales	27.9	27.0	29.2
Imports	22.9	24.9	19.8
Total	100.0%	100.0%	100.0%

(1) POSCO's sales volume includes steel products produced by us (but not by our subsidiaries) and sold through our consolidated sales subsidiaries in addition to steel products produced by us (but not by our subsidiaries) and directly sold to external customers.

Exports

Our export sales and overseas sales to customers abroad represented 61.4% of our total revenue from steel products produced and sold by us in 2020, 65.5% of which was generated from exports sales and overseas sales to customers in Asian countries. Our export sales and overseas sales to customers abroad in terms of revenue from such products decreased by 11.7% from Won 24,971 billion in 2019 to Won 22,056 billion in 2020.

The tables below set out our export sales and overseas sales to customers abroad in terms of revenue from steel products produced and sold by us (including our consolidated sales subsidiaries), by geographical market and by product for the periods indicated.

	For the Year Ended December 31,					
	2018		2019		2020	
Region	**Billions of Won**	**%**	**Billions of Won**	**%**	**Billions of Won**	**%**
China	₩ 7,097	28.9%	₩ 7,322	29.3%	₩ 7,888	35.8%
Asia (other than China and Japan)	5,749	23.4	5,622	22.5	4,506	20.4
Japan	2,530	10.3	2,686	10.8	2,052	9.3
Europe	2,212	9.0	2,662	10.7	2,324	10.5
Middle East	204	0.8	271	1.1	189	0.9
North America	1,861	7.6	1,858	7.4	1,315	6.0
Others	4,898	19.9	4,551	18.2	3,782	17.1
Total	₩ 24,551	100.0%	₩ 24,971	100.0%	₩ 22,056	100.0%

	For the Year Ended December 31,					
	2018		2019		2020	
Steel Products	**Billions of Won**	**%**	**Billions of Won**	**%**	**Billions of Won**	**%**
Cold rolled products	₩ 10,499	42.8%	₩ 9,949	39.8%	₩ 8,011	36.3%
Hot rolled products	2,738	11.2	3,159	12.6	3,115	14.1
Stainless steel products	5,661	23.1	5,918	23.7	5,410	24.5
Plates	1,812	7.4	2,128	8.5	1,859	8.4
Wire rods	677	2.8	729	2.9	683	3.1
Silicon steel sheets	1,021	4.2	988	4.0	999	4.5
Others	2,143	8.7	2,101	8.4	1,979	9.0
Total	₩ 24,551	100.0%	₩ 24,971	100.0%	₩ 22,056	100.0%

We distribute our export products mostly through Korean trading companies, including POSCO International, and our overseas sales subsidiaries. Our largest export market in 2020 was China, which accounted for 35.8% of our export revenue from steel products produced and sold by us. The principal products exported to China were cold rolled products, including continuous galvanized products. Our exports to China increased by 7.7% from Won 7,322 billion in 2019 to Won 7,888 billion in 2020 primarily due to increases in sales of silicon steel sheets, stainless steel products and hot rolled products to steel processing companies in China.

Our second largest export market in 2020 was Asia (other than China and Japan), which accounted for 20.4% of our export revenue from steel products produced and sold by us. The principal products exported to Asia (other than China and Japan) were cold rolled products, including continuous galvanized products. Our exports to Asia (other than China and Japan) decreased by

19.9% from Won 5,622 billion in 2019 to Won 4,506 billion in 2020 primarily due to decreases in sales of steel products in Vietnam.

Anti-Dumping, Safeguard and Countervailing Duty Proceedings

From time to time, our exporting activities have become subject to anti-dumping, safeguard and countervailing proceedings. As a steel producer with global sales and operations, we are involved in trade remedy proceedings in markets worldwide, including in the United States. We actively participate in such proceedings to minimize any adverse effects and associated risks. While there has been an increase in the number of trade cases in recent years, and an increased focus on trade issues by government officials, such cases have been limited in scope relative to our global sales and operations. We continue to carefully monitor developments with respect to trade remedy policy in all markets in which we participate and, where necessary, vigorously defend our rights through litigation before tribunals such as the U.S. Court of International Trade. Our products that are subject to anti-dumping duties, safeguard duties, countervailing duties, quotas or tariffs in the aggregate currently have not had a material adverse impact on our business and operations in recent years.

Pricing Policy

We determine the sales price of our products based on market conditions, taking into consideration production outlook of the global steel industry and global economic conditions in general. In setting prices, we take into account our costs, including those of raw materials, supply and demand in the Korean market, exchange rates, and conditions in the international steel market. Our prices can fluctuate considerably over time, depending on market conditions and other factors. The prices of our higher value-added steel products in the largest markets are determined considering the prices of similar products charged by our competitors.

Raw Materials

Steel Production

The principal raw materials used in producing steel through the basic oxygen steelmaking method are iron ore and coal. We require approximately 1.7 tons of iron ore and 0.7 tons of coal to produce one ton of steel. We import all of the coal and virtually all of the iron ore that we use. In 2020, POSCO imported approximately 51 million dry metric tons of iron ore and 27 million wet metric tons of coal. Iron ore is imported primarily from Australia, Brazil and Canada. Coal is imported primarily from Australia, Canada and Russia.

We purchase a substantial portion of our iron ore and coal imports pursuant to long-term contracts. Our long-term supply contracts generally have terms of three to ten years and provide for periodic price adjustments to the then-market prices. We typically adjust the prices on a quarterly basis and maintain approximately one month of inventory of raw materials. Such price adjustments are driven by various factors, including the global economic outlook, global market prices of raw materials and steel products, supply and demand outlook of raw materials and production costs of raw materials. For both coal and iron ore, we typically agree on the purchase price with the suppliers primarily based on the spot market price periodically announced by Platts (Premium Low Vol Coking Coal, FOB Australia Index and Iron Ore 62% Fe, CFR China Index). We or the suppliers may cancel the long-term contracts only if performance under the contracts is prevented by causes beyond our or their control and these causes continue for a specified period.

We also engage in exploration and production projects abroad to enhance our ability to meet the requirements for high-quality raw materials, by acquiring mining rights of raw materials or by investing in projects either as part of a consortium or through an acquisition of a minority interest. In 2020, we purchased approximately 44% of our iron ore imports and 21% of our coal imports from foreign mines in which we have made investments. Our major investments to procure supplies of coal, iron ore and nickel are primarily located in Australia, Brazil, New Caledonia and Canada. We will continue to selectively seek opportunities to enter into additional strategic relationships that would enhance our ability to meet the requirements for principal raw materials.

The average market price of coal per wet metric ton (Premium Low Vol Coking Coal, FOB Australia Index announced by Platts) was US$207 in 2018, US$176 in 2019 and US$124 in 2020. The average market price of iron ore per dry metric ton (Iron Ore 62% Fe, CFR China Index announced by Platts) was US$69 in 2018, US$93 in 2019 and US$109 in 2020. We currently do not depend on any single country or supplier for our coal or iron ore.

Stainless Steel Production

The principal raw materials for the production of stainless steel are ferronickel, ferrochrome and stainless steel scrap. We purchase a majority of our ferronickel primarily from suppliers in Korea that procure nickel ore from New Caledonia, and the remainder primarily from leading suppliers in Indonesia, Japan and Ukraine. Our primary suppliers of ferrochrome are located in South Africa, India and Kazakhstan. Our stainless steel scraps are primarily supplied by domestic and overseas suppliers in Japan and Southeast Asia. Revert scraps from the Pohang Steelworks are also used for our stainless steel production. The average market price of nickel per ton on the London Metal Exchange was US$13,122 in 2018, US$13,936 in 2019 and US$13,789 in 2020.

Transportation

In order to meet our transportation needs for iron ore and coal, we have entered into long-term contracts with shipping companies in Korea to retain a fleet of dedicated vessels. Such contracts are on a consecutive voyage basis with maximum capacity loading, where the shipping company is compensated for the maximum amount of cargo on each trip regardless of whether the vessel is loaded to such amount. These dedicated vessels transported approximately 67% of the total requirements in 2020, and the remaining approximately 33% was transported by vessels retained through short to medium term contracts, depending on market conditions. We plan to continue to optimize the fleet of dedicated vessels that we use in order to cope with changes in the global shipping environment, as well as upgrade some of the existing vessels with others that utilize more energy-efficient technologies.

The Steelmaking Process

Our major production facilities, Pohang Works and Gwangyang Works, produce steel by the basic oxygen steelmaking method. The stainless steel plant at Pohang Works produces stainless steel by the electric arc furnace method. Continuous casting improves product quality by imparting a homogenous structure to the steel. Pohang Works and Gwangyang Works produce all of their products through the continuous casting.

Steel — Basic Oxygen Steelmaking Method

First, molten pig iron is produced in a blast furnace from iron ore, which is the basic raw material used in steelmaking. Molten pig iron is then refined into molten steel in converters by blowing pure oxygen at high pressure to remove impurities. Different desired steel properties may also be obtained by regulating the chemical contents.

At this point, molten steel is made into semi-finished products such as slabs, blooms or billets at the continuous casting machine. Slabs, blooms and billets are produced at different standardized sizes and shapes. Slabs, blooms and billets are semi-finished lower margin products that we either use to produce our further processed products or sell to other steelmakers that produce further processed steel products.

Slabs are processed to produce hot rolled coil products at hot strip mills or to produce plates at plate mills. Hot rolled coils are an intermediate stage product that may either be sold to our customers as various finished products or be further processed by us or our customers into higher value-added products, such as cold rolled sheets and silicon steel sheets. Blooms and billets are processed into wire rods at wire rod mills.

Stainless Steel — Electric Arc Furnace Method

Stainless steel is produced from stainless steel scrap, chrome, nickel and steel scrap using an electric arc furnace. Stainless steel is then processed into higher value-added products by methods similar to those used for steel production. Stainless steel slabs are produced at a continuous casting mill. The slabs are processed at hot rolling mills into stainless steel hot coil, which can be further processed at cold strip mills to produce stainless cold rolled steel products.

Competition

Domestic Market

We are the largest fully integrated steel producer in Korea. In hot rolled products, where we believe we had a market share of approximately 55% on a non-consolidated basis in 2020, we face competition from a Korean steel producer that operates mini-mills and produces hot rolled coil products from slabs and from various foreign producers, primarily from China and Japan. In cold rolled products and stainless steel products, where we believe we had a market share of approximately 64% and 41%, respectively, on a non-consolidated basis in 2020, we compete with smaller specialized domestic manufacturers and various foreign producers, primarily from China and Japan. For a discussion of domestic market shares, see "— Markets — Domestic Market."

We may face increased competition in the future from new specialized or integrated domestic manufacturers of steel products in the Korean market. Our biggest competitor in Korea is Hyundai Steel Co., Ltd.

The Korean Government does not impose quotas on or provide subsidies to local steel producers. As a World Trade Organization signatory, Korea has also removed all steel tariffs.

Export Markets

The competitors in our export markets include all the leading steel manufacturers of the world. In the past decade, there has been a trend toward industry consolidation among our competitors, and smaller competitors in the global steel market today may become larger competitors in the future. In recent years, a slowdown in domestic demand for steel products in China resulting from slowed economic growth, combined with an expansion in steel production capacity, has led to production over-capacity in the Chinese steel industry, which in turn has led the Chinese government to pursue aggressive consolidation in the Chinese steel industry, such as the consolidation of Baosteel Group and Wuhan Iron and Steel in 2016, that has resulted in fewer but larger steel manufacturers that are able to compete more effectively in the global steel industry. Competition from global steel manufacturers with significant production capacity such as ArcelorMittal S.A. and Nippon Steel & Sumitomo Metal Corporation, as well as competitors from emerging markets, especially from China and India, could result in a significant increase in competition. Major competitive factors include range of products offered, quality, price, delivery performance and customer service. Our larger competitors may use their resources, which may be greater than ours, against us in a variety of ways, including by making additional acquisitions, investing more aggressively in product development and capacity and displacing demand for our export products.

Various export markets currently impose tariffs on different types of steel products. However, we do not believe that tariffs significantly affect our ability to compete in these markets.

Subsidiaries and Global Joint Ventures

Steel Production

In order to effectively implement our strategic initiatives and to solidify our leadership position in the global steel industry, we have established various subsidiaries and joint ventures in Korea and elsewhere around the world that engage in steel production activities.

China. We entered into an agreement with Sagang Group Co. to establish POSCO (Zhangjiagang), a joint venture company in China for the manufacture and sale of stainless cold rolled steel products. We have an 82.5% interest in the joint venture (including 23.9% interest held by POSCO China Holding Corporation), which commenced production of stainless cold rolled steel products in December 1998. In 2020, POSCO (Zhangjiagang) had an annual production capacity of 1,100 thousand tons of stainless steel products and it produced 989 thousand tons of stainless steel products. See "— Production Facilities Abroad — POSCO (Zhangjiagang)."

Indonesia. We entered into an agreement with PT. Krakatau Steel (Persero) Tbk. to establish PT. Krakatau POSCO Co., Ltd. ("PT. Krakatau POSCO"), a joint venture company in Indonesia for the manufacture and sale of plates and slabs. We hold a 70.0% interest in the joint venture. We completed the construction of a steel manufacturing plant in December 2013. In 2020, PT. Krakatau POSCO had an annual production capacity of 3,000 thousand tons of plates and slabs and it produced 3,100 thousand tons of plates and slabs. See "— Production Facilities Abroad — PT. Krakatau POSCO."

Vietnam. We established POSCO YAMATO VINA STEEL JOINT STOCK COMPANY ("POSCO VINA" and formerly known as POSCO SS VINA JOINT STOCK COMPANY), a subsidiary engaged in the manufacture and sale of shape steel and steel reinforcement products. The plant became operational in June 2015. In 2020, POSCO VINA had an annual production capacity of 550 thousand tons of shape steel and steel reinforcement products and it produced 554 thousand tons of shape steel and steel reinforcement products. See "— Production Facilities Abroad — POSCO VINA."

Trading

Our trading activities consist primarily of trading activities of POSCO International. Our consolidated subsidiaries that also engage in trading activities include POSCO Asia Co., Ltd. located in Hong Kong, POSCO Japan Co., Ltd. located in Tokyo, Japan, POSCO America Corporation located in Georgia, U.S.A., POSCO (Thailand) Company Limited located in Chonburi, Thailand and POSCO Singapore LNG Trading Pte. Ltd. in Singapore.

POSCO International is a global trading company that primarily engages in trading of steel and raw materials as well as investing in energy and mineral development projects. It also manufactures and sells textiles and agricultural commodities.

The following table sets forth a breakdown of POSCO International's total consolidated sales by export sales, domestic sales and third-country trades for the periods indicated:

Sales Category	2018		2019		2020	
	(in billions of Won, except percentages)					
Export trading sales	₩ 8,863	35.2%	₩ 8,210	33.6%	₩ 6,825	31.8%
Domestic trading sales	3,989	15.8	3,863	15.8	3,181	14.8
Third-country trades	18,547	73.7	18,827	77.1	17,538	81.7
Total sales prior to consolidation adjustments	31,399	124.7	30,900	126.5	27,543	128.3
Consolidation adjustments	(6,225)	(24.7)	(6,477)	26.5	(6,071)	(28.3)
Total sales	₩ 25,174	100.0%	₩ 24,423	100.0%	₩ 21,472	100.0%

Trading Activities. POSCO International's trading activities consist of exporting and importing a wide variety of products and commodities, including iron and steel, raw materials for steel production, non-ferrous metals, chemicals, automotive parts, machinery and plant equipment, electronics products, agricultural commodities and textiles. POSCO International is also engaged in third-country trade that does not involve exports from or imports to Korea. The products are obtained from and supplied to numerous suppliers and purchasers in Korea and overseas, which are procured through a global trading network comprised of overseas trading subsidiaries, branches and representative offices. Such subsidiaries and offices support POSCO International's trading activities by locating suitable local suppliers and purchasers on behalf of customers, identifying business opportunities and providing information regarding local market conditions.

In most cases, POSCO International enters into trading transactions after the underlying sale and purchase contracts have been matched, which mitigates inventory and price risks to POSCO International. POSCO International typically enters into trading transactions as a principal, and in limited cases as an import or export agent. When acting as a principal or an agent, POSCO International derives its gross trading profit from the margin between the selling price of the products and the purchase price it pays for such products. In the case of principal transactions, the selling price is recorded as sales and the purchase price is recorded as cost of sales, while only the margin is recorded as sales in the case of agency transactions in which POSCO International does not assume the risks and rewards of ownership of the goods. In the instances in which it acts as an arranger for a third country transaction, POSCO International derives its gross trading profit from, and records as sales, the commission paid to it by the customer. The sizes of margins and commissions for POSCO International's trading activities vary depending on a number of factors, including prevailing supply and demand conditions for the product involved, the cost of financing, insurance, storage and transport and the creditworthiness of the customer, and tends to decline as the product or market matures.

In connection with its export and import transactions, POSCO International has accounts receivable and payable in a number of currencies, but principally in Dollars. POSCO International's exposure to fluctuations in exchange rates, including the Won/Dollar exchange rate, is limited because trading transactions typically involve matched purchase and sale contracts, which result in limited settlement exposure, and because POSCO International's contracts with domestic suppliers of products for export and with domestic purchasers of imported products are generally denominated in Dollars. Although the impact of exchange rate fluctuations is substantially mitigated by such strategies, POSCO International also periodically enters into derivative contracts, primarily currency forward contracts, to further hedge its foreign exchange risks.

In connection with its trading activities, POSCO International arranges insurance and product transport at the request of customers, the costs of which generally become reflected in the sales price of the relevant products, and also provides financing services to its purchasers and suppliers as necessary. In the case of trading transactions involving large-scale industrial or construction projects, POSCO International also provides necessary project planning and organizing services to its customers.

Natural Resources Development Activities. POSCO International also invests in energy and mineral development projects throughout the world. In particular, POSCO International holds interests in several gas field projects in Myanmar, where production of gas commenced in July 2013. POSCO International recognized revenues of approximately Won 474 billion in 2018, Won 723 billion in 2019 and Won 605 billion in 2020 from the Myanmar gas field projects. Such natural resources development projects, while entailing higher risks than the traditional trading business, offer higher potential returns. POSCO International intends to continue to expand its operations by carefully seeking out promising energy development projects abroad.

Competition**.** POSCO International competes principally with other Korean general trading companies that are affiliated with major domestic business groups, as well as global trading companies based in other countries. In the domestic market, competition for export transactions on behalf of domestic suppliers and import transactions on behalf of domestic purchasers was limited, as most affiliated general trading companies of large Korean business groups generally relied on affiliate transactions for the bulk of their trading business. However, in recent years, many of these Korean general trading companies have reduced their reliance on their affiliated business group and transactions carried out on behalf of their member companies and instead have generally evolved to focus on segments of the import and export markets in which they have a competitive advantage. As a result, competition among Korean general trading companies in the area of traditional trade has become more intense. POSCO International's principal competitors in the overseas trading markets include Korean trading companies that operate in various international markets, as well as foreign trading companies, particularly those based in Japan. As POSCO International diversifies into businesses other than traditional trading such as natural resources development, it also increasingly competes with other Korean and international companies involved in these businesses.

Construction

POSCO E&C is one of the leading engineering and construction companies in Korea, primarily engaged in the planning, design and construction of industrial plants and architectural works and civil engineering projects. In particular, POSCO E&C has established itself as one of the premier engineering and construction companies in Korea through:

- its strong and stable customer base; and
- its cutting-edge technological expertise obtained from construction of advanced integrated steel plants, as well as participation in numerous modernization and rationalization projects at our Pohang Works and Gwangyang Works.

Leveraging its technical know-how and track record of building some of the leading industrial complexes in Korea, POSCO E&C has also focused on diversifying its operations into construction of high-end apartment complexes and participating in a wider range of architectural works and civil engineering projects, as well as engaging in urban planning and development projects and expanding its operations abroad. In September 2015, we completed the sale of a 38.0% interest in POSCO E&C to Public Investment Fund, a sovereign wealth fund in Saudi Arabia, for US$1.05 billion. In connection with the sale, POSCO E&C and PIF agreed to jointly explore additional business opportunities in Saudi Arabia, including participating in various infrastructure projects sponsored by the Saudi Arabian government.

POSCO E&C also has substantial experience in the energy field obtained from the construction of various power plants for member companies of the POSCO Group, specializing primarily in engineering and construction of LNG and coal-fired thermal power plants. In response to increasing demand from the energy industry, POSCO E&C plans to continue to target opportunities in power plant construction, especially in Asia and Africa, which it believes offers significant growth potential.

Competition. Competition in the construction industry is based primarily on price, reputation for quality, reliability, punctuality and financial strength of contractors. In Korea, POSCO E&C's main competition in the construction of residential and non-residential buildings, EPC projects, urban planning and development projects and civil works projects consists of approximately ten major domestic construction companies, all of which are member companies of other large business groups in Korea and are capable of undertaking larger-scale, higher-value-added projects that offer greater potential returns. A series of measures introduced by the Government over the past few years to regulate housing prices in Korea, as well as an increasing popularity of low-bid contracts in civil works project mandates, have contributed to increased competition in the Korean construction industry in recent years. In the overseas markets, POSCO E&C faces competition from local construction companies and other major Korean construction companies with overseas operations, as well as international construction companies from other countries.

Others

As part of our diversification efforts, we strive to identify business opportunities that supplement our steel, trading and construction segments, including power generation, LNG logistics, manufacturing of various industrial materials and network and system integration.

POSCO Energy Corporation. In 2006, we acquired the largest domestic private power utility company that operates LNG combined cycle power generation facilities with total power generation capacity of 1,800 megawatts and subsequently renamed it POSCO Energy Corporation. Since our acquisition, POSCO Energy Corporation has expanded its power generation capacity by constructing additional power plants in Korea and Southeast Asia. POSCO Energy Corporation's total power generation capacity was approximately 3,412 megawatts as of December 31, 2020. POSCO Energy Corporation is also selectively seeking opportunities to expand into solar, wind and other renewable energy businesses in order to become an integrated provider of energy solutions.

POSCO Energy Corporation also operates an LNG receiving terminal with an aggregate capacity to process up to 3.3 million tons of LNG annually in Gwangyang as of December 31, 2020. In order to achieve maximum operational efficiency of our LNG terminal, it participates in the LNG trading and LNG ship gas trial businesses.

POSCO Chemical Co., Ltd. POSCO Chemical Co., Ltd. specializes in the manufacturing of refractories and lime used in steel manufacturing processes as well as a wide range of chemical products. It also expanded into the anode and cathode manufacturing business in 2018 following its merger with POSCO ESM Co., Ltd., our former subsidiary specializing in the production of battery materials.

Others. POSCO M-Tech Co., Ltd. produces aluminum deoxidizers, substances used to remove excess oxygen during the steel manufacturing process to improve durability of steel products, and it also provides integrated steel product packing solutions for steel production facilities. POSCO ICT Co., Ltd. provides information and technology consulting and system network integration and outsourcing services.

Insurance

We maintain property insurance for our property, plant and equipment that we believe to be consistent with market practice in Korea.

Item 4.C. *Organizational Structure*

The following table sets out the jurisdiction of incorporation and our ownership interests of our significant subsidiaries as of December 31, 2020:

Name	Jurisdiction of Incorporation	Percentage of Ownership
POSCO International Corporation	Korea	62.9%
POSCO Engineering & Construction Co., Ltd	Korea	52.8%
POSCO Energy Corporation	Korea	100.0%
PT. Krakatau POSCO	Indonesia	70.0%
POSCO Asia Co., Ltd.	Hong Kong	100.0%
POSCO Maharashtra Steel Private Limited	India	100.0%
POSCO (Zhangjiagang) Stainless Steel Co., Ltd.	China	82.5% (1)
POSCO Chemical Co., Ltd.	Korea	61.3%
POSCO YAMATO VINA STEEL JOINT STOCK COMPANY	Vietnam	51.0%

(1) POSCO holds a 58.6% interest and POSCO-China holds a 23.9% interest.

Item 4.D. *Property, Plants and Equipment*

Our principal properties are Pohang Works, which is located at Youngil Bay on the southeastern coast of Korea, and Gwangyang Works, which is located in Gwangyang City in the southwestern region of Korea. We also maintain and operate production properties abroad, including plants operated by POSCO (Zhangjiagang) in China, PT. Krakatau POSCO in Indonesia and POSCO VINA in Vietnam. We may increase our production capacity in the future when we increase our capacity as part of our facilities expansion or as a result of continued modernization and rationalization of our existing facilities. For a discussion of major items of our capital expenditures currently in progress, see "Item 5. Operating and Financial Review and Prospects — Item 5.B. Liquidity and Capital Resources — Liquidity — Capital Expenditures and Capital Expansion."

We are vigorous in our efforts to engage in environmentally responsible management of, and to protect the environment from damage resulting from, our operations. Our levels of pollution control are higher than those mandated by Government standards. We established an on-line environmental monitoring system with real-time feedback on pollutant levels and a forecast system of pollutant concentration in surrounding areas. We also undergo periodic environmental inspection by both internal and external inspectors in accordance with ISO 14001 standards to monitor execution and maintenance of our environmental management plan. We also operate a certification program targeting our suppliers and outsourcing partners, pursuant to which they are encouraged to establish environmental management systems of their own.

Production Facilities in Korea

Our main production facilities in Korea consist of Pohang Works and Gwangyang Works. In 2020, our crude steel and stainless steel production capacity in Korea was 40.68 million tons.

Pohang Works

Construction of Pohang Works began in 1970 and ended in 1983. Pohang Works produces a wide variety of steel products. Products produced at Pohang Works include hot rolled sheets, plates, wire rods and cold rolled sheets, as well as specialty steel products such as stainless steel sheets and silicon steel sheets. These products can also be customized to meet the specifications of our customers.

Situated on a site of 8.9 million square meters at Youngil Bay on the southeastern coast of Korea, Pohang Works consists of iron-making, crude steelmaking and continuous casting and other rolling facilities. Pohang Works also has docking facilities capable of accommodating large ships for unloading raw materials, storage areas for raw materials and separate docking facilities for ships carrying products for export. Pohang Works is equipped with a highly advanced computerized production-management system allowing constant monitoring and control of the production process.

Gwangyang Works

Construction of Gwangyang Works began in 1985 and ended in 1992. Gwangyang Works specializes in high volume production of a limited number of steel products. Products manufactured at Gwangyang Works include both hot and cold rolled types.

Situated on a site of 13.7 million square meters reclaimed from the sea in Gwangyang City in the southwestern region of Korea, Gwangyang Works is comprised of iron-making plants, steelmaking plants, continuous casting plants, hot strip mills and thin-slab hot rolling plants. The site also features docking and unloading facilities for raw materials capable of accommodating large ships for unloading raw materials, storage areas for raw materials and separate docking facilities for ships carrying products for export.

We believe Gwangyang Works is one of the most technologically advanced integrated steel facilities in the world. Gwangyang Works has a completely automated, linear production system that enables the whole production process, from iron-making to finished products, to take place without interruption. This advanced system reduces the production time for hot rolled products to only four hours. Like Pohang Works, Gwangyang Works is equipped with a highly advanced computerized production-management system allowing constant monitoring and control of the production process.

Capacity Utilization Rates

The following table sets out the capacity utilization rates of our production facilities in Korea for the periods indicated.

	As of or for the Year Ended December 31,		
	2018	2019	2020
Crude steel and stainless steel production capacity for the year (million tons per year)	42.39	42.39	40.68
Actual crude steel and stainless steel output (million tons)	37.74	38.01	35.94
Capacity utilization rate (%) [1]	89.0%	89.7%	88.3%

(1) Calculated by dividing actual crude steel and stainless steel output by the actual crude steel and stainless steel production capacity for the relevant period as determined by us.

Production Facilities Abroad

Our various subsidiaries and joint ventures around the world, including POSCO (Zhangjiagang) in China, PT. Krakatau POSCO in Indonesia and POSCO VINA in Vietnam, engage in steel production activities. For a discussion of such operations, see "Item 4. Information on the Company — Item 4.B. Business Overview — Subsidiaries and Joint Ventures."

POSCO (Zhangjiagang)

The following table sets out POSCO (Zhangjiagang)'s capacity utilization rates for the periods indicated.

	As of or for the Year Ended December 31,		
	2018	2019	2020
Crude steel and stainless steel production capacity for the year (million tons per year)	1.10	1.10	1.10
Actual crude steel and stainless steel output (million tons)	1.16	1.13	0.99
Capacity utilization rate (%) [1]	105.3%	103.1%	89.9%

(1) Calculated by dividing actual crude steel and stainless steel output by the actual crude steel and stainless steel production capacity for the relevant period as determined by us.

PT. Krakatau POSCO

The following table sets out PT. Krakatau POSCO's capacity utilization rates for the periods indicated.

	As of or for the Year Ended December 31,		
	2018	2019	2020
Crude steel production capacity for the year (million tons per year)	3.00	2.94	3.00
Actual crude steel output (million tons)	3.01	3.02	3.10
Capacity utilization rate (%) [1]	100.3%	102.5%	103.3%

(1) Calculated by dividing actual crude steel output by the actual crude steel production capacity for the relevant period as determined by us.

POSCO VINA

The following table sets out POSCO VINA's capacity utilization rates for the periods indicated.

	As of or for the Year Ended December 31,		
	2018	2019	2020
Crude steel production capacity for the year (million tons per year)	1.10	1.10	0.55
Actual crude steel output (million tons)	0.97	0.79	0.55
Capacity utilization rate (%) [1]	87.7%	71.7%	100.8%

(1) Calculated by dividing actual crude steel output by the actual crude steel production capacity for the relevant period as determined by us.

Item 4A. *Unresolved Staff Comments*

We do not have any unresolved comments from the Securities and Exchange Commission staff regarding our periodic reports under the Exchange Act of 1934.

Item 5. *Operating and Financial Review and Prospects*

Item 5.A. *Operating Results*

The following discussion and analysis is based on our consolidated financial statements, which have been prepared in accordance with IFRS, as issued by the IASB. Unless otherwise noted, the amounts included in Item 5.A. are presented on a consolidated basis.

Overview

We are the largest fully integrated steel producer in Korea. We have four reportable operating segments — a steel segment, a trading segment, a construction segment and a segment that contains operations of all other entities which fall below the reporting thresholds. The steel segment includes production of steel products and sale of such products. The trading segment consists primarily of global trading activities and natural resources development activities of POSCO International. POSCO International exports and imports a wide range of steel products that are both obtained from and supplied to POSCO, as well as between other suppliers and purchasers in Korea and overseas. The construction segment includes planning, designing and construction of industrial plants, civil engineering projects and commercial and residential buildings, both in Korea and overseas. The "others" segment includes power generation, LNG logistics, manufacturing of various industrial materials and network and system integration. See Note 40 to the Consolidated Financial Statements.

One of the major factors contributing to our historical performance has been the growth of the Korean economy, and our future performance will depend at least in part on Korea's general economic growth and prospects. For a description of recent developments that have had and may continue to have an adverse effect on our results of operations and financial condition, see "Item 3. Key Information — Item 3.D. Risk Factors — Korea is our most important market, and our current business and future growth could be materially and adversely affected if economic conditions in Korea deteriorate." A number of other factors have had or are expected to have a material impact on our results of operations, financial condition and capital expenditures. These factors include:

- our sales volume, unit prices and product mix;
- costs and production efficiency; and
- exchange rate fluctuations.

As a result of these factors, our financial results in the past may not be indicative of future results or trends in those results.

Sales Volume, Prices and Product Mix

In recent years, our net sales have been affected by the following factors:

- the demand for our products in the Korean market and our capacity to meet that demand;
- our ability to compete for sales in the export market;
- price levels; and
- our ability to improve our product mix.

Domestic demand for our products is affected by the condition of major steel consuming industries, such as construction, shipbuilding, automotive, electrical appliances and downstream steel processors, and the Korean economy in general.

In 2019, the unit sales prices in Won of cold rolled products, plates and stainless steel products produced by us and directly sold to external customers increased, while the unit sales prices in Won of the remainder of our principal product lines of steel products decreased. The weighted average unit price for such products increased by 2.3% from 2018 to 2019, which was enhanced by the depreciation in the average value of the Won against the Dollar in 2019 that increased our export prices in Won terms. The average exchange rate of the Won against the Dollar, as announced by Seoul Money Brokerage Services, Ltd., depreciated from Won 1,100.3 to US$1.00 in 2018 to Won 1,165.7 to US$1.00 in 2019.

The unit sales price of cold rolled products, which accounted for 36.9% of total sales volume of the principal steel products produced by us and directly sold to external customers, increased by 4.4% in 2019. The unit sales price of plates, which accounted for 17.8% of total sales volume of such products, increased by 4.2% in 2019. The unit sales price of stainless steel products, which accounted for 9.8% of total sales volume of such products, increased by 0.8% in 2019. On the other hand, the unit sales price of hot rolled products, which accounted for 26.0% of total sales volume of such products, decreased by 3.4% in 2019. The unit sales price of wire rods, which accounted for 6.9% of total sales volume of such products, decreased by 1.2% in 2019. The unit sales price of silicon steel sheets, which accounted for 2.7% of total sales volume of such products, decreased by 0.3% in 2019.

The unit sales prices in Won for each of our principal product lines of steel products, other than silicon steel sheets, decreased from 2019 to 2020, reflecting generally weak global market conditions in 2020 due to the COVID-19 pandemic. The weighted average unit price for our principal product lines of steel products decreased by 6.0% from 2019 to 2020, which was mitigated by the depreciation in the average value of the Won against the Dollar in 2020 that increased our export prices in Won terms. The average exchange rate of the Won against the Dollar, as announced by Seoul Money Brokerage Services, Ltd., depreciated from Won 1,165.7 to US$1.00 in 2019 to Won 1,180.1 to US$1.00 in 2020.

The unit sales price of plates, which accounted for 16.3% of total sales volume of the principal steel products produced by us and directly sold to external customers, decreased by 13.0% in 2020. The unit sales price of wire rods, which accounted for 6.7% of total sales volume of such products, decreased by 8.8% in 2020. The unit sales price of cold rolled products, which accounted for 35.4% of total sales volume of such products, decreased by 8.1% in 2020. The unit sales price of hot rolled products, which accounted for 28.2% of total sales volume of such products, decreased by 6.1% in 2020. The unit sales price of stainless steel products, which accounted for 10.2% of total sales volume of such products, decreased by 3.1% in 2020. On the other hand, the unit sales price of silicon steel sheets, which accounted for 3.0% of total sales volume of such products, increased by 11.5% in 2020.

The table below sets out the average unit sales prices for our semi-finished and finished steel products produced by us and directly sold to external customers for the periods indicated.

Products	For the Year Ended December 31, 2018	2019	2020
	(In thousands of Won per ton)		
Cold rolled products	₩ 861	₩ 898	₩ 826
Hot rolled products	689	666	625
Stainless steel products	2,322	2,340	2,267
Plates	724	754	656
Wire rods	845	835	762
Silicon steel sheets	1,135	1,132	1,262
Average (1)	₩ 934	₩ 955	₩ 898

(1) "Average" prices are based on the weighted average, by sales volume, of our sales for the listed principal products produced by us and directly sold to external customers. See "Item 4. Information on the Company — Item 4.B. Business Overview — Major Products." The average unit sales price calculation does not include sales results of steel products categorized as "others."

Costs and Production Efficiency

Our major costs and operating expenses are raw material purchases, depreciation, labor and other purchases. The table below sets out our cost of sales and selling and administrative expenses as a percentage of our revenue as well as gross profit margin and operating profit margin for the periods indicated.

	For the Year Ended December 31, 2018	2019	2020
	(Percentage of net sales)		
Cost of sales	87.7%	90.2%	91.9%
Selling and administrative expenses	3.7	3.7	4.0
Gross margin	12.3	9.8	8.1
Operating profit margin	6.2	5.0	3.6

Our operating profit margin decreased from 6.2% in 2018 to 5.0% in 2019 and further decreased to 3.6% in 2020 as discussed below.

We are closely monitoring changes in market conditions and we implemented the following measures in recent years to improve our profit margins:

- pursuing cost reduction through enhancing product designs, improving productivity and reducing fixed costs;
- focusing on marketing activities to increase the sales of higher margin, higher value-added products and to strengthen our domestic market position;

- pursuing synergies among member companies of the POSCO Group through corporate restructurings; and
- establishing a special sales committee to more effectively respond to changes in market trends and preparing responses to various scenarios of future sales.

Production capacity represents our maximum production capacity that can be achieved with an optimal level of operations of our facilities. The table below sets out certain information regarding our production capacity and efficiency in the production of steel products for the periods indicated.

	For the Year Ended December 31,		
	2018	2019	2020
Crude steel and stainless steel production capacity (million tons per year)	47.6	47.5	45.3
POSCO	42.4	42.4	40.7
POSCO (Zhangjiagang)	1.1	1.1	1.1
PT. Krakatau POSCO	3.0	2.9	3.0
POSCO VINA	1.1	1.1	0.6
Actual crude steel and stainless steel output (million tons)	42.9	42.9	40.6
POSCO	37.7	38.0	35.9
POSCO (Zhangjiagang)	1.2	1.1	1.0
PT. Krakatau POSCO	3.0	3.0	3.1
POSCO VINA	1.0	0.8	0.6
Capacity utilization rate (%)	90.1%	90.4%	89.5%
POSCO	89.0%	89.7%	88.3%
POSCO (Zhangjiagang)	105.3%	103.1%	89.9%
PT. Krakatau POSCO	100.3%	102.5%	103.3%
POSCO VINA	87.7%	71.7%	100.8%

Exchange Rate Fluctuations

Our consolidated financial statements are prepared from our local currency denominated financial results, assets and liabilities and our subsidiaries around the world, which are then translated into Won. A substantial proportion of our consolidated financial results is accounted for in currencies other than the Won. Accordingly, our consolidated financial results and assets and liabilities may be materially affected by changes in the exchange rates of foreign currencies. In 2020, 61.4% of our total revenue from steel products produced and sold by us was in overseas markets outside of Korea. To the extent that we incur costs in one currency and make sales in another, our profit margins may be affected by changes in the exchange rates between the two currencies. Since the currency in which sales are recorded may not be the same as the currency in which expenses are incurred, foreign exchange rate fluctuations may materially affect our results of operations. Depreciation of the Won may materially affect the results of our operations because, among other things, it causes:

- an increase in the amount of Won required for us to make interest and principal payments on our foreign currency-denominated debt;
- an increase in Won terms in the costs of raw materials and equipment that we purchase from overseas sources and a substantial portion of our freight costs, which are denominated primarily in Dollars; and
- foreign exchange translation losses on foreign-currency denominated liabilities, which lower our earnings for accounting purposes.

Appreciation of the Won against major currencies, on the other hand, causes:

- our export products to be less competitive by raising our prices in Dollar, Yen and Renminbi terms; and
- a reduction in net sales and accounts receivables in Won from export sales, which are primarily denominated in Dollars and to a lesser extent in Yen and Renminbi.

The overall net impact from fluctuations of the Won against major currencies is difficult to estimate and varies from year to year. We strive to naturally offset our foreign exchange risk by matching foreign currency receivables with our foreign currency payables and our overseas subsidiaries have sought to further mitigate the adverse impact of exchange rate fluctuations by conducting business transactions in the local currency of the respective market in which the transactions occur. In particular, POSCO International's exposure to fluctuations in exchange rates, including the Won/Dollar exchange rate, is limited because trading transactions typically involve matched purchase and sale contracts, which result in limited settlement exposure, and because POSCO International's contracts with domestic suppliers of products for export and with domestic purchasers of imported products are generally denominated in Dollars. Although the impact of exchange rate fluctuations is partially mitigated by such strategies, we and our subsidiaries, particularly POSCO International and POSCO E&C, also periodically enter into derivative contracts, primarily foreign currency swaps and forward exchange contracts, to further hedge some of our foreign exchange risks. However, our results of operations have historically been affected by exchange rate fluctuations and there can be no assurance that such strategies will be sufficient to reduce or eliminate the adverse impact of such fluctuations in the future.

Inflation

Inflation in Korea, which was 1.5% in 2018, 0.4% in 2019 and 0.5% in 2020 has not had a material impact on our results of operations in recent years.

Critical Accounting Estimates

We have prepared our consolidated financial statements in accordance with IFRS as issued by the IASB. These accounting principles require us to make certain estimates and judgments that affect the reported amounts in our consolidated financial statements. Our estimates and judgments are based on historical experience, forecasted future events and various other assumptions that we believe to be reasonable under the circumstances. Estimates and judgments may differ under different assumptions or conditions. We evaluate our estimates and judgments on an ongoing basis. We believe the critical accounting policies discussed below are the most important to the portrayal of our financial condition and results of operations. Each of them is dependent on projections of future market conditions, and they often require us to make difficult, subjective and complex judgments.

Allowance for Doubtful Accounts

We maintain an allowance for doubtful accounts for exposures in our receivable balances that represent our estimate of probable losses in our short-term and long-term receivable balances from the inability of our customers to make required payments. If the financial condition of our customers were to deteriorate and negatively impact their ability to make payments, additional allowances may be required. Determining the allowance for doubtful accounts requires significant management judgment and estimates including, among others, the credit worthiness of our customers, experience of historical collection patterns, potential events and circumstances affecting future collections and the ongoing risk assessment of our customer's ability to pay.

Trade accounts receivables are analyzed on a regular basis and, upon our becoming aware of a customer's inability to meet its financial commitments to us, the value of the receivable is reduced through a charge to the allowance for doubtful accounts. In addition, we record a charge to the allowance for doubtful accounts upon receipt of customer claims in connection with sales that management estimates are unlikely to be collected in full. As of December 31, 2020, the percentage of allowance for doubtful accounts related to net trade accounts and notes receivables compared to our trade accounts and notes receivables was 6.47%. Our allowance for doubtful accounts decreased by 16.0%, or Won 144 billion, from Won 898 billion as of December 31, 2019 to Won 754 billion as of December 31, 2020. See Note 23 to the Consolidated Financial Statements.

Lifetime expected credit losses are expected credit losses from any default that may occur over the expected life of a financial instrument. 12-month expected credit losses are portions of lifetime expected credit losses that result from defaults that may occur within the 12 months after the reporting date. The expected life of a financial instrument is the entire contractual period over which we are exposed to credit risk. Expected credit losses are probability-weighted estimates of credit losses. Credit losses are measured as the present value of all cash shortfalls, such as the difference between cash flows specified under contracts and cash flows that we expect to receive.

The actual average annual uncollected percentage rate of accounts receivables resulting in write-offs for the three years in the period ended December 31, 2020 was 1.07%. These historical results, as well as current known conditions impacting the collectability of our accounts receivable balances, are significant factors for us when we estimate the amount of the necessary allowance for doubtful accounts. Historically, losses from uncollectible accounts receivables have been within expectations and in line with the allowances established. However, unforeseen circumstances such as adverse market conditions that deviate significantly from our estimates may require us to change the timing of, and make additional allowances to, our receivable balances. In this case, our results of operations, financial condition and net worth could be materially and adversely affected.

Valuation of Financial Instruments including Debt and Equity Securities and Derivatives

We invest in various financial instruments including debt and equity securities and derivatives. Depending on the accounting treatment specific to each type of financial instrument, an estimate of fair value is required to determine the instrument's effect on our consolidated financial statements.

If available, quoted market prices provide the best indication of fair value. We determine the fair value of our financial instruments using quoted market prices when available, including quotes from dealers trading those securities. If quoted market prices are not available, we determine the fair value based on pricing or valuation models, quoted prices of instruments with similar characteristics, or discounted cash flows. Determining the fair value of unlisted financial instruments involves a significant degree of management resources and judgment as no quoted prices exist and such securities are generally very thinly traded. Derivatives for which quoted market prices are not available are valued using valuation models such as the discounted cash flow method. The key inputs used in the valuation of such derivatives depend upon the type of derivative and the nature of the underlying instrument and include interest rate yield curves, foreign exchange rates, the spot price of the underlying instrument, volatility and correlation. The fair values based on pricing and valuation models and discounted cash flow analysis are subject to various assumptions used that, if changed, could significantly affect the fair value of the investments.

We have estimated fair values of material non-marketable securities. We estimated these fair values based on pricing or valuation models, quoted prices of instruments with similar characteristics, or discounted cash flow models. The discounted cash flow model valuation technique is based on the estimated cash flow projections of the underlying investee. Key assumptions and estimates include market conditions, revenue growth rates, operating margin rates, income tax rates, depreciation and amortization rates, the level of capital expenditures, working capital amounts and the discount rates. These estimates are based on historical results of the investee and other market data. In these cash flows projections, the two most significant estimates are the discount rates and revenue growth rates. As of December 31, 2020, if the discount rates used in these valuations were increased by 1%, then the estimated fair values would have decreased by approximately 10% in total. In addition, as of December 31, 2020, if the revenue growth rate assumptions were decreased by 1% in the cash flow models, then the estimated fair values would have decreased by approximately 11% in total.

Our estimates and assumptions used to evaluate the fair value of investments are made taking into consideration our assessment of the latest information available. However, unforeseen circumstances such as adverse market conditions that deviate significantly from our estimates may require us to revise the fair value of investments. We base our fair value estimates on assumptions we believe to be reasonable, but which are unpredictable and inherently uncertain. The use of alternative estimates and assumptions could increase or decrease the estimated fair values of our investments and potentially result in different impacts on our results of operations.

Long-lived Assets

At each reporting date, we review the carrying amounts of our tangible and intangible assets (excluding goodwill) to determine whether there is any indication that the carrying amount of those assets may not be recoverable through continuing use. If any such indication exists, the recoverable amount of the asset (or cash generating unit) is reviewed in order to determine the amount of the impairment, if any. The recoverable amount is the higher of the asset's net selling price (fair value less costs to sell) and its value in use. When the book value of long-lived asset exceeds the recoverable amount of the asset due to obsolescence, physical damage or a decline in market value and such amount is material, the impairment of the asset is recognized and the asset's carrying value is reduced to its recoverable amount and the resulting impairment loss is charged to current operations. Such recoverable amount is based on our estimates of the future use of assets and is subject to changes in market conditions. Based on an impairment test as of December 31, 2020, we recognized impairment loss on property, plant and equipment amounting to Won 27 billion in 2020, which included impairment loss of Won 17 billion from a fire at a stainless steel production facility at Pohang Works.

The depreciable lives and salvage values of our long-lived assets are estimated and reviewed each year based on industry practices and prior experience to reflect economic lives of long-lived assets. Our estimates of the useful lives and recoverable amount of long-lived assets are based on historical trends adjusted to reflect our best estimate of future market and operating conditions. Also, our estimates include the expected future period in which the future cash flows are expected to be generated from continuing use of the assets that we review for impairment and cash outflows to prepare the assets for use that can be directly attributed or allocated on a reasonable and consistent basis. If applicable, estimates also include net cash flows to be received or paid for the disposal of the assets at the end of their useful lives. As a result of the impairment review, when the sum of the discounted future cash flows expected to be generated by the assets is less than the book value of the assets, we recognize impairment losses based on the recoverable amount of those assets. We make a number of significant assumptions and estimates in the application of the discounted cash flow model to forecast cash flows, including business prospects, market conditions, selling prices and sales volume of products, costs of production and funding sources. The estimated cash flow forecast amounts are derived from the most recent financial budgets for the next three to five years. Beyond the specifically forecasted period, we extrapolate the cash flows for the remaining years based on an estimated growth rate. This estimated growth rate does not exceed the long-term average growth rate of our industry. As of December 31, 2020, for the applicable cash generating units, we estimated a discount rate of 5.80% to 9.10% and a revenue growth rate of 0.7% to 2.1%. Further impairment charges may be required if triggering events occur, such as adverse market conditions, that suggest deterioration in an asset's recoverability or fair value. Results in actual transactions could differ from those estimates used to evaluate the impairment of such long-lived assets. If our future cash flow projections are not realized, either because of an extended recessionary period or other unforeseen events, impairment charges may be required in future periods.

If the estimated discount rates used in these valuations were increased by 1%, then the estimated recoverable amount would have decreased by 4.48% to 6.37% in total. If the estimated revenue growth rate were decreased by 1%, then the estimated recoverable amount would have decreased by 1.26% to 4.52% in total. We believe that any reasonably possible negative change in the key assumptions on which the recoverable amount is based would result in impairment loss of long-lived assets.

Goodwill

Goodwill is tested for impairment annually at the level of the groups of cash generating units or whenever changes in circumstances indicate that the carrying amount may not be recoverable. The recoverable amounts of the groups of cash-generating units are determined from the higher of their fair value less cost to sell or their value-in-use calculations. The key assumptions for the value in use calculations are those regarding the discount rates, terminal growth rates and estimated sales during the period.

Our management estimates discount rates using post-tax rates that reflect current market rates for investments of similar risk. Terminal growth rates are based on industry growth forecasts, and estimated sales are based on historical experience and expectations of future changes in the market. Cash flow forecasts are derived from the most recent financial budgets for the next five years. Beyond the specifically forecasted period, we extrapolate cash flows for the remaining years based on an estimated growth rate. This rate does not exceed the average long-term growth rate for the relevant markets. Once recognized, impairment losses recognized for goodwill are not reversed.

In validating the value in use determined for the cash generating units, the sensitivity of key assumptions used in the discounted cash-flow model such as discount rates and the terminal growth rate was evaluated. As of December 31, 2020, if the estimated average discount rates used in these valuations were increased by 0.5%, the estimated value-in-use for the respective cash generating units would have decreased by Won 239 billion or 7.42% in total. As of December 31, 2020, if the estimated terminal growth rates were decreased by 0.5%, the estimated value-in-use for the respective cash generating units would have decreased by Won 129 billion or 4.00% in total. Based on an impairment test as of December 31, 2020, we recognized impairment loss on goodwill of Won 189 billion incurred by POSCO International. We believe that determining the existence and impairment of goodwill is a critical accounting estimate because significant management judgment is involved in the evaluation of the value of the cash-generating groups, and any reasonably possible changes in the key assumptions on which the recoverable amount is based would cause a change in impairment loss on goodwill. See Note 15 to the Consolidated Financial Statements.

Inventories

Inventories are stated at the lower of cost or net realizable value. Costs of inventories are determined using the moving-weighted average or weighted average method. Materials-in-transit are determined using the specific identification method. Amounts of inventory are written down to net realizable value due to losses occurring in the normal course of business and the allowance is reported as a contra inventory account, while the related charge is recognized in cost of goods sold.

The net realizable value is determined based on the latest selling price available at the end of each quarter taking into account the directly attributable selling costs. The latest selling price is the base price which is the negotiated selling price based upon the recent transactions entered into with major customers. Considering that our inventory turnover is approximately two months and inventories at the balance sheet date would be sold during the following two months, we perform valuation of inventories using the base price as of the balance sheet date and adjust for significant changes in selling price occurring subsequent to the reporting date. The selling price range used for determining the net realizable value of our inventories ranged from the inventory cost amount less 4.7% of the gross profit margin to the inventory cost amount plus 10.9% of the gross profit margin. For inventories in which expected selling prices are less than the cost amount, the necessary adjustment to write-down the inventories to net realizable value is made. There was no recovery in 2018, 2019 and 2020. The valuation losses of inventories recognized within cost of goods sold were Won 142 billion in 2018, Won 96 billion in 2019 and Won 54 billion in 2020.

Investments in Associates and Joint Ventures

We hold a significant amount of investments in associates and joint ventures, which interests are accounted for using the equity method. As of December 31, 2020, the book value of our investments in associates and joint ventures was Won 3,876 billion. The carrying amounts of our investments in associates and joint ventures are reviewed at the end of the reporting period to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated.

We estimate the recoverable amount of an individual asset. If it is impossible to measure the individual recoverable amount of an asset, then we estimate the recoverable amount of cash-generating unit ("CGU"), which is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. The value in use is estimated by applying a post-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU for which estimated future cash flows have not been adjusted, to the estimated future cash flows expected to be generated by the asset or CGU. We treat individual operating entities as CGUs, and an impairment loss is recognized if the carrying amount of an asset or a CGU exceeds its recoverable amount. Impairment losses are recognized in profit or loss.

As part of our impairment review, the operating results, net asset value and future performance forecasts of our associates and joint ventures as well as general market conditions are taken into consideration in order to assess whether there is any objective evidence of impairment, such as significant financial difficulty of the associate or joint venture. Unforeseen circumstances such as adverse market conditions that deviate significantly from our estimates may require us to recognize additional losses on impairment of our interest in our associates and joint ventures. We base our value in use estimates on assumptions we believe to be reasonable, but which are unpredictable and inherently uncertain. The use of alternative estimates and assumptions could increase or decrease the estimated fair values used to evaluate impairment of our interest in our associates and joint ventures and potentially have different impacts on our results of operations.

Revenue Recognized by the Input Method

POSCO E&C, our consolidated subsidiary, engages in various construction activities, including construction of industrial plants and civil engineering projects, and revenue recognition is different based on types of contracts. We recognize revenue over time when (i) our customers receive the benefits from our construction activities simultaneously with our performance of such activities, (ii) our construction activities create or improve an asset when such asset is under the customer's control or (iii) our construction activities do not provide alternative benefits to us, and we have an enforceable right to payment for performance completed to date.

In the case of construction contracts where we construct plants or other similar structures, our customers control the assets as they are being constructed. Under such contracts, we perform construction of the projects according to the customers' on-going specifications, and if a contract is terminated by the customer, we are entitled to reimbursement of all costs incurred to date, including a reasonable margin. When the revenue and costs of a contract can be reliably estimated, we recognize such estimated revenue and costs based on the progress of construction as of the end of the reporting period. The percentage of completion is determined based on the proportion that contract costs incurred for work performed to date bear to the estimated total contract costs. If the revenue and costs of a contract cannot be reliably estimated, revenue is recognized only to the extent the recovery of contract costs are probable. If the total contract cost is likely to exceed the total contract revenue, expected losses are immediately recognized as costs.

Our contract revenue recognition policy requires our management to exercise judgment in estimating the outcome of our contracts and measuring the percentage of completion and actual costs incurred in respect of our projects, which affects the amount and timing of recognition of revenues and cost of sales, provisions for estimated losses, charges against current earnings, trade account receivables and advances. For example, due to factors causing variation in costs for 2020, the estimated total contract costs were changed. Details of changes in estimated total contract costs and the impact on profit before income taxes for 2020 and future periods are as follows:

	Amount
	(In millions of Won)
Changes in estimated total contract costs	₩ 180,065
Changes in profit before income taxes of construction contracts:	
Current period	40,743
Future periods	105,137

The effect on current and future profit is estimated based on circumstances that have occurred from the commencement date of the contract to the end of 2020. The estimation is evaluated for total contract costs and expected total contract revenue as of the end of the period. Such estimate may change in future periods.

Our ability to measure reliably the estimated total cost of a project has a significant effect on the amount and timing of recognizing our sales and cost of sales. The timing of recognition of sales we report may differ materially from the timing of actual contract payments received. In addition, to the extent that sales recognized by us exceed the amount of payments to be received by us, such amount is reflected as trade account receivables on our balance sheet. To the extent payments received by us exceed the sales recognized, such amount is reflected under advances from customers on our balance sheet. Thus our ability to measure reliably the estimated total costs and the percentage of completion also affects the amount of our trade account receivables and advances from customers. For a discussion of uncertainty of estimates related to contract revenues and costs, see Note 29(d) to the Consolidated Financial Statements.

Deferred Income Taxes

Our deferred income tax assets and liabilities reflect the tax consequences that would follow from the manner in which we expect, at the end of the reporting period, to recover or settle the carrying amount of our assets and liabilities. We recognize deferred income tax liability for all taxable temporary differences associated with investments in subsidiaries, associates and joint ventures, except to the extent that we are able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. We recognize deferred income tax asset for deductible temporary differences to the extent that it is probable that the temporary difference will reverse in the foreseeable future and taxable profit will be available against which they can be utilized. However, deferred tax is not recognized for taxable temporary differences arising on the initial recognition of goodwill or the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting profit or loss nor taxable income. The carrying amount of a deferred income tax asset is reviewed at the end of each reporting period and is reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or all of that deferred tax asset to be utilized.

We believe that recognition of deferred tax assets and liabilities is a significant accounting policy that requires our management’s estimates and assumptions regarding, among other things, the level of future taxable income, interpretation of the tax laws and tax planning. Changes in tax laws, projected levels of taxable income and tax planning could affect the effective tax rate and tax balances recorded by us in the future.

Employee Benefits

Our accounting of employee benefits for defined benefit plans involves judgments about uncertain events including, but not limited to, discount rates, life expectancy, future pay inflation and expected rate of return on plan assets. The discount rates are determined by reference to the yield at the reporting date on high quality corporate bonds that have maturity dates approximating the terms of our benefits obligations and that are denominated in the same currency in which the benefits are expected to be paid. We determine the net interest expense (income) on the net defined benefit liability (asset) for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the then-net defined benefit liability (asset), taking into account any changes in the net defined benefit liability (asset) during the period as a result of contributions and benefit payments, net interest expense, and other expenses related to defined benefit plans that are recognized in profit or loss. Due to changing market and economic conditions, the underlying key assumptions may differ from actual developments and may lead to significant changes in our defined benefit plan. We immediately recognize all actuarial gains and losses arising from defined benefit plans in retained earnings. If the estimated average discount rates by actuarial assumptions used in these valuations were increased by 1%, then the estimated provision for severance benefits would have decreased by Won 178 billion, or 7.3% in total, as of December 31, 2020. If the estimated future pay inflation rates were decreased by 1%, then the estimated provision for severance benefits would have decreased by Won 181 billion, or 7.4% in total, as of December 31, 2020.

Recent Accounting Changes

For a discussion of new standards, interpretations and amendments to existing standards that have been published, see Note 2 to the Consolidated Financial Statements.

Explanatory Note Regarding Presentation of Certain Financial Information under K-IFRS

In addition to preparing financial statements in accordance with IFRS as issued by the IASB included in this annual report, we also prepare financial statements in accordance with K-IFRS as adopted by the KASB, which we are required to file with the Financial Services Commission and the Korea Exchange under the FSCMA.

K-IFRS differs in certain respects from IFRS as issued by the IASB in the presentation of operating profit. For example, under K-IFRS, revenue from the development and sale of real estate is recognized using the percentage of completion method. However, under IFRS as issued by the IASB, revenue from the development and sale of certain real estate is recognized when an individual unit of residential real estate is delivered to the buyer. As a result, our consolidated statements of comprehensive income and our consolidated statements of financial position prepared in accordance with IFRS as issued by the IASB included in this annual report differ from our consolidated statements of comprehensive income and consolidated statements of financial position prepared in accordance with K-IFRS.

The table below sets forth a reconciliation of our operating profit and net income or loss as presented in our consolidated statements of comprehensive income prepared in accordance with IFRS as issued by the IASB for each of the years ended December 31, 2018, 2019 and 2020 to our operating profit and net income or loss in our consolidated statements of comprehensive income prepared in accordance with K-IFRS, for each of the corresponding years, taking into account such differences:

	For the Year Ended December 31,		
	2018	**2019**	**2020**
	(In millions of Won)		
Operating profit under IFRS as issued by the IASB	₩ 4,041,827	₩ 3,222,713	₩ 2,054,370
Additions:			
Impairment loss on other receivables	63,092	80,323	53,105
Impairment loss on assets held for sale	50,829	38,328	5,030
Loss on disposals of investments in subsidiaries, associates and joint ventures	5,226	6,539	14,632
Loss on disposals of property, plant and equipment	117,614	120,227	142,126
Impairment loss on property, plant and equipment	1,004,704	442,700	27,040
Impairment loss on investment property	51,461	32,642	—
Impairment loss on intangible assets	337,519	191,021	197,776
Increase to provisions	134,632	23,074	30,536
Loss on valuation of firm commitment	66,281	37,685	93,098
Donations	52,074	51,567	45,652
Idle tangible asset expenses	9,257	34,152	19,276
Others	184,865	112,029	70,408
	2,077,554	1,170,287	698,679
Deductions:			
Gain on disposals of assets held for sale	(27,171)	(37,461)	(841)
Gain on disposals of investment in subsidiaries, associates and joint ventures	(45,241)	(27,836)	(88,836)
Gain on disposals of property, plant and equipment	(53,139)	(49,367)	(15,548)
Gain on disposals of intangible assets	(117,139)	(1,896)	(815)
Gain on valuation of firm commitment	(39,028)	(60,201)	(107,511)
Gain on valuation of emission rights	—	(25,440)	—
Gain on disposals of emission rights	—	(11,141)	(24,851)
Reversal of other provisions	(3,557)	(36,522)	(5,154)
Others	(238,311)	(201,027)	(158,780)
	(523,586)	(450,891)	(402,336)
Revenue recognition related to development and sale of real estate	(176,859)	(418,862)	326,118
Cost of sales recognition related to development and sale of real estate	123,664	345,605	(273,796)
Operating profit under K-IFRS	₩ 5,542,600	₩ 3,868,854	₩ 2,403,035
Net profit under IFRS as issued by the IASB	₩ 1,932,386	₩ 2,038,165	₩ 1,748,492
Adjustments related to development and sale of real estate:			
Revenue	(176,859)	(418,862)	326,118
Cost of sales	123,664	345,605	(273,796)
Income tax	12,873	17,728	(12,662)
Net income under K-IFRS	₩ 1,892,064	₩ 1,982,637	₩ 1,788,152

Operating Results – 2019 Compared to 2020

The following table presents our statement of comprehensive income information and changes therein for 2019 and 2020.

	For the Year Ended December 31,		Changes 2019 versus 2020	
	2019	2020	Amount	%
	(In billions of Won)			
Revenue	₩ 64,786	₩ 57,467	₩ (7,319)	(11.3)%
Cost of sales	58,462	52,799	(5,664)	(9.7)
Gross profit	6,324	4,668	(1,656)	(26.2)
Selling and administrative expenses:				
Impairment loss (reversal of impairment loss) on trade accounts and notes receivable	(28)	1	29	N.A. (1)
Other administrative expenses	2,041	1,940	(102)	(5.0)
Selling expenses	368	377	9	2.3
Other operating income and expenses:				
Impairment loss on other receivables	80	53	(27)	(33.9)
Other operating income	451	402	(49)	(10.8)
Other operating expenses	1,090	646	(444)	(40.8)
Operating profit	3,223	2,054	(1,168)	(36.3)
Share of profit of equity-accounted investees, net	274	133	(140)	(51.3)
Finance income	1,872	2,677	805	43.0
Finance costs	2,242	2,892	650	29.0
Profit before income tax	3,127	1,973	(1,154)	(36.9)
Income tax expense	1,088	224	(864)	(79.4)
Profit	2,038	1,748	(290)	(14.2)
Profit for the period attributable to owners of the controlling company	1,864	1,581	(283)	(15.2)
Profit for the period attributable to non-controlling interests	174	167	(6)	(3.7)

(1) N.A. means not applicable.

Revenue

The following table presents our revenue by segment and changes therein for 2019 and 2020.

	For the Year Ended December 31,		Changes 2019 versus 2020	
	2019	2020	Amount	%
	(In billions of Won)			
Steel Segment:				
External revenue	₩ 32,078	₩ 28,893	₩ (3,186)	(9.9)%
Internal revenue	17,730	15,365	(2,365)	(13.3)
Total revenue from Steel Segment	49,808	44,258	(5,550)	(11.1)
Trading Segment:				
External revenue	22,157	19,345	(2,812)	(12.7)
Internal revenue	15,468	12,947	(2,521)	(16.3)
Total revenue from Trading Segment	37,625	32,292	(5,333)	(14.2)
Construction Segment:				
External revenue	6,945	6,576	(369)	(5.3)
Internal revenue	743	1,034	290	39.1
Total revenue from Construction Segment	7,688	7,610	(78)	(1.0)
Others Segment:				
External revenue	3,187	2,979	(208)	(6.5)
Internal revenue	2,796	2,610	(186)	(6.7)
Total revenue from Others Segment	5,983	5,588	(394)	(6.6)
Total revenue prior to consolidation adjustments	101,104	89,749	(11,355)	(11.2)
Consolidation adjustments	(36,737)	(31,956)	4,781	(13.0)
Basis difference adjustments [(1)]	419	(326)	(745)	N.A.[(2)]
Revenue	₩ 64,786	₩ 57,467	(7,319)	(11.3)

(1) Basis difference adjustments are related to the difference in recognizing revenue and expenses of the Construction Segment in connection with the development and sale of certain residential real estate between the report reviewed by the chief executive officer and the consolidated financial statements. See Notes 3 and 40 to the Consolidated Financial Statements.

(2) N.A. means not applicable.

Our revenue decreased by 11.3%, or Won 7,319 billion, from Won 64,786 billion in 2019 to Won 57,467 billion in 2020 due to decreases in external revenues of all of our segments. Specifically:

Steel Segment. External revenue from the Steel Segment, which does not include internal revenue from inter-company transactions that are eliminated during consolidation, decreased by 9.9%, or Won 3,186 billion, from Won 32,078 billion in 2019 to Won 28,893 billion in 2020 primarily due to a decrease in the average unit sales price per ton of the principal steel products produced by us and sold to external customers and, to a lesser extent, a decrease in our sales volume of the principal steel products produced by us and directly sold to external customers. The weighted average unit sales price per ton of the principal steel products produced by us and directly sold to external customers decreased by 6.0% from Won 955,209 per ton in 2019 to Won 898,008 per ton in 2020, reflecting generally weak global market conditions in 2020 due to the COVID-19 pandemic. Our sales prices generally decreased in the first, second and third quarters of 2020 compared to the prior quarter, but recovered in the fourth quarter of 2020. The overall sales volume of the principal steel products produced by us and directly sold to external customers decreased by 3.9% from 30.4 million tons in 2019 to 29.2 billion tons in 2020, reflecting weak demand in 2020 due to the COVID-19 pandemic. Our sales volume decrease from the first quarter of 2020 to the second quarter of 2020, but gradually recovered in the third and fourth quarters of 2020. Such factors were principally attributable to the following:

- The unit sales prices in Won of each of our principal product lines, other than silicon steel sheets, decreased from 2019 to 2020. The unit sales prices in Won of plates, wire rods, cold rolled products, hot rolled products and stainless steel products produced by us and directly sold to external customers decreased by 13.0%, 8.8%, 8.1%, 6.1% and 3.1%, respectively, from 2019 to 2020. On the other hand, the unit sales price in Won of silicon steel sheets increased by 11.5% from 2019 to 2020. For a discussion of changes in the unit sales prices of each of our principal product lines, see "— Overview — Sales Volume, Prices and Product Mix" above.
- The sales volume of plates, cold rolled products and wire rods decreased from 2019 to 2020, the impact of which was partially offset by increases in the sales volume of silicon steel sheets, hot rolled products and stainless steel products from 2019 to 2020. The sales volume of plates, cold rolled products and wire rods produced by us and directly sold to external customers decreased by 11.7%, 7.6% and 6.7%, respectively, from 2019 to 2020. On the other hand, the sales volume of silicon steel sheets, hot rolled products and stainless steel products produced by us and directly sold to external customers increased by 8.6%, 4.4% and 0.6%, respectively, from 2019 to 2020. For a discussion of changes in the sales volume of each of our principal product lines, see "Item 4.B. Business Overview — Major Products."

Total revenue from the Steel Segment, which includes internal revenue from inter-company transactions, decreased by 11.1%, or Won 5,550 billion, from Won 49,808 billion in 2019 to Won 44,258 billion in 2020 as internal revenue from inter-company transactions decreased by 13.3%, or Won 2,365 billion, from Won 17,730 billion in 2019 to Won 15,365 billion in 2020 primarily due to a decrease in our steel sales activities through trading subsidiaries, particularly POSCO International.

Trading Segment. External revenue from the Trading Segment, which does not include internal revenue from inter-company transactions that are eliminated during consolidation, decreased by 12.7%, or Won 2,812 billion, from Won 22,157 billion in 2019 to Won 19,345 billion in 2020 primarily due to a decrease in POSCO International's trading sales that were negatively impacted by the COVID-19 pandemic and a decrease in revenue from its Myanmar gas field projects, which was negatively impacted by a decrease in global prices of natural gas in 2020 as well as a temporary suspension of production for 20 days in September 2020 for maintenance activities.

Total revenue from the Trading Segment, which includes internal revenue from inter-company transactions, decreased by 14.2%, or Won 5,333 billion, from Won 37,625 billion in 2019 to Won 32,292 billion in 2020 as internal revenue from inter-company transactions decreased by 16.3%, or Won 2,521 billion, from Won 15,468 billion in 2019 to Won 12,947 billion in 2020 primarily due to a decrease in our steel sales activities through trading subsidiaries from 2019 to 2020.

Construction Segment. External revenue from the Construction Segment, which does not include internal revenue from inter-company transactions that are eliminated during consolidation and basis difference adjustments, decreased by 5.3%, or Won 369 billion, from Won 6,945 billion in 2019 to Won 6,576 billion in 2020 primarily due to a decrease in external revenue from architectural works construction projects, which was partially offset by an increase in external revenue from plant construction projects.

Total revenue from the Construction Segment, which includes internal revenue from inter-company transactions, decreased by 1.0%, or Won 78 billion, from Won 7,688 billion in 2019 to Won 7,610 billion in 2020 as internal revenue from inter-company transactions increased by 39.1%, or Won 290 billion, from Won 743 billion in 2019 to Won 1,034 billion in 2020. Such increase in internal revenue reflected an increase in the amount of construction activities for member companies of the POSCO Group from 2019 to 2020.

Others Segment. The Others Segment primarily includes power generation, manufacturing of various industrial materials and provision of information technology services. External revenue from the Others Segment, which does not include internal revenue from inter-company transactions that are eliminated during consolidation, decreased by 6.5%, or Won 208 billion, from Won 3,187 billion in 2019 to Won 2,979 billion in 2020, primarily due to a decrease in revenue of POSCO Energy Corporation, which was partially offset by an increase in revenue of POSCO Chemical Co., Ltd. The decrease in revenue of POSCO Energy Corporation primarily reflected a decrease in the price of electricity, which was partially offset by an increase in revenue from its LNG terminal-related businesses. On the other hand, the revenue of POSCO Chemical Co., Ltd. increased primarily due to an increase in sales of anode and cathode materials used, among others, in electric batteries.

Total revenue from the Others Segment, which includes internal revenue from inter-company transactions, decreased by 6.6%, or Won 394 billion, from Won 5,983 billion in 2019 to Won 5,588 billion in 2020 as internal revenue from inter-company transactions decreased by 6.7%, or Won 186 billion, from Won 2,796 billion in 2019 to Won 2,610 billion in 2020 primarily due to a decrease in POSCO Energy's revenue from sales of electricity to member companies of the POSCO group from 2019 to 2020.

Cost of Sales

The following table presents a breakdown of our cost of sales by segment, prior to adjusting for inter-company transactions that are eliminated during consolidation and basis difference, and changes therein for 2019 and 2020.

	For the Year Ended December 31,		Changes 2019 versus 2020	
	2019	2020	Amount	%
	(In billions of Won)			
Steel Segment	₩ 45,642	₩ 41,598	₩ (4,044)	(8.9)%
Trading Segment	36,330	31,258	(5,072)	(14.0)
Construction Segment	7,155	6,904	(251)	(3.5)
Others Segment	5,324	4,874	(450)	(8.5)
Consolidation adjustments	(36,334)	(31,562)	4,772	(13.1)
Basis difference adjustments (1)	346	(274)	(619)	N.A.(2)
Cost of sales	₩ 58,462	₩ 52,799	(5,664)	(9.7)

(1) Basis difference adjustments are related to the difference in recognizing revenue and expenses of the Construction Segment in connection with the development and sale of certain residential real estate between the report reviewed by the chief executive officer and the consolidated financial statements. See Notes 3 and 40 to the Consolidated Financial Statements.

(2) N.A. means not applicable.

Our cost of sales decreased by 9.7%, or Won 5,664 billion, from Won 58,462 billion in 2019 to Won 52,799 billion in 2020 due to decreases in cost of sales of all of our segments. Specifically:

Steel Segment. The cost of sales of our Steel Segment, prior to consolidation, decreased by 8.9%, or Won 4,044 billion, from Won 45,642 billion in 2019 to Won 41,598 billion in 2020 primarily due to a decrease in the average prices in Won terms of coal used to manufacture our steel products as well as a decrease in our sales volume of principal steel products produced by us and sold to external customers, the impact of which was partially offset by an increase in the average price in Won terms of iron ore used to manufacture our steel products. The average market price of coal per wet metric ton (Premium Low Vol Coking Coal, FOB Australia Index announced by Platts) decreased from US$176 in 2019 to US$124 in 2020. On the other hand, the average market price of iron ore per dry metric ton (Iron Ore 62% Fe, CFR China Index announced by Platts) increased from US$93 in 2019 to US$109 in 2020.

Trading Segment. The cost of sales of our Trading Segment, prior to consolidation, decreased by 14.0%, or Won 5,072 billion, from Won 36,330 billion in 2019 to Won 31,258 billion in 2020 primarily due to decreases in trading activities as well as natural resources development activities of POSCO International.

Construction Segment. The cost of sales of our Construction Segment, prior to consolidation and basis difference adjustments, decreased by 3.5%, or Won 251 billion, from Won 7,155 billion in 2019 to Won 6,904 billion in 2020 reflecting a decrease in the average prices in Won terms of certain raw materials used in construction activities as well as a decrease in the progress of architectural works construction projects, which impact was partially offset by an increase in the progress of plant construction projects.

Others Segment. The cost of sales of our Others Segment, prior to consolidation, decreased by 8.5%, or Won 450 billion, from Won 5,324 billion in 2019 to Won 4,874 billion in 2020 primarily due to a decrease in the cost of sales of POSCO Energy Corporation reflecting a decrease in the global price of LNG in 2020 as well as its decision to directly import LNG used in some of its power plants.

Gross Profit

The following table presents our gross profit by segment, prior to adjusting for inter-company transactions that are eliminated during consolidation and basis difference, and changes therein for 2019 and 2020.

	For the Year Ended December 31,		Changes 2019 versus 2020	
	2019	2020	Amount	%
	(In billions of Won)			
Steel Segment	₩ 4,166	₩ 2,660	₩ (1,506)	(36.1)%
Trading Segment	1,295	1,034	(261)	(20.1)
Construction Segment	533	706	173	32.5
Others Segment	659	714	56	8.4
Consolidation adjustments	(403)	(394)	8	(2.1)
Basis difference adjustments (1)	73	(52)	(126)	N.A. (2)
Gross profit	₩ 6,324	₩ 4,668	(1,656)	(26.2)

(1) Basis difference adjustments are related to the difference in recognizing revenue and expenses of the Construction Segment in connection with the development and sale of certain residential real estate between the report reviewed by the chief executive officer and the consolidated financial statements. See Notes 3 and 40 to the Consolidated Financial Statements.

(2) N.A. means not applicable.

Our gross profit decreased by 26.2%, or Won 1,656 billion, from Won 6,324 billion in 2019 to Won 4,668 billion in 2020 primarily due to decreases in gross profit of the Steel Segment and the Trading Segment, the impact of which was partially offset by increases in gross profit of the Construction Segment and the Others Segment. Our gross margin, which is gross profit as a percentage of total revenue, decreased from 9.8% in 2019 to 8.1% in 2020.

Steel Segment. The gross profit of our Steel Segment, prior to consolidation, decreased by 36.1%, or Won 1,506 billion, from Won 4,166 billion in 2019 to Won 2,660 billion in 2020 primarily due to a decrease in the average unit sales price per ton of the principal steel products produced by us and sold to external and internal customers that outpaced a decrease in the average prices in Won terms of certain raw materials used to manufacture our finished steel products. The gross margin of our Steel Segment decreased from 8.4% in 2019 to 6.0% in 2020.

Trading Segment. The gross profit of our Trading Segment, prior to consolidation, decreased by 20.1%, or Won 261 billion, from Won 1,295 billion in 2019 to Won 1,034 billion in 2020 primarily due to a decrease in gross profit from POSCO International's natural resources development activities. In particular, gross profit from POSCO International's Myanmar gas field projects was negatively impacted by a decrease in global prices of natural gas in 2020 as well as a temporary suspension of production for 20 days in September 2020 for maintenance activities. The gross margin of our Trading Segment decreased from 3.4% in 2019 to 3.2% in 2020.

Construction Segment. The gross profit of our Construction Segment, prior to consolidation and basis difference adjustments, increased by 32.5%, or Won 173 billion, from Won 533 billion in 2019 to Won 706 billion in 2020 primarily reflecting an increase in POSCO E&C's participation in higher margin plant and architectural works construction projects in 2020. The gross margin of our Construction Segment increased from 6.9% in 2019 to 9.3% in 2020.

Others Segment. The gross profit of our Others Segment, prior to consolidation, increased by 8.4%, or Won 56 billion, from Won 659 billion in 2019 to Won 714 billion in 2020 primarily due to an increase in the gross profit of POSCO Energy Corporation. POSCO Energy Corporation's gross profit increased from 2019 to 2020 primarily due to its decision to directly import LNG used in some of its power plants as well as improved operational efficiency of its LNG terminal-related businesses. The gross margin of our Others Segment improved from 11.0% in 2019 to 12.8% in 2020.

Selling and Administrative Expenses

The following table presents a breakdown of our selling and administrative expenses and changes therein for 2019 and 2020.

	For the Year Ended December 31, 2019	For the Year Ended December 31, 2020	Changes 2019 versus 2020 Amount	Changes 2019 versus 2020 %
	(In billions of Won)			
Impairment loss (reversal of impairment loss) on trade accounts and notes receivable	₩ (28)	₩ 1	₩ 29	N.A. [1]
Freight and custody expenses	₩ 180	₩ 181	₩ 0	0.1%
Sales commissions	74	87	13	17.5
Sales promotion	10	7	(3)	(29.1)
Sales insurance premium	33	30	(2)	(7.0)
Contract cost	38	46	8	21.4
Others	33	26	(7)	(22.3)
Total selling expenses	₩ 368	₩ 377	9	2.3
Wages and salaries	₩ 841	₩ 829	₩ (12)	(1.4)%
Expenses related to post-employment benefits	89	83	(6)	(6.6)
Other employee benefits	178	187	9	5.2
Depreciation	131	146	15	11.5
Amortization	112	115	3	2.7
Taxes and public dues	79	59	(20)	(24.9)
Rental	40	35	(5)	(12.3)
Advertising	83	72	(11)	(13.1)
Research and development	110	116	6	5.4
Service fees	193	157	(37)	(19.1)
Others	185	140	(45)	(24.2)
Total other administrative expenses	₩ 2,041	₩ 1,940	(102)	(5.0)
Total selling and administrative expenses	₩ 2,381	₩ 2,317	(64)	(2.7)

(1) N.A. means not applicable.

Our selling and administrative expenses decreased by 2.7%, or Won 64 billion, from Won 2,381 billion in 2019 to Won 2,317 billion in 2020, primarily due to decreases in service fees, taxes and public fees and wages and salaries, the impact of which was partially offset by a reversal of impairment loss on trade accounts and notes receivable in 2019 compared to impairment loss on trade accounts and notes receivable in 2020 as well as an increase in depreciation and sales commissions. Such factors were principally attributable to the following:

- Our service fees decreased by 19.1%, or Won 37 billion, from Won 193 billion in 2019 to Won 157 billion in 2020 primarily due to decreases in brokerage fees relating to imports and exports and third-party consulting fees.
- Taxes and public fees decreased by 24.9%, or Won 20 billion, from Won 79 billion in 2019 to Won 59 billion in 2020 primarily due to the business combination of our LNG storage facilities and off-gas combined cycle power plants in 2019, which were not repeated in 2020.
- Our wages and salaries decreased by 1.4%, or Won 12 billion, from Won 841 billion in 2019 to Won 829 billion in 2020 primarily due to a decrease in the employees of POSCO ICT Co., Ltd.
- We recognized reversal of such impairment loss of Won 28 billion in 2019 primarily due to a reversal of impairment loss on trade accounts and notes receivables of POSCO E&C. On the other hand, in 2020, we recognized impairment loss on trade accounts and notes receivables of Won 1 billion primarily due to impairment loss on accounts receivables of Donghoon SP Co., Ltd.
- Our depreciation increased by 11.5%, or Won 15 billion, from Won 131 billion in 2019 to Won 146 billion in 2020 primarily due to acquisitions of new assets, including silos in Pohang Works, by us and POSCO Energy.
- Our sales commissions increased by 17.5%, or Won 13 billion, from Won 74 billion in 2019 to Won 87 billion in 2020 primarily due to an increase in claim expenses that are included in sales commissions.

Other Operating Income and Expenses

The following table presents our impairment loss on other receivables and changes therein for 2019 and 2020.

	For the Year Ended December 31,		Changes 2019 versus 2020	
	2019	2020	Amount	%
	(In billions of Won)			
Impairment loss on other receivables	₩ 80	₩ 53	₩ (27)	(33.9)%

Our impairment loss on other receivables decreased by 33.9%, or Won 27 billion, from Won 80 billion in 2019 to Won 53 billion in 2020 primarily due to a reversal of impairment loss of POSCO E&C in 2020 resulting from its collection of previously impaired receivables, compared to no such reversal in 2019.

The following table presents a breakdown of our other operating income and changes therein for 2019 and 2020.

	For the Year Ended December 31,		Changes	
			2019 versus 2020	
	2019	2020	Amount	%
	(In billions of Won)			
Gain on disposal of assets held for sale	₩ 37	₩ 1	₩ (37)	(97.8)%
Gain on disposal of investments in subsidiaries, associates and joint ventures	28	89	61	219.1
Gain on disposal of property, plant and equipment	49	16	(34)	(68.5)
Gain on disposal of intangible assets	2	1	(1)	(57.0)
Gain on valuation of firm commitment	60	108	47	78.6
Gain on valuation of emission rights	25	—	(25)	(100.0)
Gain on disposal of emission rights	11	25	14	123.1
Reversal of other provisions	37	5	(31)	(85.9)
Premium income	3	25	22	659.3
Others	198	134	(64)	(32.5)
Total other operating income	₩ 451	₩ 402	(49)	(10.8)

Our other operating income decreased by 10.8%, or Won 49 billion, from Won 451 billion in 2019 to Won 402 billion in 2020, primarily due to our recognition of a refund of value added tax related to imported LNG in 2019, compared to no such refund in 2020, as well as decreases in gain on disposal of assets held for sale, gain on disposal of property, plant and equipment and reversal of other provisions, the impact of which was partially offset by an increase in gain on disposal of investments in subsidiaries, associates and joint ventures.

- In 2019, we recognized a refund of Won 74 billion of value added tax related to imported LNG (which is included in "others"), compared to no such refund in 2020.
- Our gain on disposal of assets held for sale decreased by 97.8%, or Won 37 billion, from Won 37 billion in 2019 to Won 1 billion in 2020. In 2019, we recognized gain from our disposal of FINEX plant no. 1, compared to no such gain in 2020.
- Our gain on disposal of property, plant and equipment decreased by 68.5%, or Won 34 billion, from Won 49 billion in 2019 to Won 16 billion in 2020 primarily due to gains from the disposal of equipment of FINEX plant no. 1 in 2019, compared to no such gain in 2020.
- Our reversal of other provisions decreased by 85.9%, or Won 31 billion, from Won 37 billion in 2019 to Won 5 billion in 2020 primarily due to a reversal of other provisions relating to a lawsuit involving POSCO E&C in 2019, compared to no such reversal in 2020.
- Our gain on disposal of investments in subsidiaries, associates and joint ventures increased by 219.1%, or Won 61 billion, from Won 28 billion in 2019 to Won 89 billion in 2020. In 2019, we recognized gain on disposal of investments in subsidiaries, associates and joint ventures primarily related to our disposal of POSPOWER Co., Ltd. In 2020, such gain primarily related to our disposal of investments in Incheon-Gimpo Expressway Co. Ltd.

The following table presents a breakdown of our other operating expenses and changes therein for 2019 and 2020.

	For the Year Ended December 31,		Changes 2019 versus 2020	
	2019	2020	Amount	%
	(In billions of Won)			
Impairment loss on assets held for sale	₩ 38	₩ 5	₩ (33)	(86.9)%
Loss on disposals of investments in subsidiaries, associates and joint ventures	7	15	8	123.8
Loss on disposals of property, plant and equipment	120	142	22	18.2
Impairment loss on property, plant and equipment	443	27	(416)	(93.9)
Impairment loss on investment property	33	—	(33)	(100.0)
Impairment loss on intangible assets	191	198	7	3.5
Loss on valuation of firm commitment	38	93	55	147.0
Idle tangible asset expenses	34	19	(15)	(43.6)
Increase to provisions	23	31	7	32.3
Donations	52	46	(6)	(11.5)
Others	112	70	(42)	(37.2)
Total other operating expenses	₩ 1,090	₩ 646	(444)	(40.8)

Our other operating expenses decreased by 40.8%, or Won 444 billion, from Won 1,090 billion in the 2019 to Won 646 billion in 2020, primarily due to a decrease in impairment loss on property, plant and equipment, which was partially offset by an increase in loss on valuation of firm commitment. Such factors were principally attributable to the following:

- Our impairment loss on property, plant and equipment decreased by 93.9%, or Won 416 billion, from Won 443 billion in 2019 to Won 27 billion in 2020. In 2019, we recognized impairment loss of Won 205 billion incurred by POSCO VINA, Won 74 billion related to the discontinued operation of a ferro silicon facility in Pohang Works and Won 70 billion related to the discontinued operation of a compact endless cast-rolling mill in Gwangyang Works. In 2020, we recognized impairment loss of Won 17 billion related to a fire at a stainless steel production facility at Pohang Works.

- Our loss on valuation of firm commitment increased by 147.0%, or Won 55 billion, from Won 38 billion in 2019 to Won 93 billion in 2020 primarily due to an increase in loss on valuation of derivatives relating to POSCO International.

We also recognized impairment loss on intangible assets of Won 191 billion in 2019 and Won 198 billion in 2020 that primarily related to POSCO International. In 2019, we recognized write-offs of intangible assets of Won 118 billion related to the termination of the Block AD-7 exploration project in Myanmar by POSCO International. In 2020, we recognized impairment loss on goodwill of Won 189 billion related to the recoverable amount of POSCO International, which are determined based on its value in use.

Operating Profit

Due to the factors described above, our operating profit decreased by 36.3%, or Won 1,168 billion, from Won 3,223 billion in 2019 to Won 2,054 billion in 2020. Our operating margin decreased from 5.0% in 2019 to 3.6% in 2020.

Share of Profit of Equity-Accounted Investees

Our share of profit of equity-accounted investees decreased by 51.3%, or Won 140 billion, from Won 274 billion in 2019 to Won 133 billion in 2020.

In 2019, we recognized a net gain for our proportionate share of equity-accounted investees of Won 274 billion primarily due to our share of gains of Won 158 billion of Roy Hill Holdings Pty Ltd, Won 64 billion of South-East Asia Gas Pipeline Company Ltd., Won 56 billion of KOBRASCO and Won 28 billion of SNNC Co., Ltd., the impact of which was partially offset by our share of loss of Won 58 billion of CSP – Compania Siderurgica do Pecem. See Note 11 to the Consolidated Financial Statements.

In 2020, we recognized a net gain for our proportionate share of equity-accounted investees of Won 133 billion primarily due to our share of gains of Won 235 billion of Roy Hill Holdings Pty Ltd., Won 46 billion of South-East Asia Gas Pipeline Company Ltd. and Won 37 billion of AES-VCM Mong Duong Power Company Limited, the impact of which was partially offset by our share of loss of Won 61 billion of CSP – Compania Siderurgica do Pecem and Won 40 billion of Eureka Loly LLC. See Note 11 to the Consolidated Financial Statements.

Finance Income and Finance Costs

The following table presents a breakdown of our finance income and costs and changes therein for 2019 and 2020.

	For the Year Ended December 31,		Changes 2019 versus 2020	
	2019	2020	Amount	%
	(In billions of Won)			
Interest income	₩ 352	₩ 372	₩ 20	5.6%
Dividend income	75	38	(37)	(49.2)
Gain on foreign currency transactions	825	1,148	323	39.2
Gain on foreign currency translations	206	574	368	178.8
Gain on derivatives transactions	196	352	156	79.7
Gain on valuations of derivatives	163	116	(48)	(29.3)
Gain on disposals of financial assets at fair value through profit or loss	9	16	7	82.4
Gain on valuations of financial assets at fair value through profit or loss	42	52	9	21.9
Others	3	10	7	189.1
Total finance income	₩ 1,872	₩ 2,677	805	43.0
Interest expenses	₩ 756	₩ 639	(117)	(15.5)
Loss on foreign currency transactions	747	1,068	321	43.0
Loss on foreign currency translations	319	425	106	33.2
Loss on derivatives transactions	228	410	182	79.7
Loss on valuations of derivatives	47	230	182	383.7
Loss on disposal of trade accounts and notes receivable	37	16	(21)	(57.2)
Loss on disposal of financial assets at fair value through profit or loss	3	6	3	87.6
Loss on valuations of financial assets at fair value through profit or loss	66	67	2	2.5
Others	39	32	(7)	(18.2)
Total finance costs	₩ 2,242	₩ 2,892	650	29.0

Our interest expense decreased by 15.5%, or Won 117 billion, from Won 756 billion in 2019 to Won 639 billion in 2020 primarily due to a general decrease in interest rates in Korea and abroad.

Our interest income increased by 5.6%, or Won 20 billion, from Won 352 billion in 2019 to Won 372 billion in 2020 primarily due to an increase in the average balance of interest-earning financial assets in 2020, which was partially offset by a general decrease in interest rates in Korea and abroad in 2020.

We recognized net loss on foreign currency translations of Won 113 billion in 2019 compared to a net gain on foreign currency translations of Won 149 billion in 2020 and our net gain on foreign currency transactions increased by 2.3%, or Won 2 billion, from Won 78 billion in 2019 to Won 80 billion in 2020, as the Won depreciated against the Dollar in 2019 but appreciated in 2020. In terms of the market average exchange rates announced by Seoul Money Brokerage Services, Ltd., the Won depreciated from Won 1,118.1 to US$1.00 as of December 31, 2018 to Won 1,157.8 to US$1.00 as of December 31, 2019, but appreciated to Won 1,088.0 to US$1.00 as of December 31, 2020. Against such fluctuations, we recognized a net gain on valuations of derivatives of Won 116 billion in 2019 compared to a net loss on valuations of derivatives of Won 114 billion in 2020, and our net loss on transactions of derivatives increased by 80.1%, or Won 26 billion, from Won 32 billion in 2019 to Won 58 billion in 2020.

Our dividend income decreased by 49.2%, or Won 37 billion, from Won 75 billion in 2019 to Won 38 billion in 2020 primarily due to a decrease in profitability of some of our equity-accounted investees that pay dividends.

Profit before Income Taxes

Due to the factors described above, our profit before income taxes decreased by 36.9%, or Won 1,154 billion, from Won 3,127 billion in 2019 to Won 1,973 billion in 2020.

The following table presents our profit and loss by segment, prior to adjusting for goodwill and corporate fair value adjustments, elimination of inter-segment profits, income tax expense and basis difference, and changes therein for 2019 and 2020.

	For the Year Ended December 31,		Changes 2019 versus 2020	
	2019	2020	Amount	%
	(In billions of Won)			
Steel Segment	₩ 586	₩ 712	₩ 126	21.5%
Trading Segment	165	157	(8)	(5.0)
Construction Segment	28	150	122	439.9
Others Segment	545	294	(251)	(46.1)
Goodwill and corporate fair value adjustments	(80)	(75)	6	(6.9)
Elimination of inter-segment profits	739	550	(189)	(25.5)
Income tax expense	1,071	237	(834)	(77.9)
Basis difference adjustments (1)	73	(52)	(126)	N.A. (2)
Profit before income taxes	₩ 3,127	₩ 1,973	(1,154)	(36.9)

(1) Basis difference adjustments are related to the difference in recognizing revenue and expenses of the Construction Segment in connection with the development and sale of certain residential real estate between the report reviewed by the chief executive officer and the consolidated financial statements. See Notes 3 and 40 to the Consolidated Financial Statements.

(2) N.A. means not available.

Income Tax Expense

Our income tax expense decreased by 79.4%, or Won 864 billion, from Won 1,088 billion in 2019 to Won 224 billion in 2020, primarily reflecting a decrease in profit before income tax described above. Our effective tax rate decreased from 34.8% in 2019 to 11.4% in 2020. In 2019, our effective tax rate was higher than the statutory rate primarily due to the effect of deductible temporary difference in our investments in subsidiaries, associates and joint ventures, for which no deferred tax assets were recognized. In 2020, our effective tax rate was lower than the statutory rate primarily due to income tax benefit from changes in our estimation on deductibility of temporary difference related to synthetic natural gas facilities and business combination of off-gas power station business. See Note 35 to the Consolidated Financial Statements.

Profit

Due to the factors described above, our profit decreased by 14.2%, or Won 290 billion, from Won 2,038 billion in 2019 to Won 1,748 billion in 2020.

Operating Results – 2018 Compared to 2019

The following table presents our statement of comprehensive income information and changes therein for 2018 and 2019.

	For the Year Ended December 31,		Changes 2018 versus 2019	
	2018	2019	Amount	%
	(In billions of Won)			
Revenue	₩ 65,155	₩ 64,786	₩ (369)	(0.6)%
Cost of sales	57,129	58,462	1,333	2.3
Gross profit	8,026	6,324	(1,702)	(21.2)
Selling and administrative expenses:				
Impairment loss (reversal of impairment loss) on trade accounts and notes receivable	75	(28)	(103)	N.A. (1)
Other administrative expenses	1,986	2,041	56	2.8
Selling expenses	369	368	(1)	(0.3)
Other operating income and expenses:				
Impairment loss on other receivables	63	80	17	27.3
Other operating income	524	451	(73)	(13.9)
Other operating expenses	2,014	1,090	(924)	(45.9)
Operating profit	4,042	3,223	(819)	(20.3)
Share of profit of equity-accounted investees, net	113	274	161	143.0
Finance income	1,706	1,872	166	9.7
Finance costs	2,244	2,242	(2)	(0.1)
Profit before income tax	3,616	3,127	(489)	(13.5)
Income tax expense	1,684	1,088	(595)	(35.4)
Profit	1,932	2,038	106	5.5
Profit for the period attributable to owners of the controlling company	1,712	1,864	152	8.9
Profit for the period attributable to non-controlling interests	220	174	(46)	(20.9)

(1) N.A. means not applicable.

Revenue

The following table presents our revenue by segment and changes therein for 2018 and 2019.

	For the Year Ended December 31,		Changes 2018 versus 2019	
	2018	2019	Amount	%
	(In billions of Won)			
Steel Segment:				
External revenue	₩ 32,358	₩ 32,078	₩ (280)	(0.9)%
Internal revenue	18,063	17,730	(333)	(1.8)
Total revenue from Steel Segment	50,421	49,808	(613)	(1.2)
Trading Segment:				
External revenue	22,408	22,157	(251)	(1.1)
Internal revenue	15,911	15,468	(443)	(2.8)
Total revenue from Trading Segment	38,319	37,625	(694)	(1.8)
Construction Segment:				
External revenue	6,769	6,945	175	2.6
Internal revenue	551	743	192	34.8
Total revenue from Construction Segment	7,321	7,688	367	5.0
Others Segment:				
External revenue	3,443	3,187	(256)	(7.4)
Internal revenue	2,755	2,796	41	1.5
Total revenue from Others Segment	6,198	5,983	(215)	(3.5)
Total revenue prior to consolidation adjustments	102,259	101,104	(1,154)	(1.1)
Consolidation adjustments	(37,281)	(36,737)	543	(1.5)
Basis difference adjustments [1]	177	419	242	136.8
Revenue	₩ 65,155	₩ 64,786	(369)	(0.6)

(1) Basis difference adjustments are related to the difference in recognizing revenue and expenses of the Construction Segment in connection with development and sale of certain residential real estate between the report reviewed by the chief executive officer and the consolidated financial statements. See Notes 3 and 40 to the Consolidated Financial Statements.

Our revenue decreased by 0.6%, or Won 369 billion, from Won 65,155 billion in 2018 to Won 64,786 billion in 2019 due to decreases in external revenues from the Steel Segment, the Others Segment and the Trading Segment, which were offset in part by an increase in revenue from the Construction Segment. Specifically:

Steel Segment. External revenue from the Steel Segment, which does not include internal revenue from inter-company transactions that are eliminated during consolidation, decreased by 0.9%, or Won 280 billion, from Won 32,358 billion in 2018 to Won 32,078 billion in 2019 primarily due to a decrease in our sales volume of the steel products produced by us and directly sold to external customers (including miscellaneous steel products not included in any of our major product categories), which was partially offset by an increase in the average unit sales price per ton of the principal steel products produced by us and sold to external customers. The overall sales volume of the principal steel products produced by us and directly sold to external customers decreased by 3.2% from 31.4 million tons in 2018 to 30.4 million tons in 2019, while the weighted average unit sales price per ton of the principal steel products produced by us and directly sold to external customers increased by 2.3% from Won 933,990 per ton in 2018 to Won 955,209 per ton in 2019. Such factors were principally attributable to the following:

- The sales volume of each of our major product categories, other than plates and stainless steel products, decreased from 2018 to 2019. The sales volume of cold rolled products, silicon steel sheets, wire rods and hot rolled products produced by us and directly sold to external customers decreased by 9.0%, 8.6%, 5.9% and 3.2%, respectively, from 2018 to 2019. On the other hand, the sales volume of plates and stainless steel products produced by us and directly sold to external customers increased by 8.9% and 4.2%, respectively, from 2018 to 2019. For a discussion of changes in the sales volume of each of our principal product lines, see "Item 4.B. Business Overview — Major Products."

- In 2019, the unit sales prices in Won of cold rolled products, plates and stainless steel products produced by us and directly sold to external customers increased, while the unit sales prices in Won of the remainder of our principal product lines of steel products decreased. The unit sales prices in Won of cold rolled products, plates and stainless steel products produced by us and directly sold to external customers increased by 4.4%, 4.2% and 0.8%, respectively, from 2018 to 2019. On the other hand, the unit sales prices in Won of hot rolled products, wire rods and silicon steel sheets produced by us and directly sold to external customers decreased by 3.4%, 1.2% and 0.3% from 2018 to 2019. For a discussion of changes in the unit sales prices of each of our principal product lines, see "— Overview — Sales Volume, Prices and Product Mix" above.

Total revenue from the Steel Segment, which includes internal revenue from inter-company transactions, decreased by 1.2%, or Won 613 billion, from Won 50,421 billion in 2018 to Won 49,808 billion in 2019 as internal revenue from inter-company transactions decreased by 1.8%, or Won 333 billion, from Won 18,063 billion in 2018 to Won 17,730 billion in 2019 primarily due to a decrease in our steel sales activities through trading subsidiaries, particularly POSCO International.

Trading Segment. External revenue from the Trading Segment, which does not include internal revenue from inter-company transactions that are eliminated during consolidation, decreased by 1.1%, or Won 251 billion, from Won 22,408 billion in 2018 to Won 22,157 billion in 2019 primarily due to decreases in POSCO International's export trading sales of automobiles and machinery parts as well as steel and metal products, which was offset in part by an increase in revenue from the natural resources development activities of POSCO International.

Total revenue from the Trading Segment, which includes internal revenue from inter-company transactions, decreased by 1.8%, or Won 694 billion, from Won 38,319 billion in 2018 to Won 37,625 billion in 2019 as internal revenue from inter-company transactions decreased by 2.8%, or Won 443 billion, from Won 15,911 billion in 2018 to Won 15,468 billion in 2019 primarily due to a decrease in our steel sales activities through trading subsidiaries.

Construction Segment. External revenue from the Construction Segment, which does not include internal revenue from inter-company transactions that are eliminated during consolidation and basis difference adjustments, increased by 2.6%, or Won 175 billion, from Won 6,769 billion in 2018 to Won 6,945 billion in 2019 primarily due to an increase in external revenue from construction projects in Korea.

Total revenue from the Construction Segment, which includes internal revenue from inter-company transactions, increased by 5.0%, or Won 367 billion, from Won 7,321 billion in 2018 to Won 7,688 billion in 2019 as internal revenue from inter-company transactions increased by 34.8%, or Won 192 billion, from Won 551 billion in 2018 to Won 743 billion in 2019. Such increase in internal revenue reflected an increase in the amount of construction activities for member companies of the POSCO Group in 2019 compared to 2018.

Others Segment. The Others Segment primarily includes power generation, manufacturing of various industrial materials and information technology services. External revenue from the Others Segment, which does not include internal revenue from inter-company transactions that are eliminated during consolidation, decreased by 7.4%, or Won 256 billion, from Won 3,443 billion in 2018 to Won 3,187 billion in 2019, primarily due to decreases in revenue of POSCO Energy Corporation and revenue from information technology services, which were offset in part by an increase in revenue of POSCO Chemical Co., Ltd. from an increase in sales volume of anode and cathode materials.

Total revenue from the Others Segment, which includes internal revenue from inter-company transactions, decreased by 3.5%, or Won 215 billion, from Won 6,198 billion in 2018 to Won 5,983 billion in 2019 as external revenue decreased as discussed above. Such decrease was partially offset by an increase in internal revenue from inter-company transactions by 1.5%, or Won 41 billion, from Won 2,755 billion in 2018 to Won 2,796 billion in 2019 primarily due to an increase in inter-company sales related to POSCO ICT Co., Ltd.

Cost of Sales

The following table presents a breakdown of our cost of sales by segment, prior to adjusting for inter-company transactions that are eliminated during consolidation and basis difference, and changes therein for 2018 and 2019.

	For the Year Ended December 31,		Changes 2018 versus 2019	
	2018	2019	Amount	%
	(In billions of Won)			
Steel Segment	₩ 44,377	₩ 45,642	₩ 1,265	2.9%
Trading Segment	37,202	36,330	(872)	(2.3)
Construction Segment	6,651	7,155	504	7.6
Others Segment	5,603	5,324	(279)	(5.0)
Consolidation adjustments	(36,828)	(36,334)	494	(1.3)
Basis difference adjustments [(1)]	124	346	222	179.5
Cost of sales	₩ 57,129	₩ 58,462	1,333	2.3

(1) Basis difference adjustments are related to the difference in recognizing revenue and expenses of the Construction Segment in connection with development and sale of certain residential real estate between the report reviewed by the chief executive officer and the consolidated financial statements. See Notes 3 and 40 to the Consolidated Financial Statements.

Our cost of sales increased by 2.3%, or Won 1,333 billion, from Won 57,129 billion in 2018 to Won 58,462 billion in 2019 due to increases in cost of sales of the Steel Segment and the Construction Segment, which were offset in part by decreases in cost of sales of the Trading Segment and the Others Segment. Specifically:

Steel Segment. The cost of sales of our Steel Segment, prior to consolidation, increased by 2.9%, or Won 1,265 billion, from Won 44,377 billion in 2018 to Won 45,642 billion in 2019 primarily due to an increase in the average prices in Won terms of certain raw materials used to manufacture our steel products, which was offset in part by a slight decrease in our sales volume of principal steel products produced by us and sold to external customers.

Trading Segment. The cost of sales of our Trading Segment, prior to consolidation, decreased by 2.3%, or Won 872 billion, from Won 37,202 billion in 2018 to Won 36,330 billion in 2019 primarily due to decreases in export and domestic trading activities of POSCO International, which were offset in part by an increase in its natural resources development activities.

Construction Segment. The cost of sales of our Construction Segment, prior to consolidation and basis difference adjustments, increased by 7.6%, or Won 504 billion, from Won 6,651 billion in 2018 to Won 7,155 billion in 2019, reflecting the progress of large-scale construction projects in Korea.

Others Segment. The cost of sales of our Others Segment, prior to consolidation, decreased by 5.0%, or Won 279 billion, from Won 5,603 billion in 2018 to Won 5,324 billion in 2019 primarily due to a decrease in the cost of sales of POSCO Energy Corporation.

Gross Profit

The following table presents our gross profit by segment, prior to adjusting for inter-company transactions that are eliminated during consolidation and basis difference, and changes therein for 2018 and 2019.

	For the Year Ended December 31,		Changes 2018 versus 2019	
	2018	2019	Amount	%
	(In billions of Won)			
Steel Segment	₩ 6,044	₩ 4,166	₩ (1,878)	(31.1)%
Trading Segment	1,117	1,295	178	16.0
Construction Segment	669	533	(136)	(20.4)
Others Segment	595	659	64	10.7
Consolidation adjustments	(453)	(403)	50	(11.1)
Basis difference adjustments (1)	53	73	20	37.7
Gross profit	₩ 8,026	₩ 6,324	(1,702)	(21.2)

(1) Basis difference adjustments are related to the difference in recognizing revenue and expenses of the Construction Segment in connection with development and sale of certain residential real estate between the report reviewed by the chief executive officer and the consolidated financial statements. See Notes 3 and 40 to the Consolidated Financial Statements.

Our gross profit decreased by 21.2%, or Won 1,702 billion, from Won 8,026 billion in 2018 to Won 6,324 billion in 2019 primarily due to decreases in gross profit of the Steel Segment and the Construction Segment, which were offset in part by increases in gross profit of the Trading Segment and the Others Segment. Our gross margin, which is gross profit as a percentage of total revenue, decreased from 12.3% in 2018 to 9.8% in 2019.

Steel Segment. The gross profit of our Steel Segment, prior to consolidation, decreased by 31.1%, or Won 1,878 billion, from Won 6,044 billion in 2018 to Won 4,166 billion in 2019 primarily due to an increase in the average prices in Won terms of certain raw materials used to manufacture our finished steel products that outpaced an increase in the average unit sales price per ton of the principal steel products produced by us and sold to external and internal customers during the period. In particular, the average market price of iron ore per dry metric ton (Iron Ore 62% Fe, CFR China Index announced by Platts) was US$69 in 2018 and US$93 in 2019. The gross margin of our Steel Segment decreased from 12.0% in 2018 to 8.4% in 2019.

Trading Segment. The gross profit of our Trading Segment, prior to consolidation, increased by 16.0%, or Won 178 billion, from Won 1,117 billion in 2018 to Won 1,295 billion in 2019 primarily due to an increase in gross profit from POSCO International's natural resources development activities. The gross margin of our Trading Segment increased from 2.9% in 2018 to 3.4% in 2019.

Construction Segment. The gross profit of our Construction Segment, prior to consolidation and basis difference adjustments, decreased by 20.4%, or Won 136 billion, from Won 669 billion in 2018 to Won 533 billion in 2019 primarily reflecting a decrease in POSCO E&C's participation in higher margin construction projects in 2019. The gross margin of our Construction Segment decreased from 9.1% in 2018 to 6.9% in 2019.

Others Segment. The gross profit of our Others Segment, prior to consolidation, increased by 10.7%, or Won 64 billion, from Won 595 billion in 2018 to Won 659 billion in 2019 primarily due to an increase in the gross profit of POSCO Chemical Co., Ltd. The gross margin of our Others Segment improved from 9.6% in 2018 to 11.0% in 2019.

Selling and Administrative Expenses

The following table presents a breakdown of our selling and administrative expenses and changes therein for 2018 and 2019.

	For the Year Ended December 31,		Changes 2018 versus 2019	
	2018	2019	Amount	%
	(In billions of Won)			
Impairment loss (reversal of impairment loss) on trade accounts and notes receivable	₩ 75	₩ (28)	₩ (103)	N.A. (1)
Freight and custody expenses	₩ 185	₩ 180	₩ (4)	(2.3)%
Sales commissions	79	74	(5)	(6.5)
Sales promotion	14	10	(4)	(27.6)
Sales insurance premium	37	33	(5)	(12.4)
Contract cost	17	38	21	124.1
Others	37	33	(4)	(11.0)
Total selling expenses	₩ 369	₩ 368	(1)	(0.3)
Wages and salaries	₩ 813	₩ 841	₩ 27	3.3%
Expenses related to post-employment benefits	73	89	16	21.3
Other employee benefits	176	178	2	0.9
Depreciation	101	131	30	29.7
Amortization	112	112	(0)	(0.2)
Taxes and public dues	72	79	7	9.7
Rental	70	40	(30)	(42.6)
Advertising	107	83	(24)	(22.7)
Research and development	108	110	2	1.8
Service fees	166	193	28	16.6
Others	186	185	(1)	(0.7)
Total other administrative expenses	₩ 1,986	₩ 2,041	56	2.8
Total selling and administrative expenses	₩ 2,430	₩ 2,381	(48)	(2.0)

(1) N.A. means not applicable.

Our selling and administrative expenses decreased by 2.0%, or Won 48 billion, from Won 2,430 billion in 2018 to Won 2,381 billion in 2019, primarily due to an impairment loss on trade accounts and notes receivable in 2018 compared to a reversal of such impairment loss in 2019 as well as decreases in rental and advertising expenses, which were offset in part by increases in depreciation expenses and wages and salaries. Such factors were principally attributable to the following:

- We recognized impairment loss on trade accounts and notes receivable of Won 75 billion in 2018 primarily related to impairment loss on trade accounts and notes receivables of POSCO E&C and its subsidiary in Vietnam. However, we recognized reversal of such impairment loss of Won 28 billion in 2019 primarily due to a reversal of impairment loss on trade accounts and notes receivables of POSCO E&C.
- Our rental expenses decreased by 42.6%, or Won 30 billion, from Won 70 billion in 2018 to Won 40 billion in 2019 primarily due to the adoption of IFRS No. 16 in 2019 which has impacted rental expenses of POSCO E&C and POSCO International. See Note 3 to the Consolidated Financial Statements.
- Our advertising expenses decreased by 22.7%, or Won 24 billion, from Won 107 billion in 2018 to Won 83 billion in 2019 primarily reflecting our advertising activities in 2018 related to our sponsorship of the 2018 PyeongChang Olympic Games compared to no such advertising activities in 2019.
- Our depreciation expenses increased by 29.7%, or Won 30 billion, from Won 101 billion in 2018 to Won 131 billion in 2019 primarily due to our adoption of IFRS No. 16 in 2019, under

which we recognized depreciation expenses related to our right-of-use assets. See Note 3 to the Consolidated Financial Statements.

- Our wages and salaries increased by 3.3%, or Won 27 billion, from Won 813 billion in 2018 to Won 841 billion in 2019 primarily due to increases in base salaries at our domestic subsidiaries.

Other Operating Income and Expenses

The following table presents our impairment loss on other receivables and changes therein for 2018 and 2019.

	For the Year Ended December 31,		Changes 2018 versus 2019	
	2018	2019	Amount	%
	(In billions of Won)			
Impairment loss on other receivables	₩ 63	₩ 80	₩ 17	27.3%

Our impairment loss on other receivables increased by 27.3%, or Won 17 billion, from Won 63 billion in 2018 to Won 80 billion in 2019 primarily due to a decrease in our reversals of allowances for bad debt, as well as an increase in allowance for bad debt of POSCO International.

The following table presents a breakdown of our other operating income and changes therein for 2018 and 2019.

	For the Year Ended December 31,		Changes 2018 versus 2019	
	2018	2019	Amount	%
	(In billions of Won)			
Gain on disposal of assets held for sale	₩ 27	₩ 37	₩ 10	37.9%
Gain on disposal of investments in subsidiaries, associates and joint ventures	45	28	(17)	(38.5)
Gain on disposal of property, plant and equipment	53	49	(4)	(7.1)
Gain on disposal of intangible assets	117	2	(115)	(98.4)
Gain on valuation of firm commitment	39	60	21	54.3
Gain on valuation of emission rights	—	25	25	N.A.[(1)]
Gain on disposal of emission rights	—	11	11	N.A.[(1)]
Reversal of other provisions	4	37	33	926.8
Others	238	201	(37)	(15.6)
Total other operating income	₩ 524	₩ 451	(73)	(13.9)

(1) N.A. means not applicable.

Our other operating income decreased by 13.9%, or Won 73 billion, from Won 524 billion in 2018 to Won 451 billion in 2019, primarily due to decreases in gain on disposal of intangible assets and the recognition of a tax refund in 2018, which were partially offset by increases in reversal of other provisions and gain on valuation of emission rights. Such factors were principally attributable to the following:

- Our gain on disposal of intangible assets decreased by 98.4%, or Won 115 billion, from Won 117 billion in 2018 to Won 2 billion in 2019 primarily due to a gain from exchange or disposal of emission allowances in 2018, compared to no such gain in 2019.

- In 2018, we recognized a tax refund of Won 55 billion relating to a correction of the results of a tax investigation (which is included in “others”), compared to no such refund in 2019.

- Our reversal of other provisions increased by 926.8%, or Won 33 billion, from Won 4 billion in 2018 to Won 37 billion in 2019 primarily due to a reversal of other provisions related to a lawsuit involving POSCO E&C.

- We recognized gain on valuation of emission rights of Won 25 billion in 2019 compared to no such gain in 2018.

The following table presents a breakdown of our other operating expenses and changes therein for 2018 and 2019.

	For the Year Ended December 31,		Changes 2018 versus 2019	
	2018	2019	Amount	%
	(In billions of Won)			
Impairment loss on assets held for sale	₩ 51	₩ 38	₩ (13)	(24.6)%
Loss on disposals of investments in subsidiaries, associates and joint ventures	5	7	1	25.1
Loss on disposals of property, plant and equipment	118	120	3	2.2
Impairment loss on property, plant and equipment	1,005	443	(562)	(55.9)
Impairment loss on investment property	51	33	(19)	(36.6)
Impairment loss on intangible assets	338	191	(146)	(43.4)
Loss on valuation of firm commitment	66	38	(29)	(43.1)
Idle tangible asset expenses	9	34	25	268.9
Increase to provisions	135	23	(112)	(82.9)
Donations	52	52	(1)	(1.0)
Others	185	112	(73)	(39.4)
Total other operating expenses	₩ 2,014	₩ 1,090	(924)	(45.9)

Our other operating expenses decreased by 45.9%, or Won 924 billion, from Won 2,014 billion in the 2018 to Won 1,090 billion in 2019, primarily due to decreases in impairment loss on property, plant and equipment and impairment loss on intangible assets. Such factors were principally attributable to the following:

- Our impairment loss on property, plant and equipment decreased by 55.9%, or Won 562 billion, from Won 1,005 billion in 2018 to Won 443 billion in 2019. In 2018, we recognized impairment loss of Won 810 billion related to the discontinuation of our synthetic natural gas production facility in Gwangyang Works. In 2019, we recognized impairment loss of Won 205 billion incurred by POSCO VINA, Won 74 billion related to the discontinued operation of a ferro silicon facility in Pohang Works and Won 70 billion related to the discontinued operation of a compact endless cast-rolling mill in Gwangyang Works.

- Our impairment loss on intangible assets decreased by 43.4%, or Won 146 billion, from Won 338 billion in 2018 to Won 191 billion in 2019. In 2018, our impairment loss on intangible assets related primarily to impairment loss on goodwill of Won 158 billion attributable to POSCO International and Won 66 billion attributable to POSCO E&C in connection with a decrease in value-in-use of such entities due to reduced expected cash flow arising from the uncertain global economic climate, as well as impairment of industrial property rights of Won 78 billion related to our investment in Hume Coal Pty Limited, a coal mining company in Australia. In 2019, we recognized write-offs of intangible assets of Won 118 billion related to the termination of the Block AD-7 exploration project in Myanmar by POSCO International.

Operating Profit

Due to the factors described above, our operating profit decreased by 20.3%, or Won 819 billion, from Won 4,042 billion in 2018 to Won 3,223 billion in 2019. Our operating margin decreased from 6.2% in 2018 to 5.0% in 2019.

Share of Profit of Equity-Accounted Investees

Our share of profit of equity-accounted investees increased by 143.0%, or Won 161 billion, from Won 113 billion in 2018 to Won 274 billion in 2019.

In 2018, we recognized a net gain for our proportionate share of equity-accounted investees of Won 113 billion primarily due to our share of gains of Won 75 billion of KOBRASCO, Won 70 billion of POSCO Mitsubishi Carbon Technology Ltd., Won 59 billion of Roy Hill Holdings Pty Ltd. and Won 30 billion of AES-VCM Mong Duong Power Company Limited, which were partially offset by our share of loss of Won 110 billion of CSP-Compania Siderurgica do Pecem.

In 2019, we recognized a net gain for our proportionate share of equity-accounted investees of Won 274 billion primarily due to our share of gains of Won 158 billion of Roy Hill Holdings Pty Ltd, Won 64 billion of South-East Asia Gas Pipeline Company Ltd., Won 56 billion of KOBRASCO and Won 28 billion of SNNC Co., Ltd., which were offset in part by our share of loss of Won 58 billion of CSP – Compania Siderurgica do Pecem. See Note 11 to the Consolidated Financial Statements.

Finance Income and Finance Costs

The following table presents a breakdown of our finance income and costs and changes therein for 2018 and 2019.

	For the Year Ended December 31,		Changes 2018 versus 2019	
	2018	2019	Amount	%
	(In billions of Won)			
Interest income	₩ 337	₩ 352	₩ 15	4.5%
Dividend income	63	75	12	19.1
Gain on foreign currency transactions	716	825	109	15.2
Gain on foreign currency translations	212	206	(6)	(3.0)
Gain on derivatives transactions	248	196	(52)	(20.8)
Gain on valuations of derivatives	97	163	67	68.6
Gain on disposals of financial assets at fair value through profit or loss	9	9	(0)	(2.5)
Gain on valuations of financial assets at fair value through profit or loss	16	42	26	161.9
Others	7	3	(4)	(53.5)
Total finance income	₩ 1,706	₩ 1,872	166	9.7
Interest expenses	₩ 741	₩ 756	14	1.9%
Loss on foreign currency transactions	811	747	(64)	(7.9)
Loss on foreign currency translations	322	319	(2)	(0.7)
Loss on derivatives transactions	209	228	19	9.3
Loss on valuations of derivatives	41	47	7	16.7
Loss on disposal of trade accounts and notes receivable	40	37	(3)	(7.6)
Loss on disposal of financial assets at fair value through profit or loss	1	3	1	101.4
Loss on valuations of financial assets at fair value through profit or loss	59	66	6	10.8
Others	20	39	19	92.9
Total finance costs	₩ 2,244	₩ 2,242	(2)	(0.1)

We recognized net loss on foreign currency transactions of Won 95 billion in 2018 compared to a net gain on foreign currency transactions of Won 78 billion in 2019 and our net loss on foreign currency translations increased by 3.8%, or Won 4 billion, from Won 109 billion in 2018 to Won 113 billion in 2019, as the Won depreciated against the Dollar in 2018 and further depreciated in 2019. In terms of the market average exchange rates announced by Seoul Money Brokerage Services, Ltd., the Won depreciated from Won 1,071.4 to US$1.00 as of December 31, 2017 to Won 1,118.1 to US$1.00 as of December 31, 2018 and further depreciated to Won 1,157.8 to US$1.00 as of December 31, 2019. Against such fluctuations, our net gain on valuations of derivatives increased by 106.1%, or Won 60 billion, from Won 56 billion in 2018 to Won 116 billion in 2019, and we recognized a net gain on transactions of derivatives of Won 39 billion in 2018 compared to a net loss on transactions of derivatives of Won 32 billion in 2019.

Profit before Income Taxes

Due to the factors described above, our profit before income taxes decreased by 13.5%, or Won 489 billion, from Won 3,616 billion in 2018 to Won 3,127 billion in 2019.

The following table presents our profit and loss by segment, prior to adjusting for goodwill and corporate fair value adjustments, elimination of inter-segment profits, income tax expense and basis difference, and changes therein for 2018 and 2019.

	For the Year Ended December 31,		Changes 2018 versus 2019	
	2018	2019	Amount	%
	(In billions of Won)			
Steel Segment	₩ 1,268	₩ 586	₩ (682)	(53.8)%
Trading Segment	49	165	116	235.6
Construction Segment	0	28	28	N.M.[(2)]
Others Segment	14	545	531	3,904.7
Goodwill and corporate fair value adjustments	(78)	(80)	(2)	3.2
Elimination of inter-segment profit or loss	638	739	100	15.7
Income tax expense	1,671	1,071	(600)	(35.9)
Basis difference adjustments [(1)]	53	73	20	37.7
Profit before income taxes	₩ 3,616	₩ 3,127	(489)	(13.5)

(1) Basis difference adjustments are related to the difference in recognizing revenue and expenses of the Construction Segment in connection with development and sale of certain residential real estate between the report reviewed by the chief executive officer and the consolidated financial statements. See Notes 3 and 40 to the Consolidated Financial Statements.

(2) N.M. means not meaningful.

Income Tax Expense

Our income tax expense decreased by 35.4%, or Won 595 billion, from Won 1,684 billion in 2018 to Won 1,088 billion in 2019, primarily reflecting a decrease in profit before income tax described above. Our effective tax rate decreased from 46.6% in 2018 to 34.8% in 2019. In 2018, our effective tax rate was higher than the statutory rate of 27.5% primarily due to adjustments related to (i) non-deductible impairment loss related to a synthetic natural gas production facility in Gwangyang Works and (ii) a tax audit. In 2019, our effective tax rate was higher than the statutory rate primarily due to the effect of deductible temporary difference in our investments in subsidiaries, associates and joint ventures, for which no deferred tax assets were recognized. See Note 35 to the Consolidated Financial Statements.

Profit

Due to the factors described above, our profit increased by 5.5%, or Won 106 billion, from Won 1,932 billion in 2018 to Won 2,038 billion in 2019.

Item 5.B. ***Liquidity and Capital Resources***

The following table sets forth the summary of our cash flows for the periods indicated.

	For the Year Ended December 31,		
	2018	2019	2020
	(In billions of Won)		
Net cash provided by operating activities	₩ 5,870	₩ 6,005	₩ 8,686
Net cash used in investing activities	(2,648)	(3,683)	(6,259)
Net cash used in financing activities	(3,195)	(1,512)	(1,091)
Effect of exchange rate fluctuation on cash held	5	62	(95)
Cash and cash equivalents at beginning of the period	2,613	2,644	3,515
Cash and cash equivalents at end of the period	2,644	3,515	4,756
Net increase in cash and cash equivalents	31	871	1,240

Capital Requirements

Historically, uses of cash consisted principally of purchases of property, plant and equipment and other assets and repayments of outstanding debt and payments of dividends. From time to time, we also use cash for repurchases of our shares.

Net cash used in investing activities was Won 2,648 billion in 2018, Won 3,683 billion in 2019 and Won 6,259 billion in 2020. Our cash outflows for acquisition of property, plant and equipment were Won 2,136 billion in 2018, Won 2,519 billion in 2019 and Won 3,154 billion in 2020. We currently expect our cash outflows for acquisition of property, plant and equipment in 2021 to be comparable to those in 2020, which we may adjust on an on-going basis subject to market demand for our products, the production outlook of the global steel industry and global economic conditions in general. We may delay or not implement some of our current capital expenditure plans based on our assessment of such market conditions. We had net acquisitions of short-term financial instruments of Won 1,068 billion in 2018, Won 647 billion in 2019 and Won 2,807 billion in 2020.

In our financing activities, we used cash of Won 3,136 billion in 2018, Won 3,747 billion in 2019 and Won 3,644 billion in 2020 for repayments of borrowings. We paid dividends on common stock in the amount of Won 724 billion in 2018, Won 946 billion in 2019 and Won 659 billion in 2020. In April 2020, we entered into a trust contract to engage in repurchases of our shares until April 2021 for up to Won 1.0 trillion, and we used cash of Won 883 billion in 2020 for acquisition of treasury shares. The trust contract was terminated in April 2021, and we used cash of Won 117 billion in the first quarter of 2021 for acquisition of treasury shares prior to such termination.

In recent years, we have also selectively considered various opportunities to acquire or invest in companies that may complement our businesses, as well as invest in overseas resources development projects. We may require additional capital for such acquisitions or entering into other strategic relationships. Other than capital required for such activities, we anticipate that capital expenditures, repayments of outstanding debt and payments of cash dividends will represent the most significant uses of funds for the next several years.

Payments of contractual obligations and commitments will also require considerable resources. In our ordinary course of business, we routinely enter into commercial commitments for various aspects of our operations, as well as issue guarantees for indebtedness of our related parties and others. For our contingent liabilities on outstanding guarantees provided by us, see Note 38(b) to the Consolidated Financial Statements. The following table sets forth the amount of long-term debt and lease obligations as of December 31, 2020.

	Payments Due by Period				
	Total	Less than 1 Year	1 to 3 Years	4 to 5 Years	More than 5 Years
	(In billions of Won)				
Long-term debt obligations [a]	₩ 15,329	₩ 3,472	₩ 7,302	₩ 3,372	₩ 1,183
Interest payments on long-term debt [b]	1,020	410	424	124	62
Lease obligations	739	244	223	101	171
Purchase obligations [c]	23,602	10,707	8,233	3,136	1,526
Long-term shipping service contract	17,191	1,907	3,637	3,458	8,189
Accrued severance benefits [d]	2,958	245	465	396	1,852
Total	₩ 60,839	₩ 16,985	₩ 20,284	₩ 10,587	₩ 12,983

(a) Includes the current portion and premium on bond redemption but excludes amortization of discount on debentures and issuance costs.

(b) As of December 31, 2020, a portion of our long-term debt carried variable interest rates. We used the interest rate in effect as of December 31, 2020 in calculating the interest payments on long-term debt for the periods indicated.

(c) Our purchase obligations include supply contracts to purchase iron ore, coal, nickel, LNG and other raw materials. These contracts generally have terms of one to ten years and the long-term contracts provide for periodic price adjustments according to the market prices. As of December 31, 2020, 57 million tons of iron ore and 10 million tons of coal remained to be purchased under long-term contracts. In addition, we entered into an agreement with Tangguh LNG Consortium in Indonesia to purchase 550 thousand tons of LNG for 20 years commencing in August 2005. The purchase price under the agreement with Tangguh LNG Consortium is variable based on the monthly standard oil price (as represented by the Japan Customs cleared Crude Price), subject to a ceiling. We used the market price and exchange rate in effect as of December 31, 2020 in calculating the iron ore, coal and LNG purchase obligations described above for the periods indicated.

(d) Represents, as of December 31, 2020, the expected amount of severance benefits that we will be required to pay under applicable Korean law to all of our employees when they reach their normal retirement age. The amounts were determined based on the employees' current salary rates and the number of service years that will be accumulated upon their retirement. These amounts do not include amounts that may be paid to employees who cease to work at the company before their normal retirement age.

Capital Resources

We have traditionally met our working capital and other capital requirements principally from cash provided by operations, while raising the remainder of our requirements primarily through long-term debt and short-term borrowings. We expect that these sources will continue to be our principal sources of cash in the future. From time to time, we may also generate cash through issuance of hybrid bonds and sale of treasury shares and our holdings in available-for-sale securities.

Our net cash provided by operating activities increased by 2.3%, or Won 135 billion, from Won 5,870 billion in 2018 to Won 6,005 billion in 2019. Our gross cash flow from sales activities decreased as discussed above. However, we recorded cash outflow related to the buildup of inventories in 2018 compared to cash inflow related to more efficient management of inventories in 2019, which in turn positively impacted our net cash provided by operating activities. On the other hand, we recorded cash inflow related to our management of trade accounts and notes payable in 2018 compared to cash outflow in 2019, which in turn negatively impacted our net cash provided by operating activities. In addition, cash outflows related to income taxes paid increased from Won 1,140 billion in 2018 to Won 1,513 billion in 2019.

Our net cash provided by operating activities increased by 44.7%, or Won 2,681 billion, from Won 6,005 billion in 2019 to Won 8,686 billion in 2020. Our gross cash flow from our sales activities decreased as discussed above. However, we recorded cash outflow related to our management of trade accounts and notes payable in 2019 compared to cash inflow related to more efficient management of trade accounts and notes payable in 2020, which in turn positively impacted our net cash provided by operating activities. In addition, cash outflows related to income taxes paid decreased from Won 1,513 billion in 2019 to Won 651 billion in 2020. Our cash inflow related to trade accounts and notes receivable also increased from 2019 to 2020 due to our more efficient management of trade accounts and notes receivable, which in turn positively impacted our net cash provided by operating activities.

We had net repayments of borrowings, after adjusting for proceeds from borrowings, of Won 374 billion in 2018 and net proceeds from borrowings, after adjusting for repayments of borrowings, of Won 1,900 billion in 2019 and Won 766 billion in 2020. We had net repayment of short-term borrowings, after deducting for proceeds of short-term borrowings, of Won 855 billion in 2018 and Won 2,195 billion in 2019 and net proceeds from short-term borrowings, after adjusting for repayment of short-term borrowings, of Won 36 billion in 2020. Long-term borrowings, excluding current installments, were Won 9,920 billion as of December 31, 2018, Won 11,893 billion as of December 31, 2019 and Won 11,820 billion as of December 31, 2020. Total short-term borrowings and current installments of long-term borrowings were Won 10,290 billion as of December 31, 2018, Won 8,548 billion as of December 31, 2019 and Won 8,678 billion as of December 31, 2020. Outstanding hybrid bonds were Won 199 billion as of December 31, 2018, 2019 and 2020. Our net borrowings-to-equity ratio, which is calculated by deducting cash and cash equivalents from total borrowings and dividing the net amount with our total equity, was 37.64% as of December 31, 2018, 35.42% as of December 31, 2019 and 33.02% as of December 31, 2020.

We periodically increase our short-term borrowings and adjust our long-term debt financing levels depending on changes in our capital requirements. From time to time, we also generate cash from the sale of our treasury shares. We believe that we have sufficient working capital for our current requirements and that we have a variety of alternatives available to us to satisfy our liquidity requirements to the extent that they are not met by funds generated by operations, including the issuance of debt and equity securities and bank borrowings denominated in Won and various foreign currencies. However, our ability to rely on some of these alternatives could be affected by factors such as the liquidity of the Korean and the global financial markets, prevailing interest rates, our credit rating and the Government's policies regarding Won currency and foreign currency borrowings.

Liquidity

We had working capital (current assets minus current liabilities) of Won 14,721 billion as of December 31, 2018, Won 18,593 billion as of December 31, 2019 and Won 19,193 billion as of December 31, 2020. Our holdings of cash and cash equivalents (which do not include cash and cash equivalents categorized under "assets held for sale") were Won 2,644 billion as of December 31, 2018, Won 3,515 billion as of December 31, 2019 and Won 4,755 billion as of December 31, 2020. See Notes 5 and 10 to the Consolidated Financial Statements. Our holding of other receivables and other short-term financial assets were Won 9,467 billion as of December 31, 2018, Won 10,578 billion as of December 31, 2019 and Won 13,203 billion as of December 31, 2020. As of December 31, 2020, approximately 12% of our cash and cash equivalents, other receivables and other short-term financial assets were held outside of Korea, which we expect to use in our operations abroad, including capital expenditure activities. In the event that such assets are needed for our operations in Korea, such amounts are typically not restricted under local laws from being used in Korea. In addition, we believe that there are no material tax implications in the event our foreign subsidiaries elect to grant cash dividends to us. POSCO had total available credit lines of Won 2,088 billion as of December 31, 2020, Won 1,029 billion of which was used as of such date. We have not had, and do not believe that we will have, difficulty gaining access to short-term financing sufficient to meet our current requirements.

Our liquidity is affected by exchange rate fluctuations. See "— Overview — Exchange Rate Fluctuations."

Capital Expenditures and Capacity Expansion

Cash used for acquisitions of property, plant and equipment was Won 2,136 billion in 2018, Won 2,519 billion in 2019 and Won 3,154 billion in 2020. We currently expect our cash outflows for acquisition of property, plant and equipment in 2021 to be comparable to those in 2020, which we may adjust on an on-going basis subject to market demand for our products, the production outlook of the global steel industry and global economic conditions in general. We may delay or not implement some of our current capital expenditure plans based on our assessment of such market conditions.

Our current plan for capital investment in production facilities emphasizes capacity rationalization, increased production of higher value-added products, improvements in the efficiency of older facilities in order to reduce operating costs and construction and expansion of facilities related to our non-steel businesses. The following table sets out the major items of our capital expenditures as of December 31, 2020:

Project	Expected Completion Date	Total Cost of Project	Estimated Remaining Cost of Completion as of December 31, 2020
		(In billions of Won)	
Construction of by-product gas plant and no. 6 cokes plant at Pohang Works	December 2023	₩1,479	₩1,023
Repair of furnace no. 4 at Gwangyang Works and rationalization of furnace no. 3 and no. 4 at Pohang Works	May 2024	1,195	674
Construction of cathode materials production facilities at Gwangyang Works	November 2021	290	282

Item 5.C. *Research and Development, Patents and Licenses, Etc.*

We maintain a research and development program to carry out basic research and applied technology development activities. As of December 31, 2020, POSCO Technical Research Laboratories employed 912 personnel, including 509 researchers. Our technology development department also works closely with the Pohang University of Science & Technology, Korea's first research-oriented college founded by us in 1986, and the Research Institute of Industrial Science and Technology, Korea's first private comprehensive research institute founded by us in 1987. We also established POSCO Research Institute (POSRI) in 1994, which engages in research activities and consulting services.

Our research and development program has filed approximately 45,200 industrial rights applications relating to steel-making technology, approximately 12,500 of which were registered as of December 31, 2020, and has successfully applied many of these to the improvement of our manufacturing process.

Item 5.D. *Trend Information*

These matters are discussed under Item 5.A. and Item 5.B. above where relevant.

Item 5.E. *Off-balance Sheet Arrangements*

As of December 31, 2019 and 2020, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Item 5.F. *Tabular Disclosure of Contractual Obligations*

These matters are discussed under Item 5.B. above where relevant.

Item 5.G. *Safe Harbor*

See "Item 3. Key Information — Item 3.D. Risk Factors — This annual report contains "forward-looking statements" that are subject to various risks and uncertainties."

Item 6. *Directors, Senior Management and Employees*

Item 6.A. *Directors and Senior Management*

Board of Directors

Our board of directors has the ultimate responsibility for the management of our business affairs. Our board consists of five directors who are our executive officers (“Inside Directors”) and seven directors who are outside directors (“Outside Directors”). Our shareholders elect both the Inside Directors and Outside Directors at a general meeting of shareholders. Candidates for Inside Directors are recommended to shareholders by the board of directors after the board reviews such candidates’ qualifications, and candidates for Outside Directors are recommended to the shareholders by a separate board committee consisting of three Outside Directors and one Inside Director (“Director Candidate Recommendation Committee”) after the committee reviews such candidates’ qualifications. Pursuant to the Korean Commercial Act and our articles of incorporation, any shareholder holding our outstanding shares with voting rights may suggest candidates for Outside Directors to the Director Candidate Recommendation Committee.

Our board of directors maintains the following five special committees:

- the Environmental, Social and Governance (“ESG”) Committee;
- the Director Candidate Recommendation Committee;
- the Evaluation and Compensation Committee;
- the Finance Committee;
- the Executive Management Committee; and
- the Audit Committee.

Our board committees are described in greater detail below under “— Item 6.C. Board Practices.”

Under the Commercial Code and our articles of incorporation, one Chairman should be elected among the Outside Directors and several Representative Directors may be elected among the Inside Directors by our board of directors’ resolution.

Inside Directors

As of March 31, 2021, our Inside Directors are as follows:

Name	Position	Responsibilities and Division	Years as Director	Age	Expiration of Term of Office
Choi, Jeong-Woo	Chief Executive Officer and Representative Director	—	2	63	March 2024
Kim, Hag-Dong	President and Representative Director	Head of Steel Business Unit	2	61	March 2022
Chon, Jung-Son	Senior Executive Vice President and Representative Director	Head of Global & Infra Business Unit and Head of Corporate Strategy & Planning Division	3	58	March 2022
Jeong, Tak	Senior Executive Vice President	Head of Marketing Division	2	61	March 2022
Chung, Chang-Hwa	Senior Executive Vice President	Head of Management Support Division	—	59	March 2022

All Inside Directors are engaged in our business on a full-time basis.

Outside Directors

Each of our Outside Directors meets the applicable independence standards set forth under the rules of the FSCMA.

Name	Position	Principal Occupation	Years as Director	Age	Expiration of Term of Office
Chang, Seung-Wha	Chairman	Professor of Law, Seoul National University	4	57	March 2023
Kim, Shin-Bae	Director	Former Vice Chairman, SK Group	4	66	March 2022
Chung, Moon-Ki	Director	Professor of Accounting, Sungkyunkwan University	4	61	March 2022
Kim, Sung-Jin	Director	Former Minister, Ministry of Oceans and Fisheries	3	71	March 2024
Pahk, Heui-Jae	Director	Professor of Mechanical & Aerospace Engineering, Seoul National University	2	59	March 2022
Yoo, Young-Sook	Director	Principal Research Scientist, Korea Institute of Science and Technology (KIST)	—	65	March 2024
Kwon, Tae-Kyun	Director	Former Ambassador, Korea to the United Arab Emirates	—	65	March 2024

The term of office of the Director elected in March 2021 is up to three years. Each Director’s term expires at the close of the ordinary general meeting of shareholders convened in respect of the fiscal year that is the last one to end during such Director’s tenure.

Senior Management

In addition to the Inside Directors who are also our executive officers, we have the following executive officers as of March 19, 2021:

Name	Position	Responsibility and Division	Age
Oh, Gyu-Seok	Executive Officer	Head of New Growth Business Unit	58
Yoo, Byeong-Og	Executive Officer	Head of Industrial Gasses & Hydrogen Business Unit	58
Kim, Kwang-Soo	Executive Officer	Head of Logistics Business Unit	61
Lee, Si-Woo	Executive Officer	Head of Safety & Environmental Division	60
Lee, Ju-Tae	Executive Officer	Head of Purchasing and Investment Division	57
Nam, Soo-Hi	Executive Officer	Head of Pohang Works	61
Kim, Jhi-Yong	Executive Officer	Head of Gwangyang Works	59
Lee, Duk-Lak	Executive Officer	Head of Technical Research Laboratories	60
Yang, Weon-Jun	Executive Officer	Head of Corporate Citizenship Office	55
Kim, Sung-Jin	Executive Officer	Head of Corporate Audit Office	55
Kim, Yong-Soo	Executive Officer	Head of Human Resources Management Office	55
Cho, Ju-Ik	Executive Officer	Head of Hydrogen Business Office	55
Kang, Sung-Wook	Executive Officer	Head of Logistics Business Office II	55
Jeong, Dae-Hyung	Executive Officer	Head of Corporate Strategy Office	52
Kim, Seung-Jun	Executive Officer	Head of Investment Strategy Office	53
Lee, Kyung-Sub	Executive Officer	Head of Business Innovation Office	55
Chung, Kyung-Jin	Executive Officer	Head of Finance Office	55
Kim, Won-Hee	Executive Officer	Head of Global Infra Business Management Office	55
Eom, Gi-Chen	Executive Officer	Head of Steel Business Planning & Coordination Office	55

Name	Position	Responsibility and Division	Age
Kim, Kyeong-Chan	Executive Officer	Head of Steel Business Planning & Coordination Group	51
Kim, Soon-Ki	Executive Officer	Head of Labor and Cooperation Office	56
Kim, Dong-Hee	Executive Officer	Head of Labor Planning Group	54
Kim, Sang-Baeg	Executive Officer	Head of Safety & Health Planning Office	55
Park, Hyeon	Executive Officer	Head of Environmental Planning Office	54
Kim, Young-Joong	Executive Officer	Head of Marketing Strategy Office	56
Kim, Kyung-Han	Executive Officer	Head of International Trade Affairs Office	55
Park, Nam-Sik	Executive Officer	Head of Sales and Production Coordination Office	53
Yang, Keun-Sik	Executive Officer	Head of Global Quality and Service Management Office	57
Kim, Dae-Up	Executive Officer	Head of Hot Rolled & Wire Rod Marketing Office	56
Kim, Sang-Gyun	Executive Officer	Head of Construction Steel Materials Marketing Office	57
Kim, Sang-Chul	Executive Officer	Head of Energy and Shipbuilding Materials Marketing Office	53
Song, Yong-Sam	Executive Officer	Head of Automotive Materials Marketing Office	58
Yoon, Chang-Woo	Executive Officer	Head of Electrical and Electronic Materials Marketing Office	56
Choi, Kyu-Seo	Executive Officer	Head of Stainless Steel Marketing Office	56
Choun, Si-Youl	Executive Officer	Head of Steel Production & Technology Strategy Office	55
Kim, Hee	Executive Officer	Head of Steel Production & Technology Planning Group	53
Lee, Baek	Executive Officer	Head of Iron & Steelmaking Production and Technology Group	56
Youn, Young-Hee	Executive Officer	Deputy Head of Pohang Works (Safety and Environment)	58
Han, Hyung-Chul	Executive Officer	Deputy Head of Pohang Works (Administration)	57
Choi, Yong-Jun	Executive Officer	Deputy Head of Pohang Works (Process & Quality)	56
Hur, Chun-Yeol	Executive Officer	Head of Pohang Works Quality Technology Department	55
Kim, Jin-Bo	Executive Officer	Deputy Head of Pohang Works (Iron and Steel Making)	55
Hwang, Guy-Sam	Executive Officer	Deputy Head of Pohang Works (Hot and Cold Rolling)	56
Lee, Ju-Hyeob	Executive Officer	Deputy Head of Pohang Works (Stainless Steel Production)	56
Lee, Chan-Gi	Executive Officer	Deputy Head of Pohang Works (Maintenance)	57
Cho, Yeong-Bong	Executive Officer	Deputy Head of Gwangyang Works (Safety and Environment)	55
Lee, Cheol-Ho	Executive Officer	Deputy Head of Gwangyang Works (Administration)	55
Kim, Seoung-Jun	Executive Officer	Deputy Head of Gwangyang Works (Process & Quality)	55
Lee, Dong-Ryeol	Executive Officer	Deputy Head of Gwangyang Works (Iron and Steel Making)	56
Lee, Jean-Su	Executive Officer	Deputy Head of Gwangyang Works (Hot and Cold Rolling)	58
Jung, Bum-Su	Executive Officer	Deputy Head of Gwangyang Works (Maintenance)	56
Kim, Ki-Soo	Executive Officer	Head of Process and Engineering Research Lab	55
Ahn, Sang-Bog	Executive Officer	Head of Steel Product Research Lab	59
Kim, Gyo-Sung	Executive Officer	Head of Automotive Steel Research Lab	59
Choo, Se-Don	Executive Officer	Head of Steel Solution Research Lab	59
Choi, Jong-Kyo	Executive Officer	Leader of High Manganese Steel Solutions TF Team	60
Suh, Ji-Won	Executive Officer	Head of Raw Materials Office I	53
Yoon, Sung-Won	Executive Officer	Head of Raw Materials Office II	55
Kim, Tae-Eok	Executive Officer	Head of Plant, Equipment and Materials Procurement Office	55
Lee, Cheol-Mu	Executive Officer	Head of Investment Planning & Engineering Office	57
Chung, Seok-Mo	Executive Officer	Head of LiB Materials Business Office	54
Park, Sung-Jin	Executive Officer	Head of Industry-Academy-Research Cooperation Office	52
Yang, Byeong-Ho	Executive Officer	Head of Human Resources and Corporate Culture Office	54

Name	Position	Responsibility and Division	Age
Park, Jin-Woo	Executive Officer	Head of Communication Office	54
Jung, Duk-Kyoon	Executive Officer	Head of Information Planning Office	57
Lee, Sung-Wook	Executive Officer	Head of Legal Affairs Office	56
Song, Won-Gun	Executive Officer	Head of Business & Administration Support Office	55
Kim, Kwang-Moo	Executive Officer	President, PT Krakatau POSCO Co., Ltd.	56
Lee, Sang-Ho	Executive Officer	Head of Production Division, PT Krakatau POSCO Co., Ltd.	56
Ha, Dae-Ryong	Executive Officer	Head of POSCO-Europe (Europe Office)	57

Item 6.B. *Compensation*

Compensation of Directors and Officers

Salaries and bonuses for Inside Directors and salaries for Outside Directors are paid in accordance with standards decided by the board of directors within the limitation of directors remuneration approved by the annual general meeting of shareholders. In addition, executive officers' compensation is paid in accordance with standards decided by the board of directors. In 2020, the aggregate compensation paid and accrued to all Directors and executive officers was approximately Won 48 billion and the aggregate amount set aside or accrued by us to provide pension and retirement benefits to such persons was Won 8 billion.

Among those who received total annual compensation exceeding Won 500 million in 2020, the highest-paid five individuals were as follows:

Name	Position	Total Compensation in 2020	Long-term Incentive Compensation for Payment Subsequent to 2020
		(In millions of Won)	
Choi, Jeong-Woo	Chief Executive Officer and Representative Director	1,927	333
Chang, In-Hwa	President and Representative Director	1,469	435
Choi, Joo	Former Senior Executive Vice President	1,160	259
Chon, Jung-Son	Senior Executive Vice President	1,129	265
Han, Sung-Hee	Former Senior Executive Vice President	1,087	273

Item 6.C. *Board Practices*

ESG Committee

The ESG Committee is composed of three Outside Directors, Kim, Shin-Bae, Chang, Seung-Wha, Yoo, Young-Sook, and one Inside Director, Kim, Hag-Dong. The ESG Committee oversees decisions with respect to our ESG policies, including policies related to environment, climate change, low carbon and governance. It also reviews operational matters of our board of directors and special committees, reviews plans related to safety and health, and manages and monitors ESG activities.

Director Candidate Recommendation Committee

The Director Candidate Recommendation Committee is composed of three Outside Directors, Chung, Moon-Ki, Kim, Sung-Jin, Kwon, Tae-Kyun, and one Inside Director, Jeong, Tak. The Director Candidate Recommendation Committee reviews the qualifications of potential candidates and proposes nominees to serve on our board of directors as an Outside Director. Any shareholder holding our outstanding shares with voting rights may suggest candidates for Outside Directors to the Director Candidate Recommendation Committee.

Evaluation and Compensation Committee

The Evaluation and Compensation Committee is composed of four Outside Directors, Pahk, Heui-Jae, Chung, Moon-Ki, Kim, Sung-Jin, Yoo, Young-Sook. The Evaluation and Compensation Committee's primary responsibilities include establishing evaluation procedures and compensation plans for executive officers and taking necessary measures to execute such plans.

Finance Committee

The Finance Committee is composed of three Outside Directors, Kwon, Tae-Kyun, Chang, Seung-Wha, Kim, Shin-Bae and one Inside Director, Chon, Jung-Son. This committee is an operational committee that oversees decisions with respect to finance and operational matters, including making assessments with respect to potential capital investments and evaluating prospective capital-raising activities.

Executive Management Committee

The Executive Management Committee is composed of five Inside Directors, Choi, Jeong-Woo, Kim, Hag-Dong, Chon, Jung-Son, Jeong, Tak and Chung, Chang-Hwa. This committee oversees decisions with respect to our operational and management matters, including review of management's proposals of new strategic initiatives, as well as deliberation over critical internal matters related to organization structure and development of personnel.

Audit Committee

Under Korean law and our articles of incorporation, we are required to have an Audit Committee. The Audit Committee may be composed of three or more directors; all members of the Audit Committee must be Outside Directors. Audit Committee members must also meet the applicable independence criteria set forth under the rules and regulations of the Sarbanes-Oxley Act of 2002. Members of the Audit Committee are elected by the shareholders at the ordinary general meeting of shareholders. We currently have an Audit Committee composed of three Outside Directors. Members of our Audit Committee are Kim, Sung-Jin, Chung, Moon-Ki and Pahk, Heui-Jae.

The duties of the Audit Committee include:

- engaging independent auditors;
- approving independent audit fees;
- approving audit and non-audit services;
- reviewing annual financial statements;
- reviewing audit results and reports, including management comments and recommendations;
- reviewing our system of controls and policies, including those covering conflicts of interest and business ethics; and
- examining improprieties or suspected improprieties.

In addition, in connection with general meetings of stockholders, the committee examines the agenda for, and financial statements and other reports to be submitted by, the board of directors at each general meeting of stockholders. Our internal and external auditors report directly to the Audit Committee. The committee holds regular meetings at least once each quarter, and more frequently as needed.

Item 6.D. *Employees*

As of December 31, 2020, we had 35,393 employees, including 17,530 persons employed by our subsidiaries. Of the total number of employees, approximately 85% are technicians and skilled laborers and 15% are administrative staff. We use subcontractors for maintenance, cleaning and transport activities. We had 35,261 employees, including 17,758 persons employed by our subsidiaries, as of December 31, 2019, and 33,784 employees, including 16,634 persons employed by our subsidiaries, as of December 31, 2018.

We consider our relations with our work force to be satisfactory. We have never experienced a work stoppage or strike. Wages of our employees are among the highest of manufacturing companies in Korea. In addition to a base monthly wage, employees receive periodic bonuses and allowances. Base wages are determined annually following negotiations between the management and the majority labor union. A limited number of our employees are members of the Federation of Korean Metal Workers' Trade Unions or the Korean Metal Workers' Union. The Federation of Korean Metal Workers' Trade Unions currently negotiates the terms of employment with the management.

In accordance with the National Pension Act of Korea, we contribute an amount equal to 4.5% of an employee's standard monthly wages, and each employee contributes 4.5% of his or her standard monthly wages, into his or her personal pension account. Our employees, including executive officers as well as non-executive employees, are subject to a pension insurance system, under which we make monthly contributions to the pension accounts of the employees, and upon retirement, such employees are paid from their pension accounts. Prior to 2011, our executive and non-executive employees were subject to a lump-sum severance payment system, under which they were entitled to receive a lump-sum severance payment upon termination of their employment, based on their length of service and salary level at the time of termination. Starting in 2011, in accordance with the Korean Employee Retirement Income Security Act, we replaced such lump-sum severance payment system with our current pension insurance system in the form of either a defined benefit plan or a defined contribution plan. Our employees have the option of choosing either the defined benefit plan or the defined contribution plan. See Note 21 to the Consolidated Financial Statements. Lump-sum severance amounts previously accrued prior to our adoption of the current pension insurance system continue to remain payable. We also provide a wide range of fringe benefits to our employees, including housing, housing loans, company-provided hospitals and schools, a company-sponsored pension program, an employee welfare fund, industrial disaster insurance and cultural and athletic facilities.

As of December 31, 2020, our employees owned, through our employee stock ownership association, approximately 1.68% of our common stock in their employee accounts.

Item 6.E. *Share Ownership*

The persons who are currently our Directors or executive officers held, as a group, 29,236 common shares as of December 31, 2020, the most recent practicable date for which this information is available. The table below shows the ownership of our common shares by our Directors and executive officers.

Name	Number of Common Shares
Choi, Jeong-Woo	1,526
Kim, Hag-Dong	1,460
Chang, In-Hwa	1,389
Kim, Soon-Ki	1,332
Jeong, Tak	1,299
Chon, Jung-Son	1,262
Yoo, Byeong-Og	1,149
Kim, Jhi-Yong	1,091
Kim, Gyo-Sung	1,041
Nam, Soo-Hi	987
Lee, Si-Woo	905

Name	Number of Common Shares
Lee, Duk-Lak	774
Lee, Chan-Gi	737
Chung, Chang-Hwa	650
Lee, Jean-Su	648
Lee, Ju-Tae	623
Yang, Weon Jun	576
Park, Hyeon	523
Jung, Bum-Su	511
Kim, Dong-Hee	510
Choo, Se-Don	505
Oh, Gyu-Seok	500
Lee, Ju-Hyeob	500
Kim, Dae-Up	455
Kim-Hee	433
Ahn, Sang-Bog	420
Kim, Sung-Jin	400
Kim, Ki-Soo	400
Kim, Sang-Gyun	380
Lee, Cheol-Mu	378
Kim, Tae-Eok	373
Kim, Young-Joong	350
Choi, Yong-Jun	344
Choi, Jong-Kyo	324
Ha, Dae-Ryong	300
Chung, Kyung-Jin	294
Kim, Kwang-Moo	273
Choun, Si-Youl	264
Song, Young-Sam	260
Park, Nam-Sik	244
Yang, Keun-Sik	208
Cho, Ju-Ik	200
Lee, Kyung-Sub	200
Kim, Kyung-Han	200
Kim, Sang-Chul	200
Chung, Seok-Mo	200
Pakr, Sung-Jin	200
Lee, Sung-Wook	200
Hwang, Guy-Sam	173
Eom, Gi-Chen	170
Jeong, Dae-Hyung	130
Yang, Byeong-Ho	122
Kim, Won-Hee	120
Kang, Sung-Wook	104
Kim, Kwang-Soo	103
Yoon, Chang-Woo	100
Lee, Dong-Ryeol	100
Yoon, Sung-Won	50
Kim, Yong-Soo	42
Han, Hyung-Chul	18
Lee, Sang-Ho	4
Kim, Jin-Bo	2
Total	29,236

Item 7. *Major Shareholders and Related Party Transactions*

Item 7.A. *Major Shareholders*

The following table sets forth certain information relating to the shareholders of our common stock issued as of December 31, 2020.

Shareholders	Number of Shares Owned	Percentage
National Pension Service	10,247,183	11.75
BlackRock Fund Advisors[(1) (2) (3)]	4,555,963	5.23
Nippon Steel Corporation[(1)]	2,894,712	3.32
Samsung Group and subsidiaries[(2)]	1,817,635	2.08
GIC Private Limited	1,718,369	1.97
Others	65,952,973	75.65
Total issued shares of common stock	87,186,835	100.00%

(1) Includes ADRs.
(2) Includes shares held by subsidiaries and others.
(3) The number of shares owned by the shareholder is based on the status report of large-scale shareholders filed with the Korea Exchange.

As of December 31, 2020, there were 6,463,452 shares of common stock outstanding in the form of ADRs, representing 7.41% of the total issued shares of common stock.

Item 7.B. *Related Party Transactions*

We have issued guarantees in favor of affiliated and related companies, and we have also engaged in various transactions with our subsidiaries and affiliated companies. See Notes 37 and 38 to the Consolidated Financial Statements.

As of December 31, 2018, 2019 and 2020, we had no loans outstanding to our executive officers and Directors.

Item 7.C. *Interests of Experts and Counsel*

Not applicable

Item 8. *Financial Information*

Item 8.A. *Consolidated Statements and Other Financial Information*

See "Item 18. Financial Statements" and pages F-1 through F-137.

Legal Proceedings

Trade Remedy Proceedings

As a steel producer with global sales and operations, we are involved in trade remedy proceedings in markets worldwide, including in the United States. We proactively participate in and plan for such proceedings to minimize any adverse effects and associated risks. While there has been an increase in the number of trade cases in recent years, and an increased focus on trade issues by government officials, all such cases have been product and market-specific, and thus have been limited in scope relative to our global sales and operations. We continue to carefully monitor developments with respect to trade remedy policy in all markets in which we participate and, where necessary, vigorously defend our rights through litigation before tribunals such as the U.S. Court of International Trade. Our products that are subject to anti-dumping, safeguard or countervailing duty proceedings in the aggregate currently do not account for a material portion of our total sales, and such proceedings have not had a material adverse impact on our business and operations in recent years. However, there can be no assurance that increases in, or new impositions of, anti-dumping duties, safeguard duties, countervailing duties, quotas or tariffs on our exports of products abroad may not have a material adverse impact on our exports in the future. See "Item 4. Information on the Company — Item 4.B. Business Overview — Markets — Exports."

Antitrust Proceedings

In 2013, the Korea Fair Trade Commission imposed a total fine of Won 108.6 billion on us and POSCO Coated & Color Steel Co., Ltd., our consolidated subsidiary, as well as two corrective orders on us for alleged antitrust violations in Korea relating to galvanized steel sheets and color sheets. Subsequent to paying such fines, we and POSCO Coated & Color Steel each filed for judicial review of such fines in the Seoul High Court in February 2013. In July 2015, the Seoul High Court ruled in our favor for the Won 89.3 billion fine imposed on us, which was subsequently appealed by the Korea Fair Trade Commission to the Supreme Court of Korea. In October 2016, the Supreme Court of Korea vacated the Seoul High Court's ruling and remanded the proceeding in October 2016. In February 2019, the Seoul High Court revoked the fine and one of the two corrective orders initially imposed on us, which was subsequently appealed by both us and the Korea Fair Trade Commission. In July 2019, the Supreme Court of Korea dismissed the appeal, and the Korea Fair Trade Commission imposed the recalculated fine of Won 74.4 billion on us. We filed for judicial review of such recalculated fine in the Seoul High Court in September 2020 and intend to continue to vigorously defend against such administrative action if necessary. In January 2016, the Seoul High Court ruled against POSCO Coated & Color Steel with respect to the fine of Won 19.3 billion imposed against it. POSCO Coated & Color Steel appealed with respect to Won 3.0 billion of such fine, which it lost in November 2016.

Loans to Daewoo Motors India Guaranteed by Predecessor of POSCO International

In May 2002, Industrial Development Bank of India brought a suit against Daewoo International Corporation (currently, POSCO International), Daewoo Motors India Ltd., Daewoo Corporation and Daewoo Construction & Engineering Co., Ltd. in the India Delhi Mumbai Court, regarding its loans to Daewoo Motors India Ltd. guaranteed by Daewoo Co., Ltd. (predecessor of POSCO International). The total claim amount is 4.46 billion Indian Rupees, and POSCO International recorded provision of Won 22 billion relating to its portion of the guarantee alleged by Industrial Development Bank of India. Daewoo International Corporation challenged the jurisdiction of the court in 2003. The outcome of such lawsuits remains uncertain and POSCO International's provision is classified as a non-current liability as of December 31, 2019.

Legal Proceedings Related to the Songdo Project

In March 2019, affiliates of Gale Investments Company, LLC, a former joint venture partner of POSCO E&C in the urban planning and development project in Songdo International City in Incheon (the "Songdo Project"), filed a claim in the United States District Court for the Southern District of New York and filed a request for arbitration pursuant to the rules of the International Court of Arbitration of the International Chamber of Commerce ("ICA") against POSCO E&C, claiming POSCO E&C wrongfully seized and sold certain properties of the claimants. In December 2013, POSCO E&C and one of the claimants entered into a series of loan facility agreements with several lenders to finance the Songdo Project, with their respective stakes in the joint venture pledged as collateral. The loan facility agreements entitled POSCO E&C to certain subrogation rights related to guaranteeing the obligations of the claimant to repay the principal amounts of the loans. In 2017, upon default of certain series of the loans, POSCO E&C exercised such subrogation rights, claimed the pledged assets of the claimant and sold such assets. The claimants are seeking damages of approximately Won 2,400 billion allegedly resulting from POSCO E&C's purported wrongful seizure and sale of such properties as well as alleged overcharges made by POSCO E&C while serving as the construction contractor for the Songdo Project. While the claim in the United States District Court for the Southern District of New York was dismissed in November 2020, POSCO E&C believes that its actions were legally permissible and plans to vigorously defend against the claims made by the claimants in the ICA proceeding.

Dividends

The amount of dividends paid on our common stock is subject to approval at the annual general meeting of shareholders, which is typically held in February or March of the following year. In addition to our annual dividends, our board of directors is authorized to declare and distribute quarterly dividends under our articles of incorporation. If we decide to pay quarterly dividends, our articles of incorporation authorize us to pay them in cash to the shareholders of record as of the end of March, June and September of the relevant fiscal year. We may pay cash dividends out of retained earnings that have not been appropriated to statutory reserves.

The table below sets out the annual dividends declared on the outstanding common stock to shareholders of record on December 31 of the years indicated and the interim dividends (including quarterly dividends starting in the second half of 2016), declared on the outstanding common stock to applicable shareholders of record of the years indicated. A total of 87,186,835 shares of common stock were issued as of December 31, 2020. Of these shares and as of such date, 76,015,472 shares were outstanding and 11,171,363 shares were held by us in treasury. The annual dividends set out for each of the years below were paid in the immediately following year.

Year	Annual Dividend per Common Stock to Public	Interim Dividend per Common Stock	Average Total Dividend per Common Stock
		(In Won)	
2016	5,750	2,250	8,000
2017	3,500	4,500	8,000
2018	5,000	5,000	10,000
2019	4,000	6,000	10,000
2020	3,500	4,500	8,000

Owners of the ADSs are entitled to receive any dividends payable in respect of the underlying shares of common stock.

Historically, we have paid to holders of record of our common stock an annual dividend. However, we can give no assurance that we will continue to declare and pay any dividends in the future.

Item 8.B. *Significant Changes*

Except as disclosed elsewhere in this annual report, we have not experienced any significant changes since the date of our Consolidated Financial Statements included in this annual report.

Item 9. *The Offer and Listing*

Item 9.A. *Offer and Listing Details*

Notes

Not applicable

Common Stock

The principal trading market for our common stock is the KRX KOSPI Market. Our common stock, which is in registered form and has a par value of Won 5,000 per share, has been listed on the KRX KOSPI Market since June 1988 under the identifying code 005490.

ADSs

Our common stock is also listed on the New York Stock Exchange in the form of ADSs. The ADSs have been issued by Citibank, N.A. as ADR depositary and are listed on the New York Stock Exchange under the symbol "PKX." One ADS represents one-fourth of one share of common stock. As of December 31, 2020, 25,853,808 ADSs representing 6,463,452 common shares were outstanding, representing 7.41% of total issued shares of common stock.

Item 9.B. *Plan of Distribution*

Not applicable

Item 9.C. *Markets*

See "Item 9.A. Offering and Listing Details."

Item 9.D. *Selling Shareholders*

Not applicable

Item 9.E. *Dilution*

Not applicable

Item 9.F. *Expenses of the Issuer*

Not applicable

Item 10. *Additional Information*

Item 10.A. *Share Capital*

Currently, our authorized share capital is 200,000,000 shares, which consists of shares of common stock, par value Won 5,000 per share ("Common Shares") and shares of non-voting stock, par value Won 5,000 per share ("Non-Voting Preferred Shares"). Our Non-Voting Preferred Shares have a preferential right to dividend payments. Common Shares and Non-Voting Preferred Shares together are referred to as "Shares." Under our articles of incorporation, we are authorized to issue Non-Voting Preferred Shares up to the limit prescribed by applicable law, the aggregate of which currently is one-quarter of our total issued and outstanding capital stock. As of December 31, 2020, 87,186,835 Common Shares were issued, of which 11,171,363 shares were held by us in treasury. We have never issued any Non-Voting Preferred Shares. All of the issued and outstanding Common Shares are fully-paid and non-assessable and are in registered form. We issue share certificates in denominations of 1, 5, 10, 50, 100, 500, 1,000 and 10,000 shares.

Item 10.B. *Memorandum and Articles of Association*

Under Article 2 of our articles of incorporation, the primary purpose of POSCO is to engage in, among others: manufacturing, marketing, promoting, selling and distributing iron, steel and rolled products; harbor loading and unloading, transportation and warehousing businesses; power generation and distribution as well as resources development; technology license sales and engineering businesses; and any other activities that are related, directly or indirectly, to the attainment and continuation of the foregoing.

The following provides information relating to our capital stock, including brief summaries of material provisions of our articles of incorporation, the FSCMA, the Commercial Code and related laws, all as currently in effect. The following summaries are subject to, and are qualified in their entirety by reference to, our articles of incorporation and the applicable provisions of the FSCMA and the Commercial Code. We have filed copies of our articles of incorporation and these laws (except for the newly enacted the FSCMA) as exhibits to registration statements under the Securities Act or the Securities Exchange Act previously filed by us.

Board of Directors

Under our articles of incorporation and the Commercial Code, any director who has a special interest in a proposal or a resolution is prohibited from voting on such proposal or resolution at the meeting of the board of directors. Any resolution of the board of directors must be approved by an affirmative majority vote of the directors present at the meeting of the board of directors. The compensation for directors, including severance benefits, is paid within the limitation approved by the annual general meeting of shareholders.

Dividends

We distribute dividends to our shareholders in proportion to the number of shares owned by each shareholder. The Common Shares represented by the ADSs have the same dividend rights as other outstanding Common Shares.

Holders of Non-Voting Preferred Shares are entitled to receive dividends in priority to the holders of Common Shares in an amount not less than 9% of the par value of the Non-Voting Preferred Shares as determined by the board of directors at the time of their issuance. If the amount available for dividends is less than the aggregate amount of such minimum dividend, we do not have to declare dividends on the Non-Voting Preferred Shares.

We may declare dividends annually at the annual general meeting of shareholders which is held within three months after the end of the fiscal year. We pay the annual dividend shortly after the annual general meeting to the shareholders of record as of the end of the preceding fiscal year. In addition, we may declare quarterly dividends pursuant to a board resolution each fiscal year to the eligible shareholders recorded as of the end of March, June and September of the relevant fiscal year. We may distribute the annual dividend in cash, Shares or other form of property. However, we may distribute the quarterly dividend only in cash. A dividend of Shares must be distributed at par value and may not exceed one-half of the annual and quarterly dividends declared each fiscal year in the aggregate. We have no obligation to pay any dividend unclaimed for five years from the payment date.

Under the Commercial Code, we may pay dividends only to the extent the net asset amount in our balance sheets exceeds the sum of the following: (i) our stated capital, (ii) the total amount of our capital surplus reserve and earned surplus reserve accumulated up to the end of the relevant dividend period, (iii) the legal reserve to be set aside for dividends, and (iv) unrealized profits determined in the Presidential Decree to the Commercial Code. We may not pay dividends unless we have set aside as earned surplus reserve an amount equal to at least 10% of the cash portion of dividends or unless we have accumulated earned surplus reserve of not less than one-half of our stated capital. We may not use legal reserve to pay cash dividends but may transfer amounts from legal reserve to capital stock or use legal reserve to reduce an accumulated deficit.

Distribution of Free Shares

In addition to paying dividends in Shares out of our retained or current earnings, we may also distribute to our shareholders an amount transferred from our capital surplus or legal reserve to our stated capital in the form of free shares. We must distribute such free shares to all our shareholders in proportion to their existing shareholdings.

Preemptive Rights and Issuance of Additional Shares

We may issue authorized but unissued shares at times and, unless otherwise provided in the Commercial Code or our articles of incorporation, on the terms our board of directors may determine. All our shareholders are generally entitled to subscribe for any newly issued Shares in proportion to their existing shareholdings. We must offer new Shares on uniform terms to all shareholders who have preemptive rights and are listed on our shareholders' register as of the relevant record date. Under the Commercial Code, we may vary, without shareholders' approval, the terms of these preemptive rights for different classes of shares. We must give public notice of the preemptive rights regarding new Shares and their transferability at least two weeks before the relevant record date. Our board of directors may determine how to distribute Shares for which preemptive rights have not been exercised or where fractions of Shares occur.

Under our articles of incorporation, we may issue new Shares pursuant to a board resolution to persons other than existing shareholders, who in these circumstances will not have preemptive rights, if the new Shares are:

- offered publicly or to underwriters for underwriting pursuant to the FSCMA and other applicable regulations;
- issued to members of our employee stock ownership association pursuant to the FSCMA and other applicable regulations;
- represented by depositary receipts pursuant to the FSCMA and other applicable regulations;
- issued in a general public offering pursuant to a board resolution in accordance with the FSCMA and other applicable regulations, the amount of which is no more than 10% of the outstanding Shares;
- issued to our creditors pursuant to a debt-equity swap;
- issued to domestic or foreign entities pursuant to a joint venture agreement, strategic coalition or technology license or transfer agreement when deemed necessary for management purposes; or
- issued to domestic or foreign financial institutions when necessary for raising funds in emergency cases.

In addition, we may issue convertible bonds or bonds with warrants, each up to an aggregate principal amount of Won 2 trillion, to persons other than existing shareholders.

Members of our employee stock ownership association, whether or not they are our shareholders, generally have a preemptive right to subscribe for up to 20% of the Shares publicly offered pursuant to the FSCMA. This right is exercisable only to the extent that the total number of Shares so acquired and held by members of our employee stock ownership association does not exceed 20% of the total number of Shares then issued. As of December 31, 2020, our employees owned, through our employee stock ownership association, approximately 1.68% of our common stock in their employee accounts.

General Meeting of Shareholders

We hold the annual general meeting of shareholders within three months after the end of each fiscal year. The record date of the register of shareholders is December 31 of each year, and such shareholders listed on the register of shareholder as of the record date are entitled to exercise their right at the general meeting of shareholders. Subject to a board resolution, court approval or other applicable laws and regulations, we may hold an extraordinary general meeting of shareholders:

- as necessary;

- at the request of holders of an aggregate of 3% or more of our outstanding Shares;
- at the request of shareholders holding an aggregate of 1.5% or more of our outstanding Shares for at least six months; or
- at the request of our Audit Committee.

Holders of Non-Voting Preferred Shares may request a general meeting of shareholders only after the Non-Voting Preferred Shares become entitled to vote or "enfranchised," as described under "— Voting Rights" below.

We must give shareholders written notice or electronic document setting out the date, place and agenda of the meeting at least two weeks before the date of the general meeting of shareholders. However, for holders of 1% or less of the total number of issued and outstanding voting Shares, we may give notice by placing at least two public notices in at least two daily newspapers or by notices to be posted on the electronic disclosure database system maintained by the Financial Supervisory Service or the Korea Exchange at least two weeks in advance of the meeting. Currently, we use *The Seoul Shinmun* published in Seoul, *The Maeil Shinmun* published in Taegu and *The Kwangju Ilbo* published in Kwangju for this purpose. Shareholders not on the shareholders' register as of the record date are not entitled to receive notice of the general meeting of shareholders or attend or vote at the meeting. Holders of Non-Voting Preferred Shares, unless enfranchised, are not entitled to receive notice of general meetings of shareholders, but may attend such meetings. Our general meetings of shareholders are held either in Pohang or Seoul.

Voting Rights

Holders of our Common Shares are entitled to one vote for each Common Share, except that voting rights of Common Shares held by us, or by a corporate shareholder that is 10% (or more) owned by us either directly or indirectly, may not be exercised. The Commercial Code permitted cumulative voting, under which voting method each shareholder would have multiple voting rights corresponding to the number of directors to be appointed in the voting and may exercise all voting rights cumulatively to elect one director.

Our shareholders may adopt resolutions at a general meeting by an affirmative majority vote of the voting Shares present or represented at the meeting, where the affirmative votes also represent at least one-fourth of our total voting Shares then issued and outstanding. However, under the Commercial Code and our articles of incorporation, the following matters, among others, require approval by the holders of at least two-thirds of the voting Shares present or represented at a meeting, where the affirmative votes also represent at least one-third of our total voting Shares then issued and outstanding:

- amending our articles of incorporation;
- removing a director;
- effecting any dissolution, merger or consolidation of us;
- transferring the whole or any significant part of our business;
- acquisition of all or a part of the business of any other company that may have a material impact on our business;
- issuing any new Shares at a price lower than their par value; or
- approving matters required to be approved at a general meeting of shareholders, which have material effects on our assets, as determined by the board of directors.

In general, holders of Non-Voting Preferred Shares are not entitled to vote on any resolution or receive notice of any general meeting of shareholders. However, in the case of amendments to our articles of incorporation, or any merger or consolidation of us, or in some other cases that affect the rights or interests of the Non-Voting Preferred Shares, approval of the holders of Non-Voting Preferred Shares is required. We may obtain the approval by a resolution of holders of at least two-thirds of the Non-Voting Preferred Shares present or represented at a class meeting of the holders of Non-Voting Preferred Shares, where the affirmative votes also represent at least one-third of our total issued and outstanding Non-Voting Preferred Shares.

Shareholders may exercise their voting rights by proxy. When a shareholder is a corporate entity, such shareholder may give proxies to its officers or directors.

Holders of ADRs exercise their voting rights through the ADR depositary, an agent of which is the record holder of the underlying Common Shares. Subject to the provisions of the deposit agreement, ADR holders are entitled to instruct the ADR depositary how to vote the Common Shares underlying their ADSs.

Rights of Dissenting Shareholders

In some limited circumstances, including the transfer of the whole or any significant part of our business and our merger or consolidation with another company, dissenting shareholders have the right to require us to purchase their Shares. Only the shareholders who have executed a share purchase agreement evidencing their acquisition of the relevant Shares on or prior to the day immediately following the public disclosure of the board resolutions approving any of the aforementioned transactions have the rights to require us to purchase their Shares. To exercise this right, shareholders, including holders of Non-Voting Preferred Shares, must submit to us a written notice of their intention to dissent before the general meeting of shareholders. Within 20 days after the relevant resolution is passed at a meeting, the dissenting shareholders must request us in writing to purchase their Shares. We are obligated to purchase the Shares of dissenting shareholders within one month after the expiration of the 20-day period. The purchase price for the Shares is required to be determined through negotiation between the dissenting shareholders and us. If we cannot agree on a price through negotiation, the purchase price will be the average of (1) the weighted average of the daily Share prices on the Korea Exchange for the two-month period before the date of the adoption of the relevant board resolution, (2) the weighted average of the daily Share price on the Korea Exchange for the one month period before the date of the adoption of the relevant resolution and (3) the weighted average of the daily Share price on the Korea Exchange for the one week period before such date of the adoption of the relevant resolution. However, the court may determine this price if we or dissenting shareholders do not accept the purchase price. Holders of ADSs will not be able to exercise dissenter’s rights unless they have withdrawn the underlying common stock and become our direct shareholders.

Register of Shareholders and Record Dates

We maintain the register of our shareholders electronically through Kookmin Bank, our transfer agent. Kookmin Bank performs electronic registration of our Shares, manages the electronic register of our shareholders and oversees other matters related to our Shares.

The record date for annual dividends is December 31. For the purpose of determining the shareholders entitled to annual dividends, the register of shareholders may be closed for the period from January 1 to January 15 of each year. Further, for the purpose of determining the shareholders entitled to some other rights pertaining to the Shares, we may, on at least two weeks’ public notice, set a record date and/or close the register of shareholders for not more than three months. The trading of Shares may continue while the register of shareholders is closed. However, pursuant to the Act on Electronic Registration of Stocks, Bonds, etc., which became effective on September 16, 2019, the closure of the register of shareholders is not required in order to determine the shareholders entitled to certain shareholder rights. Instead, we may set the record date by a board resolution and determine the shareholders of record as of such record date without closing the register of shareholders.

Annual Report

At least one week before the annual general meeting of shareholders, we must make our annual report and audited financial statements available for inspection at our principal office and at all of our branch offices. In addition, copies of annual reports, the audited financial statements and any resolutions adopted at the general meeting of shareholders will be available to our shareholders.

Under the FSCMA, we must file with the Financial Services Commission and the Korea Exchange (1) an annual business report within 90 days after the end of our fiscal year, (2) a half-year report within 45 days after the end of the first six months of our fiscal year, and (3) quarterly reports within 45 days after the end of the third month and the ninth month of our fiscal year. Copies of these reports are or will be available for public inspection at websites of the Financial Services Commission and the Korea Exchange.

Transfer of Shares

Under the Commercial Code, the transfer of Shares is effected by electronic registration of such transfer. However, to assert shareholders' rights against us, the transferee must have his name and address registered on our register of shareholders. For this purpose, a shareholder is required to file his name, address and seal with our transfer agent. A non-Korean shareholder may file a specimen signature in place of a seal, unless he is a citizen of a country with a sealing system similar to that of Korea. In addition, a non-resident shareholder must appoint an agent authorized to receive notices on his behalf in Korea and file a mailing address in Korea. The above requirements do not apply to the holders of ADSs.

Under current Korean regulations, the Korea Securities Depository, foreign exchange banks (including domestic branches of foreign banks), financial investment companies with a brokerage, dealing or collective investment license and internationally recognized custodians may act as agents and provide related services for foreign shareholders. Certain foreign exchange controls and securities regulations apply to the transfer of Shares by non-residents or non-Koreans. See "Item 10. Additional Information — Item 10.D. Exchange Controls."

Our transfer agent is Kookmin Bank, located at 26, Gukjegeumyung-ro 8-gil, Yeongdeungpo-gu, Seoul, Korea.

Acquisition of Shares by Us

We may acquire our own Shares, subject to the approval by the general meeting of shareholders. In addition, we may acquire Shares through purchases on the Korea Exchange or through a tender offer or by acquiring the interests in a trust account holding our own Shares through agreements with trust companies and asset management companies. The aggregate purchase price for the Shares may not exceed the total amount available for distribution of dividends available at the end of the preceding fiscal year less the amount of dividends and mandatory reserves required to be set aside for that fiscal year, subject to certain procedural requirements.

In accordance with the Commercial Code, we may resell or transfer any Shares acquired by us to a third party, subject to the approval by the board of directors. In general, corporate entities in which we own more than 50% equity interest may not acquire our Shares. Under the FSCMA, we are subject to certain selling restrictions for the Shares acquired by us.

Liquidation Rights

In the event of our liquidation, after payment of all debts, liquidation expenses and taxes, our remaining assets will be distributed among shareholders in proportion to their shareholdings. Holders of Non-Voting Preferred Shares have no preference in liquidation.

Item 10.C. *Material Contracts*

None.

Item 10.D. *Exchange Controls*

Shares and ADSs

The Foreign Exchange Transaction Act and the Presidential Decree and regulations under that Act and Decree (collectively, "Foreign Exchange Transaction Laws") and the Foreign Investment Promotion Law regulate investment in Korean securities by non-residents and issuance of securities outside Korea by Korean companies. Under the Foreign Exchange Transaction Laws, non-residents may invest in Korean securities subject to procedural requirements in accordance with these laws. The Financial Services Commission has also adopted, pursuant to its authority under the FSCMA, regulations that restrict investment by foreigners in Korean securities.

Subject to certain limitations, the Ministry of Economy and Finance has the authority to take the following actions under the Foreign Exchange Transaction Laws:

- if the Government deems it necessary on account of war, armed conflict, natural disaster or grave and sudden and significant changes in domestic or foreign economic circumstances or similar events or circumstances, the Ministry of Economy and Finance may (i) temporarily suspend performance under any or all foreign exchange transactions, in whole or in part, to which the Foreign Exchange Transaction Laws apply (including suspension of payment and receipt of foreign exchange), (ii) impose an obligation to deposit, safe-keep or sell precious metal or any other means of payment to The Bank of Korea, a foreign exchange stabilization fund or certain other governmental agencies or financial companies or (iii) require Korean creditors to collect debts owned by non-Korean debtors and deposit them in their bank accounts in Korea; and
- if the Government concludes that the international balance of payments and international financial markets are experiencing or are likely to experience significant disruption or that the movement of capital between Korea and other countries is likely to adversely affect its currency policies, exchange rate policies or other macroeconomic policies, the Ministry of Economy and Finance may take action to require any person who intends to effect a capital transaction to obtain permission or to require any person who effects a capital transaction to deposit a portion of the means of payment acquired in such transactions with The Bank of Korea, a foreign exchange stabilization fund or certain other governmental agencies or financial companies.

Government Review of Issuance of ADSs

In order for us to issue shares represented by ADSs, we are required to file a prior report of the issuance with our designated foreign exchange bank or the Ministry of Economy and Finance, depending on the issuance amount. No further Korean governmental approval is necessary for the initial offering and issuance of the ADSs.

Under current Korean laws and regulations, the depositary bank is required to obtain our prior consent for the number of shares to be deposited in any given proposed deposit which exceeds the difference between (1) the aggregate number of shares deposited by us for the issuance of ADSs (including deposits in connection with the initial and all subsequent offerings of ADSs and stock dividends or other distributions related to these ADSs) and (2) the number of shares on deposit with the depositary bank at the time of such proposed deposit. We can give no assurance that we would grant our consent, if our consent is required.

Reporting Requirements for Holders of Substantial Interests

Under the FSCMA, any person whose direct or beneficial ownership of a listed company's shares with voting rights, whether in the form of shares or ADSs, certificates representing the rights to subscribe for Shares and equity-related debt securities including convertible bonds and bonds with warrants (collectively, "Equity Securities") together with the Equity Securities beneficially owned by certain related persons or by any person acting in concert with the person accounts for 5% or more of the total outstanding Equity Securities of such listed company is required to report the status and the purpose (whether or not to exert an influence on management control over the issuer) of the holdings to the Financial Services Commission and the Korea Exchange within five business days after reaching the 5% ownership interest. In addition, any change in the purpose of holding such ownership interest or a change in the ownership interest subsequent to the report which equals or exceeds 1% of the total outstanding Equity Securities is required to be reported to the Financial Services Commission and the Korea Exchange within five business days from the date of the change. However, the reporting deadline of such reporting requirement is extended (1) for certain professional investors, as specified by the Presidential Decrees under the FSCMA, (i) to the tenth day of the month immediately following the month of such change in their shareholding if the shares are held with the intention of actively exercising shareholder rights as provided by the applicable laws, but without the intention of exercising management control or (ii) to the tenth day of the month immediately following the quarter of such change in their shareholding if the shares are held for portfolio investment purposes; and (2) for persons other than such professional investors, (i) to the tenth business day of the date of such change in their shareholding if the shares are held with the intention of exercising the statutory rights of shareholders as provided by the applicable laws, but without the intention of exercising management control or (ii) to the tenth day of the month immediately following the month of such change in their shareholding if the shares are held for portfolio investment purposes. Those who report the purpose of shareholding as management control of the issuer are prohibited from exercising their voting rights and acquiring additional shares for five days subsequent to their report under the FSCMA.

Violation of these reporting requirements may subject a person to criminal sanctions such as fines or imprisonment and may result in a loss of voting rights with respect to the ownership of Equity Securities exceeding 5%. Furthermore, the Financial Services Commission may issue an order to dispose of Equity Securities for which the reporting requirements were violated.

In addition to the reporting requirements described above, any person whose direct or beneficial ownership of a listed company's voting stock accounts for 10% or more of the total issued and outstanding voting stock (a "major stockholder") must report the status of his or her shareholding to the Securities and Futures Commission and the Korea Exchange within five business days after he or she becomes a major stockholder. In addition, any change in his or her ownership interest subsequent to the report must be reported to the Securities and Futures Commission and the Korea Exchange within five business days. However, the reporting deadline of such reporting requirement is extended (i) to the tenth day of the month immediately following the month of such change in their shareholding for certain professional investors, as specified by the Presidential Decree under the FSCMA, who hold shares with the intention of actively exercising shareholder rights as provided by the applicable laws, but without the intention of exercising management control or (ii) to the tenth day of the month immediately following the quarter of such change in their shareholding if the shares are held for portfolio investment purposes. Violation of these reporting requirements may subject a person to criminal sanctions such as fines or imprisonment.

Under the KRX regulations, if a company listed on the KRX KOSPI Market has submitted public disclosure of material matters to a foreign financial investment supervisory authority pursuant to the laws of the foreign jurisdiction, then it must submit a copy of the public disclosure and a Korean translation thereof to the Korea Exchange. In addition, if a company listed on the KRX KOSPI Market is approved for listing on a foreign stock exchange or determined to be de-listed from the foreign stock exchange or actually lists on, or de-lists from, a foreign stock exchange, then it must submit to the Korea Exchange a copy, together with a Korean translation thereof, of all documents submitted to, or received from, the relevant foreign government, supervisory authority or stock exchange.

Restrictions Applicable to ADSs

No Korean governmental approval is necessary for the sale and purchase of ADSs in the secondary market outside Korea or for the withdrawal of shares underlying ADSs and the delivery inside Korea of shares in connection with the withdrawal, provided that a foreigner who intends to acquire the shares must obtain an investment registration card from the Financial Supervisory Service as described below. The acquisition of the shares by a foreigner must be immediately reported by the foreigner or his standing proxy in Korea to the Governor of the Financial Supervisory Service ("Governor").

Persons who have acquired shares as a result of the withdrawal of shares underlying the ADSs may exercise their preemptive rights for new shares, participate in free distributions and receive dividends on shares without any further governmental approval.

In addition, under the Financial Services Commission regulations, effective as of November 30, 2006, we are required to file a securities registration statement with the Financial Services Commission and such securities registration statement has to become effective pursuant to the FSCMA in order for us to issue shares represented by ADSs, except in certain limited circumstances.

Restrictions Applicable to Shares

Under the Foreign Exchange Transaction Laws and the Financial Services Commission regulations (together, the "Investment Rules"), foreigners may invest, with limited exceptions and subject to procedural requirements, in all shares of Korean companies, whether listed on the KRX KOSPI Market or the KRX KOSDAQ Market, unless prohibited by specific laws. Foreign investors may trade shares listed on the KRX KOSPI Market or the KRX KOSDAQ Market only through the KRX KOSPI Market or the KRX KOSDAQ Market, except in limited circumstances, including, among others:

- odd-lot trading of shares;
- acquisition of shares ("Converted Shares") by exercise of warrant, conversion right under convertible bonds, exchange right under exchangeable bonds or withdrawal right under depositary receipts issued outside of Korea by a Korean company;
- acquisition of shares as a result of inheritance, donation, bequest or exercise of shareholders' rights, including preemptive rights or rights to participate in free distributions and receive dividends;
- over-the-counter transactions between foreigners of shares of a public service corporation for which the ceiling on aggregate acquisition by foreigners, as explained below, has been reached or exceeded with certain exceptions;
- acquisition of shares by direct investment as defined in the Foreign Investment Promotion Law or disposal of such shares;
- disposal of shares pursuant to the exercise of appraisal rights of dissenting shareholders;

- acquisition or disposal of shares in connection with a tender offer;
- acquisition of underlying shares by a foreign depositary in connection with the issuance of depositary receipts;
- acquisition and disposal of shares through overseas stock exchange market if such shares are simultaneously listed on the KRX KOSPI Market or the KRX KOSDAQ Market and such overseas stock exchange; and
- arm's length transactions between foreigners, if all of such foreigners belong to an investment group managed by the same person.

For over-the-counter transactions between foreign investors outside the KRX KOSPI Market or the KRX KOSDAQ Market involving shares of a public service corporation for which the limit on aggregate foreign ownership has been reached or exceeded, an investment broker licensed in Korea must act as an intermediary. Odd-lot trading of shares outside the KRX KOSPI Market or the KRX KOSDAQ Market must involve an investment dealer licensed in Korea. Foreign investors are prohibited from engaging in margin trading by borrowing shares from investment brokers or investment dealers with respect to shares that are subject to foreign ownership limitation.

The Investment Rules require a foreign investor who wishes to invest in or dispose of shares for the first time on the Korea Exchange (including Converted Shares) to register its identity with the Financial Supervisory Service prior to making any such investment or disposal; however, the registration requirement does not apply to foreign investors who acquire Converted Shares with the intention of selling such Converted Shares within three months from the date of acquisition of the Converted Shares or who acquire the shares in an over-the-counter transaction or dispose of shares where such acquisition or disposal is deemed to be a foreign direct investment pursuant to the Foreign Investment Promotion Law. Upon registration, the Financial Supervisory Service will issue to the foreign investor an investment registration card which must be presented each time the foreign investor opens a brokerage account with a financial investment company with a brokerage license or dealing license in Korea. Foreigners eligible to obtain an investment registration card include foreign nationals who are individuals residing abroad for more than six months, foreign governments, foreign municipal authorities, foreign public institutions, international financial institutions or similar international organizations, corporations incorporated under foreign laws and any person in any additional category designated by the Enforcement Decree to the FSCMA. All Korean offices of a foreign corporation as a group are treated as a separate foreigner from the offices of the corporation outside Korea. However, a foreign corporation or depositary issuing depositary receipts may obtain one or more investment registration cards in its name in certain circumstances as described in the relevant regulations.

Upon a foreign investor's purchase of shares through the Korea Exchange, no separate report by the investor is required because the investment registration card system is designed to control and oversee foreign investment through a computer system. However, a foreign investor's acquisition or sale of shares outside the Korea Exchange (as discussed above) must be reported by the foreign investor or his standing proxy to the Governor at the time of each such acquisition or sale; provided, however, that a foreign investor must ensure that any acquisition or sale by it of shares outside the Korea Exchange in the case of trades in connection with a tender offer, odd-lot trading of shares or trades of shares of certain public service corporations for which the aggregate foreign ownership limit has been reached or exceeded, is reported to the Governor by the Korea Securities Depository, financial investment companies with a dealing or brokerage license or securities finance companies engaged to facilitate such transaction. A foreign investor must appoint one or more standing proxies from among the Korea Securities Depository, foreign exchange banks (including domestic branches of foreign banks), financial investment companies with a dealing, brokerage or collective investment license (including domestic branches of foreign financial investment companies) and internationally recognized custodians which will act as a standing proxy to exercise shareholders' rights or perform any matters related to the foregoing activities if the foreign investor does not perform these activities himself. However, a foreign investor may be exempted from complying with these standing proxy rules with the approval of the Governor in cases deemed inevitable by reason of conflict between laws of Korea and those of the home country of the foreign investor.

Certificates evidencing shares of Korean companies owned by a foreign investor must be kept in custody with an eligible custodian in Korea. Only foreign exchange banks (including domestic branches of foreign banks), financial investment companies with a dealing, brokerage or collective investment license (including domestic branches of foreign financial investment companies), the Korea Securities Depository and internationally recognized custodians are eligible to act as a custodian of shares for a non-resident or foreign investor. A foreign investor must ensure that his custodian deposits its shares with the Korea Securities Depository. However, a foreign investor may be exempted from complying with this deposit requirement with the approval of the Governor in circumstances where compliance with that requirement is made impracticable, including cases where compliance would contravene the laws of the home country of such foreign investor.

Under the Investment Rules, with certain exceptions, foreign investors may acquire shares of a Korean company without being subject to any foreign investment ceiling. As one such exception, designated public service corporations are subject to a 40% ceiling on the acquisition of shares by foreigners in the aggregate. Designated public service corporations may set a ceiling on the acquisition of shares by a single foreign investor according to its articles of incorporation. Furthermore, an investment by a foreign investor of not less than 10% of the outstanding shares with voting rights and in the amount of not less than Won 10 million of a Korean company is defined as a foreign direct investment under the Foreign Investment Promotion Law, which is, in general, subject to report to, and acceptance by, the Ministry of Trade, Industry & Energy. The acquisition of shares of a Korean company by a foreign investor may also be subject to certain foreign shareholding restrictions in the event that the restrictions are prescribed in each specific law which regulates the business of the Korean company. Changes in ownership of a Korean company by a foreign direct investor, as well as changes in certain aspects of the foreign direct investment (including changes in the foreign direct investor’s name, address or business), are also subject to reporting requirements.

Under the Foreign Exchange Transaction Laws, a foreign investor who intends to acquire shares must designate a foreign exchange bank at which he must open a foreign currency account and a Won account exclusively for stock investments. No approval is required for remittance into Korea and deposit of foreign currency funds in the foreign currency account. Foreign currency funds may be transferred from the foreign currency account at the time required to place a deposit for, or settle the purchase price of, a stock purchase transaction to a Won account opened in the name of a financial investment company with a dealing, brokerage or collective investment license. Funds in the foreign currency account may be remitted abroad without any governmental approval.

Dividends on Shares are paid in Won. No governmental approval is required for foreign investors to receive dividends on, or the Won proceeds of the sale of, any shares to be paid, received and retained in Korea. Dividends paid on, and the Won proceeds of the sale of, any shares held by a non-resident of Korea must be deposited either in a Won account with the investor’s financial investment company with a dealing, brokerage or collective investment license or his Won Account. Funds in the investor’s Won Account may be transferred to his foreign currency account or withdrawn for local living expenses up to certain limitations. Funds in the Won Account may also be used for future investment in shares or for payment of the subscription price of new shares obtained through the exercise of preemptive rights.

Financial investment companies with a dealing, brokerage or collective investment license are allowed to open foreign currency accounts with foreign exchange banks exclusively for accommodating foreign investors’ stock investments in Korea. Through these accounts, these financial investment companies may enter into foreign exchange transactions on a limited basis, such as conversion of foreign currency funds and Won funds, either as counterparty to or on behalf of foreign investors, without the investors having to open their own accounts with foreign exchange banks.

Item 10.E. *Taxation*

The following summary is based upon tax laws of the United States and Korea as in effect on the date of this annual report on Form 20-F, and is subject to any change in United States or Korean law that may come into effect after such date. Investors in the shares of common stock or ADSs are advised to consult their own tax advisers as to the United States, Korean or other tax consequences of the purchase, ownership and disposition of such securities, including the effect of any foreign, state or local tax laws.

Korean Taxation

The following is a summary of the principal Korean tax consequences to owners of the common shares or ADSs, as the case may be, who are non-resident individuals or non-Korean corporations without a permanent establishment in Korea to which the relevant income is attributable or with which the relevant income is effectively connected ("Non-resident Holders"). The statements regarding Korean tax laws set forth below are based on the laws in force and as interpreted by the Korean taxation authorities as of the date hereof. This summary is not exhaustive of all possible tax considerations which may apply to a particular investor and potential investors are advised to satisfy themselves as to the overall tax consequences of the acquisition, ownership and disposition of the common shares or ADSs, including specifically the tax consequences under Korean law, the laws of the jurisdiction of which they are resident, and any tax treaty between Korea and their country of residence, by consulting their own tax advisers.

Tax on Dividends

Dividends on the common shares or ADSs paid (whether in cash or in shares) to a Non-resident Holder will be subject to Korean withholding taxes at the rate of 22% (including local income tax) or such lower rate as is applicable under a treaty between Korea and such Non-resident Holder's country of tax residence. Free distributions of shares representing a capitalization of certain capital surplus reserves may be subject to Korean withholding taxes.

The tax is withheld by the payer of the dividend. While it is the payer which is required to withhold the tax, Korean law generally entitles the person who was subject to the withholding of Korean tax to recover from the Government any part of the Korean tax withheld, upon providing evidence that it was entitled to have tax withheld at a lower rate, if certain conditions are met.

Tax on Capital Gains

As a general rule, capital gains earned by Non-resident Holders upon transfer of the common shares or ADSs are subject to Korean withholding tax at the lower of (i) 11% (including local income tax) of the gross proceeds realized or (ii) 22% (including local income tax) of the net realized gains (subject to the production of satisfactory evidence of the acquisition costs and certain direct transaction costs), unless exempt from Korean income taxation under the effective Korean tax treaty with the Non-resident Holder's country of tax residence or Korean tax law.

However, a Non-resident Holder will not be subject to Korean income taxation on capital gains realized upon the sale of the common shares through the KRX KOSPI Market if the Non-resident Holder (i) has no permanent establishment in Korea and (ii) did not or has not owned (together with any shares owned by any entity with a specified special relationship with such Non-resident Holder) 25% or more of the total issued and outstanding shares of us at any time during the calendar year in which the sale occurs and during the five calendar years prior to the calendar year in which the sale occurs.

It should be noted that capital gains earned by you (regardless of whether you have a permanent establishment in Korea) from a transfer of ADSs outside Korea will generally be exempt from Korean income taxation, provided that the ADSs are deemed to have been issued overseas. If and when an owner of the underlying common shares transfers the ADSs following the conversion of the underlying shares for ADSs, such person will not be exempt from Korean income taxation.

Inheritance Tax and Gift Tax

Korean inheritance tax is imposed upon (1) all assets (wherever located) of the deceased if at the time of his death he was a tax resident of Korea and (2) all property located in Korea which passes on death (irrespective of the domicile of the deceased). Gift tax is imposed in similar circumstances to the above. The taxes are imposed if the value of the relevant property is above a certain limit and the rate varies from 10% to 50% depending on the value of the property.

Under Korean inheritance and gift tax laws, securities issued by a Korean corporation are deemed to be located in Korea irrespective of where they are physically located or by whom they are owned and consequently, the Korea inheritance and gift taxes will be imposed on transfers of the securities by inheritance or gift.

Securities Transaction Tax

Securities transaction tax is imposed on the transfer of shares issued by a Korean corporation or the right to subscribe for such shares generally at the rate of 0.43% of the sales price (or 0.45% of the sales price if such shares were sold before January 1, 2021). In the case of the transfer of shares listed on the KRX KOSPI Market (such as the common shares), the securities transaction tax is imposed generally at the rate of (i) 0.23% of the sales price of such shares (0.25% of the sales price if such shares were sold before January 1, 2021) (including agricultural and fishery special surtax thereon) if traded on the KRX KOSPI Market or (ii) subject to certain exceptions, 0.43% of the sales price of such shares (or 0.45% of the sales price if such shares were sold before January 1, 2021) if traded outside the KRX KOSPI Market.

Securities transaction tax or the agricultural and fishery special surtax is not applicable if (i) the shares or rights to subscribe for shares are listed on a designated foreign stock exchange and (ii) the sale of the shares takes place on such exchange.

Securities transaction tax, if applicable, must be paid by the transferor of the shares or rights, in principle. When the transfer is effected through a securities settlement company, such settlement company is generally required to withhold and pay (to the tax authority) the tax, and when such transfer is made through a financial investment company with a brokerage license only, such company is required to withhold and pay the tax. Where the transfer is effected by a Non-resident Holder without a permanent establishment in Korea, other than through a securities settlement company or a financial investment company with a brokerage license, the transferee is required to withhold the securities transaction tax. Failure to do so will result in the imposition of penalties equal to the sum of (i) between 10% to 40% of the tax amount due, depending on the nature of the improper reporting, and (ii) 9.125% per annum on the tax amount due for the default period.

Tax Treaties

Currently, Korea has income tax treaties with a number of countries, including, inter alia, Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Luxembourg, Ireland, the Netherlands, New Zealand, Norway, Singapore, Sweden, Switzerland, the United Kingdom and the United States of America, under which the rate of withholding tax on dividend and interest is reduced, generally to between 5% and 16.5% (including local income tax), and the tax on capital gains derived by a non-resident from the transfer of securities issued by a Korean company is often eliminated.

Each Non-resident Holder of common shares should inquire for itself whether it is entitled to the benefits of a tax treaty with Korea. It is the responsibility of the party claiming the benefits of a tax treaty in respect of interest, dividend, capital gains or "other income" to submit to us (or our agent), the purchaser or the financial investment company with a brokerage license, as the case may be, prior to or at the time of payment, such evidence of tax residence of the party claiming the treaty benefit as the Korean tax authorities may require in support of its claim for treaty protection. In the absence of sufficient proof, we (or our agent), the purchaser or the financial investment company with a brokerage license, as the case may be, must withhold tax at the normal rates.

For a non-resident of Korea to obtain the benefits of treaty-reduced tax rates on certain Korean source income (e.g., capital gains and interest) under an applicable tax treaty, Korean tax law requires such non-resident (or its agents) to submit to the payer of such Korean source income an application for treaty-reduced tax rates prior to receipt of such Korean source income; provided, however, that an owner of ADSs who is a non-resident of Korea is not required to submit such application, if the Korean source income on the ADSs is paid through an account opened at the Korea Securities Depository by a foreign depository. The payer of such Korean source income, in turn, is required to submit such application to the relevant district tax office by the ninth day of the month following the date of the first payment of such income.

If Korean source income is paid to a non-resident through an overseas investment vehicle, such investment vehicle must obtain an application for tax exemption or reduced tax rates from each non-resident, who is the beneficial owner of such investment vehicle and submit to the payer of such Korean source incomes an overseas investment vehicle report, together with the applications for tax exemptions or reduced tax rates prepared by the non-resident beneficial owner. An overseas investment vehicle means an organization established outside of Korea that manages funds collected through investment solicitation by way of acquiring, disposing, or otherwise investing in investment targets and then distributes the outcome of such management to investors. An application for tax exemption or reduced tax rates submitted by the non-resident remains effective for three years from submission, and if any material changes occur with respect to information provided in the application, an application reflecting such change must be newly submitted.

At present, Korea has not entered into any tax treaty relating to inheritance or gift tax.

United States Taxation

This summary describes the material U.S. federal income tax consequences for a U.S. holder (as defined below) of owning our shares of common stock or ADSs. This summary applies to you only if you hold shares of common stock or ADSs as capital assets for tax purposes. This summary does not apply to you if you are a member of a class of holders subject to special rules, such as:

- a dealer in securities or currencies;
- a trader in securities that elects to use a mark-to-market method of accounting for your securities holdings;
- a bank;
- a life insurance company;
- a tax-exempt organization;
- a person that holds shares of common stock or ADSs that are a hedge or that are hedged against interest rate or currency risks;
- a person that holds shares of common stock or ADSs as part of a straddle or conversion transaction for tax purposes;

- a person whose functional currency for tax purposes is not the Dollar;
- a person that owns or is deemed to own 10% or more of any class of our stock or 10% or more of the combined voting power or value of all of our classes of stock; or
- an entity treated as a partnership for U.S. federal income tax purposes that holds shares of common stock or ADSs, or an investor therein.

This summary is based on laws, treaties and regulatory interpretations in effect on the date hereof, all of which are subject to change, possibly on a retroactive basis.

Please consult your own tax advisers concerning the U.S. federal, state, local and other foreign tax consequences of purchasing, owning and disposing of shares of common stock or ADSs in your particular circumstances.

For purposes of this summary, you are a “U.S. holder” if you are a beneficial owner of a share of common stock or ADS that is:

- a citizen or resident of the United States;
- a U.S. domestic corporation; or
- otherwise subject to U.S. federal income tax on a net income basis with respect to income from the shares of common stock or ADS.

Shares of Common Stock and ADSs

In general, if you are the beneficial owner of ADSs, you will be treated as the beneficial owner of the shares of common stock represented by those ADSs for U.S. federal income tax purposes, and no gain or loss will be recognized if you exchange an ADS for the shares of common stock represented by that ADS.

Passive Foreign Investment Company Rules

Special U.S. tax rules apply to companies that are considered to be PFICs. We will be classified as a PFIC in a particular taxable year if either

- 75 percent or more of our gross income for the taxable year is passive income; or
- at least 50 percent of the quarterly average value of our assets is attributable to assets that produce or are held for the production of passive income.

For this purpose, passive income generally includes dividends, interest, gains from certain commodities transactions, rents, royalties and the excess of gains over losses from the disposition of assets that produce passive income.

Based on our financial statements and relevant market and shareholder data, we believe that we were not treated as a PFIC for U.S. federal income tax purposes with respect to our 2020 taxable year. In addition, based on our current expectations regarding the value and nature of our assets, the sources and nature of our income, and relevant market and shareholder data, we do not anticipate becoming a PFIC for our 2021 taxable year or in the foreseeable future. However, the determination of whether we are a PFIC must be made annually based on the facts and circumstances at that time, some of which may be beyond our control, including the valuation of our assets as implied by the market price for our common stock or ADSs. Accordingly, it is possible that we could become a PFIC in the current or a future year.

If we are classified as a PFIC in any taxable year during which you hold our common stock or ADSs, you could be subject to a special tax at ordinary income rates on “excess distributions,” including certain distributions by us and gain that you recognize on the sale of your common stock or ADSs. The amount of income tax on any excess distributions will be increased by an interest charge to compensate for tax deferral, calculated as if the excess distributions were earned ratably over the period you held the common stock or ADSs. Classification as a PFIC may also have other adverse consequences, including, in the case of individuals, the denial of a step-up in the basis of your common stock or ADSs at death. Except where otherwise noted, the remainder of this summary assumes that we were not a PFIC for our 2020 taxable year and that we will not become a PFIC in the current or any future year.

You should consult your own tax advisers as to our status as a PFIC and the tax consequences to you of such status.

Dividends

The gross amount of cash dividends that you receive (prior to deduction of Korean taxes) generally will be subject to U.S. federal income taxation as foreign source dividend income. Dividends paid in Won will be included in your income in a Dollar amount calculated by reference to the exchange rate in effect on the date of your (or, in the case of ADSs, the depositary's) receipt of the dividend, regardless of whether the payment is in fact converted into Dollars. If such a dividend is converted into Dollars on the date of receipt, you generally should not be required to recognize foreign currency gain or loss in respect of the dividend income. U.S. holders should consult their own tax advisers regarding the treatment of any foreign currency gain or loss on any Won received by U.S. holders that are converted into Dollars on a date subsequent to receipt.

Subject to certain exceptions for short-term and hedged positions, the Dollar amount of dividends received by an individual U.S. holder with respect to the ADSs and common stock will be subject to taxation at a preferential rate applicable to long-term capital gains if the dividends are "qualified dividends." Dividends paid on the ADSs and common stock will be treated as qualified dividends if (i) we are eligible for the benefits of a comprehensive income tax treaty with the United States that the Internal Revenue Service has approved for the purposes of the qualified dividend rules and (ii) we were not, in the year prior to the year in which the dividend is paid, and are not, in the year in which the dividend is paid, a passive foreign investment company ("PFIC"). The income tax treaty between Korea and the United States ("Treaty") has been approved for the purposes of the qualified dividend rules, and we believe we are eligible for benefits under the Treaty. Based on our audited financial statements and relevant market and shareholder data, we believe that we were not treated as a PFIC for U.S. federal income tax purposes with respect to our 2019 or 2020 taxable year. In addition, based on our current expectations regarding the value and nature of our assets, the sources and nature of our income, and relevant market and shareholder data, we do not anticipate becoming a PFIC for our 2021 taxable year. You should consult your own tax advisers regarding the availability of the reduced dividend tax rate in the light of your own particular circumstances.

Distributions of additional shares in respect of shares of common stock or ADSs that are made as part of a pro-rata distribution to all of our shareholders generally will not be subject to U.S. federal income tax.

Sales and Other Dispositions

For U.S. federal income tax purposes, you will recognize taxable gain or loss on any sale, exchange or other taxable disposition of common stock or ADSs equal to the difference, if any, between the amount realized on the sale or exchange and your adjusted tax basis in the common stock or ADSs. Any gain realized by a U.S. holder on the sale or other disposition of common stock or ADSs generally will be treated as U.S. source income for U.S. foreign tax credit purposes. This gain or loss will be capital gain or loss, and will be long-term capital gain or loss to the extent that the shares of common stock or ADSs sold or disposed of were held for more than one year. Your ability to offset capital losses against ordinary income is limited. Long-term capital gain recognized by an individual U.S. holder generally is subject to taxation at a reduced rate.

Foreign Tax Credit Considerations

You should consult your own tax advisers to determine whether you are subject to any special rules that limit your ability to make effective use of foreign tax credits, including the possible adverse impact of failing to take advantage of benefits under the income tax treaty between the United States and Korea. If no such rules apply, you generally may claim a credit, up to any applicable reduced rates provided under the Treaty, against your U.S. federal income tax liability for Korean taxes withheld from dividends on shares of common stock or ADSs, so long as you have owned the shares of common stock or ADSs (and not entered into specified kinds of hedging transactions) for at least a 16-day period that includes the ex-dividend date. Instead of claiming a credit, you may, at your election, deduct such Korean taxes in computing your taxable income, provided that you do not elect to claim a foreign tax credit for any foreign income taxes paid or accrued for the relevant tax year and subject to generally applicable limitations under U.S. tax law. Foreign tax credits will not be allowed for withholding taxes imposed in respect of certain short-term or hedged positions in securities and may not be allowed in respect of arrangements in which your expected economic profit is insubstantial. You may not be able to use the foreign tax credit associated with any Korean withholding tax imposed on a distribution of additional shares that is not subject to U.S. federal income tax unless you can use the credit against U.S. federal income tax due on other foreign-source income.

Any Korean securities transaction tax or agriculture and fishery special tax that you pay will not be creditable for foreign tax credit purposes.

The calculation of foreign tax credits and, in the case of a U.S. holder that elects to deduct foreign taxes, the availability of deductions, involves the application of complex rules that depend on a U.S. holder's particular circumstances. You should consult your own tax advisers regarding the creditability or deductibility of such taxes.

Specified Foreign Financial Assets

Certain U.S. holders that own "specified foreign financial assets" with an aggregate value in excess of US$50,000 on the last day of the taxable year or US$75,000 at any time during the taxable year are generally required to file an information statement along with their tax returns, currently on Form 8938, with respect to such assets. "Specified foreign financial assets" include any financial accounts held at a non-U.S. financial institution, as well as securities issued by a non-U.S. issuer (which would include the common stock or ADSs) that are not held in accounts maintained by financial institutions. Higher reporting thresholds apply to certain individuals living abroad and to certain married individuals. Regulations extend this reporting requirement to certain entities that are treated as formed or availed of to hold direct or indirect interests in specified foreign financial assets based on certain objective criteria. U.S. holders who fail to report the required information could be subject to substantial penalties. In addition, the statute of limitations for assessment of tax would be suspended, in whole or part. Prospective investors should consult their own tax advisors concerning the application of these rules to their investment in the common stock or ADSs, including the application of the rules to their particular circumstances.

U.S. Information Reporting and Backup Withholding Rules

Payments in respect of shares of common stock or ADSs that are made within the United States or through certain U.S.-related financial intermediaries are subject to information reporting and may be subject to backup withholding unless the holder (1) is a corporation or other exempt recipient and demonstrates this when required or (2) provides a taxpayer identification number and certifies that no loss of exemption from backup withholding has occurred. Holders that are not U.S. persons generally are not subject to information reporting or backup withholding. However, such a holder may be required to provide a certification of its non-U.S. status in connection with payments received within the United States or through a U.S.-related financial intermediary.

Item 10.F. *Dividends and Paying Agents*

See "Item 8.A. Consolidated Statements and Other Financial Information — Dividends" above for information concerning our dividend policies and our payment of dividends. See "Item 10.B. Memorandum and Articles of Association — Dividends" for a discussion of the process by which dividends are paid on shares of our common stock. The paying agent for payment of our dividends on ADSs in the United States is the Citibank, N.A.

Item 10.G. *Statements by Experts*

Not applicable

Item 10.H. *Documents on Display*

We file reports, including annual reports on Form 20-F, and other information with the SEC pursuant to the rules and regulations of the SEC that apply to foreign private issuers. You may read and copy any materials filed with the SEC at the Public Reference Rooms in Washington, D.C. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Any filings we make electronically will be available to the public over the Internet at the SEC's website at *http://www.sec.gov.*

Item 10.I. *Subsidiary Information*

Not applicable

Item 11. *Quantitative and Qualitative Disclosures about Market Risk*

We are exposed to foreign exchange rate and interest rate risk primarily associated with underlying liabilities, and to changes in the commodity prices of principal raw materials. Following evaluation of these positions, we selectively enter into derivative financial instruments to manage the related risk exposures, primarily with respect to foreign exchange rate and interest rate risks, which are entered into with major financial institutions in order to minimize the risk of credit loss. Our market risk management policy determines the market risk tolerance level, measuring period, controlling responsibilities, management procedures, hedging period and hedging ratio very specifically. We also prohibit all speculative hedging transactions and evaluate and manage foreign exchange exposures to receivables and payables.

None of our loss exposures related to derivative contracts are unlimited, and we do not believe that our net derivative positions could result in a material loss to our profit before income tax or total equity due to significant fluctuations of major currencies against the Korean Won. Due to the nature of our derivative contracts primarily as hedging instruments that manage foreign exchange risks, net gain or net loss on derivatives transactions and valuation of derivatives are typically offset by net loss or net gain on foreign currency transaction and translation. We recorded net gain on valuation of derivatives of Won 56 billion and net gain on derivatives transactions of Won 39 billion in 2018 and net gain on valuation of derivatives of Won 116 billion and net loss on derivatives transactions of Won 32 billion in 2019 and net loss on valuation of derivatives of Won 114 billion and net loss on derivatives transactions of Won 58 billion in 2020.

Exchange Rate Risk

Korea is our most important market and, therefore, a substantial portion of our cash flow is denominated in Won. Most of our exports are denominated in Dollars. Japan is also an important market for us, and we derive significant cash flow denominated in Yen. We are exposed to foreign exchange risk related to foreign currency denominated liabilities and anticipated foreign exchange payments. Anticipated foreign exchange payments, which represent a substantial sum and are mostly denominated in Dollars, relate primarily to imported raw material costs and freight costs. Foreign currency denominated liabilities relate primarily to foreign currency denominated debt.

We strive to naturally offset our foreign exchange risk by matching foreign currency receivables with our foreign currency payables and our overseas subsidiaries have sought to further mitigate the adverse impact of exchange rate fluctuations by conducting business transactions in the local currency of the respective market in which the transactions occur. In particular, POSCO International's exposure to fluctuations in exchange rates, including the Won/Dollar exchange rate, is limited because trading transactions typically involve matched purchase and sale contracts, which result in limited settlement exposure, and because POSCO International's contracts with domestic suppliers of products for export and with domestic purchasers of imported products are generally denominated in Dollars. Although the impact of exchange rate fluctuations is partially mitigated by such strategies, we and our subsidiaries, particularly POSCO International and POSCO E&C, also periodically enter into derivative contracts, primarily foreign currency swaps and forward exchange contracts, to further hedge some of our foreign exchange risks.

Our foreign currency exposure and changes in gain or loss resulting from a 10% foreign exchange rate change against the Korean Won are as follows:

	For the Years Ended December 31,					
	2018		2019		2020	
	Increase	Decrease	Increase	Decrease	Increase	Decrease
	(In billions of Won)					
US Dollars	₩(204)	₩204	₩(174)	₩174	₩(244)	₩244
Japanese Yen	(29)	29	(17)	17	(53)	53
Euro	15	(15)	41	(41)	(48)	48

Interest Rate Risk

We are also subject to market risk exposure arising from changing interest rates. In particular, we are exposed to interest rate risk on our existing floating rate borrowings and on additional debt financings that we may periodically undertake for various reasons, including capital expenditures and refinancing of our existing borrowings. A rise in interest rates will increase the cost of our existing variable rate borrowings. If interest rates on borrowings with floating rates had been 1% higher or lower with all other variables held constant, the impact on the gain or loss of the applicable period would be as follows:

	For the Years Ended December 31,		
	2018	2019	2020
	(In billions of Won)		
Increase or decrease in annual profit and net equity	₩85	₩79	₩66

A reduction of interest rates also increases the fair value of our debt portfolio, which is primarily of a fixed interest nature. From time to time, we use, to a limited extent, interest rate swaps to reduce interest rate volatility on some of our debt and manage our interest expense by achieving a balanced mixture of floating and fixed rate debt.

The following table summarizes the carrying amounts, fair values, principal cash flows by maturity date and weighted average interest rates of our short-term and long-term liabilities as of December 31, 2020 which are sensitive to exchange rates and/or interest rates. The information is presented in Won, which is our reporting currency.

	Maturities									
							December 31, 2020		December 31, 2019	
	2021	2022	2023	2024	2025	Thereafter	Total	Fair Value	Total	Fair Value
	(In billions of Won except rates)									
Local currency:										
Fixed rate	1,512	1,991	1,347	768	329	741	6,688	6,679	6,562	6,475
Average weighted rate (1)	3.05%	1.87%	2.35%	1.86%	2.06%	2.00%	2.25%		1.55%	
Variable rate	282	163	183	0	0	43	671	671	370	369
Average weighted rate (1)	2.66%	1.43%	2.07%	0.00%	0.00%	1.64%	2.14%		2.93%	
Sub-total	1,794	2,154	1,530	768	329	784	7,359	7,350	6,932	6,844
Foreign currency, principally Dollars and Yen:										
Fixed rate	3,511	656	1,427	1,223	474	222	7,513	7,472	6,070	5,990
Average weighted rate (1)	2.68%	2.17%	2.84%	1.53%	2.52%	4.00%	2.49%		3.41%	
Variable rate	3,355	422	593	0	959	294	5,623	5,622	7,441	7,439
Average weighted rate (1)	1.40%	1.60%	1.66%	0.00%	2.97%	2.10%	1.75%		4.03%	
Sub-total	6,866	1,078	2,020	1,223	1,433	516	13,136	13,094	13,511	13,429
Total	8,660	3,232	3,550	1,991	1,762	1,300	20,495	20,444	20,443	20,273

(1) Weighted average rates of the portfolio at the period end.

Item 12. *Description of Securities Other than Equity Securities*

Not applicable

Item 12.A. *Debt Securities*

Not applicable

Item 12.B. *Warrants and Rights*

Not applicable

Item 12.C. *Other Securities*

Not applicable

Item 12.D. ***American Depositary Shares***

Fees and Charges

We switched our depositary from The Bank of New York Mellon to Citibank, N.A. in July 2013. Holders of our ADSs are required to pay the following service fees to the depositary:

Services	Fees
Issuance of ADSs upon deposit of shares	Up to $5.00 per 100 ADSs issued
Delivery of deposited shares against surrender of ADSs	Up to $5.00 per 100 ADSs surrendered
Distributions of cash dividends or other cash distributions	Up to $5.00 per 100 ADSs held
Distribution of ADSs pursuant to (i) stock dividends or other free stock distributions, or (ii) exercise of rights to purchase additional ADSs	Up to $5.00 per 100 ADSs held
Distribution of securities other than ADSs or rights to purchase additional ADSs	Up to $5.00 per 100 ADSs held
General depositary services	Up to $5.00 per 100 ADSs held

Holders of our ADSs are also responsible for paying certain fees and expenses incurred by the depositary such as:

- fees for the transfer and registration of shares charged by the registrar and transfer agent for the shares in Korea (i.e., upon deposit and withdrawal of shares);
- expenses incurred for converting foreign currency into Dollars;
- expenses for cable, telex and fax transmissions and for delivery of securities;
- taxes (including applicable interest and penalties) and other governmental charges;
- fees and expenses incurred in connection with compliance with exchange control regulations and other regulatory requirements; and
- fees and expenses incurred in connection with the delivery or servicing of shares on deposit.

Depositary fees payable upon the issuance and surrender of ADSs are typically paid to the depositary by the brokers (on behalf of their clients) receiving the newly issued ADSs from the depositary and by the brokers (on behalf of their clients) delivering the ADSs to the depositary for surrender. The brokers in turn charge these fees to their clients. Depositary fees payable in connection with distributions of cash or securities to ADS holders and the depositary services fee are charged by the depositary to the holders of record of ADSs as of the applicable ADS record date.

The depositary fees payable for cash distributions are generally deducted from the cash being distributed. In the case of distributions other than cash (i.e., stock dividend, rights), the depositary charges the applicable fee to the ADS record date holders concurrent with the distribution. In the case of ADSs registered in the name of the investor (whether certificated or uncertificated in direct registration), the depositary sends invoices to the applicable record date ADS holders. In the case of ADSs held in brokerage and custodian accounts (via the Korea Securities Depositary, or KSD), the depositary generally collects its fees through the systems provided by KSD (whose nominee is the registered holder of the ADSs held in KSD) from the brokers and custodians holding ADSs in their KSD accounts. The brokers and custodians who hold their clients' ADSs in KSD accounts in turn charge their clients' accounts the amount of the fees paid to the depositary.

In the event of refusal to pay the depositary fees, the depositary may, under the terms of the deposit agreement, refuse the requested service until payment is received or may set off the amount of the depositary fees from any distribution to be made to such holder of ADSs.

The fees and charges that holders of our ADSs may be required to pay may vary over time and may be changed by us and by the depositary. Holders of our ADSs will receive prior notice of such changes.

Fees and Payments from the Depositary to Us

In 2020, we received approximately $1.3 million from the depositary for reimbursement of various costs, including preparation of SEC filing and submission, listing fees, proxy process expenses (printing, postage and distribution), legal fees and contributions for our investor relations activities.

In addition, as part of its service to us, the depositary waives its fees for the standard costs associated with the administration of the ADS facility, associated operating expenses, investor relations advice and access to an internet-based tool used in our investor relations activities.

PART II

Item 13. *Defaults, Dividend Arrearages and Delinquencies*

Not applicable

Item 14. *Material Modifications to the Rights of Security Holders and Use of Proceeds*

Not applicable

Item 15. *Controls and Procedures*

a. Disclosure Controls and Procedures

Our management has evaluated, with the participation of our chief executive officer and chief financial officer, the effectiveness of our disclosure controls and procedures, as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, as of December 31, 2020. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives. Based upon our evaluation, our chief executive officer and chief financial officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report. Our disclosure controls and procedures are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Commission’s rules and forms, and that it is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosure.

b. Management’s Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed by, and under the supervision of, our principal executive, principal operating and principal financial officers, and effected by our board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Our internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting is not intended to provide absolute assurance that a misstatement of our financial statements would be prevented or detected. 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.

Our management has completed an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2020 based on criteria in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, management concluded that our internal control over financial reporting was effective as of December 31, 2020.

c. Report of the Independent Registered Public Accounting Firm

The report of our independent registered public accounting firm, KPMG Samjong Accounting Corp. ("KPMG"), on the effectiveness of our internal control over financial reporting as of December 31, 2020 is included in Item 18 of this Form 20-F.

d. Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting that occurred during the year covered by this annual report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. Our adoption of Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission did not have, and is not reasonably likely to have, any material effect on our internal control over financial reporting.

Item 16. *[Reserved]*

Item 16.A. *Audit Committee Financial Expert*

The board of directors has determined that Chung, Moon-Ki is an audit committee financial expert and is independent within the meaning of applicable SEC rules.

Item 16.B. *Code of Ethics*

We have adopted a code of business conduct and ethics, as defined in Item 16B. of Form 20-F under the Securities Exchange Act of 1934, as amended. Our code of business conduct and ethics, called Code of Ethics, applies to our chief executive officer and chief financial officer, as well as to our directors, other officers and employees. Our Code of Ethics is available on our website at *http://www.posco.com.* If we amend the provisions of our Code of Ethics that apply to our chief executive officer or chief financial officer and persons performing similar functions, or if we grant any waiver of such provisions, we will disclose such amendment or waiver on our website at the same address.

Item 16.C. *Principal Accountant Fees and Services*

Audit and Non-Audit Fees

The following table sets forth the fees billed to us by our independent registered public accounting firm, KPMG, in 2019 and 2020:

	For the Year Ended December 31,	
	2019	2020
	(In millions of Won)	
Audit fees	₩ 7,448	₩ 7,712
Audit-related fees	422	—
Tax fees	1,002	1,037
Other fees	971	1,236
Total fees	₩ 9,843	₩ 9,985

Audit fees in 2019 and 2020 as set forth in the above table are the aggregate fees billed or expected to be billed by KPMG in connection with the audit of our annual financial statements and the annual financial statements of other related companies and review of interim financial statements.

Audit-related fees in 2019 as set forth in the above table are fees billed by KPMG for issuing comfort letters in connection with our securities offering.

Tax fees in 2019 and 2020 as set forth in the above table are fees billed by KPMG for our tax compliance and tax planning, as well as compliance related to transfer pricing.

Other fees in 2019 and 2020 as set forth in the above table are fees billed by KPMG in connection with statutory audits unrelated to the audit of our annual financial statements.

Audit Committee Pre-Approval Policies and Procedures

Under our Audit Committee's pre-approval policies and procedures, all audit and non-audit services to be provided to us by an independent registered public accounting firm must be pre-approved by our Audit Committee. Our Audit Committee does not pre-approve any audit and non-audit services that are prohibited from being provided to us by an independent registered public accounting firm under the rules of SEC and applicable law.

Item 16.D. *Exemptions from the Listing Standards for Audit Committees*

Not applicable

Item 16.E. *Purchases of Equity Securities by the Issuer and Affiliated Purchasers*

The following table sets forth the repurchases of common shares by us or any affiliated purchasers during the fiscal year ended December 31, 2020:

Period	Total Number of Shares Purchased	Average Price Paid Per Share (In Won)	Total Number of Shares Purchased as Part of Publicly Announced Plans	Maximum Number of Shares that May Yet Be Purchased Under the Plans
January 1 to January 31	—	—	—	—
February 1 to February 29	—	—	—	—
March 1 to March 31	—	—	—	—
April 1 to April 30	—	—	—	—
May 1 to May 31	165,048	172,587	190,000	24,952
June 1 to June 30	193,905	187,401	220,000	26,095
July 1 to July 31	323,472	189,963	440,000	116,528
August 1 to August 31	314,443	198,005	400,000	85,557
September 1 to September 30	743,013	189,963	770,000	26,987
October 1 to October 31	843,076	208,834	930,000	86,924
November 1 to November 30	927,508	235,369	1,100,000	172,492
December 1 to December 31	589,704	269,921	1,120,000	530,296
Total	4,100,169	215,410	5,170,000	1,069,831

Item 16.F. *Change in Registrant's Certifying Accountant*

Not applicable

Item 16.G. *Corporate Governance*

Pursuant to the rules of the New York Stock Exchange applicable to foreign private issuers like us that are listed on the New York Stock Exchange, we are required to disclose significant differences between the New York Stock Exchange's corporate governance standards and those that we follow under Korean law and in accordance with our own internal procedures. The following is a summary of such significant differences.

NYSE Corporate Governance Standards	POSCO's Corporate Governance Practice
Director Independence	
Listed companies must have a majority of independent directors	Our articles of incorporation provide that our board of directors must comprise no less than a majority of Outside Directors. Our Outside Directors must meet the criteria for outside directorship set forth under the Korean Securities and Exchange Act. The majority of our board of directors is independent (as defined in accordance with the New York Stock Exchange's standards), and seven out of 12 directors are Outside Directors. Under our articles of incorporation, we may have up to five Inside Directors and eight Outside Directors.
Nomination/Corporate Governance Committee	
A nomination/corporate governance committee of independent directors is required. The committee must have a charter that addresses the purpose, responsibilities (including development of corporate governance guidelines) and annual performance evaluation of the committee.	We have not established a separate nomination corporate governance committee. However, we maintain a Director Candidate Recommendation Committee composed of three Outside Directors and one Inside Director.

NYSE Corporate Governance Standards	POSCO's Corporate Governance Practice
Compensation Committee	
A compensation committee of independent directors is required. The committee must have a charter that addresses the purpose, responsibilities and annual performance evaluation of the committee. The charter must be made available on the company's website. In addition, in accordance with the U.S. Securities and Exchange Commission rules adopted pursuant to Section 952 of the Dodd-Frank Act, the New York Stock Exchange listing standards were amended to expand the factors relevant in determining whether a committee member has a relationship with the company that will materially affect that member's duties to the compensation committee. Additionally, the committee may obtain or retain the advice of a compensation adviser only after taking into consideration all factors relevant to determining that adviser's independence from management.	We maintain an Evaluation and Compensation Committee composed of four Outside Directors.
Executive Session	
Non-management directors must meet in regularly scheduled executive sessions without management. Independent directors should meet alone in an executive session at least once a year.	Our Outside Directors hold meetings solely attended by Outside Directors in accordance with operation guidelines of our board of directors.
Audit Committee	
Listed companies must have an audit committee that satisfies the independence and other requirements of Rule 10A-3 under the Exchange Act. All members must be independent. The committee must have a charter addressing the committee's purpose, an annual performance evaluation of the committee, and the duties and responsibilities of the committee. The charter must be made available on the company's website.	We maintain an Audit Committee comprised of three Outside Directors who meet the applicable independence criteria set forth under Rule 10A-3 under the Exchange Act.
Audit Committee Additional Requirements	
Listed companies must have an audit committee that is composed of at least three directors.	Our Audit Committee has three members, as described above.
Shareholder Approval of Equity Compensation Plan	
Listed companies must allow their shareholders to exercise their voting rights with respect to any material revision to the company's equity compensation plan.	We currently have an Employee Stock Ownership Program. Matters related to the Employee Stock Ownership Program are not subject to shareholders' approval under Korean law.
Shareholder Approval of Equity Offerings	
Listed companies must allow its shareholders to exercise their voting rights with respect to equity offerings that do not qualify as public offerings for cash, and offerings of equity of related parties.	Our board of directors is generally authorized to issue new shares, subject to certain limitations as provided by our articles of incorporation.
Corporate Governance Guidelines	
Listed companies must adopt and disclose corporate governance guidelines.	We have adopted a Corporate Governance Charter setting forth our practices with respect to relevant corporate governance matters. Our Corporate Governance Charter is in compliance with Korean law but does not meet all requirements established by the New York Stock Exchange for U.S. companies listed on the exchange. A copy of our Corporate Governance Charter is available on our website at *http://www.posco.com*.
Code of Business Conduct and Ethics	
Listed companies must adopt and disclose a code of business conduct and ethics for directors, officers and employees, and promptly disclose any waivers of the code for directors or executive officers.	We have adopted a Code of Ethics for all directors, officers and employees. A copy of our Code of Ethics is available on our website at *http://www.posco.com.*

Item 16.H. ***Mine Safety Disclosure***

Not applicable

PART III

Item 17. ***Financial Statements***

Not applicable

Item 18. ***Financial Statements***

Item 19. ***Exhibits***

1.1	—	Articles of Incorporation of POSCO (English translation)
2.1	—	Form of Common Stock Certificate (including English translation) (incorporated by reference to Exhibit 4.3 to the Registrant's Registration Statement No. 33-81554)* (P)
2.2	—	Form of Deposit Agreement (including Form of American Depositary Receipts) (incorporated by reference to the Registrant's Registration Statement (File No. 333-189473) on Form F-6)*
2.3	—	Description of common stock (see Item 10.B. Memorandum and Articles of Association)
2.4	—	Description of American Depositary Shares
8.1	—	List of consolidated subsidiaries
12.1	—	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
12.2	—	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
13.1	—	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101	—	Interactive Data Files (XBRL-related Documents)

* Filed previously

(P) Paper filing

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Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
POSCO:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated statements of financial position of POSCO and subsidiaries (the Company) as of December 31, 2019 and 2020, the related consolidated statements of comprehensive income, changes in equity and cash flows for each of the years in the three-year period ended December 31, 2020, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2020 and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2020, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (the PCAOB), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated April 29, 2021 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Adoption of New Accounting Standards

As discussed in Note 3 to the consolidated financial statements, effective January 1, 2019, the Company has changed its methods of accounting for lease due to the adoption of IFRS No. 16, Leases.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

(a) Assessment of goodwill impairment in the POSCO INTERNATIONAL Corporation cash generating unit

As discussed in Notes 3 and 15(c) to the consolidated financial statements, goodwill amounted to ₩903,893 million as of December 31, 2020, of which ₩762,816 million related to the cash generating unit ("CGU") of POSCO INTERNATIONAL Corporation. The Company performs goodwill impairment testing on an annual basis irrespective of whether there is any indication of impairment and whenever there is an indication that the CGU may be impaired. Recoverable amount of POSCO INTERNATIONAL Corporation was determined based on value-in-use.

We identified the assessment of goodwill impairment in the POSCO INTERNATIONAL Corporation CGU as a critical audit matter. A high degree of challenging, subjective and complex auditor judgment was involved in evaluating the Company's estimate of the recoverable amount of POSCO INTERNATIONAL Corporation CGU. Specifically, estimated sales, discount rate and terminal growth rate were challenging to test as minor changes in those assumptions would have a significant effect on the Company's assessment of the carrying value of the goodwill.

The following are the primary procedures we performed to address this critical matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's goodwill impairment analysis. This included controls related to the development of the estimated sales, discount rate and terminal growth rate assumptions.

We evaluated the estimated sales by comparing the growth assumptions to the latest financial budgets approved by the board of directors, historical performance and industry reports. We compared the estimated sales prepared in prior year with the current year's actual results to assess the Company's ability to accurately forecast. We compared the terminal growth rate with available public data from external economic research institutions. We performed sensitivity analysis over estimated sales, discount rate and terminal growth rate to assess the impact of changes in these assumptions on the Company's goodwill impairment assessment. We involved valuation professionals with specialized skill and knowledge, who assisted in evaluating the discount rate by comparing it against a discount rate that was independently developed using available market data for comparable entities.

(b) Estimated total contract costs at completion for construction contract revenue recognition related to POSCO ENGINEERING & CONSTRUCTION CO., LTD.

As discussed in Notes 3, 28 and 29 to the consolidated financial statements, the Company reported revenue of ₩6,108,136 million from construction contracts for the year ended December 31, 2020, for which revenue is recognized over time. Such revenue amount included revenue related to POSCO ENGINEERING & CONSTRUCTION CO., LTD, a subsidiary of the Company. When contract revenue and contract cost can be reliably estimated, the Company recognizes contract revenue over time based on the percentage of completion. The percentage of completion is determined based on the proportion of contract costs incurred to date, excluding contract costs incurred that do not reflect the stage of completion, to the estimated total contract costs at completion.

We identified the estimated total contract costs at completion for construction contract revenue recognition as a critical audit matter. It requires subjective and complex auditor judgments in evaluating the underlying assumptions, including estimated material costs, labor costs and outsourcing costs, for construction contracts. Changes in these assumptions may have a significant impact on the amount of revenue recognized during a specific period.

The following are the primary procedures we performed to address this critical matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the estimation of total contract costs at completion for construction contracts, including controls related to the assumptions used to develop the estimated total contract costs at completion. We evaluated the estimated total contract costs at completion by:

– inspecting the supporting documentation prepared by the person in charge of construction field regarding rationale and reliability of the estimated total contract costs at completion including estimated material costs, labor costs and outsourcing costs for a selection of projects;

- questioning the person in charge of construction field, and inspecting supporting documentation to test estimated material costs, labor costs and outsourcing costs for a selection of projects commenced in 2020;
- questioning the Company's finance manager and the person in charge of construction field, and inspecting documents as to the cause of any changes in estimated total contract costs at completion made during 2020 for a selection of projects; and
- assessing the Company's ability to accurately forecast estimated total contract costs at completion by comparing the actual total contract costs for construction contracts completed during 2020 against the estimated total contract costs at completion in prior year.

/s/ KPMG Samjong Accounting Corp.

We have served as the Company's auditor since 2008.

Seoul, Korea
April 29, 2021

Report of Independent Registered Public Accounting Firm on Internal Control over Financial Reporting

To the Shareholders and Board of Directors
POSCO:

Opinion on Internal Control over Financial Reporting

We have audited POSCO and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (the PCAOB), the consolidated statements of financial position of the Company as of December 31, 2019 and 2020, the related consolidated statements of comprehensive income, changes in equity and cash flows for each of the years in the three-year period ended December 31, 2020, and the related notes (collectively, the consolidated financial statements), and our report dated April 29, 2021 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. 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.

/s/ KPMG Samjong Accounting Corp.

Seoul, Korea
April 29, 2021

POSCO and Subsidiaries
Consolidated Statements of Financial Position
As of December 31, 2019 and 2020

(in millions of Won)	Notes	December 31, 2019	December 31, 2020
Assets			
Cash and cash equivalents	4,5,23	₩ 3,514,872	4,754,644
Trade accounts and notes receivable, net	6,17,23,29,37	9,070,031	8,110,239
Other receivables, net	7,23,37	1,581,517	1,494,239
Other short-term financial assets	8,23	8,996,049	11,709,209
Inventories	9	11,230,759	9,636,183
Current income tax assets	35	45,930	49,481
Assets held for sale	10	74,158	34,210
Other current assets	16	631,177	616,623
Total current assets		35,144,493	36,404,828
Long-term trade accounts and notes receivable, net	6,23	198,785	86,423
Other receivables, net	7,23,37	1,140,879	1,195,962
Other long-term financial assets	8,23	1,669,389	1,561,807
Investments in associates and joint ventures	11	3,927,755	3,876,249
Investment property, net	13	878,227	994,781
Property, plant and equipment, net	14	29,925,973	29,400,141
Intangible assets, net	15	4,908,473	4,449,432
Defined benefit assets, net	21	4,280	86,149
Deferred tax assets	35	1,247,313	1,357,844
Other non-current assets	16	325,241	270,060
Total non-current assets		44,226,315	43,278,848
Total assets		₩79,370,808	79,683,676

See accompanying notes to the consolidated financial statements.

POSCO and Subsidiaries
Consolidated Statements of Financial Position, Continued
As of December 31, 2019 and 2020

(in millions of Won)	Notes	December 31, 2019	December 31, 2020
Liabilities			
Trade accounts and notes payable	23,37	₩ 3,422,922	3,755,513
Short-term borrowings and current installments of long-term borrowings	4,17,23	8,548,212	8,677,529
Other payables	18,23	1,879,508	1,845,266
Other short-term financial liabilities	19,23,37	77,827	141,404
Current income tax liabilities	35	396,616	366,476
Liabilities directly associated with the assets held for sale	10	8	25
Provisions	20	360,337	443,273
Other current liabilities	22,29	1,865,638	1,981,977
Total current liabilities		16,551,068	17,211,463
Long-term trade accounts and notes payable	23,37	20,067	22,323
Long-term borrowings, excluding current installments	4,17,23	11,893,401	11,820,078
Other payables	18,23	585,129	558,924
Other long-term financial liabilities	19,23	31,494	133,588
Defined benefit liabilities, net	21	181,011	141,785
Deferred tax liabilities	35	1,691,498	1,320,726
Long-term provisions	20	458,154	522,969
Other non-current liabilities	22	195,688	348,297
Total non-current liabilities		15,056,442	14,868,690
Total liabilities		31,607,510	32,080,153
Equity			
Share capital	24	482,403	482,403
Capital surplus	24	1,385,707	1,320,003
Hybrid bonds	25	199,384	199,384
Reserves	26	(1,157,980)	(1,380,918)
Treasury shares	27	(1,508,303)	(2,391,523)
Retained earnings		45,054,077	46,064,477
Equity attributable to owners of the controlling company		44,455,288	44,293,826
Non-controlling interests	25	3,308,010	3,309,697
Total equity		47,763,298	47,603,523
Total liabilities and equity		₩79,370,808	79,683,676

See accompanying notes to the consolidated financial statements.

POSCO and Subsidiaries
Consolidated Statements of Comprehensive Income
For the years ended December 31, 2018, 2019 and 2020

(in millions of Won, except per share information)	Notes	2018	2019	2020
Revenue	28,29,37	₩ 65,154,636	64,785,709	57,466,678
Cost of sales	29,31,34,37	(57,129,060)	(58,462,100)	(52,798,594)
Gross profit		8,025,576	6,323,609	4,668,084
Selling and administrative expenses	30,34			
Reversal of (Impairment loss) on trade accounts and notes receivable		(74,781)	28,105	(829)
Other administrative expenses	31	(1,985,755)	(2,041,286)	(1,939,602)
Selling expenses		(369,245)	(368,318)	(376,940)
Other operating income and expenses	32,37			
Impairment loss on other receivables		(63,092)	(80,323)	(53,105)
Other operating income		523,586	450,891	402,336
Other operating expenses	34	(2,014,462)	(1,089,965)	(645,574)
Operating profit		4,041,827	3,222,713	2,054,370
Share of profit of equity-accounted investees, net	11	112,635	273,741	133,297
Finance income and costs	23,33			
Finance income		1,705,970	1,872,143	2,677,499
Finance costs		(2,244,416)	(2,242,063)	(2,892,402)
Profit before income taxes		3,616,016	3,126,534	1,972,764
Income tax expense	35	(1,683,630)	(1,088,369)	(224,272)
Profit		1,932,386	2,038,165	1,748,492
Other comprehensive income (loss)				
Items that will not be reclassified subsequently to profit or loss :				
Remeasurements of defined benefit plans	21	(173,489)	(117,152)	36,575
Net changes in fair value of equity investments at fair value through other comprehensive income	23	(149,188)	(10,541)	(77,627)
Items that are or may be reclassified subsequently to profit or loss :				
Capital adjustment arising from investments in equity-accounted investees		(62,732)	66,134	(28,609)
Foreign currency translation differences		(42,908)	208,117	(147,956)
Losses on valuation of derivatives	23	(212)	(90)	(331)
Other comprehensive income (loss), net of tax		(428,529)	146,468	(217,948)
Total comprehensive income		₩ 1,503,857	2,184,633	1,530,544
Profit attributable to :				
Owners of the controlling company		₩ 1,711,902	1,864,405	1,581,208
Non-controlling interests		220,484	173,760	167,284
Profit		₩ 1,932,386	2,038,165	1,748,492
Total comprehensive income attributable to :				
Owners of the controlling company		₩ 1,292,785	2,027,049	1,394,192
Non-controlling interests		211,072	157,584	136,352
Total comprehensive income		₩ 1,503,857	2,184,633	1,530,544
Basic and diluted earnings per share (in Won)	36	21,177	23,189	19,900

See accompanying notes to the consolidated financial statements.

POSCO and Subsidiaries
Consolidated Statements of Changes in Equity
For the years ended December 31, 2018, 2019 and 2020

(in millions of Won)	Attributable to owners of the controlling company							Non-controlling interests	Total
	Share capital	Capital surplus	Hybrid bonds	Reserves	Treasury shares	Retained earnings	Subtotal		
Balance as of January 1, 2018	₩482,403	1,422,021	996,919	(1,181,073)	(1,533,054)	43,350,818	43,538,034	3,572,604	47,110,638
Comprehensive income:									
Profit	—	—	—	—	—	1,711,902	1,711,902	220,484	1,932,386
Other comprehensive income (loss)									
Remeasurements of defined benefit plans, net of tax	—	—	—	—	—	(145,488)	(145,488)	(28,001)	(173,489)
Capital adjustment arising from investments in equity-accounted investees, net of tax	—	—	—	(76,587)	—	—	(76,587)	13,855	(62,732)
Net changes in fair value of equity investments at fair value through other comprehensive income, net of tax	—	—	—	(104,293)	—	(46,883)	(151,176)	1,988	(149,188)
Foreign currency translation differences, net of tax	—	—	—	(45,650)	—	—	(45,650)	2,742	(42,908)
Gain or losses on valuation of derivatives, net of tax	—	—	—	(216)	—	—	(216)	4	(212)
Total comprehensive income	—	—	—	(226,746)	—	1,519,531	1,292,785	211,072	1,503,857
Transactions with owners of the controlling company, recognized directly in equity:									
Year-end dividends	—	—	—	—	—	(279,999)	(279,999)	(54,240)	(334,239)
Interim dividends	—	—	—	—	—	(400,003)	(400,003)	—	(400,003)
Changes in subsidiaries	—	—	—	—	—	—	—	(2,092)	(2,092)
Changes in ownership interests in subsidiaries	—	(1,497)	—	—	—	—	(1,497)	(654)	(2,151)
Repayment of hybrid bonds	—	(2,769)	(797,535)	—	—	—	(800,304)	(359,018)	(1,159,322)
Interest of hybrid bonds	—	—	—	—	—	(24,443)	(24,443)	(18,448)	(42,891)
Disposal of treasury shares	—	133	—	—	326	—	459	—	459
Others	—	2,119	—	3,451	—	(5,244)	326	(1,968)	(1,642)
Total transactions with owners of the controlling company	—	(2,014)	(797,535)	3,451	326	(709,689)	(1,505,461)	(436,420)	(1,941,881)
Balance as of December 31, 2018	₩482,403	1,420,007	199,384	(1,404,368)	(1,532,728)	44,160,660	43,325,358	3,347,256	46,672,614

See accompanying notes to the consolidated financial statements.

POSCO and Subsidiaries
Consolidated Statements of Changes in Equity, Continued
For the years ended December 31, 2018, 2019 and 2020

	Attributable to owners of the controlling company								
(in millions of Won)	Share capital	Capital surplus	Hybrid bonds	Reserves	Treasury shares	Retained earnings	Subtotal	Non-controlling interests	Total
Balance as of January 1, 2019	₩482,403	1,420,007	199,384	(1,404,368)	(1,532,728)	44,160,660	43,325,358	3,347,256	46,672,614
Comprehensive income:									
Profit	—	—	—	—	—	1,864,405	1,864,405	173,760	2,038,165
Other comprehensive income (loss)									
Remeasurements of defined benefit plans, net of tax	—	—	—	—	—	(100,218)	(100,218)	(16,934)	(117,152)
Capital adjustment arising from investments in equity-accounted investees, net of tax	—	—	—	58,308	—	—	58,308	7,826	66,134
Net changes in fair value of equity investments at fair value through other comprehensive income, net of tax	—	—	—	10,228	—	(20,769)	(10,541)	—	(10,541)
Foreign currency translation differences, net of tax	—	—	—	215,181	—	—	215,181	(7,064)	208,117
Gain or losses on valuation of derivatives, net of tax	—	—	—	(86)	—	—	(86)	(4)	(90)
Total comprehensive income	—	—	—	283,631	—	1,743,418	2,027,049	157,584	2,184,633
Transactions with owners of the controlling company, recognized directly in equity:									
Year-end dividends	—	—	—	—	—	(400,006)	(400,006)	(60,274)	(460,280)
Interim dividends	—	—	—	—	—	(480,694)	(480,694)	—	(480,694)
Changes in subsidiaries	—	—	—	—	—	—	—	1,281	1,281
Changes in ownership interests in subsidiaries	—	(48,538)	—	—	—	—	(48,538)	(128,587)	(177,125)
Interest of hybrid bonds	—	—	—	—	—	(9,200)	(9,200)	(7,294)	(16,494)
Disposal of treasury shares	—	12,576	—	—	24,425	—	37,001	—	37,001
Others	—	1,662	—	(37,243)	—	39,899	4,318	(1,956)	2,362
Total transactions with owners of the controlling company	—	(34,300)	—	(37,243)	24,425	(850,001)	(897,119)	(196,830)	(1,093,949)
Balance as of December 31, 2019	₩482,403	1,385,707	199,384	(1,157,980)	(1,508,303)	45,054,077	44,455,288	3,308,010	47,763,298

See accompanying notes to the consolidated financial statements.

POSCO and Subsidiaries
Consolidated Statements of Changes in Equity, Continued
For the years ended December 31, 2018, 2019 and 2020

(in millions of Won)	Attributable to owners of the controlling company							Non-controlling interests	Total
	Share capital	Capital surplus	Hybrid bonds	Reserves	Treasury shares	Retained earnings	Subtotal		
Balance as of January 1, 2020	₩482,403	1,385,707	199,384	(1,157,980)	(1,508,303)	45,054,077	44,455,288	3,308,010	47,763,298
Comprehensive income:									
Profit	—	—	—	—	—	1,581,208	1,581,208	167,284	1,748,492
Other comprehensive income (loss)									
Remeasurements of defined benefit plans, net of tax	—	—	—	—	—	44,703	44,703	(8,128)	36,575
Capital adjustment arising from investments in equity-accounted investees, net of tax	—	—	—	(16,760)	—	—	(16,760)	(11,849)	(28,609)
Net changes in fair value of equity investments at fair value through other comprehensive income, net of tax	—	—	—	(74,210)	—	(3,417)	(77,627)	—	(77,627)
Foreign currency translation differences, net of tax	—	—	—	(137,071)	—	—	(137,071)	(10,885)	(147,956)
Gain or losses on valuation of derivatives, net of tax	—	—	—	(261)	—	—	(261)	(70)	(331)
Total comprehensive income	—	—	—	(228,302)	—	1,622,494	1,394,192	136,352	1,530,544
Transactions with owners of the controlling company, recognized directly in equity:									
Year-end dividends	—	—	—	—	—	(320,462)	(320,462)	(60,517)	(380,979)
Interim dividends	—	—	—	—	—	(277,723)	(277,723)	—	(277,723)
Changes in subsidiaries	—	—	—	—	—	—	—	22,303	22,303
Changes in ownership interests in subsidiaries	—	(27,716)	—	—	—	—	(27,716)	162,674	134,958
Repayment of redeemable convertible preferred shares		(33,581)	—	—	—	—	(33,581)	(245,000)	(278,581)
Interest of hybrid bonds	—	—	—	—	—	(9,225)	(9,225)	(7,354)	(16,579)
Acquisition of treasury shares	—	—	—	—	(883,220)	—	(883,220)	—	(883,220)
Others	—	(4,407)	—	5,364	—	(4,684)	(3,727)	(6,771)	(10,498)
Total transactions with owners of the controlling company	—	(65,704)	—	5,364	(883,220)	(612,094)	(1,555,654)	(134,665)	(1,690,319)
Balance as of December 31, 2020	₩482,403	1,320,003	199,384	(1,380,918)	(2,391,523)	46,064,477	44,293,826	3,309,697	47,603,523

See accompanying notes to the consolidated financial statements.

POSCO and Subsidiaries
Consolidated Statements of Cash Flows
For the years ended December 31, 2018, 2019 and 2020

(in millions of Won)	Notes	2018	2019	2020
Cash flows from operating activities				
Profit		₩ 1,932,386	2,038,165	1,748,492
Adjustments for:				
Depreciation		2,911,048	3,029,868	3,156,181
Amortization		356,581	431,247	465,558
Finance income		(737,745)	(855,382)	(1,185,934)
Finance costs		1,168,225	1,197,705	1,390,983
Income tax expense		1,683,630	1,088,369	224,272
Gain on disposal of property, plant and equipment		(53,139)	(49,367)	(15,548)
Loss on disposal of property, plant and equipment		117,614	120,227	142,126
Impairment losses on property, plant and equipment		1,004,704	442,700	27,040
Gain on disposal of intangible assets		(117,139)	(1,896)	(815)
Gain on disposal of investments in subsidiaries, associates and joint ventures		(45,241)	(27,836)	(88,836)
Loss on disposal of investments in subsidiaries, associates and joint ventures		5,226	6,539	14,632
Share of profit of equity-accounted investees		(112,635)	(273,741)	(133,297)
Expenses related to post-employment benefits		216,489	240,425	248,324
Increase to provisions		240,146	76,538	184,984
Impairment loss on trade and other receivables		137,873	52,218	53,934
Loss on valuation of inventories		141,799	96,201	54,014
Impairment losses on goodwill and intangible assets		337,519	191,021	197,776
Gain on disposal of assets held for sale		(27,171)	(37,461)	(841)
Impairment losses on assets held for sale		50,829	38,328	5,030
Others, net		77,945	894	(19,420)
		7,356,558	5,766,597	4,720,163
Changes in operating assets and liabilities	39	(2,105,726)	(114,045)	2,855,908
Interest received		352,337	320,336	368,539
Interest paid		(750,410)	(760,175)	(624,399)
Dividends received		224,410	266,774	267,923
Income taxes paid		(1,139,830)	(1,512,997)	(650,889)
Net cash provided by operating activities		₩ 5,869,725	6,004,655	8,685,737

See accompanying notes to the consolidated financial statements.

POSCO and Subsidiaries
Consolidated Statements of Cash Flows, Continued
For the years ended December 31, 2018, 2019 and 2020

(in millions of Won)	Notes	2018	2019	2020
Cash flows from investing activities				
Acquisitions of short-term financial instruments		₩(32,173,134)	(36,063,406)	(43,307,727)
Proceeds from disposal of short-term financial instruments		31,105,544	35,415,822	40,500,759
Increase in loans		(627,783)	(450,638)	(329,236)
Collection of loans		941,962	398,838	138,270
Acquisitions of securities		(321,916)	(296,827)	(338,063)
Proceeds from disposal of securities		221,646	62,492	448,125
Acquisitions of investments in associates and joint ventures		(47,355)	(160,404)	(141,785)
Proceeds from disposal of investments in associates and joint ventures		88,852	16,458	18,401
Acquisitions of property, plant and equipment		(2,135,550)	(2,519,219)	(3,154,412)
Proceeds from (payment for) disposal of property, plant and equipment		90,412	51,800	(42,530)
Acquisitions of investment property		(44,106)	(19,344)	(976)
Proceeds from disposal of investment property		70,817	12,057	250
Acquisitions of intangible assets		(447,616)	(299,587)	(300,645)
Proceeds from disposal of intangible assets		77,654	24,161	79,011
Proceeds from disposal of assets held for sale		93,338	67,246	37,680
Increase in cash from (payment for) acquisition of business, net of cash acquired		—	(37,345)	—
Cash received from disposal of business, net of cash transferred		447,917	45,360	77,488
Collection of lease receivables		—	56,889	61,567
Others, net		11,348	12,788	(5,442)
Net cash used in investing activities		(2,647,970)	(3,682,859)	(6,259,265)
Cash flows from financing activities				
Proceeds from borrowings		2,762,446	5,646,977	4,410,387
Repayment of borrowings		(3,136,308)	(3,746,845)	(3,644,057)
Proceeds from (repayment of) short-term borrowings, net		(854,554)	(2,194,727)	35,525
Payment of cash dividends		(723,934)	(946,218)	(659,145)
Repayment of hybrid bonds		(1,160,000)	—	—
Payment of interest of hybrid bonds		(46,166)	(16,494)	(16,539)
Capital contribution from non-controlling interests and proceeds from disposal of subsidiary while maintaining control		5,808	29,475	176,062
Capital deduction from non-controlling interests and additional acquisition of interests in subsidiaries		(3,823)	(123,304)	(11,473)
Repayment of lease liabilities		(30,481)	(167,427)	(217,312)
Acquisition of treasury shares		—	—	(883,219)
Repayment of redeemable convertible preferred shares		—	—	(278,581)
Others, net		(8,036)	6,384	(2,516)
Net cash used in financing activities	39	(3,195,048)	(1,512,179)	(1,090,868)
Effect of exchange rate fluctuation on cash held		4,628	61,764	(95,272)
Net increase in cash and cash equivalents		31,335	871,381	1,240,332
Cash and cash equivalents at beginning of the period	5	2,612,530	2,643,865	3,515,246
Cash and cash equivalents at end of the period	5,10	₩ 2,643,865	3,515,246	4,755,578

See accompanying notes to the consolidated financial statements.

1. General Information

General information about POSCO, its 34 domestic subsidiaries including POSCO ENGINEERING & CONSTRUCTION CO., LTD., 132 foreign subsidiaries including POSCO America Corporation (collectively "the Company") and its 132 associates and joint ventures are as follows:

(a) The controlling company

POSCO, the controlling company, was incorporated on April 1, 1968, under the Commercial Code of the Republic of Korea to manufacture and sell steel rolled products and plates in the domestic and foreign markets.

The shares of POSCO have been listed on the Korea Exchange since June 10, 1988. POSCO owns and operates two steel plants (Pohang and Gwangyang) and one office in Korea and it also operates internationally through five of its overseas liaison offices.

As of December 31, 2020, POSCO's shareholders are as follows:

Shareholder's name	Number of shares	Ownership (%)
National Pension Service	10,247,183	11.75
BlackRock Fund Advisors(*1,2,3)	4,555,963	5.23
Nippon Steel Corporation(*1)	2,894,712	3.32
KB Financial Group Inc. and subsidaries(*2)	1,817,635	2.08
GIC Private Limited	1,718,369	1.97
Others	65,952,973	75.65
	87,186,835	100.00

(*1) Includes American Depository Receipts (ADRs) of POSCO, each of which represents 0.25 share of POSCO's common share which has par value of ₩5,000 per share.
(*2) Includes shares held by subsidiaries and others.
(*3) The number of shares held by the shareholder based on the information in the status report of large-scale shareholders filed with Korea Exchange on June 1, 2020.

As of December 31, 2020, the shares of POSCO are listed on the Korea Exchange while its ADRs are listed on the New York Stock Exchange.

(b) Consolidated subsidiaries

Details of consolidated subsidiaries as of December 31, 2019 and 2020 are as follows:

		Ownership (%)						
		December 31, 2019			December 31, 2020			
	Principal operations	POSCO	Subsidiaries	Total	POSCO	Subsidiaries	Total	Region
[Domestic]								
POSCO ENGINEERING & CONSTRUCTION., CO., LTD.	Engineering and construction	52.80	—	52.80	52.80	—	52.80	Pohang
POSCO COATED & COLOR STEEL Co., Ltd.	Coated steel manufacturing	56.87	—	56.87	56.87	—	56.87	Pohang
POSCO ICT	Computer hardware and software distribution	65.38	—	65.38	65.38	—	65.38	Pohang
POSCO Research Institute	Economic research and consulting	100.00	—	100.00	100.00	—	100.00	Seoul
POSCO O&M CO.,Ltd.	Business facility maintenance	47.17	52.83	100.00	47.17	52.83	100.00	Seoul
POSCO A&C	Architecture and consulting	45.66	54.34	100.00	45.66	54.34	100.00	Seoul
POSCO Venture Capital Co., Ltd.	Investment in venture companies	95.00	—	95.00	95.00	—	95.00	Pohang
eNtoB Corporation	Electronic commerce	7.50	53.63	61.13	7.50	59.94	67.44	Seoul
POSCO CHEMICAL CO., LTD.	Refractories manufacturing and sales	61.26	—	61.26	61.26	—	61.26	Pohang
POSCO-Terminal Co., Ltd.	Transporting and warehousing	51.00	—	51.00	51.00	—	51.00	Gwangyang
POSCO M-TECH	Packing materials manufacturing and sales	48.85	—	48.85	48.85	—	48.85	Pohang
POSCO ENERGY CO., LTD.	Generation of electricity	100.00	—	100.00	100.00	—	100.00	Seoul
PNR	Steel by product manufacturing and sales	70.00	—	70.00	70.00	—	70.00	Pohang
Future Creation Fund Postech Early Stage account	Investment in venture companies	—	40.00	40.00	—	40.00	40.00	Seoul
POSCO WOMAN'S FUND	Investment in venture companies	—	40.00	40.00	—	40.00	40.00	Seoul
SPH Co, LTD.	House manufacturing and management	—	100.00	100.00	—	100.00	100.00	Incheon
POSCO Group University	Education service and real estate business	100.00	—	100.00	100.00	—	100.00	Incheon
Growth Ladder POSCO K-Growth Global Fund	Investment in venture companies	—	50.00	50.00	—	50.00	50.00	Pohang
2015 POSCO New technology II Fund	Investment in venture companies	—	25.00	25.00	—	25.00	25.00	Pohang
POSCO Research & Technology	Intellectual Property Services and consulting	100.00	—	100.00	100.00	—	100.00	Seoul
TANCHEON E&E	Refuse derived fuel and power generation	—	100.00	100.00	—	100.00	100.00	Seoul
POSCO Humans	Construction	75.49	24.51	100.00	75.49	24.51	100.00	Pohang
Mapo Hibroad Parking Co., Ltd.	Construction	—	71.00	71.00	—	71.00	71.00	Seoul

		Ownership (%)						
		December 31, 2019			December 31, 2020			
	Principal operations	POSCO	Subsidiaries	Total	POSCO	Subsidiaries	Total	Region
[Domestic]								
Busan E&E Co., Ltd.	Refuse derived fuel and power generation	70.00	—	70.00	70.00	—	70.00	Busan
POSCO INTERNATIONAL Corporation	Trading, energy & resource development and others	62.91	0.03	62.94	62.91	0.03	62.94	Incheon
Pohang Scrap Recycling Distribution Center Co., Ltd.	Steel processing and sales	—	51.00	51.00	—	51.00	51.00	Pohang
Suncheon Eco Trans Co. LTD	Train manufacturing and management	100.00	—	100.00	100.00	—	100.00	Suncheon
Songdo Development PMC (Project Management Company) LLC.	Housing business agency	—	100.00	100.00	—	100.00	100.00	Incheon
Korea Fuel Cell	Fuel cell	—	100.00	100.00	—	100.00	100.00	Pohang
POSCO GEM fund no1	Investment in venture companies	98.81	1.19	100.00	98.81	1.19	100.00	Pohang
POSCO SPS CORPORATION	STC, TMC, Plate manufacturing and sales	—	—	—	—	100.00	100.00	Cheonan
P&O Chemical Co., Ltd.	Chemical production	—	—	—	—	51.00	51.00	Gwangyang
Posco New Growth	Investment in venture companies	—	—	—	88.89	11.11	100.00	Seoul
IMP Fund I	Investment in venture companies	—	—	—	98.04	—	98.04	Pohang
POSCO Family Strategy Fund	Investment in venture companies	69.91	30.09	100.00	—	—	—	Pohang
PSC Energy Global Co., Ltd.	Investment in energy industry	—	100.00	100.00	—	—	—	Pohang
[Foreign]								
POSCO America Corporation	Steel trading	99.45	0.55	100.00	99.45	0.55	100.00	USA
POSCO AUSTRALIA PTY LTD	Raw material sales & mine development	100.00	—	100.00	100.00	—	100.00	Australia
POSCO Canada Ltd.	Coal sales	100.00	—	100.00	100.00	—	100.00	Canada
POSCAN Elkview	Coal sales	—	100.00	100.00	—	100.00	100.00	Canada
POSCO Asia Co., Ltd.	Steel and raw material trading	100.00	—	100.00	100.00	—	100.00	China
POSCO-CTPC Co., Ltd.	Steel manufacturing and sales	100.00	—	100.00	100.00	—	100.00	China
POSCO E&C Vietnam Co., Ltd.	Steel structure manufacturing and sales	—	100.00	100.00	—	100.00	100.00	Vietnam
POSCO (ZHANGJIAGANG) STAINLESS STEEL CO.,LTD.	Stainless steel manufacturing and sales	58.60	23.88	82.48	58.60	23.88	82.48	China
POSCO (Thailand) Company Limited	Steel manufacturing and sales	100.00	—	100.00	100.00	—	100.00	Thailand
POSCO-MKPC SDN BHD	Steel manufacturing and sales	70.00	—	70.00	70.00	—	70.00	Malaysia

		Ownership (%)						
		December 31, 2019			December 31, 2020			
	Principal operations	POSCO	Subsidiaries	Total	POSCO	Subsidiaries	Total	Region
[Foreign]								
Qingdao Pohang Stainless Steel Co., Ltd.	Stainless steel manufacturing and sales	70.00	30.00	100.00	70.00	30.00	100.00	China
POSCO(Suzhou) Automotive Processing Center Co., Ltd.	Steel manufacturing and sales	90.00	10.00	100.00	90.00	10.00	100.00	China
POSCO-China Qingdao Processing Center Co., Ltd.	Steel manufacturing and sales	100.00	—	100.00	100.00	—	100.00	China
POS-ORE PTY LTD	Iron ore sales and sales	—	100.00	100.00	—	100.00	100.00	Australia
POSCO-China Holding Corp.	Holding company	100.00	—	100.00	100.00	—	100.00	China
POSCO JAPAN Co., Ltd.	Steel trading	100.00	—	100.00	100.00	—	100.00	Japan
POS-CD PTY LTD	Coal sales	—	100.00	100.00	—	100.00	100.00	Australia
POS-GC PTY LTD	Coal sales	—	100.00	100.00	—	100.00	100.00	Australia
POSCO-India Private Limited	Steel manufacturing and sales	100.00	—	100.00	100.00	—	100.00	India
POSCO-India Pune Processing Center. Pvt. Ltd.	Steel manufacturing and sales	65.00	—	65.00	65.00	—	65.00	India
POSCO Japan PC CO.,LTD	Steel manufacturing and sales	—	86.12	86.12	—	86.12	86.12	Japan
POSCO-CFPC Co., Ltd.	Steel manufacturing and sales	39.60	60.40	100.00	39.60	60.40	100.00	China
POSCO E&C CHINA Co., Ltd.	Civil engineering and construction	—	100.00	100.00	—	100.00	100.00	China
POSCO MPPC S.A. de C.V.	Steel manufacturing and sales	21.02	75.29	96.31	21.02	75.29	96.31	Mexico
Zhangjigang Pohang Port Co., Ltd.	Loading and unloading service	—	100.00	100.00	—	100.00	100.00	China
POSCO-VIETNAM Co., Ltd.	Steel manufacturing and sales	100.00	—	100.00	100.00	—	100.00	Vietnam
POSCO MEXICO S.A. DE C.V.	Automotive steel sheet manufacturing and sales	83.28	14.88	98.16	83.28	14.88	98.16	Mexico
POSCO-Poland Wroclaw Processing Center Sp. z o. o.	Steel manufacturing and sales	60.00	—	60.00	60.00	—	60.00	Poland
POS-NP PTY LTD	Coal sales	—	100.00	100.00	—	100.00	100.00	Australia
POSCO DAEWOO WAIGAOQIAO SHANGHAI CO., LTD	Intermediary trade & bonded warehouse operation	—	100.00	100.00	—	100.00	100.00	China
PT. Bio Inti Agrindo	Forest resources development	—	85.00	85.00	—	85.00	85.00	Indonesia

		Ownership (%)						
		December 31, 2019			December 31, 2020			
	Principal operations	POSCO	Subsidiaries	Total	POSCO	Subsidiaries	Total	Region
[Foreign]								
POSCO ENGINEERING AND CONSTRUCTION AUSTRALIA (POSCO E&C AUSTRALIA) PTY LTD	Construction and engineering service	—	100.00	100.00	—	100.00	100.00	Australia
POSCO-TISCO (JILIN) PROCESSING CENTER Co., Ltd.	Steel manufacturing and sales	50.00	10.00	60.00	50.00	10.00	60.00	China
POSCO Thainox Public Company Limited	STS cold-rolled steel manufacturing and sales	84.39	—	84.39	74.56	—	74.56	Thailand
Hunchun Posco Hyundai Logistics	Logistics	—	80.00	80.00	—	80.00	80.00	China
POSCO INTERNATIONAL VIETNAM CO.,LTD.	Trading business	—	100.00	100.00	—	100.00	100.00	Vietnam
POSCO(Chongqing) Automotive Processing Center Co., Ltd.	Steel manufacturing and sales	90.00	10.00	100.00	90.00	10.00	100.00	China
SUZHOU POSCO-CORE TECHNOLOGY CO., LTD.	Component manufacturing and sales	84.85	15.15	100.00	84.85	15.15	100.00	China
PT.KRAKATAU POSCO CHEMICAL CALCINATION (Formely, PT.Krakatau Posco Chemtech Calcination)	Quicklime manufacturing and sales	—	80.00	80.00	—	80.00	80.00	Indonesia
POSCO AFRICA (PROPRIETARY) LIMITED	Mine development	100.00	—	100.00	100.00	—	100.00	South Africa
POSCO ICT BRASIL	IT service and engineering	—	100.00	100.00	—	100.00	100.00	Brazil
POSCO Center Beijing	Real estate development, rental and management	—	100.00	100.00	—	100.00	100.00	China
POSCO AMERICA COMERCIALIZADORA S DE RL DE CV	Steel sales	—	100.00	100.00	—	100.00	100.00	Mexico
POSCO(Guangdong) Automotive Steel Co., Ltd.	Steel manufacturing and sales	83.64	10.00	93.64	83.64	10.00	93.64	China
POSCO-Malaysia SDN. BHD.	Steel manufacturing and sales	81.79	13.63	95.42	81.79	13.63	95.42	Malaysia
PT KRAKATAU BLUE WATER	Wastewater treamtment facilities operation and maintenance	—	67.00	67.00	—	67.00	67.00	Indonesia

	Principal operations	Ownership (%) December 31, 2019 POSCO	Subsidiaries	Total	December 31, 2020 POSCO	Subsidiaries	Total	Region
[Foreign]								
POSCO INTERNATIONAL MYANMAR CO.,LTD.	Trading business	—	100.00	100.00	—	100.00	100.00	Myanmar
POSCO-Italy Processing Center	Stainless steel sheet manufacturing and sales	88.89	11.11	100.00	88.89	11.11	100.00	Italy
Myanmar POSCO C&C Company, Limited.	Steel manufacturing and sales	—	70.00	70.00	—	70.00	70.00	Myanmar
POSCO ICT VIETNAM	IT service and electric control engineering	—	100.00	100.00	—	100.00	100.00	Vietnam
POSCO INTERNATIONAL GLOBAL DEVELOPMENT PTE.LTD. (Formely, Daewoo Global Development, Pte.,Ltd)	Real estate development	—	81.51	81.51	—	75.00	75.00	Singapore
Myanmar POSCO Engineering & Construction Company, Limited.	Construction and engineering service	—	100.00	100.00	—	100.00	100.00	Myanmar
POS-Minerals Corporation	Mine development management and sales	—	100.00	100.00	—	100.00	100.00	USA
POSCO(Wuhu) Automotive Processing Center Co., Ltd.	Steel manufacturing and sales	68.57	31.43	100.00	68.57	31.43	100.00	China
POSCO Engineering and Construction India Private Limited	Civil engineering and construction	—	100.00	100.00	—	100.00	100.00	India
POSCO COATED STEEL (THAILAND) CO., LTD.	Automotive steel sheet manufacturing and sales	100.00	—	100.00	100.00	—	100.00	Thailand
POSCO INTERNATIONAL AMARA Co., Ltd.	Real estate development	—	85.00	85.00	—	85.00	85.00	Myanmar
POSMATE-CHINA CO., LTD	Business facility maintenance	—	100.00	100.00	—	100.00	100.00	China
POSCO-Mexico Villagran Wire-rod Processing Center	Steel manufacturing and sales	56.75	10.00	66.75	56.75	10.00	66.75	Mexico
POSCO ChengDu Processing Center	Steel manufacturing and sales	33.00	10.00	43.00	33.00	10.00	43.00	China
POSCO SUZHOU PROCESSING CENTER CO., LTD.	Steel manufacturing and sales	30.00	70.00	100.00	30.00	70.00	100.00	China
POSCO E&C SMART S DE RL DE CV	Civil engineering and construction	—	100.00	100.00	—	100.00	100.00	Mexico
POSCO Philippine Manila Processing Center, Inc.	Steel manufacturing and sales	100.00	—	100.00	100.00	—	100.00	Philippines

	Principal operations	Ownership (%) December 31, 2019 POSCO	Subsidiaries	Total	December 31, 2020 POSCO	Subsidiaries	Total	Region
[Foreign]								
POSCO E&C HOLDINGS CO.,Ltd.	Holding company	—	100.00	100.00	—	100.00	100.00	Thailand
POSCO INTERNATIONAL POWER (PNGLAE) LTD.	Electricity production	—	100.00	100.00	—	100.00	100.00	Papua New Guinea
PT.Krakatau Posco Social Enterprise	Social enterprise	—	100.00	100.00	—	100.00	100.00	Indonesia
Ventanas Philippines Construction Inc	Construction	—	100.00	100.00	—	100.00	100.00	Philippines
POSCO E&C Mongolia	Construction and engineering service	—	100.00	100.00	—	100.00	100.00	Mongolia
SANPU TRADING Co., Ltd.	Raw material trading	—	70.04	70.04	—	70.04	70.04	China
Zhangjiagang BLZ Pohang International Trading	Steel Intermediate trade	—	100.00	100.00	—	100.00	100.00	China
POSCO RU Limited Liability Company	Trade and business development	100.00	—	100.00	100.00	—	100.00	Russia
GOLDEN LACE POSCO INTERNATIONAL CO., LTD.	Rice processing	—	60.00	60.00	—	60.00	60.00	Myanmar
POSCO ICT-China Co., Ltd	IT service and DVR business	—	100.00	100.00	—	100.00	100.00	China
Pos-Sea Pte Ltd	Steel Intermediate trade	—	100.00	100.00	—	100.00	100.00	Singapore
POSCO Europe Steel Distribution Center	Logistics & Steel sales	50.00	20.00	70.00	50.00	20.00	70.00	Slovenia
POSCO ENGINEERING (THAILAND) CO., LTD.	Construction and engineering service	—	100.00	100.00	—	100.00	100.00	Thailand
POSCO VST CO., LTD.	Stainless steel sheet manufacturing and sales	95.65	—	95.65	95.65	—	95.65	Vietnam
POSCO INTERNATIONAL UKRAINE, LLC.	Grain sales	—	100.00	100.00	—	100.00	100.00	Ukraine
Zhangjiagang Pohang Refractories Co., Ltd.	Refractory materials sales & furnace maintenance	—	51.00	51.00	—	51.00	51.00	China
POSCO Maharashtra Steel Private Limited	Steel manufacturing and sales	100.00	—	100.00	100.00	—	100.00	India
POSCO INDIA PROCESSING CENTER PRIVATE LIMITED	Steel manufacturing and sales	93.34	1.98	95.32	93.34	1.98	95.32	India
POSCO TNPC Otomotiv Celik San. Ve Tic. A.S	Steel manufacturing and sales	100.00	—	100.00	100.00	—	100.00	Turkey
POSCO Vietnam Processing Center. Co.,Ltd	Steel manufacturing and sales	83.54	5.29	88.83	83.54	5.29	88.83	Vietnam

		Ownership (%)						
		December 31, 2019			December 31, 2020			
	Principal operations	POSCO	Subsidiaries	Total	POSCO	Subsidiaries	Total	Region
[Foreign]								
POSCO(Liaoning) Automotive Processing Center Co., Ltd.	Steel manufacturing and sales	90.00	10.00	100.00	90.00	10.00	100.00	China
POSCO-Indonesia Jakarta Processing Center	Steel manufacturing and sales	65.00	20.00	85.00	70.51	21.69	92.20	Indonesia
PT.MRI	Mine development	65.00	—	65.00	65.00	—	65.00	Indonesia
POSCO TMC INDIA PRIVATE LIMITED	Steel manufacturing and sales	—	100.00	100.00	—	100.00	100.00	India
POSCO AMERICA ALABAMA PROCESSING CENTER CO., LTD.	Steel manufacturing and sales	—	97.80	97.80	—	97.80	97.80	USA
POSCO(Yantai) Automotive Processing Center Co., Ltd.	Steel manufacturing and sales	90.00	10.00	100.00	90.00	10.00	100.00	China
POSCO India Steel Distribution Center Private Ltd.	Steel logistics	—	100.00	100.00	—	100.00	100.00	India
POSCO YAMATO VINA STEEL JOINT STOCK COMPANY (Formerly, POSCO SS VINA JOINT STOCK COMPANY)	Steel manufacturing and sales	100.00	—	100.00	51.00	—	51.00	Vietnam
PT.POSCO ICT INDONESIA	IT service and electric control engineering	—	66.99	66.99	—	66.99	66.99	Indonesia
POSCO NCR Coal Ltd.	Coal sales	—	100.00	100.00	—	100.00	100.00	Canada
POSCO WA PTY LTD	Iron ore sales & mine development	100.00	—	100.00	100.00	—	100.00	Australia
POSCO AUSTRALIA GP PTY LIMITED	Resource development	—	100.00	100.00	—	100.00	100.00	Australia
POSCO INTERNATIONAL POWER(PNGPOM) LTD.	Electricity production	—	100.00	100.00	—	100.00	100.00	Papua New Guinea
PT. KRAKATAU POSCO ENERGY	Electricity production construction and operation	—	90.00	90.00	—	90.00	90.00	Indonesia
POSCO INTERNATIONAL AMERICA CORP.	Trading business	—	100.00	100.00	—	100.00	100.00	USA
POSCO INTERNATIONAL Deutschland GMBH	Trading business	—	100.00	100.00	—	100.00	100.00	Germany
POSCO INTERNATIONAL JAPAN CORP.	Trading business	—	100.00	100.00	—	100.00	100.00	Japan
POSCO INTERNATIONAL SINGAPORE PTE. LTD.	Trading business	—	100.00	100.00	—	100.00	100.00	Singapore

		Ownership (%)						
		December 31, 2019			December 31, 2020			
	Principal operations	POSCO	Subsidiaries	Total	POSCO	Subsidiaries	Total	Region
[Foreign]								
POSCO INTERNATIONAL ITALIA S.R.L.	Trading business	—	100.00	100.00	—	100.00	100.00	Italy
POSCO INTERNATIONAL (CHINA) CO., LTD	Trading business	—	100.00	100.00	—	100.00	100.00	China
POSCO INTERNATIONAL TEXTILE LLC.	Textile manufacturing	—	100.00	100.00	—	100.00	100.00	Uzbekistan
POSCO INTERNATIONAL AUSTRALIA HOLDINGS PTY. LTD.	Resource development	—	100.00	100.00	—	100.00	100.00	Australia
POSCO MAURITIUS LIMITED	Coal development and sales	—	100.00	100.00	—	100.00	100.00	Mauritius
PT. KRAKATAU POSCO	Steel manufacturing and sales	70.00	—	70.00	70.00	—	70.00	Indonesia
POSCO INTERNATIONAL MEXICO S.A DE C.V.	Trading business	—	100.00	100.00	—	100.00	100.00	Mexico
POSCO INTERNATIONAL MALAYSIA SDN BHD	Trading business	—	100.00	100.00	—	100.00	100.00	Malaysia
PT.POSCO INDONESIA INTI	Mine development	100.00	—	100.00	100.00	—	100.00	Indonesia
POSCO INTERNATIONAL SHANGHAI CO., LTD.	Trading business	—	100.00	100.00	—	100.00	100.00	China
PGSF, L.P.	Investment in bio tech Industry	—	100.00	100.00	—	100.00	100.00	USA
POSCO INTERNATIONAL INDIA PVT. LTD	Trading business	—	100.00	100.00	—	100.00	100.00	India
POSCO(Dalian) IT Center Development Co., Ltd.	Real estate development and investment	—	100.00	100.00	—	100.00	100.00	China
PT. POSCO E&C INDONESIA	Civil engineering and construction	—	100.00	100.00	—	100.00	100.00	Indonesia
HUME COAL PTY LTD	Raw material manufacturing	—	100.00	100.00	—	100.00	100.00	Australia
Brazil Sao Paulo Steel Processing Center	Steel manufacturing and sales	—	76.00	76.00	—	76.00	76.00	Brazil
DAESAN (CAMBODIA) Co., Ltd.	Real estate development and investment	—	100.00	100.00	—	100.00	100.00	Cambodia
POSCO ENGINEERING & CONSTRUCTION DO BRAZIL LTDA.	Construction	—	100.00	100.00	—	100.00	100.00	Brazil
POSCO ASSAN TST STEEL INDUSTRY	Steel manufacturing and sales	60.00	10.00	70.00	60.00	10.00	70.00	Turkey

		Ownership (%)						
		December 31, 2019			December 31, 2020			
	Principal operations	POSCO	Subsidiaries	Total	POSCO	Subsidiaries	Total	Region
[Foreign]								
HONG KONG POSCO E&C (CHINA) INVESTMENT Co., Ltd.	Real estate development and investment	—	100.00	100.00	—	100.00	100.00	Hongkong
JB CLARK HILLS	Apartment construction	—	70.00	70.00	—	70.00	70.00	Philippines
POS-LT Pty Ltd	Lithium mining investment	—	100.00	100.00	—	100.00	100.00	Australia
ZHEJIANG POSCO-HUAYOU ESM CO., LTD	Anode material manufacturing	60.00	—	60.00	60.00	—	60.00	China
POSCO Argentina S.A.U.	Mineral exploration/ manufacturing/sales	100.00	—	100.00	100.00	—	100.00	Argentina
GRAIN TERMINAL HOLDING PTE. LTD.	Trade	—	75.00	75.00	—	75.00	75.00	Singapore
Mykolaiv Milling Works PJSC.	Grain trading	—	100.00	100.00	—	100.00	100.00	Ukraine
Yuzhnaya Stevedoring Company Limited LLC.	Cargo handling	—	100.00	100.00	—	100.00	100.00	Ukraine
Posco International (Thailand) Co., Ltd.	Trade	—	—	—	—	100.00	100.00	Thailand
PT POSCO INTERNATIONAL INDONESIA	Trade	—	—	—	—	100.00	100.00	Indonesia
PEC POWERCON SDN. BHD.	Construction and engineering service	—	—	—	—	100.00	100.00	South Africa
POSCO CHEMICAL Free Zone Enterprise	Refractory Construction	—	—	—	—	100.00	100.00	Myanmar
Myanmar POSCO Steel Co., Ltd	Steel manufacturing and sales	—	70.00	70.00	—	—	—	Myanmar
LA-SRDC	Scrap manufacturing	—	100.00	100.00	—	—	—	USA
POSCO China Dalian Plate Processing Center Co., Ltd.	Plate manufacturing and sales	79.52	11.70	91.22	—	—	—	China

The controlling company's investment in the subsidiaries decreased by ₩48,538 million (POSCO CHEMICAL CO., LTD. and others) and ₩27,716 million (POSCO Thainox Public Company Limited and others) in 2019 and 2020, respectively, as a result of changes in the Company's ownership interests in subsidiaries that did not result in a loss of control.

The controlling company received dividends of ₩100,862 million and ₩100,582 million and ₩93,674 million from its subsidiaries in aggregate in 2018, 2019 and 2020, respectively.

As of December 31, 2020, there are no restrictions on the ability of subsidiaries to transfer funds to the controlling company, such as in the form of cash dividends, repayment of loans or payment of advances.

(c) Details of non-controlling interest as of and for the years ended December 31, 2018, 2019 and 2020 are as follows:

1) December 31, 2018

(in millions of Won)	POSCO INTERNATIONAL Corporation	PT. KRAKATAU POSCO	POSCO CHEMICAL CO., LTD	POSCO ENGINEERING & CONSTRUCTION CO., LTD.	POSCO ICT	Others	Total
Current assets	₩ 5,311,596	615,491	416,284	4,100,967	825,241	9,137,798	20,407,377
Non-current assets	4,363,490	2,730,865	460,905	1,911,844	2,767,203	5,493,324	17,727,631
Current liabilities	(4,724,056)	(1,368,498)	(140,268)	(3,007,029)	(1,197,845)	(8,026,474)	(18,464,170)
Non-current liabilities	(1,563,107)	(1,754,797)	(10,767)	(608,089)	(1,445,288)	(1,925,084)	(7,307,132)
Equity	3,387,923	223,061	726,154	2,397,693	949,311	4,679,564	12,363,706
Non-controlling interests	1,255,728	66,918	290,461	1,131,733	335,203	929,506	4,009,549
Sales	23,314,595	1,871,634	1,340,984	6,799,292	1,841,187	24,721,939	59,889,631
Profit (loss) for the period	113,196	54,257	142,918	290,131	(73,948)	(56,151)	470,403
Profit (loss) attributable to non-controlling interests	41,956	16,277	57,167	136,944	(8,116)	(101,156)	143,072
Cash flows from operating activities	(61,173)	89,131	29,865	207,729	16,211	14,869	296,632
Cash flows from investing activities	(12,780)	(6,432)	(15,801)	272,230	35,460	(13,199)	259,478
Cash flows from financing activities (before dividends to non-controlling interest)	99,496	(82,295)	—	(400,499)	(71,378)	(16,094)	(470,770)
Dividends to non-controlling interest	(22,862)	—	(8,270)	—	(19,813)	(6,906)	(57,851)
Effect of exchange rate fluctuation on cash held	807	21	(17)	1,257	—	1,682	3,750
Net increase (decrease) in cash and cash equivalents	3,488	425	5,777	80,717	(39,520)	(19,648)	31,239

2) December 31, 2019

(in millions of Won)	POSCO INTERNATIONAL Corporation	PT. KRAKATAU POSCO	POSCO CHEMICAL CO., LTD	POSCO ENGINEERING & CONSTRUCTION CO., LTD.	POSCO ICT	Others	Total
Current assets	₩ 4,396,683	520,057	624,017	3,940,835	441,208	8,062,428	18,287,347
Non-current assets	4,186,197	2,723,254	1,050,406	1,798,891	210,037	4,740,887	14,719,700
Current liabilities	(3,013,269)	(1,570,204)	(236,968)	(2,506,927)	(262,265)	(7,672,691)	(15,489,702)
Non-current liabilities	(2,087,769)	(1,590,810)	(462,361)	(670,013)	(38,836)	(2,095,797)	(7,061,764)
Equity	3,481,842	82,297	975,094	2,562,786	350,144	3,034,827	10,455,581
Non-controlling interests	1,290,600	24,689	377,770	1,209,658	121,213	1,124,381	4,133,486
Sales	22,745,239	1,906,302	1,434,507	7,206,528	925,551	22,975,605	57,612,593
Profit (loss) for the period	199,721	(146,975)	94,481	274,770	32,954	(587,146)	(76,667)
Profit (loss) attributable to non-controlling interests	74,030	(44,093)	36,604	129,694	11,408	(89,676)	144,177
Cash flows from operating activities	580,372	61,398	22,794	24,636	21,571	(16,324)	694,447
Cash flows from investing activities	(40,264)	(7,173)	(111,996)	(6,620)	(2,129)	31,057	(137,125)
Cash flows from financing activities (before dividends to non-controlling interest)	(502,801)	(53,890)	134,609	(25,448)	(336)	(4,295)	(452,161)
Dividends to non-controlling interest	(27,432)	—	(9,451)	(9,867)	(2,628)	(11,079)	(60,457)
Effect of exchange rate fluctuation on cash held	1,736	25	(7)	1,401	(47)	3,931	7,039
Net increase (decrease) in cash and cash equivalents	11,611	360	35,949	(15,898)	16,431	3,290	51,743

3) December 31, 2020

(in millions of Won)	POSCO INTERNATIONAL Corporation	PT. KRAKATAU POSCO	POSCO CHEMICAL CO., LTD	POSCO ENGINEERING & CONSTRUCTION CO., LTD.	POSCO ICT	Others	Total
Current assets	3,992,996	503,633	774,817	4,614,483	465,158	7,207,141	17,558,228
Non-current assets	3,410,528	2,366,359	1,229,349	1,823,229	187,415	4,789,484	13,806,364
Current liabilities	(2,649,187)	(1,722,805)	(203,443)	(27,432,089)	(278,335)	(6,354,111)	(14,141,548)
Non-current liabilities	(1,816,160)	(1,235,948)	(833,857)	(1,169,131)	(24,132)	(1,727,139)	(6,615,908)
Equity	2,938,177	(88,761)	966,866	2,525,372	350,106	3,915,375	10,607,135
Non-controlling interests	1,089,082	(26,628)	374,582	1,191,998	121,200	1,330,280	4,080,514
Sales	19,230,652	1,691,310	1,524,146	6,943,725	935,958	21,059,978	51,385,769
Profit (loss) for the period	173,155	(179,403)	29,720	315,139	8,961	(44,660)	302,912
Profit (loss) attributable to non-controlling interests	64,183	(53,821)	11,514	148,748	3,102	(19,899)	153,827
Cash flows from operating activities	324,822	62,276	11,021	451,803	21,403	123,108	994,433
Cash flows from investing activities	(38,535)	212	(162,861)	(398,937)	(4,841)	(93,565)	(698,527)
Cash flows from financing activities (before dividends to non-controlling interest)	(99,765)	(45,207)	122,736	9,475	(302)	(192,311)	(205,374)
Dividends to non-controlling interest	(32,004)	—	(9,451)	(9,867)	(2,628)	(6,102)	(60,052)
Effect of exchange rate fluctuation on cash held	(2,425)	(1,421)	(398)	(2,220)	(74)	702	(5,836)
Net increase (decrease) in cash and cash equivalents	152,093	15,860	(38,953)	50,254	13,558	(168,168)	24,644

(d) Details of associates and joint ventures

1) Associates

Details of associates as of December 31, 2019 and 2020 are as follows:

Investee	Category of business	Ownership (%) 2019	Ownership (%) 2020	Region
[Domestic]				
New Songdo International City Development, LLC	Real estate rental	29.90	29.90	Seoul
Gale International Korea, LLC	Real estate rental	29.90	29.90	Seoul
SNNC	Raw material manufacturing and sales	49.00	49.00	Gwangyang
KONES, Corp.	Technical service	41.67	26.72	Gyeongju
CHUNGJU ENTERPRISE CITY DEVELOPMENT Co.,Ltd	Real estate development	29.53	29.53	Chungju
DAEHO GLOBAL MANAGEMENT CO., LTD.	Investment advisory service	35.82	35.82	Pohang
Mokpo Deayang Industrial Corporation	Real estate development and rental	27.40	27.40	Mokpo
Gunggi Green Energy(*1)	Electricity generation	19.00	19.00	Hwaseong
Pohang Special Welding Co.,Ltd.	Welding material and tools manufacturing and sales	50.00	50.00	Pohang
KoFC POSCO HANWHA KB Shared Growth NO. 2. Private Equity Fund(*1)	Investment in new technologies	12.50	12.50	Seoul
EQP POSCO Global NO1 Natural Resources Private Equity Fund	Investment in new technologies	33.41	36.34	Seoul
KC Chemicals CORP.(*1)	Machinery manufacturing	19.00	19.00	Hwaseong
POSTECH Social Enterprise Fund(*1)	Investment in new technologies	9.17	9.17	Seoul
QSONE Co.,Ltd.	Real estate rental and facility management	50.00	50.00	Seoul
Chun-cheon Energy Co., Ltd	Electricity generation	49.10	49.10	Chuncheon
Keystone NO.1 Private Equity Fund	Private equity financial	52.58	52.58	Seoul
Noeul Green Energy(*1)	Electricity generation	10.00	10.00	Seoul
Posco-IDV Growth Ladder IP Fund(*1)	Investment in new technologies	17.86	17.86	Seoul
Daesung Steel(*1)	Steel sales	17.54	17.54	Busan
Pohang E&E Co., LTD	Investment in waste energy	30.00	30.00	Pohang
POSCO Energy Valley Fund	Investment in new technologies	20.00	20.00	Pohang
Hyundai Invest Guggenheim CLO Qualified Private Special Asset Trust No.2	Investment in new technologies	35.44	38.45	Seoul
Posco Agri-Food Export Fund	Investment in new technologies	30.00	30.00	Seoul
Posco Culture Contents Fund	Investment in new technologies	31.67	31.67	Seoul
PCC_Centroid 1st Fund	Investment in new technologies	24.10	24.10	Seoul
PCC Amberstone Private Equity Fund 1(*1)	Investment in new technologies	8.80	8.80	Seoul
UITrans LRT Co., Ltd.	Transporting	38.19	38.19	Seoul
POSCO Advanced Technical Staff Fund(*1)	Investment in new technologies	15.87	15.87	Seoul
POSCO 4th Industrial Revolution Fund	Investment in new technologies	19.05	20.00	Seoul
Pureun Tongyeong Enviro Co., Ltd.	Sewerage treatment	20.40	20.40	Tongyeong
Pure Gimpo Co., Ltd.	Construction	28.79	28.79	Gimpo
Posgreen Co., Ltd.(*1)	Lime and plaster manufacturing	19.00	19.00	Gwangyang
Clean Iksan Co., Ltd.	Construction	23.50	23.50	Iksan
Innovalley Co., Ltd.	Real estate development	28.77	28.77	Yongin
BLUE OCEAN Private Equity Fund	Private equity financial	27.52	27.52	Seoul
Western Inland highway CO.,LTD.	Construction	30.00	29.82	Incheon
Metropolitan Outer Ring Expressway co., ltd.	Investment in Expressway	21.27	21.27	Incheon
INNOPOLIS Job Creation Fund II(*1)	Investment in new technologies	6.21	6.13	Seoul
Samcheok Blue Power Co.,Ltd. (Formely, POSPOWER CO., Ltd.)(*2)	Generation of electricity	34.00	34.00	Samcheok

Investee	Category of business	Ownership (%) 2019	2020	Region
[Domestic]				
INKOTECH, INC.(*1)	Electricity generation and sales	10.00	10.00	Seoul
PCC Social Enterprise Fund II(*1)	Investment in new technologies business	16.67	16.67	Seoul
PCC Amberstone Private Equity Fund II(*1)	Private equity trust	19.91	19.91	Seoul
NEXTRAIN Co.,Ltd	Service maintenance and management	32.00	21.26	Incheon
TK CHEMICAL CORPORATION(*1)	Chemical	5.01	5.01	Daegu
PCC-Conar No.1 Fund(*1)	Investment in new technologies business	13.64	13.64	Pohang
HYOCHUN Co., Ltd(*1)	Screen door operation and other	18.00	18.00	Seoul
RPSD Project Co., Ltd	Real estate development	29.00	29.00	Incheon
PCC EV Fund(*1)	Investment in new technologies business	18.18	18.18	Pohang
IBKC-PCC 1st Fund(*1)	Investment in new technologies business	18.18	18.18	Pohang
2019 PCC Materials and Parts Fund(*1)	Investment in new technologies business	8.70	8.70	Pohang
Shinahn wind Power generation(*1)	Electric, gas, steam	19.00	19.00	Suwon
2019 PCC New technology Fund(*1)	Investment in new technologies business	4.76	4.76	Pohang
PCC-Woori LP secondary Fund(*1)	Investment in new technologies business	18.85	18.85	Pohang
KPGE Inc.(*3)	Wholesales and retail, generator material, trade	—	25.00	Busan
CURO CO.,LTD.(*1,3)	Manufacturing, construction	—	0.54	Ulsan
The Blue Gimpo Co., Ltd.(*3)	Construction and engineering service	—	33.33	Incheon
Link City PFV Inc.(*3)	Contruction, housing construction and sales	—	44.00	Uijeongbu
BNH-POSCO Bio Healthcare Fund(*1,3)	Investment in new technologies business	—	18.14	Pohang
PCC-BM Project Fund(*1,3)	Investment in new technologies business	—	8.77	Pohang
Energy Innovation Fund I(*1,3)	Investment in new technologies business	—	10.11	Pohang
ConsusPSdevelopment Professional Private Real Estate Fund(*3)	Real estate development	—	50.00	Seoul
POSTECH Holdings 4th Fund(*3)	Private Investment Association	—	40.00	Pohang
SNU STH IP Fund(*3)	Private Investment Association	—	33.33	Seoul
PCC-BM Project Fund 2(*1,3)	Investment in new technologies business	—	13.70	Pohang
G&G Technology Innovation Fund No.1(*1,3)	Investment in new technologies business	—	13.97	Seongnam
NPX-PCC Edutech Fund(*1,3)	Investment in new technologies business	—	19.96	Pohang
C&-PCC I Fund(*1,3)	Investment in new technologies business	—	0.68	Pohang
2020 POSCO-MOORIM Bio New Technology Fund(*1,3)	Investment in new technologies business	—	5.00	Pohang
PCC-KAI Secondary I Fund(*1,3)	Investment in new technologies business	—	19.12	Seoul
Garolim Tidal Power Plant Co.,Ltd(*4)	Tidal power plant construction and management	32.13	—	Seosan
PoscoPlutus Bio Fund(*4)	Investment in new technologies	11.97	—	Seoul
PoscoPlutus Project Fund(*4)	Investment in new technologies	11.91	—	Seoul
PoscoPlutus Project 2nd Project Fund(*4)	Investment in new technologies	0.61	—	Seoul
Incheon-Gimpo Expressway Co., Ltd.(*5)	Road construction	18.26	—	Anyang
POSCO PLANTEC Co., Ltd.(*5)	Construction of industrial plant	73.94	—	Ulsan
Pohang Techno Valley PFV Corporation(*4)	Real estate development, supply and rental	57.39	—	Pohang
IT ENGINEERING CO., LTD.(*5)	Vehicle engineering	4.99	—	Seoul
PCC Bio 1ST Fund(*4)	Investment in new technologies	13.46	—	Seoul
Synapse Fund(*4)	Investment in new technologies	16.26	—	Seoul
Hanil-Daewoo Cement Co., Ltd.(*5)	Cement, slag distribution	15.00	—	Incheon
PCC S/W 2nd Fund(*4)	Investment in new technologies business	12.81	—	Pohang
[Foreign]				
VSC POSCO Steel Corporation	Steel processing and sales	50.00	50.00	Vietnam
POSCHROME (PROPRIETARY) LIMITED	Raw material manufacturing and sales	50.00	50.00	South Africa
CAML RESOURCES PTY LTD	Raw material manufacturing and sales	33.34	33.34	Australia

Investee	Category of business	Ownership (%) 2019	2020	Region
[Foreign]				
Nickel Mining Company SAS	Raw material manufacturing and sales	49.00	49.00	New Caledonia
PT. Wampu Electric Power	Construction and civil engineering	20.00	20.00	Indonesia
POSK(Pinghu) Steel Processing Center Co., Ltd.	Steel processing and sales	20.00	20.00	China
PT.INDONESIA POS CHEMTECH CHOSUN Ref	Refractory manufacturing and sales	30.19	30.19	Indonesia
NS-Thainox Auto Co., Ltd.	Steel manufacturing and sales	49.00	49.00	Thailand
Zhongyue POSCO (Qinhuangdao) Tinplate Industrial Co., Ltd	Tinplate manufacturing and sales	34.00	34.00	China
PT. Tanggamus Electric Power(*1)	Construction and civil engineering	17.50	17.50	Indonesia
LLP POSUK Titanium	Titanium manufacturing and sales	35.30	35.30	Kazakhstan
LI3 ENERGY INC	Resource development	26.06	26.06	Peru
IMFA ALLOYS FINLEASE LTD	Raw material manufacturing and sales	24.00	24.00	India
KRAKATAU POS-CHEM DONG-SUH CHEMICAL(*1)	Chemical by-product manufacturing and sales	19.00	19.00	Indonesia
9404-5515 Quebec Inc. (Formerly, 7623704 Canada Inc.)(*1,6)	Investments management	10.40	10.40	Canada
Hamparan Mulya	Resource development	45.00	45.00	Indonesia
POS-SEAHSTEELWIRE(TIANJIN)CO.,Ltd.	Steel manufacturing and sales	25.00	25.00	China
Eureka Moly LLC	Raw material manufacturing and sales	20.00	20.00	USA
PT. Batutua Tembaga Raya	Raw material manufacturing and sales	22.00	22.00	Indonesia
KIRIN VIETNAM CO., LTD(*1)	Panel manufacturing	19.00	19.00	Vietnam
POSCO SeAH Steel Wire(Nantong) Co., Ltd.	Steel processing and sales	25.00	25.00	China
POS-SeAH Steel Wire (Thailand) Co., Ltd.	Steel manufacturing and sales	25.00	25.00	Thailand
Jupiter Mines Limited(*1)	Resource development	6.93	6.89	Australia
SAMHWAN VINA CO., LTD(*1)	Steel manufacturing and sales	19.00	19.00	Vietnam
Saudi-Korean Company for Maintenance Properties Management LLC(*1)	Building management	19.00	19.00	Saudi Arabia
NCR LLC	Coal sales	29.40	29.40	Canada
AMCI (WA) PTY LTD	Iron ore sales & mine development	49.00	49.00	Australia
SHANGHAI LANSHENG DAEWOO CORP.	Trading	49.00	49.00	China
SHANGHAI WAIGAOQIAO FREE TRADE ZONE LANSHENG DAEWOO IN'L TRADING CO., LTD.	Trading	49.00	49.00	China
General Medicines Company Ltd.	Medicine manufacturing and sales	33.00	33.00	Sudan
KOREA LNG LTD.	Gas production and sales	20.00	20.00	England
AES-VCM Mong Duong Power Company Limited	Electricity generation	30.00	30.00	Vietnam
South-East Asia Gas Pipeline Company Ltd.	Pipeline construction and management	25.04	25.04	Myanmar
GLOBAL KOMSCO Daewoo LLC	Cotton celluloid manufacturing and sales	35.00	35.00	Uzbekistan
POSCO-Poggenamp Electrical Steel Pvt. Ltd.	Steel processing and sales	26.00	26.00	India
Qingdao Pohang DGENX Stainless SteelPipeCo., Ltd	Exhaust meter manufacturing	40.00	40.00	China
SHINPOONG DAEWOO PHARMA VIETNAM CO.,LTD(*1)	Medicine production	3.42	3.42	Vietnam
ZHEJIANG HUAYOU-POSCO ESM CO., LTD	Cathode material Production	40.00	40.00	China
MONG DUONG FINANCE HOLDINGS B.V.(*3)	Financial Holdings	—	30.00	Netherlands
KG Power(M) SDN. BHD(*5)	Resource development	20.00	—	Malaysia

(*1) The Company has less than 20% of the voting rights; however, the Company has determined that it has significant influence because it has meaningful representation on the board of the investee.
(*2) During the year ended December 31, 2020, POSPOWER CO., Ltd. changed its name to Samcheok Blue Power Co.,Ltd.
(*3) During the year ended December 31, 2020, the entity was newly classified to associates.
(*4) During the year ended December 31, 2020, the entity was excluded from associates due to liquidation.
(*5) During the year ended December 31, 2020, the entity was excluded from associates due to sale of interest, etc.
(*6) During the year ended December 31, 2020, 7623704 Canada Inc. changed its name to 9404-5515 Quebec Inc.

2) Joint ventures

Details of joint ventures as of December 31, 2019 and 2020 are as follows:

Investee	Category of business	Ownership (%) 2019	Ownership (%) 2020	Region
[Domestic]				
POSCO MITSUBISHI CARBON TECHNOLOGY	Steel processing and sales	60.00	60.00	Gwangyang
POSCO-SGI Falcon Pharmaceutic Bio Secondary Fund 1	Investment in new technologies	24.55	25.00	Seoul
POSCO-KB Shipbuilding Restructuring Fund	Investment in new technologies	18.75	18.75	Seoul
POSCO-NSC Venture Fund	Investment in new technologies	16.67	16.67	Seoul
PoscoPlutus Project 3rd Project fund	Investment in new technologies	5.96	5.96	Seoul
PCC Bio 2nd Fund	Investment in new technologies	19.72	19.72	Seoul
PCC Material 3rd Fund	Investment in new technologies	2.38	2.38	Seoul
Union PCC Portfolio Fund	Investment in new technologies	14.12	14.12	Seoul
PCC S/W FUND(*1)	Investment in new technologies	0.46	—	Pohang
[Foreign]				
KOBRASCO	Steel materials manufacturing and sales	50.00	50.00	Brazil
PT. POSMI Steel Indonesia	Steel processing and sales	36.69	36.69	Indonesia
CSP—Compania Siderurgica do Pecem	Steel manufacturing and sales	20.00	20.00	Brazil
BX STEEL POSCO Cold Rolled Sheet Co., Ltd.	Steel processing and sales	25.00	25.00	China
POSCO-SAMSUNG-Slovakia Processing Center	Steel processing and sales	30.00	30.00	Slovakia
YULCHON MEXICO S.A. DE C.V.	Tube for automobile manufacturing	19.00	11.85	Mexico
Hyunson Engineering & Construction HYENCO	Construction	4.89	4.89	Algeria
POSCO E&C Saudi Arabia	Civil engineering and construction	40.00	40.00	Saudi Arabia
Pos-Austem Suzhou Automotive Co., Ltd	Automotive parts manufacturing	19.90	19.90	China
POS-InfraAuto (Suzhou) Co., Ltd	Automotive parts manufacturing	16.20	16.20	China
POS-AUSTEM YANTAI AUTOMOTIVE CO.,LTD	Automotive parts manufacturing	11.10	11.10	China
POS-AUSTEM WUHAN AUTOMOTIVE CO.,LTD	Automotive parts manufacturing	13.00	7.43	China
Kwanika Copper Corporation	Energy & resource development	35.00	34.04	Canada
DMSA/AMSA	Energy & resource development	4.00	4.27	Madagascar
Roy Hill Holdings Pty Ltd	Energy & resource development	12.50	12.50	Australia
POSCO-NPS Niobium LLC	Mine development	50.00	50.00	USA
USS-POSCO Industries(*2)	Cold-rolled steel manufacturing and sales	50.00	—	USA
United Spiral Pipe, LLC(*1)	Material manufacturing and sales	35.00	—	USA

(*1) Excluded from joint ventures due to liquidation during the year ended December 31, 2020.
(*2) Excluded from joint ventures due to disposal of the investments during the year ended December 31, 2020.

(e) Newly included subsidiaries

Consolidated subsidiaries acquired or newly established during the year ended December 31, 2020 are as follows:

Company	Date of addition	Ownership (%)	Reason
Posco International (Thailand) Co., Ltd.	January 2020	100.00	New establishment
PT POSCO INTERNATIONAL INDONESIA	January 2020	100.00	New establishment
POSCO SPS CORPORATION	April 2020	100.00	Spun-off from POSCO INTERNATIONAL Corporation
P&O Chemical Co., Ltd.	July 2020	51.00	New establishment
Posco New Growth	August 2020	100.00	New establishment
IMP Fund I	August 2020	98.04	New establishment
PEC POWERCON SDN. BHD.	August 2020	100.00	New establishment
POSCO CHEMICAL Free Zone Enterprise	October 2020	100.00	New establishment

(f) Loss of controls

Subsidiaries for which the Company has lost control during the year ended December 31, 2020 are as follows:

Company	Date of exclusion	Reason
LA-SRDC	April 2020	Liquidation
POSCO China Dalian Plate Processing Center Co., Ltd.	June 2020	Disposal
PSC Energy Global Co., Ltd.	August 2020	Merged into POSCO ENERGY CO.,Ltd.
POSCO Family Strategy Fund	September 2020	Liquidation
Myanmar POSCO Steel Co., Ltd	December 2020	Liquidation

2. Statement of Compliance

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (“IFRS”), as issued by the International Accounting Standards Board.

The consolidated financial statements were authorized by management on April 29, 2021.

Basis of measurement

The consolidated financial statements have been prepared on the historical cost basis, except for the following material items in the statement of financial position, as described in the accounting policy below.

(a) Derivatives instruments measured at fair value

(b) Financial instruments measured at fair value through profit or loss

(c) Financial instruments measured at fair value through other comprehensive income

(d) Defined benefit liabilities measured at the present value of the defined benefit obligation less the fair value of the plan assets

Functional and presentation currency

The financial statements of POSCO and subsidiaries are prepared in functional currency of each operation. These consolidated financial statements are presented in Korean Won, the POSCO's functional currency, which is the currency of the primary economic environment in which POSCO operates.

Use of estimates and judgments

The preparation of the consolidated financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized prospectively.

(a) Judgments

Information about critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the consolidated financial statements is included in the following notes:

- Note 1 - Subsidiaries, associates and joint ventures
- Note 11 - Investments in associates and joint ventures
- Note 12 - Joint operations
- Note 25 - Hybrid bonds

(b) Assumptions and estimation uncertainties

Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment within the next fiscal year is included in the following notes:

- Note 9 - Inventory
- Note 11 - Investments in associates and joint ventures
- Note 14 - Property, plant and equipment, net
- Note 15 - Goodwill and other intangible assets, net
- Note 20 - Provisions
- Note 21 - Employee benefits
- Note 23 - Financial instruments
- Note 29 - Revenue – contract balances
- Note 35 - Income taxes
- Note 38 - Commitments and contingencies

(c) Measurement of fair value

The Company's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities. The Company has an established control framework with respect to the measurement of fair values. This includes a valuation team that has overall responsibility for overseeing all significant fair value measurements, including Level 3 fair values, and reports directly to the financial officer.

The valuation team regularly reviews significant unobservable inputs and valuation adjustments. If third party information, such as broker quotes or pricing services, is used to measure fair values, then the valuation team assesses the evidence obtained from the third parties to support the conclusion that such valuations meet the requirements of IFRS including the level in the fair value hierarchy in which such valuation techniques should be classified.

Significant valuation issues are reported to the Company's Audit Committee.

When measuring the fair value of an asset or a liability, the Company uses market observable data as far as possible. Fair values are categorized into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows.

- Level 1 - unadjusted quoted prices in active markets for identical assets or liabilities.
- Level 2 - inputs other than quoted prices included in Level 1 that are observable for the assets or liability, either directly or indirectly.
- Level 3 - inputs for the assets or liability that are not based on observable market data.

If the inputs used to measure the fair value of an asset or a liability might be categorized in different levels of the fair value hierarchy, then the fair value measurement is categorized in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement. The Company recognizes transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

Information about the assumptions made in measuring fair values is included in the following note:

- Note 23 - Financial instruments

Changes in Accounting Policies

(a) The Company has initially adopted IFRS No.16 "Leases" from January 1, 2019. The Company applied IFRS No.16 "Leases" using the modified retrospective approach by recognizing the cumulative effect of initial application as of January 1, 2019, the date of initial application. Accordingly, the comparative information presented for 2018, has not been restated. The details of the accounting policies are disclosed in Note 3.

(b) Except for the standards and amendments applied for the first time for the reporting period commenced on January 1, 2020 described below, the accounting policies applied by the Company in these consolidated financial statements are the same as those applied by the Company in its consolidated financial statements in the comparative periods.

1) IAS No. 1 "Presentation of Financial Statements" and IAS No. 8 "Accounting Policies, Changes in Accounting Estimates and Errors"

The definition of materiality has been clarified, and IAS No. 1 "Presentation of Financial Statements" and IAS No. 8 "Accounting Policies, Changes in Accounting Estimates and Errors" have been amended according to the clarified definition. In determining the materiality, information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity. The amendments to these standards apply to transactions that have occurred since January 1, 2020.

2) IFRS No. 3 "Business Combinations"

The amendment clarifies the definition of business when it includes input and process together significantly contribute to ability to create output and requires a simplified assessment that result in an asset acquisition if substantially all of the fair value of the gross assets is concentrated in a single identifiable asset or a group of similar identifiable assets. The amendments to this standard applies to business combinations or asset acquisition transactions with the acquisition date on or after January 1, 2020.

3) IFRS No. 9 "Financial Instruments", IAS No. 39 "Financial Instruments: Recognition and measurement" and IFRS No. 7 "Financial Instruments: Disclosure"

The amendments require the application of exceptions to the analysis of future prospects in relation to the application of hedge accounting while uncertainty exists due to the interest rate benchmark reform. The exception assumes that when assessing whether the expected cash flows based on existing interest rate indicators are highly probable, whether there is an economic relationship between the hedged item and the hedging instrument, or whether the hedge relationship between the hedged item and the hedging instrument is highly probable, the interest rate benchmark that the hedged item and the hedging instrument comply with does not change as a result of the interest rate benchmark reform.

The Company does not expect the effect of the amendments to the consolidated financial statements to be significant.

3. Summary of Significant Accounting Policies

The significant accounting policies applied by the Company in the preparation of its consolidated financial statements are included below. The accounting policies set out below have been applied consistently to all periods presented in these consolidated financial statements, except for the changes in accounting policies disclosed in Note 2.

Basis of consolidation

(a) Business combinations

The Company accounts for business combinations using the acquisition method when the acquired set of activities and assets meets the definition of a business and control is transferred to the Company. In determining whether a particular set of activities and assets is a business, the Company assesses whether the set of assets and activities acquired includes, at a minimum, an input and substantive process and whether the acquired set has the ability to produce outputs.

The Company has an option to apply a 'concentration test' that permits a simplified assessment of whether an acquired set of activities and assets is not a business. The optional concentration test is met if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets.

The consideration transferred in the acquisition is generally measured at fair value, as are the identifiable net assets acquired. Any goodwill that arises is tested annually for impairment. Any gain on bargain purchase is recognized in profit or loss immediately. Transaction costs are expensed as incurred, except if related to the issue of debt or equity securities. The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are generally recognized in profit or loss.

Any contingent consideration payable is measured at fair value at the acquisition date. If the contingent consideration is classified as equity, then it is not remeasured and settlement is accounted for within equity. Otherwise, subsequent changes in the fair value of the contingent consideration are recognized in profit or loss.

If share-based payment awards (replacement awards) are required to be exchanged for awards held by the acquiree's employees (acquiree's awards), then all or a portion of the amount of the acquirer's replacement awards is included in measuring the consideration transferred in the business combination. This determination is based on the market-based measure of the replacement awards compared with the market-based measure of the acquiree's awards and the extent to which the replacement awards relate to pre-combination service.

(b) Non-controlling interests

Non-controlling interests are measured at their proportionate share of the acquiree's identifiable net assets at the acquisition date. Changes in the Company's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

(c) Subsidiaries

Subsidiaries are entities controlled by the Company. The Company controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

(d) Loss of control

When the Company loses control over a subsidiary, it derecognizes the assets and liabilities of the subsidiary, and any related non-controlling interests and other components of equity. Any resulting gain or loss is recognized in profit or loss. Any interest retained in the former subsidiary is measured at fair value when control is lost.

(e) Interests in equity-accounted investees

The Company's interests in equity-accounted investees comprise interests in associates and joint ventures. Associates are those entities in which the Company has significant influence, but not control or joint control, over the financial and operating policies. A joint venture is an arrangement in which the Company has joint control, whereby the Company has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

Interests in associates and joint ventures are accounted for using the equity method. They are recognized initially at cost, which includes transaction costs. Subsequent to initial recognition, the consolidated financial statements include the Company's share of the profit or loss and other comprehensive income of equity-accounted investees, until the date on which significant influence or joint control ceases.

(f) Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealized income and expenses arising from intra-group transactions, are eliminated. Unrealized gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of the Company's interest in the investee. Unrealized losses are eliminated in the same way as unrealized gains, but only to the extent that there is no evidence of impairment.

Foreign currency transactions and translation

(a) Foreign currency transactions

Foreign currency transactions are initially recorded using the spot exchange rate between the functional currency and the foreign currency at the date of the transaction. At the end of each reporting period, foreign currency monetary items are translated using the closing rate. Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rate at the date fair value was determined.

Exchange differences arising on the settlement of monetary items or on translating monetary items at rates different from those at which they were translated on initial recognition during the period or at previous period end are recognized in profit or loss in the period in which they arise. When gains or losses on non-monetary items are recognized in other comprehensive income, exchange components of those gains or losses are recognized in other comprehensive income. Conversely, when gains or losses on non-monetary items are recognized in profit or loss, exchange components of those gains or losses are recognized in profit or loss.

(b) Foreign operations

If the presentation currency of the Company is different from a foreign operation's functional currency, the financial statements of the foreign operation are translated into the presentation currency using the following methods:

The assets and liabilities of foreign operations, whose functional currency is not the currency of a hyperinflationary economy, are translated to presentation currency using exchange rates at the reporting date. The income and expenses of foreign operations are translated to functional currency at exchange rates at the dates of the transactions. Foreign currency differences are recognized in other comprehensive income.

Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition of that foreign operation are treated as assets and liabilities of the foreign operation. Thus, they are expressed in the functional currency of the foreign operation and translated to the presentation currency at the closing rate.

When a foreign operation is disposed of, the relevant amount in the translation recognized in other comprehensive income is transferred to profit or loss as part of the profit or loss on disposal. On the partial disposal of a subsidiary that includes a foreign operation, the relevant proportion of such cumulative amount is reattributed to non-controlling interest. In any other partial disposal of a foreign operation, the relevant proportion is reclassified to profit or loss.

Cash and cash equivalents

Cash and cash equivalents comprise cash on hand, demand deposits, and short-term investments in highly liquid securities that are readily convertible to known amounts of cash with maturities of three months or less from the acquisition date and which are subject to an insignificant risk of changes in value. Equity investments are excluded from cash and cash equivalents.

Non-derivative financial assets

Trade receivables and debt securities issued are initially recognized when they are originated. All other financial assets are initially recognized when the Company becomes a party to the contractual provisions of the instruments.

A financial asset (unless it is a trade receivable without a significant financing component) is initially measured at fair value plus, for an item not at financial assets measured at fair value through profit or loss, transaction costs that are directly attributable to its acquisition or issue. A trade receivable without a significant financing component is initially measured at the transaction price.

On initial recognition, a financial asset is classified as measured at amortized cost, debt instruments measured at fair value through other comprehensive income, equity instruments measured at fair value through other comprehensive income or financial assets measured at fair value through profit or loss.

Financial assets are not reclassified subsequent to their initial recognition unless the Company changes its business model for managing financial assets, in which case all affected financial assets are reclassified on the first day of the reporting period following the change in the business model.

(a) Financial assets measured at amortized cost

A financial asset is measured at amortized cost if it meets both of the following conditions and is not designated as at fair value through profit or loss.

- it is held within a business model whose objective is to hold assets to collect contractual cash flows, and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets measured at amortized cost are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest income, gains and losses on foreign currency translation and impairment losses are recognized in profit or loss. Any gain or loss on derecognition is recognized in profit or loss.

(b) Debt instruments measured at fair value through other comprehensive income

A debt instrument is measured at fair value through other comprehensive income if it meets both of the following conditions and is not designated as at fair value through profit or loss.

- it is held within a business model whose objective is achieved by both collection contractual cash flows and selling financial assets, and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Debt instruments measured at fair value through other comprehensive income are subsequently measured at fair value. Interest income which is calculated using the effective interest method, gains and losses from foreign currency translation and impairment losses are recognized in profit or loss and other net profit or loss is recognized in other comprehensive income. At the time of elimination, other accumulated comprehensive income is reclassified to profit or loss.

(c) Equity instruments measured at fair value through other comprehensive income

On initial recognition of an equity investment that is not held for trading, the Company may irrevocably elect to present subsequent changes in the investment's fair value in other comprehensive income. This election is made on an investment-by-investment basis.

Equity instruments measured at fair value through other comprehensive income are subsequently measured at fair value. Dividends are recognized as income in profit or loss unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognized in other comprehensive income and never reclassified to profit or loss.

(d) Financial assets measured at fair value through profit or loss

All financial assets not classified as measured at amortized cost or fair value through other comprehensive income as described above are measured at fair value through profit or loss. This includes all derivative financial assets. On initial recognition, the Company may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortized cost or fair value through other comprehensive income as at fair value through profit or loss if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

Financial assets measured at fair value through profit or loss are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognized in profit or loss.

(e) Derecognition of financial assets

Financial assets are derecognized when the rights to receive cash flows from the financial assets have expired or have been transferred and the Company has transferred substantially all the risks and rewards of ownership. If a transfer does not result in derecognition because the Company has retained substantially all the risks and rewards of ownership of the transferred asset, the Company continues to recognize the transferred asset in its entirety and recognizes a financial liability for the consideration received.

(f) Offsetting a financial asset and a financial liability

Financial assets and financial liabilities are offset and the net amount is presented in the consolidated statement of financial position only when the Company currently has a legally enforceable right to offset the recognized amounts, and there is the intention to settle on a net basis or to realize the asset and settle the liability simultaneously.

Inventories

Inventory costs, except materials-in-transit in which costs are determined by using specific identification method, are determined by using the moving-weighted average method. The cost of inventories comprise all costs of purchase, conversion and other incurred in bringing the inventories to their present location and condition. The allocation of fixed production overheads to the costs of finished goods or work in progress are based on the normal capacity of the production facilities.

Inventories are measured at the lower of cost or net realizable value. The amount of any write-down of inventories to net realizable value and all losses of inventories are recognized as an expense in the period the write-down or loss occurs. The amount of any reversal of any write-down of inventories arising from an increase in net realizable value is recognized as a reduction in the amount of inventories recognized as cost of goods sold in the period in which the reversal occurs.

The carrying amount of those inventories sold is recognized as cost of goods sold in the period in which the related revenue is recognized.

Non-current assets held for sale

Non-current assets or disposal groups comprising assets and liabilities that are expected to be recovered primarily through sale rather than through continuing use are classified as held for sale. In order to be classified as held for sale, the assets or disposal groups must be available for immediate sale in their present condition and their sale must be highly probable. The assets or disposal groups that are classified as non-current assets held for sale are measured at the lower of their carrying amount and fair value less cost to sell.

The Company recognizes an impairment loss for any initial or subsequent write-down of an asset or disposal group to fair value less costs to sell, and a gain for any subsequent increase in fair value less costs to sell, up to the cumulative impairment loss previously recognized.

A non-current asset that is classified as held for sale or part of a disposal group classified as held for sale is not depreciated (or amortized).

Investment property

Property held to earn rentals or for capital appreciation or both is classified as investment property. Investment property is measured initially at its cost. Transaction costs are included in the initial measurement. Subsequently, investment property is carried at depreciated cost less any accumulated impairment losses.

Subsequent costs are recognized in the carrying amount of investment property at cost or, if appropriate, as separate items if it is probable that future economic benefits associated with the item will flow to the Company and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day servicing are recognized in profit or loss as incurred.

Depreciation methods, useful lives and residual values are reviewed at the end of each reporting date and adjusted, if appropriate. The change is accounted for as a change in an accounting estimate.

Property, plant and equipment

Property, plant and equipment are initially measured at cost and after initial recognition, are carried at cost less accumulated depreciation and any accumulated impairment losses. The cost of property, plant and equipment includes expenditures arising directly from the construction or acquisition of the asset, any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management and, when the Company has an obligation to remove the asset or restore the site, an estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

The cost of replacing a part of an item is recognized in the carrying amount of the item of property, plant and equipment, if the following recognition criteria are met:

(a) it is probable that future economic benefits associated with the item will flow to the Company, and

(b) the cost can be measured reliably.

The carrying amount of the replaced part is derecognized at the time the replacement part is recognized. The costs of the day-to-day servicing of the item are recognized in profit or loss as incurred.

Items of property, plant and equipment are depreciated from the date they are available for use or, in respect of self-constructed assets, from the date that the asset is completed and ready for use. Other than land, the costs of an asset less its estimated residual value are depreciated. Depreciation of property, plant and equipment is recognized in profit or loss on a straight-line basis, which most closely reflects the expected pattern of consumption of the future economic benefits embodied in the asset, over the estimated useful lives of each component of an item of property, plant and equipment. Land is not depreciated.

Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item is depreciated separately.

The gain or loss arising from the derecognition of an item of property, plant and equipment is included in profit or loss when the item is derecognized.

The estimated useful lives for the current and comparative periods are as follows:

Buildings	5-50 years
Structures	4-50 years
Machinery and equipment	4-25 years
Vehicles	3-20 years
Tools	3-10 years
Furniture and fixtures	3-20 years
Lease assets	2-30 years
Bearer plants	20 years

The estimated residual value, useful lives and the depreciation method are reviewed at least at the end of each reporting period and, if expectations differ from previous estimates, the changes are accounted for as changes in accounting estimates.

Borrowing costs

The Company capitalizes borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset as part of the cost of that asset. Other borrowing costs are recognized in expense as incurred. A qualifying asset is an asset that requires a substantial period of time to get ready for its intended use or sale. Financial assets and inventories that are manufactured or otherwise produced over a short period of time are not qualifying assets. Assets that are ready for their intended use or sale when acquired are not qualifying assets.

To the extent that the Company borrows funds specifically for the purpose of obtaining a qualifying asset, the Company determines the amount of borrowing costs eligible for capitalization as the actual borrowing costs incurred on that borrowing during the period less any investment income on the temporary investment of those borrowings. The Company immediately recognizes other borrowing costs as an expense. To the extent that the Company borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the Company determines the amount of borrowing costs eligible for capitalization by applying a capitalization rate to the expenditures on that asset. The capitalization rate is the weighted average of the borrowing costs applicable to the borrowings of the Company that are outstanding during the period, other than borrowings made specifically for the purpose of obtaining a qualifying asset. The amount of borrowing costs that the Company capitalizes during a period does not exceed the amount of borrowing costs incurred during that period.

Intangible assets

Intangible assets are measured initially at cost and, subsequently, are carried at cost less accumulated amortization and accumulated impairment losses.

Amortization of intangible assets except for goodwill is calculated on a straight-line basis over the estimated useful lives of intangible assets from the date that they are available for use. The residual value of intangible assets is zero. However, as there are no foreseeable limits to the periods over which club memberships are expected to be available for use, this intangible asset is determined as having an indefinite useful life and not amortized.

Intellectual property rights	4-25 years
Development expense	3-5 years
Port facilities usage rights	4-75 years
Other intangible assets	2-15 years

Amortization periods and the amortization methods for intangible assets with finite useful lives are reviewed at the end of each reporting period. The useful lives of intangible assets that are not being amortized are reviewed at the end of each reporting period to determine whether events and circumstances continue to support indefinite useful life assessments for those assets. Changes are accounted for as changes in accounting estimates.

Expenditures on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, are recognized in profit or loss as incurred. Development expenditures are capitalized only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Company intends to and has sufficient resources to complete development and to use or sell the asset. Other development expenditures are recognized in profit or loss as incurred.

Subsequent expenditures are capitalized only when they increase the future economic benefits embodied in the specific asset to which they relate. All other expenditures, including expenditures on internally generated goodwill and brands, are recognized in profit or loss as incurred.

Exploration for and evaluation of mineral resources

POSCO is engaged in exploration projects for mineral resources through subsidiaries, associates and joint ventures or other contractual arrangements. Expenditures related to the development of mineral resources are recognized as exploration or development intangible assets. The nature of these intangible assets are as follows:

(a) Exploration and evaluation assets

Exploration and evaluation assets consist of expenditures for topographical studies, geophysical studies and trenching. These assets are reclassified as development assets when it is proved that the exploration has identified commercially viable mineral deposit.

(b) Development assets

When proved reserves are determined and development is sanctioned, development expenditures incurred are capitalized. These expenditures include evaluation of oil fields, construction of oil/gas wells, drilling for viability and others. On completion of development and inception of extraction for commercial production of developed proved reserves, the development assets are reclassified as either property, plant and equipment or as intellectual property rights (mining rights) under intangible assets based on the nature of the capitalized expenditures.

The respective property, plant and equipment and intellectual property (mining rights) are each depreciated and amortized based on proved reserves on a unit of production basis.

Government grants

Government grants are not recognized unless there is reasonable assurance that the Company will comply with the grant’s conditions and that the grant will be received.

(a) Grants related to assets

Government grants whose primary condition is that the Company purchase, construct or otherwise acquire long-term assets are deducted from the carrying amount of the assets and recognized in profit or loss on a systematic and rational basis over the life of the depreciable assets.

(b) Grants related to income

Government grants which are intended to compensate the Company for expenses incurred are deducted from the related expenses.

Leases

The Company applied IFRS No.16 "Leases" using the modified retrospective approach by recognizing the cumulative effect of initial application as of January 1, 2019, the date of initial application. Therefore, the comparative information has not been restated and continues to be reported under IAS No.17 "Lease" and IFRIC No.4 "Determining Whether an Arrangement Contains a Lease".

A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for considerations.

1) As a lessee: policy applicable from January 1, 2019

At inception or reassessment of a contract that contains a lease component, the Company allocates the consideration in the contract to each lease and non-lease component on the basis of their relative stand-alone prices.

The Company recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset of to restore the underlying asset or the site on which it is located.

The right-of-use asset is subsequently depreciated on a straight-line basis from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Company by the end of the lease term or the cost of the right-of-use asset reflects that the Company will exercise a purchase option. In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as that of property and equipment. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined the Company's incremental borrowing rate. Generally, the Company uses its incremental borrowing rate as the discount rate.

The Company determines its incremental borrowing rate by obtaining interest rates from various external sources and makes certain adjustments to reflect the terms of the lease and type of the asset leased.

Lease payments included in the measurement of the lease liability comprise the followings:

- fixed payments
- variable lease payments that depend on an index or a rate
- amounts expected to be payable under a residual value guarantee; and
- the exercise price under a purchase option that the Company is reasonably certain to exercise, lease payments in an optional renewal period if the Company is reasonably certain to exercise an extension option, and penalties for early termination of a lease unless the Company is reasonably certain not to terminate early.

The lease liability is measured at amortized cost using the effective interest method. When the lease liability is remeasured, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit of loss if the carrying amount of the right-of-use asset has been reduced to zero. The lease liability is remeasured when there is:

- a revised in-substance fixed lease payment,
- a change in future lease payments arising from a change in an index or rate,
- a change in the Company's estimate of the amount expected to be payable under a residual value guarantee, or
- a change in the Company's assessment of whether it will exercise a purchase, extension or termination option

The Company presents right-of-use assets in the same line item as it presents underlying assets of the same nature that it owns, and lease liabilities are included in other payables on the consolidated statement of financial position.

The Company has elected not to recognize right-of-use assets and lease liabilities for leases of low-value assets and short-term leases, including IT equipment. The Company recognizes the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

2) As a lessee: policy applicable before January 1, 2019

The Company classifies and accounts for leases as either a finance or operating lease, depending on the terms. Leases where the Company assumes substantially all of the risks and rewards of ownership are classified as finance leases. All other leases are classified as operating leases.

In the case of finance leases, the Company recognizes as finance assets and finance liabilities the lower amount of the fair value of the leased property and the present value of the minimum lease payments, each determined at the inception of the lease at the commencement of the lease term. Any initial direct costs are added to the amount recognized as an asset.

The minimum lease payment is recognized by dividing the financial cost and the repayment amount of the lease liabilities. The financial cost is allocated to the remaining balance for each reporting period so that a fixed interest rate is calculated. Contingent rents are charged as expenses in the period in which they are incurred.

The depreciable amount of a leased asset is allocated to each accounting period during the period of expected use on a systematic basis consistent with the depreciation policy the Company adopts for similar depreciable assets that are owned. If there is no reasonable certainty that the Company will obtain ownership by the end of the lease term, the asset is fully depreciated over the shorter of the lease term and its useful life.

In the case of an operating lease, the Company recognizes the lease payment as an expense on a straight-line basis over the lease term. Contingent rents are charged as expenses in the periods in which they are incurred.

3) As a lessor

At inception or the effective date of a modification that contains a lease component, the Company allocates the consideration in the contract to each lease component on the basis of their relative stand-alone prices.

When the Company acts as a lessor, it determines at lease inception whether each lease is a finance lease or an operating lease. To classify each lease, the Company makes an overall assessment of whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then it is an operating lease. As part of this assessment, the Company considers certain indicators such as whether the lease is for the major part of the economic life of the asset.

The Company leases out its investment properties. The Company classified these leases as operating leases.

The Company subleases certain leased vessels and others.

Impairment of financial assets

The Company recognizes loss allowances for expected credit losses on:

- financial assets measured at amortized cost;
- debt instruments measured at fair value through other comprehensive income; and
- lease receivables, contractual assets, loan commitments, and financial guarantee contracts

If credit risk has increased significantly since the initial recognition, a loss allowance for lifetime expected credit loss is measured at the end of every reporting period. If credit risk has not increased significantly since the initial recognition, a loss allowance is measured based on 12-month expected credit loss.

If the financial instrument has low credit risk at the end of the reporting period, the Company may assume that the credit risk has not increased significantly since initial recognition. However, a loss allowance for lifetime expected credit losses is measured for contract assets or trade receivables that do not contain a significant financing component.

(a) Judgments on credit risk

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating expected credit losses, the Company considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Company's historical experience and informed credit assessment including forward-looking information.

The Company assumes that the credit risk on a financial asset has increased significantly if it is more than 30 days past due. The Company considers a financial asset to be in default when the borrower is unlikely to pay its credit obligations to the Company in full, without recourse by the Company to actions such as realizing security (if any is held). The Company considers a debt security to have low credit risk when its credit risk rating is equivalent to the globally understood definition of investment grade.

(b) Measurement of expected credit losses

Lifetime expected credit losses are the expected credit losses that result from all possible default events over the expected life of a financial instrument. 12-month expected credit losses are the portion of lifetime expected credit losses that result from default that are possible within the 12 months after the reporting date. The maximum period considered when estimating expected credit losses is the maximum contractual period over which the Company is exposed to credit risk.

Expected credit losses are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls such as the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Company expects to receive.

Expected credit losses for financial assets measured at amortized cost are recognized in profit or loss. Loss allowances for financial assets measured at amortized cost are deducted from carrying amount of the assets. For debt instruments measured at fair value through other comprehensive income, the loss allowance is charged to profit or loss and is recognized in other comprehensive income.

(c) Credit-impaired financial assets

At each reporting date, the Company assesses whether financial assets measured at amortized cost and debt instrument measured at fair value through other comprehensive income are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Objective evidence that a financial asset or group of financial assets are impaired includes:

- significant financial difficulty of the issuer or borrower
- a breach of contract, such as a default or delinquency in interest or principal payments
- the lender, for economic or legal reasons relating to the borrower's financial difficulty, granting to the borrower a concession that the lender would not otherwise consider
- becoming probable that the borrower will enter bankruptcy or other financial reorganization
- the disappearance of an active market for that financial asset because of financial difficulties

(d) Write-off

The gross carrying amount of a financial asset is written off when the Company has no reasonable expectations of recovering a financial asset in entirety or a portion. The Company individually makes an assessment with respect to the timing and amount of write-off based on whether there is a reasonable expectation of recovery based on continuous payments and extinct prescriptions. The Company expects no significant recovery from the amount written off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Company's procedures for recovery of amounts due.

Impairment of non-financial assets

The carrying amounts of the Company's non-financial assets, other than assets arising from contract assets recognized in accordance with revenue from contracts with customers, employee benefits, inventories, deferred tax assets and non-current assets held for sale, are reviewed at the end of the reporting period to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill and intangible assets that have indefinite useful lives or that are not yet available for use, irrespective of whether there is any indication of impairment, are tested for impairment annually by comparing their recoverable amount to their carrying amount.

Management estimates the recoverable amount of an individual asset. If it is impossible to measure the individual recoverable amount of an asset, then management estimates the recoverable amount of cash-generating unit ("CGU"). A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. The Company determined that individual operating entities are CGUs.

The recoverable amount of an asset or CGU is the greater of its value-in-use and its fair value less costs to sell. The value-in-use is estimated by applying a post-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU for which estimated future cash flows have been adjusted to post-tax basis, to the estimated future cash flows expected to be generated by the asset or CGU.

An impairment loss is recognized if the carrying amount of an asset or a CGU exceeds its recoverable amount. Impairment losses are recognized in profit or loss.

Goodwill acquired in a business combination is allocated to each CGU that is expected to benefit from the synergies arising from the goodwill acquired. Any impairment identified at the CGU level will first reduce the carrying amount of goodwill and then be used to reduce the carrying amount of the other assets in the CGU on a pro rata basis. Except for impairment losses in respect of goodwill which are never reversed, an impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

Derivative financial instruments, including hedge accounting

Derivatives are initially recognized at fair value. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are recognized as describe below.

(a) Hedge accounting

The Company holds forward exchange contracts, currency swaps and commodity future contracts to manage foreign exchange risk and commodity fair value risk. The Company designated derivatives as hedging instruments to hedge the risk of changes in the fair value of assets, liabilities or firm commitments (a fair value hedge) and foreign currency risk of highly probable forecasted transactions or firm commitments (a cash flow hedge).

On initial designation of the hedge, the Company formally documents the relationship between the hedging instruments and hedged items, including the risk management objectives and strategy in undertaking the hedge transaction, together with the methods that will be used to assess the effectiveness of the hedging relationship.

① Fair value hedge

Changes in the fair value of a derivative hedging instrument designated as a fair value hedge are recognized in profit or loss. The gain or loss from remeasuring the hedging instrument at fair value for a derivative hedging instrument and the gain or loss on the hedged item attributable to the hedged risk are recognized in profit or loss in the same line item of the consolidated statement of comprehensive income.

The Company discontinues fair value hedge accounting if the hedging instrument expires or is sold, terminated or exercised, or if the hedge no longer meets the criteria for hedge accounting. Any adjustment arising from gain or loss on the hedged item attributable to the hedged risk is amortized to profit or loss from the date the hedge accounting is discontinued.

② Cash flow hedge

When a derivative is designated to hedge the variability in cash flows attributable to a particular risk associated with a recognized asset or liability or a highly probable forecasted transaction that could affect profit or loss, the effective portion of changes in the fair value of the derivative is recognized in other comprehensive income, net of tax, and presented in the hedging reserve in equity. Any ineffective portion of changes in the fair value of the derivative is recognized immediately in profit or loss.

If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated, exercised, or the designation is revoked, then hedge accounting is discontinued prospectively. The cumulative gain or loss on the hedging instrument that has been recognized in other comprehensive income is reclassified to profit or loss in the periods during which the forecasted transaction occurs. If the forecasted transaction is no longer expected to occur, then the balance in other comprehensive income is recognized immediately in profit or loss.

(b) Other derivatives

Changes in the fair value of a derivative that is not designated as a hedging instrument are recognized immediately in profit or loss.

Non-derivative financial liabilities

The Company classifies non-derivative financial liabilities into financial liabilities measured at fair value through profit or loss or financial liabilities measured at amortized cost in accordance with the substance of the contractual arrangement and the definitions of financial liabilities. The Company recognizes financial liabilities in the consolidated statement of financial position when the Company becomes a party to the contractual provisions of the financial liability.

(a) Financial liabilities measured at fair value through profit or loss

A financial liability is classified as at fair value through profit or loss if it is classified as held-for-trading, it is a derivative or it is designated as such on initial recognition. Subsequent to initial recognition, financial liabilities at fair value through profit or loss are measured at fair value, and changes therein are recognized in profit or loss. Upon initial recognition, transaction costs that are directly attributable to the acquisition are recognized in profit or loss as incurred.

(b) Financial liabilities measured at amortized cost

Non-derivative financial liabilities other than financial liabilities measured at fair value through profit or loss are classified as financial liabilities measured at amortized cost. At the date of initial recognition, financial liabilities measured at amortized cost are measured at fair value after deducting transaction costs that are directly attributable to the acquisition. Financial liabilities measured at amortized cost are measured at amortized cost using the effective interest method subsequently to initial recognition.

(c) Derecognition of financial liabilities

The Company derecognizes a financial liability when its contractual obligations are discharged or canceled, or expired. The Company also derecognizes a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognized at fair value. On derecognition of a financial liability, the difference between the carrying amount extinguished and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized in profit or loss.

Construction work in progress

The gross amount due from customers for contract work is presented for all contracts in which profits multiply cumulative percentage-of-completion exceed progress billings. If progress billings exceed profits multiply cumulative percentage-of-completion, then the gross amount due to customers for contract work is presented. Cost includes all expenditures related directly to specific projects and an allocation of fixed and variable overheads incurred in the Company's contract activities based on normal operating capacity.

The Company accounts for the remaining rights and performance obligation on the contract with each customer on a net basis. Due from customers for contract work and due to customers for contract work for a contract are offset and presented on a net basis.

Employee benefits

(a) Short-term employee benefits

Short-term employee benefits are employee benefits that are due to be settled within twelve months after the end of the period in which the employees render the related service. When an employee has rendered service to the Company during an accounting period, the Company recognizes the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service as profit or loss. If the Company has a legal or constructive obligation which can be reliably measured, the Company recognizes the amount of expected payment for profit-sharing and bonuses payable as liabilities.

(b) Other long-term employee benefits

Other long-term employee benefits include employee benefits that are settled beyond twelve months after the end of the period in which the employees render the related service, and are calculated at the present value of the amount of future benefit that employees have earned in return for their service in the current and prior periods, less the fair value of any related assets. Any actuarial gains and losses are recognized in profit or loss in the period in which they arise.

(c) Retirement benefits: Defined contribution plans

For defined contribution plans, when an employee has rendered service to the Company during a period, the Company recognizes the contribution payable to a defined contribution plan in exchange for that service as an accrued expense, after deducting any contributions already paid. If the contributions already paid exceed the contribution due for service before the end of the reporting period, the Company recognizes that excess as an asset (prepaid expense) to the extent that the prepayment will lead to a reduction in future payments or a cash refund.

(d) Retirement benefits: Defined benefit plans

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. The Company's net obligation in respect of defined benefit plans is calculated by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value. The fair value of plan assets is deducted. The calculation is performed annually by an independent actuary using the projected unit credit method.

The discount rate is the yield at the reporting date on corporate bonds that have maturity dates approximating the terms of the Company's obligations and that are denominated in the same currency in which the benefits are expected to be paid. The Company recognizes all actuarial gains and losses arising from actuarial assumption changes and experiential adjustments in other comprehensive income when incurred.

When the fair value of plan assets exceeds the present value of the defined benefit obligation, the Company recognizes an asset, to the extent of the present value of the total of cumulative any economic benefits available in the form of refunds from the plan or reduction in the future contributions to the plan.

Remeasurements of net defined benefit liabilities, which comprise actuarial gains and losses, the return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest), are recognized immediately in other comprehensive income. The Company determines the net interest expense (income) on the net defined benefit liability (asset) for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the then-net defined benefit liability (asset), taking into account any changes in the net defined benefit liability (asset) during the period as a result of contributions and benefit payments, net interest expense and other expenses related to defined benefit plans are recognized in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss in curtailment is recognized immediately in profit or loss. The Company recognizes gains and losses on the settlement of a defined benefit plan when the settlement occurs.

Provisions

Provisions are recognized when the Company has a present legal or constructive obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

The risks and uncertainties that inevitably surround events and circumstances are taken into account in reaching the best estimate of a provision. Where the effect of the time value of money is material, provisions are determined at the present value of the expected future cash flows.

Where some or all of the expenditures required to settle a provision are expected to be reimbursed by another party, the reimbursement is recognized when, and only when, it is virtually certain that reimbursement will be received if the entity settles the obligation. The reimbursement is treated as a separate asset.

Provisions are reviewed at the end of each reporting period and adjusted to reflect the current best estimates. If it is no longer probable that an outflow of resources embodying economic benefits will be required to settle the obligation, the provision is reversed.

A provision for warranties is recognized when the underlying products or services are sold and estimated based on historical warranty data and weighting of possible outcomes against their associated probabilities.

Regarding provision for construction warranties, warranty period starts from the completion of construction in accordance with construction contracts. If the Company has an obligation for warranties, provision for warranties which are estimated based on historical warranty data are recorded as cost of construction during the construction period.

If the estimated total contract cost of the construction contract exceeds the total contract revenue, the expected excess of contract cost over the contract revenue is recognized as a provision for construction losses for incomplete construction projects.

A provision for restoration regarding contamination of land is recognized in accordance with the Company's announced Environment Policy and legal requirement as needed.

A provision is used only for expenditures for which the provision was originally recognized.

Emission Rights

The Company accounts for greenhouse gasses emission right and the relevant liability as follows pursuant to *the Act on Allocation and Trading of Greenhouse Gas Emission* which became effective in Korea in 2015.

(a) Greenhouse Gasses Emission Right

Greenhouse Gasses Emission Right consists of emission allowances which are allocated from the government free of charge and those purchased from the market. The cost includes any directly attributable costs incurred during the normal course of business.

Emission rights held for the purpose of performing the obligation are classified as intangible asset and initially measured at cost and subsequently carried at cost less accumulated impairment losses.

The Company derecognizes an emission right asset when the emission allowance is unusable, disposed or submitted to government when the future economic benefits are no longer expected to be probable.

(b) Emission liability

Emission liability is a present obligation of submitting emission rights to the government with regard to emission of greenhouse gas. Emission liability is recognized when there is a high possibility of outflows of resources in performing the obligation and the costs required to perform the obligation are reliably estimable. Emission liability is an amount of estimated obligations for emission rights to be submitted to the government for the performing period. The emission liability is measured based on the expected quantity of emission for the performing period in excess of emission allowance in possession and the unit price for such emission rights in the market at the end of the reporting period. The emission liability is derecognized when submitted to the government.

Equity instruments

(a) Share capital

Common stock is classified as equity and the incremental costs directly attributable to the issuance of common stock less their tax effects are deducted from equity.

If the Company reacquires its own equity instruments, the amount of those instruments ("treasury shares") are presented as a contra-equity account. No gain or loss is recognized in profit or loss on the purchase, sale, issuance or cancelation of its own equity instruments. When treasury shares are sold or reissued subsequently, the amount received is recognized as an increase to equity, and the resulting surplus or deficit on the transaction is recorded in capital surplus.

(b) Hybrid Bonds

Debt and equity instruments issued by the Company are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of financial liability and equity. When the Company has an unconditional right to avoid delivering cash or other financial asset to settle a contractual obligation, the instruments are classified as equity instruments.

Revenue from contracts with customers

Revenue is measured based on the consideration promised in the contract with the customer. The Company recognizes revenue when the control over a good or service is transferred to the customer. The following are the revenue recognition policies for performance obligations in the contracts with customers in accordance with IFRS No. 15.

(a) Sale of good

The goods sold by the Company consist mainly of steel products from the steel segment and products such as steel, chemicals, auto parts and machinery in the trade segment.

For domestic sales, the control of the product is usually transferred to the customer when the product is delivered to the customer, at which point-in-time revenue is recognized. Invoices are generally payable within 10 to 90 days. When a customer makes payment prior to the due date, they are offered a discount at certain percentage of the invoice amount.

For export sales, revenue is recognized at the time when control of the product is transferred to the customer based on the "International Incoterms for Interpretation of Trade Terms" prescribed in the respective contracts, which is generally when the products are loaded to the transportation vessels. Invoices are usually issued at the date of bill of lading and payments are settled by the terms of Letter of Credit (L / C), Document against Acceptance (D / A), Document against Payment (D / P), Telegraphic Transfer (T / T) and others.

The Company provides certain discount when the customer prepays according to the payment terms. The Company recognized revenue only to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur when discount period expires.

(b) Transportation service

For the performance obligation for transportation services included in the Company's product sales contracts, revenue is recognized over the period when the services are provided and the revenue is measured by reference to examining the degree to which the service has been completed. The billing date and payment terms for the service charge are the same as the billing date and payment terms for sale of goods.

(c) Construction contracts

In the case of construction contracts where the Company renders construction services for plants, etc., the customer controls the assets as they are being constructed. Under those contracts, the Company performs construction or design services to meet the customer's specifications, and if a contract is terminated by the customer, the Company is entitled to reimbursement of all costs incurred to date, including a reasonable margin. When the contract can be reliably estimated, the company recognizes the contract revenue and contract cost as revenue and costs based on the progress of the contract activity as of the end of the reporting period. The percentage of completion is determined based on the contract costs, excluding the costs that do not contribute to the progress of the construction project, incurred to date as a percentage of total estimated cost required to complete the construction.

If the outcome of the contract cannot be reliably estimated, the revenue is recognized only to the extent of the contract costs that are probable to be recovered. If the total contract cost is likely to exceed the total contract revenue, expected losses are immediately recognized as a cost.

The Company issues an invoice when the customer has completed a progress confirmation and generally the payment is made within 45 days from the invoice date.

(d) Certain construction contracts for condominiums

For certain construction service contracts for condominiums where the criterion of an enforceable right to payment for performance is met under IFRS No.15, even if the legal ownership or physical occupancy of the incomplete construction is not transferred to the customer during the construction period, revenue is recognized based on percentage of completion by considering the terms and conditions described in the relevant law and contracts such as the guarantee for sale policy, government approval on business plan, payment and termination terms. For certain construction contracts for condominiums and shopping centers where the criterion of an enforceable right to payment for performance is not met during the construction period, the Company recognizes revenue upon completion of construction when the control of the condominiums and shopping centers are transferred to customers.

The timing of the billing and the payment terms of the sales contracts are different according to the terms of the contracts.

Finance income and finance costs

The Company's finance income and finance costs include:

- interest income;
- interest expense;
- dividend income;
- foreign currency gain or loss on financial assets and financial liabilities;
- net gain or loss on financial assets measured at fair value through profit or loss;
- hedge ineffectiveness recognized in profit or loss; and
- net gain or loss on disposal of investments in debt securities measured at fair value through other comprehensive income.

Interest income or expense is recognized using the effective interest method. Dividend income is recognized in profit or loss on the date on which the Company's right to receive payment is established. The 'effective interest rate' is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument to:

- the gross carrying amount of the financial asset; or
- the amortized cost of the financial liability.

In calculating interest income and expense, the effective interest rate is applied to the gross carrying amount of the asset (when the asset is not credit-impaired) or to the amortized cost of the liability. However, for financial assets that have become credit-impaired subsequent to initial recognition, interest income is calculated by applying the effective interest rate to the amortized cost of the financial asset. If the asset is no longer credit-impaired, then the calculation of interest income reverts to the gross basis.

Income taxes

Income tax expense comprises current and deferred tax. Current tax and deferred tax are recognized in profit or loss except to the extent that it relates to a business combination, or items recognized directly in equity or in other comprehensive income.

The company recognizes interest and penalties related to corporate income taxes in accordance with IAS No. 12 "Income Taxes". If interest and penalties do not meet the definition on income taxes, the Company applies IAS No. 37 "Provisions, Contingent Liabilities and Contingent Assets".

If there is uncertainty about an income tax treatment such as dispute of a particular tax treatment by a tax authority, the Company considers whether it is probable that the tax authority will accept the Company's tax treatment in determining taxable profit, tax bases, unused tax losses, unused tax credits or tax rates.

If the Company concludes it is probable that the tax authority will accept the Company's tax treatment, the Company determines the taxable profit (tax loss), tax bases, unused tax losses, unused tax credits or tax rates consistently with the tax treatment used or planned to be used in its income tax filing. If not, the Company reflects the effect of uncertainty for each uncertain tax treatment by using either of the most likely amount or the expected value method whichever the entity expects to better predict the resolution of the uncertainty.

(a) Current income tax

Current income tax is the expected income tax payable or receivable on the taxable profit or loss for the year, using tax rates enacted or substantively enacted at the end of the reporting period and any adjustment to tax payable in respect of previous years. The taxable profit is different from the accounting profit for the period since the taxable profit is calculated excluding the temporary differences, which will be taxable or deductible in determining taxable profit of future periods, and non-taxable or non-deductible items from the accounting profit.

The Company offsets current tax assets and current tax liabilities if, and only if, the Company:

- has a legally enforceable right to set off the recognized amounts, and
- intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously.

(b) Deferred income tax

The measurement of deferred income tax liabilities and deferred tax assets reflects the tax consequences that would follow from the manner in which the Company expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities. The Company recognizes deferred income tax liabilities for all taxable temporary differences associated with investments in subsidiaries, associates, and joint ventures, except to the extent that the Company is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. The Company recognizes deferred income tax assets for deductible temporary differences arising from investments in subsidiaries, associates and joint ventures, to the extent that it is probable that the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized. However, deferred tax is not recognized for the following temporary differences: taxable temporary differences arising on the initial recognition of goodwill, or the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting profit or loss nor taxable income.

A deferred income tax asset is recognized for the carryforward of unused tax losses, tax credits and deductible temporary differences to the extent that it is probable that future taxable profit will be available against which the unused tax losses, tax credits and deductible temporary differences can be utilized. The future taxable profit depends on reversing taxable temporary differences. When there are insufficient taxable temporary differences, the probability of future taxable profit (including the reversal of temporary differences) should be considered.

The carrying amount of a deferred income tax asset is reviewed at the end of each reporting period and is reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or all of that deferred income tax asset to be utilized.

Deferred income tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. Deferred income tax assets and liabilities are offset only if there is a legally enforceable right to offset the related current income tax liabilities and assets, and they relate to income taxes levied by the same tax authority and they intend to settle current income tax liabilities and assets on a net basis.

Earnings per share

Management calculates basic earnings per share ("EPS") data for POSCO's ordinary shares, which is presented at the end of the statement of comprehensive income. Basic EPS is calculated by dividing profit attributable to ordinary shareholders of POSCO by the weighted average number of ordinary shares outstanding during the period, adjusted for own shares held.

Operating segments

An operating segment is a component of the Company that engages in business activities from which it may earn revenues and incur expenditures, including revenues and expenses that relate to transactions with any of the Company's other components, whose operating results are regularly reviewed by the Company's chief operating decision maker ("CODM") to make decisions about resources to be allocated to the segment and assess its performance and for which discrete financial information is available. Management has determined that the CODM of the Company is the CEO. Segment results that are reported to the CEO include items directly attributable to a segment and items allocated on a reasonable basis.

With regard to construction segment, segment profit and loss is determined in accordance with IFRS except that revenues and expenses from the development and sale of certain residential real estates are determined by reference to the stage of completion, while in the consolidated financial statements, they are recognized when the title to the real estates is transferred to the buyer.

For the other segments, segment profit and loss is determined in accordance with IFRS without any allocation of corporate expenses.

The accounting policies used in reporting segment information are consistent with the accounting policies used in the preparation of the consolidated financial statements except the assets and liabilities related to certain real estate contract revenue of the construction segment explained above which are determined by reference to the stage of completion of the contract activity at the end of each period. Corporate expenses are not allocated to segments in determining segment profit and loss. In addition, segment assets and liabilities, are not allocated to segments either. The assets and liabilities of each segment presented in Note 40 are based on the separate financial statements of the entities belong to each segment.

In addition, there are a variety of transactions amongst the reportable segments. These transactions include sales and purchase of products, materials and property, plant and equipment, and rendering of construction service and so on.

New standards and interpretations not yet adopted

A number of new standards are effective for annual periods beginning after January 1, 2020 and earlier application is permitted but the Company has not early adopted the new or amended standards in preparing these consolidated financial statements.

(a) IFRS No. 16 "Lease"—COVID-19 Related Rent Concessions

The amendment introduces an optional practical expedient that simplifies how a lessee accounts for rent concessions that are a direct consequence of COVID-19. A lessee that applies the practical expedient is not required to assess whether eligible rent concessions are lease modifications. The Company is required to disclose the amount recognized in profit or loss for the reporting period arising from application of the practical expedient. The amendment is effective for annual periods beginning on or after June 1, 2020. Early application is permitted. The Company does not expect the effect of the amendments to the consolidated financial statements to be significant.

(b) IAS No. 1 "Presentation of Financial Statements"—Classification of Liabilities as Current or Non-current

The amendment clarifies that liabilities are classified as either current or non-current, depending on the substantive rights that exist at the end of the reporting period. Classification is unaffected by the likelihood that an entity will exercise right to defer settlement of the liability or the expectations of management. The amendment is effective for annual periods beginning on or after January 1, 2023. Early application is permitted. The Company does not expect the effect of the amendments to the consolidated financial statements to be significant.

(c) IAS No. 16 "Property, Plant and Equipment"—Proceeds Before Intended Use

The amendments prohibit an entity from deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while the entity is preparing the asset for its intended use. Instead, the entity will recognize the proceeds from selling such items, and the costs of producing those items, in profit or loss. The amendment is effective for annual periods beginning on or after January 1, 2022. Early application is permitted. The Company does not expect the effect of the amendments to the consolidated financial statements to be significant.

(d) IAS No. 37 "Provisions, Contingent Liabilities and Contingent Assets"—Onerous Contracts : Cost of Fulfilling a Contact

The amendments clarify that the direct costs of fulfilling a contract include both the incremental costs of fulfilling the contract and an allocation of other costs directly related to fulfilling contracts when assessing whether the contract is onerous. The amendment is effective for annual periods beginning on or after January 1, 2022. Early application is permitted. The Company does not expect the effect of the amendments to the consolidated financial statements to be significant.

4. Financial risk management

The Company has exposure to the following risks in relation to its financial instruments:

- credit risk

- liquidity risk
- market risk
- capital risk

This note presents information about the Company's exposure to each of the above risks, the Company's objectives, policies and processes for measuring and managing risk, and the Company's management of capital. Further quantitative disclosures are included throughout these consolidated financial statements.

(a) Financial risk management

1) Risk management framework

The Board of Directors has overall responsibility for the establishment and oversight of the Company's risk management framework. The Company's risk management policies are established to identify and analyze the risks faced by the Company, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Company's activities.

The Company, through its training and management standards and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations.

2) Credit risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Company's receivables from customers and debt securities. In addition, credit risk arises from finance guarantees which are provided by the company.

The Company implements a credit risk management policy under which the Company only transacts business with counterparties that have a certain level of credit rate evaluated based on financial condition, historical experience, and other factors. The Company's exposure to credit risk is influenced mainly by the individual characteristics of each customer. The default risk of a nation or an industry in which a customer operates its business does not have a significant influence on credit risk. The Company has established a credit policy under which each new customer is analyzed individually for creditworthiness.

The Company establishes an allowance for impairment that represents its estimate of expected losses in respect of trade and other receivables. The main components of this allowance are a specific loss component that relates to individually significant exposures, and a collective loss component based on group of financial assets with similar risk characteristics.

Credit risk also arises from transactions with financial institutions, and such transactions include transactions of cash and cash equivalents, various deposits, and financial instruments including derivative contracts. The Company manages its exposure to this credit risk by only entering into transactions with banks that have high international credit ratings. The Company's treasury department authorizes, manages, and overseas new transactions with financial institutions with whom the Company has no previous relationship.

Furthermore, the Company limits its exposure to credit risk of financial guarantee contracts by strictly evaluating their necessity based on internal decision making processes, such as the approval of the board of directors.

3) Liquidity risk

Liquidity risk is the risk that the Company will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or other financial asset. The Company's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Company's reputation.

The Company's cash flow from operations, borrowing or financing is sufficient to meet the cash requirements for the Company's strategic investments. Management believes that the Company is capable of raising funds by borrowing or financing if the Company is not able to generate cash flow requirements from its operations. The Company has committed borrowing facilities with various banks.

4) Market risk

Market risk means that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. The goal of market risk management is optimization of profit and controlling the exposure to market risk within acceptable limits.

① Currency risk

The Company's policy in respect of foreign currency risks is a natural hedge whereby foreign currency income is offset with foreign currency expenditures. The remaining net exposures after the natural hedge have been hedged using derivative contracts such as forward exchange contracts. In addition, the Company's derivative transactions are limited to hedging actual foreign currency transactions. Based on this policy, the Company manages currency risk considering characteristics of respective segments. The entities in the steel segment reduce the foreign currency exposure by repayment of foreign currency borrowings at maturities related to investment in overseas when the entities have excessive foreign currency. In addition, the entities in steel segment are using forward exchange contract for hedging foreign currency risks relating to foreign currency borrowings. The entities in the engineering and construction segment have hedged foreign currency risks by using forward exchange contracts. Entities in the trading segment have hedged foreign currency risks from net exposure of foreign currency receivables and payables using forward exchange contracts.

② Interest rate risk

The Company manages the exposure to interest rate risk by adjusting borrowing structure between borrowings at fixed interest rates and variable interest rates. The Company monitors interest rate risks regularly in order to manage exposure to interest rate risk on borrowings at variable interest rate.

③ Other market price risk

Equity price risk arises from fluctuation of market price of listed equity securities. The Company's management measures regularly the fair value of listed equity securities and the risk of market price fluctuations. All buy and sell decisions related to significant investments are managed and approved by the Company's management.

(b) Management of capital

The fundamental goal of capital management is the maximization of shareholders' value by means of the stable dividend policy and retirement of treasury shares. The capital structure of the Company consists of equity and net borrowings (borrowings less cash and cash equivalents). The Company's strategy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of its businesses.

Net borrowing-to-equity ratio as of December 31, 2019 and 2020 is as follows:

(in millions of Won)	2019	2020
Total borrowings	₩ 20,441,613	20,497,607
Less: Cash and cash equivalents	3,514,872	4,754,644
Net borrowings	16,926,741	15,742,963
Total equity	47,794,707	47,674,592
Net borrowings-to-equity ratio	35.42%	33.02%

5. Cash and Cash Equivalents

Cash and cash equivalents as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Cash	₩ 2,081	3,100
Demand deposits and checking accounts	1,581,428	2,344,259
Time deposits	701,865	1,108,111
Other cash equivalents	1,229,498	1,299,174
	₩3,514,872	4,754,644

In connection with the jointly held accounts of joint operations and others, as of December 31, 2020, cash and cash equivalents amounting to ₩40,319 million of subsidiaries of the Company, such as POSCO ENGINEERING & CONSTRUCTION CO., LTD., are restricted in use.

6. Trade Accounts and Notes Receivable

(a) Trade accounts and notes receivable as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Current		
Trade accounts and notes receivable	₩8,352,968	7,468,622
Finance lease receivables	221	41,841
Unbilled due from customers for contract work	1,128,116	941,793
Less: Allowance for doubtful accounts	(411,274)	(342,017)
	₩9,070,031	8,110,239
Non-current		
Trade accounts and notes receivable	₩ 209,310	131,010
Finance lease receivables	43,725	46
Less: Allowance for doubtful accounts	(54,250)	(44,633)
	₩ 198,785	86,423

The company sold trade accounts and notes receivable with recourse to financial institutions. These trade accounts and notes receivable have not been derecognized from the statement of financial position, because the Company retains substantially all of the risks and rewards associated with the transferred assets. The amounts received on transfer have been recognized as secured borrowings. As of December 31, 2019 and December 31, 2020, the carrying amounts of such secured borrowings are ₩244,305 million and ₩328,807 million, respectively, which are presented in the statements of financial position as the short-term borrowings.

(b) Finance lease receivables are as follows:

(in millions of Won)

Customer	Contents	2019	2020
Officers and employees	Songdo apartment rental	₩43,445	41,624
ZHAOHUUI PROSPERITY INT'L LTD	Office Rental	501	263
		₩43,946	41,887

(c) As of December 31, 2019 and 2020, the Company's total and net lease investments in the leases are as follows:

(in millions of Won)	2019	2020
Less than 1 year	₩ 237	41,847
1 year - 3 years	46,161	47
Undiscounted lease payments	46,398	41,894
Unrealized interest income	(2,452)	(7)
Present value of minimum lease payment	₩43,946	41,887

7. Other Receivables

(a) The details of other receivables as of December 31, 2019 and 2020, are as follows:

(in millions of Won)	2019	2020
Current		
Loans	₩ 367,580	258,735
Other accounts receivable	971,845	835,791
Accrued income	272,528	298,157
Deposits	86,519	82,884
Lease receivables	48,744	18,015
Others	14,510	68,198
Less: Allowance for doubtful accounts	(180,209)	(67,541)
	₩1,581,517	1,494,239
Non-current		
Loans	₩ 701,529	798,287
Other accounts receivable	209,039	197,304
Accrued income	65,275	86,920
Deposits	238,261	284,588
Lease receivables	179,315	128,366
Less: Allowance for doubtful accounts	(252,540)	(299,503)
	₩1,140,879	1,195,962

(b) The details of lease receivables are as follows:

(in millions of Won)

Customer	Leased items	2019	2020
HEUNG-A SHIPPING CO., LTD., MSC, HEUNG-A LINE CO., LTD.	6 Container Ships, 4 Tankers	₩212,933	166,077
KOGAS, ONGC Videsh Limited, GAIL(India) Limited, Myanma Oil and Gas Enterprise	Helicopter, Ship, Office, Jetty	15,126	30,487
		₩228,059	196,564

(c) As of December 31, 2020, total and net lease investments in the leases are as follows:

(in millions of Won)	2019	2020
Less than 1 year	₩ 56,796	70,378
1 year - 3 years	107,955	101,049
3 years - 5 years	70,742	28,922
Over 5 years	16,089	9,969
Undiscounted lease payments	251,582	210,318
Unrealized interest income	(23,523)	(13,754)
Present value of minimum lease payment	₩228,059	196,564

8. Other Financial Assets

Other financial assets as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Current		
Derivatives assets	₩ 47,541	99,324
Debt securities	342,371	154,154
Deposit instruments(*1,2)	1,744,895	2,322,327
Short-term financial instruments(*2)	6,861,242	9,133,404
	₩8,996,049	11,709,209
Non-current		
Derivatives assets	₩ 64,737	18,551
Equity securities(*3)	1,204,902	1,120,968
Debt securities	25,555	20,260
Other securities(*3)	340,008	364,404
Deposit instruments(*2)	34,187	37,624
	₩1,669,389	1,561,807

(*1) As of December 31, 2019 and 2020, ₩4,524 million and ₩4,881 million, respectively, are restricted in use for a government project.

(*2) As of December 31, 2019 and 2020, financial instruments amounting to ₩73,525 million and ₩46,855 million, respectively, are restricted in use for financial arrangements, pledge and others.

(*3) As of December 31, 2019 and 2020, ₩109,395 million and ₩113,674 million of equity and other securities, respectively, have been provided as collateral for borrowings, construction projects and others.

9. Inventories

(a) Inventories as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Finished goods	₩ 1,655,228	1,285,552
Merchandise	1,058,874	751,245
Semi-finished goods	2,097,289	1,626,855
Raw materials	2,656,341	1,980,518
Fuel and materials	1,026,133	876,593
Construction inventories	1,045,088	1,521,206
Materials-in-transit	1,824,044	1,664,770
Others	83,905	61,086
	11,446,902	9,767,825
Less: Allowance for inventories valuation	(216,143)	(131,642)
	₩11,230,759	9,636,183

(b) The changes in allowance for inventories valuation for the years ended December 31, 2018, 2019 and 2020 were as follows:

(in millions of Won)	2018	2019	2020
Beginning	₩135,631	206,782	216,143
Loss on valuation of inventories	141,799	96,201	54,014
Realization on sale of inventories	(69,426)	(79,419)	(132,707)
Others	(1,222)	(7,421)	(5,808)
Ending	₩206,782	216,143	131,642

10. Assets Held for Sale

Details of assets held for sale as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020		
	Subsidiaries	Controlling company(*1)	Subsidiaries	Total
Assets				
Cash and cash equivalents(*2)	₩ 374	—	934	934
Other financial assets	185	—	273	273
Property, plant and equipment	32,972	32,244	40	32,284
Others	4,306	—	719	719
	₩ 37,837	32,244	1,966	34,210
Liabilities				
Others	₩ 8	—	25	25

(*1) During the year ended December 31, 2019, the Company decided to dispose individual assets for which use was discontinued, such as CEM plants, and classified the assets as held for sale. During the year ended December 31, 2020 the Company recognized ₩5,030 million of impairment loss for the difference between the fair value less costs to sell and the carrying amount of the assets.

(*2) Cash and cash equivalents in the statement of cash flows include cash and cash equivalents that are classified as assets held for sale as of December 31, 2019 and 2020.

11. Investments in Associates and Joint ventures

(a) Investments in associates and joint ventures as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Investments in associates	₩1,864,509	1,732,833
Investments in joint ventures	2,063,246	2,143,416
	₩3,927,755	3,876,249

(b) Details of investments in associates as of December 31, 2019 and 2020 are as follows:

(in millions of Won) Company	Number of shares	Ownership (%)	Acquisition cost	Book value 2019	Book value 2020
[Domestic]					
EQP POSCO Global NO1 Natural Resources Private Equity Fund	178,691,901,565	36.34	₩178,787	₩ 175,907	175,939
Samcheok Blue Power Co.,Ltd. (Formerly, POSPower Co., Ltd)(*1)	4,507,138	34.00	179,410	161,280	145,092
SNNC	18,130,000	49.00	90,650	142,602	160,332
QSONE Co.,Ltd.	200,000	50.00	84,395	85,887	86,004
Chun-cheon Energy Co., Ltd(*1)	17,308,143	49.10	86,541	56,679	23,913
Western Inland highway CO.,LTD.	9,533,364	29.82	47,667	5,115	45,070
Nextrain Co., Ltd.(*1)	9,904,000	21.26	49,520	41,447	47,364
Keystone NO. 1. Private Equity Fund	22,523,123	52.58	22,523	19,438	—
CHUNGJU ENTERPRISE CITY DEVELOPMENT Co.,Ltd	2,008,000	29.53	10,040	17,824	17,137
Daesung Steel	108,038	17.54	14,000	15,375	16,990
PCC Amberstone Private Equity Fund 1	8,657,610,240	8.80	8,540	9,570	9,230
Others (58 companies)(*1)				114,490	117,193
				845,614	844,264
[Foreign]					
South-East Asia Gas Pipeline Company Ltd.	135,219,000	25.04	132,907	225,933	199,342
AES-VCM Mong Duong Power Company Limited(*1)	—	30.00	164,303	178,892	158,777
9404-5515 Quebec Inc. (Formerly, 7623704 Canada Inc.)	114,452,000	10.40	124,341	131,529	123,296
Eureka Moly LLC	—	20.00	240,123	85,349	43,520
AMCI (WA) PTY LTD	49	49.00	209,664	72,937	71,732
NCR LLC	—	29.40	53,940	46,391	46,608
KOREA LNG LTD.	2,400	20.00	135,205	46,557	42,229
Nickel Mining Company SAS	3,234,698	49.00	157,585	37,940	40,890
ZHEJIANG HUAYOU-POSCO ESM CO., LTD	134,400,000	40.00	22,423	22,356	22,147
Zhongyue POSCO (Qinhuangdao) Tinplate Industrial Co., Ltd	10,200,000	34.00	9,517	15,128	15,181
PT. Wampu Electric Power(*1)	8,708,400	20.00	10,054	13,363	12,716
PT. Batutua Tembaga Raya	128,285	22.00	21,824	14,717	15
POSCO SeAH Steel Wire(Nantong) Co., Ltd.	50	25.00	4,723	6,755	7,110
Others (26 companies)(*1)				121,048	105,006
				1,018,895	888,569
				₩1,864,509	1,732,833

(*1) As of December 31, 2019 and 2020, investments in associates amounting to ₩437,646 million and ₩410,573 million, respectively, are provided as collateral in relation to the associates' borrowings.

(c) Details of investments in joint ventures as of December 31, 2019 and 2020 are as follows:

(in millions of Won) Company	Number of shares	Ownership (%)	Acquisition cost	Book value 2019	Book value 2020
[Domestic]					
POSCO MITSUBISHI CARBON TECHNOLOGY	11,568,000	60.00	₩ 115,680	₩ 182,648	153,457
Others (7 companies)				10,305	14,014
				192,953	167,471
[Foreign]					
Roy Hill Holdings Pty Ltd(*1)	13,117,972	12.50	1,528,672	1,235,682	1,418,056
POSCO-NPS Niobium LLC	325,050,000	50.00	364,609	376,410	353,725
KOBRASCO	2,010,719,185	50.00	32,950	115,641	54,400
BX STEEL POSCO Cold Rolled Sheet Co., Ltd.	—	25.00	61,961	88,935	91,270
DMSA/AMSA(*1,2)	—	4.27	406,556	12,189	31,104
CSP - Compania Siderurgica do Pecem	1,483,752,032	20.00	656,884	—	—
Others (10 companies)				41,436	27,390
				1,870,293	1,975,945
				₩2,063,246	2,143,416

(*1) As of December 31, 2019 and 2020, the investments in joint ventures are provided as collateral in relation to the joint ventures' borrowings.

(*2) All of the shareholders of the joint venture entered into financial support agreement with lenders on behalf of the joint venture to extend the maturity of the loans granted to the joint venture by the lenders. However, the Company believes the shareholders' financial support agreement is invalid and is currently in arbitration process for annulment. The Company's obligation to provide financial support is currently on hold and may change depending on the result of the arbitration.

(d) The changes of investments in associates and joint ventures for the years ended December 31, 2019 and 2020 were as follows:

1) For the year ended December 31, 2019

(in millions of Won)

Company	December 31, 2018 Book value	Acquisition	Dividends	Share of profits (losses)	Other increase (decrease)(*1)	December 31, 2019 Book value
[Domestic]						
EQP POSCO Global NO1 Natural Resources Private Equity Fund	₩ 174,123	—	—	(976)	2,760	175,907
Samcheok Blue Power Co.,Ltd. (Formerly, POSPower Co., Ltd)	161,477	—	—	(4,744)	4,547	161,280
SNNC	116,922	—	(1,450)	27,655	(525)	142,602
QSONE Co.,Ltd.	85,550	—	(950)	1,287	—	85,887
Chun-cheon Energy Co., Ltd	62,478	6,050	—	(11,849)	—	56,679
Western Inland highway CO.,LTD.	1,494	3,752	—	(167)	36	5,115
Nextrain Co., Ltd.	10	41,600	—	(163)	—	41,447
Keystone NO. 1. Private Equity Fund	11,183	8,723	—	(342)	(126)	19,438
CHUNGJU ENTERPRISE CITY DEVELOPMENT Co.,Ltd	17,382	—	—	442	—	17,824
Daesung Steel	15,644	—	—	(269)	—	15,375
PCC Amberstone Private Equity Fund 1	9,693	—	(723)	1,079	(479)	9,570
POSCO MITSUBISHI CARBON TECHNOLOGY	180,192	—	(16,369)	19,377	(552)	182,648
Others (62 companies)	143,578	27,221	(669)	(24,448)	(20,887)	124,795
	979,726	87,346	(20,161)	6,882	(15,226)	1,038,567
[Foreign]						
South-East Asia Gas Pipeline Company Ltd.	179,459	—	(24,267)	63,749	6,992	225,933
AES-VCM Mong Duong Power Company Limited	209,936	—	(18,099)	24,126	(37,071)	178,892
9404-5515 Quebec Inc. (Formerly, 7623704 Canada Inc.)	126,885	—	(9,902)	9,912	4,634	131,529
Eureka Moly LLC	82,447	—	—	(25)	2,927	85,349
AMCI (WA) PTY LTD	71,086	—	—	(4,377)	6,228	72,937
NCR LLC	37,602	9,605	—	(822)	6	46,391
KOREA LNG LTD.	43,554	—	(13,404)	13,501	2,906	46,557
Nickel Mining Company SAS	41,712	—	—	(4,250)	478	37,940
ZHEJIANG HUAYOU-POSCO ESM CO., LTD	—	22,423	—	61	(128)	22,356
Zhongyue POSCO (Qinhuangdao) Tinplate Industrial Co., Ltd	14,796	—	—	10	322	15,128
PT. Wampu Electric Power	14,120	—	—	(1,247)	490	13,363
PT. Batutua Tembaga Raya	20,479	—	—	(6,209)	447	14,717
POSCO SeAH Steel Wire(Nantong) Co., Ltd.	6,478	—	—	80	197	6,755
Roy Hill Holdings Pty Ltd	1,041,600	—	—	158,562	35,520	1,235,682
POSCO-NPS Niobium LLC	363,506	—	(24,933)	24,543	13,294	376,410
KOBRASCO	133,449	—	(74,716)	56,474	434	115,641
BX STEEL POSCO Cold Rolled Sheet Co., Ltd.	88,391	—	(1,574)	665	1,453	88,935
DMSA/AMSA	26,709	23,682	—	(40,415)	2,213	12,189
CSP - Compania Siderurgica do Pecem	24,832	35,352	—	(57,647)	(2,537)	—
Others (38 companies)	143,236	552	(19,430)	30,168	7,958	162,484
	2,670,277	91,614	(186,325)	266,859	46,763	2,889,188
	₩3,650,003	178,960	(206,486)	273,741	31,537	3,927,755

(*1) Other increase or decrease represents the changes in investments in associates and joint ventures due to disposals, change in capital due from translations of financial statements of foreign investees and others.

2) For the year ended December 31, 2020

(in millions of Won)

Company	December 31, 2019 Book value	Acquisition	Dividends	Share of profits (losses)	Other increase (decrease)(*1)	December 31, 2020 Book value
[Domestic]						
EQP POSCO Global NO1 Natural Resources Private Equity Fund	₩ 175,907	—	—	34	(2)	175,939
Samcheok Blue Power Co.,Ltd. (Formerly, POSPower Co., Ltd)	161,280	—	—	(5,262)	(10,926)	145,092
SNNC	142,602	—	(2,901)	18,701	1,930	160,332
QSONE Co.,Ltd.	85,887	—	(1,140)	1,257	—	86,004
Chun-cheon Energy Co., Ltd	56,679	—	—	(33,173)	407	23,913
Western Inland highway CO.,LTD.	5,115	42,246	—	(2,294)	3	45,070
Nextrain Co., Ltd.	41,447	7,910	—	(2,786)	793	47,364
Keystone NO. 1. Private Equity Fund	19,438	—	—	(19,438)	—	—
CHUNGJU ENTERPRISE CITY DEVELOPMENT Co.,Ltd	17,824	—	—	(687)	—	17,137
Daesung Steel	15,375	—	—	(514)	2,129	16,990
PCC Amberstone Private Equity Fund 1	9,570	—	(715)	589	(214)	9,230
POSCO MITSUBISHI CARBON TECHNOLOGY	182,648	—	(19,401)	(9,794)	4	153,457
Others (65 companies)	124,795	27,718	(1,328)	(8,885)	(11,093)	131,207
	1,038,567	77,874	(25,485)	(62,252)	(16,969)	1,011,735
[Foreign]						
South-East Asia Gas Pipeline Company Ltd.	225,933	—	(56,760)	45,941	(15,772)	199,342
AES-VCM Mong Duong Power Company Limited	178,892	—	(16,053)	37,092	(41,154)	158,777
9404-5515 Quebec Inc. (Formerly, 7623704 Canada Inc.)	131,529	—	(11,672)	10,963	(7,524)	123,296
Eureka Moly LLC	85,349	—	—	(39,801)	(2,028)	43,520
AMCI (WA) PTY LTD	72,937	—	—	(6,561)	5,356	71,732
NCR LLC	46,391	4,196	—	(1,452)	(2,527)	46,608
KOREA LNG LTD.	46,557	—	(7,755)	7,681	(4,254)	42,229
Nickel Mining Company SAS	37,940	—	—	1,473	1,477	40,890
ZHEJIANG HUAYOU-POSCO ESM CO., LTD	22,356	—	—	(384)	175	22,147
Zhongyue POSCO (Qinhuangdao) Tinplate Industrial Co., Ltd	15,128	—	—	(80)	133	15,181
PT. Wampu Electric Power	13,363	—	(559)	1,411	(1,499)	12,716
PT. Batutua Tembaga Raya	14,717	—	—	(14,883)	181	15
POSCO SeAH Steel Wire(Nantong) Co., Ltd.	6,755	—	—	279	76	7,110
Roy Hill Holdings Pty Ltd	1,235,682	—	(113,985)	234,693	61,666	1,418,056
POSCO-NPS Niobium LLC	376,410	—	(11,244)	11,449	(22,890)	353,725
KOBRASCO	115,641	—	(37,922)	8,443	(31,762)	54,400
BX STEEL POSCO Cold Rolled Sheet Co., Ltd.	88,935	—	—	1,790	545	91,270
DMSA/AMSA	12,189	60,278	—	(33,305)	(8,058)	31,104
CSP - Compania Siderurgica do Pecem	—	62,711	—	(60,708)	(2,003)	—
Others (36 companies)	162,484	—	(12,114)	(8,492)	(9,482)	132,396
	2,889,188	127,185	(268,064)	195,549	(79,344)	2,864,514
	₩3,927,755	205,059	(293,549)	133,297	(96,313)	3,876,249

(*1) Other increase or decrease represents the changes in investments in associates and joint ventures due to disposals, change in capital due from translations of financial statements of foreign investees and others.

(e) Summarized financial information of associates and joint ventures as of and for the years ended December 31, 2019 and 2020 are as follows:

1) December 31, 2019

(in millions of Won)

Company	Assets	Liabilities	Equity (deficit)	Sales	Net income (loss)
[Domestic]					
EQP POSCO Global NO1 Natural Resources Private Equity Fund	₩ 516,659	786	515,873	—	7,479
Samcheok Blue Power Co.,Ltd. (Formerly, POSPower Co., Ltd)	707,051	199,846	507,205	—	(5,294)
SNNC	677,508	357,843	319,665	738,977	63,269
QSONE Co.,Ltd.	250,364	78,589	171,775	17,591	2,576
Chun-cheon Energy Co., Ltd	610,089	492,620	117,469	313,438	(24,677)
Western Inland highway CO.,LTD.	21,980	5,165	16,815	—	(528)
Nextrain Co., Ltd.	136,203	7,322	128,881	—	(509)
Keystone NO. 1. Private Equity Fund	187,156	138,219	48,937	18,342	(887)
CHUNGJU ENTERPRISE CITY DEVELOPMENT Co.,Ltd	53,019	22,971	30,048	17,824	1,497
Daesung Steel	164,708	108,441	56,267	85,537	(1,536)
PCC Amberstone Private Equity Fund 1	108,797	5	108,792	14,787	12,280
POSCO MITSUBISHI CARBON TECHNOLOGY	474,387	170,678	303,709	216,648	32,334
[Foreign]					
South-East Asia Gas Pipeline Company Ltd.	1,808,529	906,254	902,275	555,075	254,582
9404-5515 Quebec Inc. (Formerly, 7623704 Canada Inc.)	1,276,857	1	1,276,856	—	95,306
KOREA LNG LTD.	232,935	147	232,788	69,577	67,507
Nickel Mining Company SAS	471,377	331,194	140,183	245,509	2,432
ZHEJIANG HUAYOU-POSCO ESM CO., LTD	73,604	17,765	55,839	641	153
Zhongyue POSCO (Qinhuangdao) Tinplate Industrial Co., Ltd	65,413	15,232	50,181	101,101	28
PT. Wampu Electric Power	222,266	158,451	63,815	18,163	(6,233)
PT. Batutua Tembaga Raya	423,608	392,226	31,382	112,568	(28,360)
POSCO SeAH Steel Wire(Nantong) Co., Ltd.	61,847	33,989	27,858	77,371	327
Roy Hill Holdings Pty Ltd	11,143,705	5,718,152	5,425,553	5,037,471	1,660,577
POSCO-NPS Niobium LLC	752,617	—	752,617	—	47,521
KOBRASCO	268,139	36,857	231,282	167,022	112,949
BX STEEL POSCO Cold Rolled Sheet Co., Ltd.	969,280	637,478	331,802	1,145,794	1,704
DMSA/AMSA	5,703,501	4,202,704	1,500,797	638,797	(504,077)
CSP - Compania Siderurgica do Pecem	3,959,365	4,249,083	(289,718)	1,623,843	(465,853)

2) December 31, 2020

(in millions of Won)

Company	Assets	Liabilities	Equity (deficit)	Sales	Net income (loss)
[Domestic]					
EQP POSCO Global NO1 Natural Resources Private Equity Fund	₩ 473,415	575	472,840	—	8,534
Samcheok Blue Power Co.,Ltd. (Formerly, POSPower Co., Ltd)	1,169,343	700,266	469,077	—	(5,994)
SNNC	592,568	238,971	353,597	698,712	39,826
QSONE Co.,Ltd.	251,190	79,182	172,008	17,075	2,513
Chun-cheon Energy Co., Ltd	609,815	516,963	92,852	222,066	(24,617)
Western Inland highway CO.,LTD.	158,679	2,534	156,145	—	(1,714)
Nextrain Co., Ltd.	303,359	74,738	228,621	—	(2,636)
Keystone NO. 1. Private Equity Fund	178,848	132,123	46,725	16,586	(1,971)
CHUNGJU ENTERPRISE CITY DEVELOPMENT Co.,Ltd	54,832	27,111	27,721	6,672	(2,326)
Daesung Steel	172,088	106,611	65,477	85,158	(2,930)
PCC Amberstone Private Equity Fund 1	104,933	5	104,928	12,280	6,694
POSCO MITSUBISHI CARBON TECHNOLOGY	446,067	190,289	255,778	112,173	(15,603)
[Foreign]					
South-East Asia Gas Pipeline Company Ltd.	1,515,828	719,745	796,083	458,806	183,465
AES-VCM Mong Duong Power Company Limited	1,599,095	1,086,440	512,655	336,174	121,644
9404-5515 Quebec Inc. (Formerly, 7623704 Canada Inc.)	1,197,702	3	1,197,699	—	105,411
KOREA LNG LTD.	211,497	353	211,144	40,086	38,370
Nickel Mining Company SAS	445,140	308,885	136,255	223,427	(8,353)
ZHEJIANG HUAYOU-POSCO ESM CO., LTD	72,001	16,812	55,189	3,236	(1,086)
Zhongyue POSCO (Qinhuangdao) Tinplate Industrial Co., Ltd	71,805	21,486	50,319	104,537	(237)
PT. Wampu Electric Power	199,841	139,264	60,577	20,272	7,057
PT. Batutua Tembaga Raya	389,973	387,870	2,103	36,587	(29,714)
POSCO SeAH Steel Wire(Nantong) Co., Ltd.	68,036	38,843	29,193	78,954	1,156
Roy Hill Holdings Pty Ltd	9,271,788	2,161,353	7,110,435	5,993,950	2,299,529
POSCO-NPS Niobium LLC	707,247	—	707,247	—	25,406
KOBRASCO	118,676	9,875	108,801	32,854	16,887
BX STEEL POSCO Cold Rolled Sheet Co., Ltd.	873,174	534,961	338,213	1,252,189	7,856
DMSA/AMSA	4,924,371	2,294,881	2,629,490	204,820	(772,396)
CSP - Compania Siderurgica do Pecem	2,800,437	3,650,509	(850,072)	1,403,457	(1,009,296)

(f) Changes in accumulated losses of equity-accounted investees that were not recognized since the Company discontinues the use of the equity method for the year ended December 31, 2020 were as follows:

(in millions of Won)

Company	Beginning balance	Increase (decrease)	Ending balance
New Songdo International City Development, LLC	₩279,435	(20,094)	259,341
Mokpo Deayang industrial Corporation	—	84	84
UITrans LRT Co., Ltd.	14,429	17,905	32,334
Clean Iksan Co., Ltd.	784	(70)	714
HYOCHUN Co.,Ltd.	2,727	778	3,505
Shinhan wind power generation	—	843	843
CSP - Compania Siderurgica do Pecem	27,478	141,259	168,737
KIRIN VIETNAM CO.,Ltd.	96	(29)	67
INKOTECH, INC.	—	341	341
POSTO-Poggenamp Electrical Steel Pvt, Ltd.	—	96	96

12. Joint Operations

Details of significant joint operations that the Company is participating in as a party to a joint arrangement as of December 31, 2020 are as follows:

Joint operations	Operation	Ownership (%)	Location
Myanmar A-1/A-3 mine	Mine development and gas production	51.00	Myanmar
Offshore Midstream	Gas transportation facility	51.00	Myanmar
Greenhills Mine	Mine development	20.00	Canada
Arctos Anthracite Coal Project	Mine development	50.00	Canada
Mt. Thorley J/V	Mine development	20.00	Australia
POSMAC J/V	Mine development	20.00	Australia
RUM J/V	Mine development	10.00	Australia
Hanam-Gamil package public housing project	Construction	7.70	Korea
Hanam-Gamil district B6, C2, C3 Block public housing lot development project	Construction	27.00	Korea
Yangsan-Sasong district public housing project(private-participation)	Construction	13.08	Korea
Yangsan-Sasong district public housing project	Construction	49.00	Korea
Sejong 2-1 P3 Block public housing project	Construction	37.00	Korea
Yongin-Giheung Station area city development project	Construction	61.00	Korea
Korean wave world complex land multi-purpose building development project	Construction	33.30	Korea
Sejong 4-1 P3 Block public housing project	Construction	60.00	Korea

13. Investment Property, Net

(a) Investment property as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019			2020		
	Acquisition cost	Accumulated depreciation and impairment loss	Book value	Acquisition cost	Accumulated depreciation and impairment loss	Book value
Land	₩ 295,183	(16,718)	278,465	296,115	(16,718)	279,397
Buildings	778,816	(180,657)	598,159	746,698	(187,114)	559,584
Structures	3,455	(2,277)	1,178	4,268	(3,069)	1,199
Right of use assets	434	(9)	425	175,026	(20,425)	154,601
	₩1,077,888	(199,661)	878,227	1,222,107	(227,326)	994,781

As of December 31, 2020, the fair value of investment property is ₩2,136,187 million.

(b) Changes in the carrying amount of investment property for the years ended December 31, 2019 and 2020 were as follows:

1) For the year ended December 31, 2019

(in millions of Won)	Beginning	Acquisitions	Disposals	Depreciation(*1)	Others(*2)	Ending
Land	₩278,585	—	(5,921)	—	5,801	278,465
Buildings	571,335	1,548	(5,343)	(52,416)	83,035	598,159
Structures	1,408	—	(50)	(625)	445	1,178
Right of use assets	—	—	—	—	425	425
Construction-in-progress	77,287	18,644	—	—	(95,931)	—
	₩928,615	20,192	(11,314)	(53,041)	(6,225)	878,227

(*1) Includes impairment loss on investment property recognized by POSCO(Dalian) IT Center Development Co., Ltd., a subsidiary, in relation to its office lease amounting to ₩32,642 million.
(*2) Includes reclassification resulting from changing purpose of use, adjustment of foreign currency translation difference and others.

2) For the year ended December 31, 2020

(in millions of Won)	Beginning	Acquisitions	Disposals	Depreciation(*1)	Others(*2)	Ending
Land	₩278,465	2,814	(183)	—	(1,699)	279,397
Buildings	598,159	385	—	(9,681)	(29,279)	559,584
Structures	1,178	—	—	(610)	631	1,199
Right of use assets	425	—	(56)	(3,206)	157,438	154,601
	₩878,227	3,199	(239)	(13,497)	127,091	994,781

(*1) Includes reversal of impairment loss on investment property recognized by POSCO(Dalian) IT Center Development Co., Ltd., a subsidiary, in relation to its office lease amounting to ₩14,953 million.

(*2) Includes reclassification resulting from changing purpose of use, adjustment of foreign currency translation difference and others.

14. Property, Plant and Equipment, Net

(a) Property, plant and equipment as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019				2020			
	Acquisition cost	Accumulated depreciation and impairment loss	Government grants	Book value	Acquisition cost	Accumulated depreciation and impairment loss	Government grants	Book value
Land	₩ 2,527,972	(1,913)	—	2,526,059	2,592,705	(2,618)	—	2,590,087
Buildings	9,227,064	(5,010,770)	(840)	4,215,454	9,417,295	(5,250,281)	(5,614)	4,161,400
Structures	6,066,000	(3,161,453)	(41)	2,904,506	6,363,370	(3,338,075)	(69)	3,025,226
Machinery and equipment	47,548,589	(30,326,324)	(4,001)	17,218,264	48,435,445	(31,570,233)	(7,905)	16,857,307
Vehicles	305,275	(272,977)	(13)	32,285	310,078	(272,705)	(217)	37,156
Tools	418,829	(348,032)	(46)	70,751	423,927	(363,360)	(266)	60,301
Furniture and fixtures	658,467	(528,066)	(269)	130,132	670,079	(542,217)	(403)	127,459
Lease assets	970,891	(196,309)	—	774,582	1,093,817	(320,117)	—	773,700
Bearer plants	138,818	(14,625)	—	124,193	171,160	(21,195)	—	149,965
Construction-in-progress	2,800,412	(856,548)	(14,117)	1,929,747	2,474,766	(850,839)	(6,387)	1,617,540
	₩70,662,317	(40,717,017)	(19,327)	29,925,973	71,952,642	(42,531,640)	(20,861)	29,400,141

(b) Changes in the carrying amount of property, plant and equipment for the years ended December 31, 2019 and 2020 were as follows:

1) For the year ended December 31, 2019

(in millions of Won)	Beginning	Acquisitions	Business Combination	Disposals	Depreciation	Impairment loss(*1,2)	Others(*3)	Ending
Land	₩ 2,548,002	6,550	—	(2,128)	—	—	(26,365)	2,526,059
Buildings	4,402,452	39,551	22,836	(10,376)	(314,107)	(90,036)	165,134	4,215,454
Structures	2,917,924	49,931	2	(3,350)	(228,616)	(27,217)	195,832	2,904,506
Machinery and equipment	18,518,129	175,743	1,216	(78,236)	(2,250,022)	(309,604)	1,161,038	17,218,264
Vehicles	31,341	8,027	189	(742)	(15,057)	(559)	9,086	32,285
Tools	66,164	19,178	5,792	(1,340)	(28,537)	(2,106)	11,600	70,751
Furniture and fixtures	136,287	34,618	252	(1,630)	(36,309)	(1,808)	(1,278)	130,132
Lease assets(*4)	137,564	72,640	490	(8,401)	(130,905)	—	703,194	774,582
Bearer plants	80,771	—	—	—	(5,916)	—	49,338	124,193
Construction-in-progress	1,179,639	2,261,663	17,697	(24,840)	—	(10,150)	(1,494,262)	1,929,747
	₩30,018,273	2,667,901	48,474	(131,043)	(3,009,469)	(441,480)	773,317	29,925,973

(*1) During the year ended December 31, 2019, the Controlling Company estimated recoverable amount of individual assets in CEM and Fe-Si factories that ceased operations due to the disposal plan and others. The Company measured recoverable amounts based on appraisal value or scrap value. The Company recognized impairment losses of ₩205,396 million since recoverable amounts are less than their carrying amounts.

(*2) As of December 31, 2019, POSCO YAMATO VINA STEEL JOINT STOCK COMPANY (formerly, POSCO SS VINA JOINT STOCK COMPANY), a subsidiary, performed impairment test due to the continued operating losses and recognized impairment losses amounting to ₩204,546 million, since recoverable amount based on value-in-use is less than its carrying amount.

(*3) Represents assets transferred from construction-in-progress to intangible assets and other property, plant and equipment, reclassifications with investment property resulting from changing purpose of use, adjustments of foreign currency translation differences and others.

(*4) On the date of initial application of IFRS No. 16 “Leases” (January 1, 2019), recognition of ₩704,458 million of right-of-use assets is included in others.

2) For the year ended December 31, 2020

(in millions of Won)	Beginning	Acquisitions	Disposals	Depreciation	Impairment loss(*1)	Others(*2)	Ending
Land	₩ 2,526,059	29,639	(2,633)	—	3,490	33,532	2,590,087
Buildings	4,215,454	13,825	(6,296)	(319,774)	(3,778)	261,969	4,161,400
Structures	2,904,506	85,958	(6,661)	(231,737)	(883)	274,043	3,025,226
Machinery and equipment	17,218,264	138,533	(27,966)	(2,298,951)	(8,080)	1,835,507	16,857,307
Vehicles	32,285	6,475	(546)	(14,599)	—	13,541	37,156
Tools	70,751	20,230	(211)	(38,838)	—	8,369	60,301
Furniture and fixtures	130,132	23,352	(2,908)	(43,832)	(519)	21,234	127,459
Lease assets	774,582	204,699	(9,300)	(172,029)	—	(24,252)	773,700
Bearer plants	124,193	118	(155)	(7,971)	—	33,780	149,965
Construction-in-progress	1,929,747	2,835,921	(7,001)	—	(17,270)	(3,123,857)	1,617,540
	₩29,925,973	3,358,750	(63,677)	(3,127,731)	(27,040)	(666,134)	29,400,141

(*1) The Company estimated the recoverable amount of individual assets that it ceased their use due to the disposal plan and others at fair value less costs to sell based on sale price or scrap value and recognized an impairment loss since recoverable amounts are less than their carrying amounts for the year ended December 31, 2020. During the year ended December 31, 2020, the Company recognized impairment losses on damaged assets caused by a fire accident.

(*2) Represents assets transferred from construction-in-progress to intangible assets and other property, plant and equipment, reclassifications with investment property resulting from changing purpose of use, adjustments of foreign currency translation differences and others.

(c) Borrowing costs capitalized and the capitalized interest rate for the years ended December 31, 2019 and 2020 were as follows:

(in millions of Won)	2019	2020
Weighted average expenditure	₩ 587,628	932,298
Borrowing costs capitalized	22,775	29,653
Capitalization rate (%)	3.57 ~ 5.46	3.14 ~ 3.18

(d) Property, plant and equipment and investment property pledged as collateral as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	Collateral right holder	Book value 2019	Book value 2020
Land	Korean Development Bank and others	₩ 765,307	867,820
Buildings and structures	Korean Development Bank and others	1,363,709	1,464,551
Machinery and equipment	Korean Development Bank and others	2,440,777	2,263,383
		₩4,569,793	4,595,754

As of December 31, 2020, assets pledged as collateral related to the Company's borrowings and others amounting to ₩4,874,423 million include investment properties and other assets such as right to use land.

(e) Changes in the carrying amount of right-of-use assets presented as investment property and property, plant and equipment for the years ended December 31, 2019 and 2020 were as follows:

1) For the year ended December 31, 2019

(in millions of Won)	The date of initial application (January 1, 2019)	Acquisitions	Depreciation	Others	Ending
Land	₩340,107	22,850	(11,461)	(9,729)	341,767
Buildings and structures	209,455	23,015	(38,853)	(22,505)	171,112
Machinery and equipment	219,877	14,610	(33,751)	15,092	215,828
Vehicles	20,555	8,735	(10,050)	(5,135)	14,105
Ships	26,499	—	(2,417)	—	24,082
others	25,529	3,430	(34,373)	13,527	8,113
	₩842,022	72,640	(130,905)	(8,750)	775,007

2) For the year ended December 31, 2020

(in millions of Won)	Beginning	Acquisitions	Depreciation	Others	Ending
Land	₩341,767	18,962	(16,397)	27,387	371,719
Buildings and structures	171,112	47,374	(57,593)	10,867	171,760
Machinery and equipment	215,828	86,373	(38,909)	(24,111)	239,181
Vehicles	14,105	6,186	(9,486)	651	11,456
Ships	24,082	111,537	(29,064)	—	106,555
others	8,113	45,803	(23,786)	(2,500)	27,630
	₩775,007	316,235	(175,235)	12,294	928,301

(f) The amount recognized in profit or loss related to leases for the years ended December 31, 2019 and 2020 were as follows:

(in millions of Won)	2019	2020
Interest on lease liabilities	₩35,483	36,373
Expenses related to short-term leases	41,974	18,809
Expenses related to leases of low-value assets	14,150	14,375
	₩91,607	69,557

15. Goodwill and Other Intangible Assets, Net

(a) Goodwill and other intangible assets as of December 31, 2019 and 2020 are as follows:

	2019				2020			
(in millions of Won)	Acquisition cost	Accumulated amortization and impairment loss	Government grants	Book value	Acquisition cost	Accumulated amortization and impairment loss	Government grants	Book value
Goodwill	₩1,631,413	(533,604)	—	1,097,809	1,626,876	(722,983)	—	903,893
Intellectual property rights	3,449,796	(1,170,586)	—	2,279,210	3,628,121	(1,457,383)	—	2,170,738
Membership	170,247	(22,169)	—	148,078	143,403	(4,700)	—	138,703
Development expense	483,539	(389,200)	—	94,339	652,492	(425,381)	—	227,111
Port facilities usage rights	686,525	(405,127)	—	281,398	685,210	(448,938)	—	236,272
Exploration and evaluation assets	294,874	(217,603)	—	77,271	274,691	(217,551)	—	57,140
Customer relationships	865,821	(490,946)	—	374,875	865,671	(535,424)	—	330,247
Other intangible assets	1,220,641	(665,026)	(122)	555,493	1,101,595	(716,190)	(77)	385,328
	₩8,802,856	(3,894,261)	(122)	4,908,473	8,978,059	(4,528,550)	(77)	4,449,432

(b) The changes in carrying amount of goodwill and other intangible assets for the years ended December 31, 2019 and 2020 were as follows:

1) For the year ended December 31, 2019

(in millions of Won)	Beginning	Acquisitions	Business Combination	Disposals	Amortization	Impairment loss(*2)	Others(*3)	Ending
Goodwill	₩1,125,149	—	26,256	—	—	(55,445)	1,849	1,097,809
Intellectual property rights	2,399,525	127,479	—	(6,566)	(271,694)	(2)	30,468	2,279,210
Membership(*1)	134,793	15,636	—	(3,326)	(181)	24	1,132	148,078
Development expense	99,163	4,484	—	(35)	(44,418)	(666)	35,811	94,339
Port facilities usage rights	305,081	—	—	(4,674)	(22,923)	—	3,914	281,398
Exploratation and evaluation assets	192,130	9,642	—	—	—	(123,888)	(613)	77,271
Customer relationships	421,773	—	—	—	(51,768)	—	4,870	374,875
Other intangible assets	493,211	141,578	74	(10,718)	(40,263)	(10,111)	(18,278)	555,493
	₩5,170,825	298,819	26,330	(25,319)	(431,247)	(190,088)	59,153	4,908,473

(*1) Economic useful life of membership is indefinite.
(*2) From exploration and evaluation of natural gas in the AD-7 block in Myanmar, POSCO INTERNATIONAL Corporation failed to find economic natural gas. The Company recognized impairment loss of ₩118,140 million for excess of the carrying amounts of related assets over the special energy loan which may be forgiven in the case of project failure.
(*3) Represents assets transferred from construction-in-progress to intangible assets and assets transferred from property, plant and equipment, adjustments of foreign currency translation difference and others.

2) For the year ended December 31, 2020

(in millions of Won)	Beginning	Acquisitions	Disposals	Amortization	Impairment loss	Others(*2)	Ending
Goodwill	₩1,097,809	—	—	—	(189,379)	(4,537)	903,893
Intellectual property rights	2,279,210	136,195	(3,617)	(282,594)	(7,727)	49,271	2,170,738
Membership(*1)	148,078	3,416	(12,340)	(107)	244	(588)	138,703
Development expense	94,339	1,315	(16)	(56,329)	(206)	188,008	227,111
Port facilities usage rights	281,398	—	—	(44,893)	—	(233)	236,272
Exploratation and evaluation assets	77,271	14,886	—	—	—	(35,017)	57,140
Customer relationships	374,875	—	—	(44,478)	—	(150)	330,247
Other intangible assets	555,493	159,590	(61,692)	(37,157)	—	(230,906)	385,328
	₩4,908,473	315,402	(77,665)	(465,558)	(197,068)	(34,152)	4,449,432

(*1) Economic useful life of membership is indefinite.

(*2) Represents assets transferred from construction-in-progress to intangible assets and assets transferred from property, plant and equipment, adjustments of foreign currency translation difference and others.

(c) For the purpose of impairment testing, goodwill is allocated to individually operating entities where each is determined to be a CGU. The goodwill amounts as of December 31, 2019 and 2020 are as follows:

(in millions of Won) Reportable segments	Total number of CGUs 2019	Total number of CGUs 2020	CGUs	2019	2020
Steel	7	7	POSCO VST CO., LTD.	₩ 36,955	36,955
			Others	13,721	12,498
Trading	3	3	POSCO INTERNATIONAL Corporation(*1)	951,434	762,816
			GRAIN TERMINAL HOLDING	26,256	23,726
			PT. Bio Inti Agrindo	7,468	6,955
E&C	2	2	POSCO ENGINEERING & CONSTRUCTION CO., LTD.	24,868	24,868
			POSCO Center Beijing	158	159
			POSCO ENERGY CO., LTD.	26,471	26,471
Others	5	4	Others	10,478	9,445
	17	16		₩1,097,809	903,893

(*1) The recoverable amount of POSCO INTERNATIONAL Corporation, a subsidiary included in trading segment, is determined based on its value-in-use, and amounts to ₩3,223,759 million, as of December 31, 2020. The value-in-use is estimated by applying a 6.92% (2019: 6.84%) discount rate to the future cash flows estimated from management's 5-year business plan and terminal growth rate of 1.9% (2019: 1.9%) thereafter. The terminal growth rate does not exceed long-term growth rate of its industry. During the year ended December 31, 2020, impairment loss on goodwill of ₩188,619 million was recognized as the recoverable amount is less than the carrying amount of the CGU.

The rate of the CGU is sensitive to the assumptions such as discount rate, terminal growth rate and estimated revenue used in discount cash flow model. If the discount rate increases by 0.5%, the value-in-use would have decreased by ₩239,316 million or 7.42% and if the terminal growth rate decreases by 0.5%, the value-in-use would have decreased by ₩128,922 million or 4.00%.

16. Other Assets

Other current assets and other non-current assets as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Current		
Advance payment	₩453,538	348,753
Prepaid expenses	145,834	181,985
Firm commitment asset	17,490	23,506
Others	14,315	62,379
	₩631,177	616,623
Non-current		
Long-term advance payment	₩ 21,950	21,587
Long-term prepaid expenses	41,256	92,774
Others(*1)	262,036	155,699
	₩325,242	270,060

(*1) As of December 31, 2019 and 2020, the Company recognized tax assets amounting to ₩213,071 million and ₩121,225 million, respectively, based on the Company's best estimate of the tax amounts to be refunded when the result of the Company's appeal in connection with the additional income tax payment in prior years' tax audits and claim for rectification are finalized.

17. Borrowings

(a) Short-term borrowings and current portion of long-term borrowings as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	Bank	Issuance date	Maturity date	Interest rate (%)	2019	2020
Short-term borrowings						
Bank overdrafts	JP Morgan and others	January, 2020~ December, 2020	January, 2021~ December, 2021	0.52~6.50	₩ 159,075	146,762
Short-term borrowings	HSBC and others	January, 2020~ December, 2020	January, 2021~ December, 2021	0.17~9.50	5,327,258	5,047,633
					5,486,333	5,194,395
Current portion of long-term liabilities						
Current portion of long-term borrowings	Export-Import Bank of Korea and others	November, 2004~ December, 2020	January, 2021~ December, 2021	0.20~8.50	1,491,934	1,067,338
Current portion of debentures	Korea Development Bank and others	April, 2011~ May, 2019	February, 2021~ December, 2021	1.73~5.25	1,571,194	2,417,339
Less: Current portion of discount on debentures issued					(1,249)	(1,543)
					3,061,879	3,483,134
					₩8,548,212	8,677,529

(b) Long-term borrowings, excluding current portion as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	Bank	Issuance date	Maturity date	Interest rate (%)	2019	2020
Long-term borrowings	Export-Import Bank of Korea and others	September, 2001~ December, 2020	January, 2022~ March, 2037	0.19~5.28	₩ 3,827,152	3,366,400
Less: Present value discount					(24,374)	(16,058)
Bonds	KB Securities co.,Ltd. and others	October, 2013~ October, 2020	March, 2022~ October, 2029	0.50~4.00	8,124,194	8,505,485
Less: Discount on debentures issued					(33,571)	(35,749)
					₩11,893,401	11,820,078

(c) Assets pledged as collateral with regard to the borrowings as of December 31, 2020 are as follows:

(in millions of Won)	Bank	Book value	Pledged amount
Cash and cash equivalents	Sinhan Bank and others	24,489	24,758
Property, plant and equipment and Investment property	Korea Development Bank and others	4,424,923	4,811,751
Trade accounts and notes receivable	Korea Development Bank and others	371,326	373,016
Inventories	Export-Import Bank of Korea and others	81,859	12,650
Financial instruments	KB Kookmin Bank and others	25,624	25,624
		₩4,928,221	5,247,799

18. Other Payables

Other payables as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Current		
Accounts payable	₩ 832,845	800,439
Accrued expenses	742,370	697,087
Dividend payable	3,106	2,703
Lease liabilities	149,176	244,548
Withholdings	152,011	100,489
	₩1,879,508	1,845,266
Non-current		
Accounts payable	₩ 2,718	5,572
Accrued expenses	4,805	4,953
Lease liabilities	526,294	495,127
Long-term withholdings	51,312	53,272
	₩ 585,129	558,924

19. Other Financial Liabilities

Other financial liabilities as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Current		
Derivatives liabilities	₩28,021	82,859
Financial guarantee liabilities	49,806	58,545
	₩77,827	141,404
Non-current		
Derivatives liabilities	₩17,033	129,505
Financial guarantee liabilities	14,461	4,083
	₩31,494	133,588

20. Provisions

(a) Provisions as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019		2020	
	Current	Non-current	Current	Non-current
Provision for bonus payments	₩ 76,432	47,237	73,441	48,510
Provision for construction warranties	7,655	162,773	9,662	217,435
Provision for legal contingencies and claims(*1)	6,996	77,488	24,275	63,175
Provision for the restoration(*2)	6,783	80,520	5,307	134,438
Others(*3,*4)	262,471	90,136	330,588	59,411
	₩360,337	458,154	443,273	522,969

(*1) The Company recognized probable outflow of resources amounting to ₩54,228 million and ₩59,211 million as provisions for legal contingencies and asserted claim in relation to lawsuits against the Company as of December 31, 2019 and 2020, respectively.

(*2) Due to contamination of lands near the Company's magnesium smelting plant located in Gangneung province and others, the Company recognized present values of estimated costs for recovery amounting to ₩17,561 million as provisions for restoration as of December 31, 2020. In order to determine the estimated costs, the Company has assumed that it would use all of technologies and materials available for now to recover the land. In addition, the Company has applied a discount rate of 1.23%~1.43% to measure present value of these costs.

(*3) As of December 31, 2019 and 2020, POSCO ENERGY CO., LTD., and Korea Fuel Cell, recognized ₩178,959 million and ₩80,842 million of provisions for warranties, respectively, for the service contract on fuel cell based on its estimate of probable outflow of resources.

(*4) As of December 31, 2019 and 2020, the Company has recognized emission liabilities amounting to ₩50,965 million and ₩78,646 million, respectively, for expected greenhouse gas emissions exceeding the quantity of free quota emission rights.

(b) The following are the key assumptions concerning the future and other key sources of estimation uncertainties at the end of the reporting period.

	Key assumptions for the estimation
Provision for bonus payments	Estimations based on financial performance and working service rendered
Provision for construction warranties	Estimations based on historical warranty data
Provision for legal contingencies and claims	Estimations based on the degree of probability of an unfavorable outcome and the ability to make a sufficient reliable estimate of the amount of loss

(c) Changes in provisions for the years ended December 31, 2019 and 2020 were as follows:

1) For the year ended December 31, 2019

(in millions of Won)	Beginning	Increase	Utilization	Reversal	Others(*1)	Ending
Provision for bonus payments	₩ 73,478	122,714	(86,084)	(3,077)	16,638	123,669
Provision for construction warranties	142,233	53,203	(22,858)	(3,444)	1,294	170,428
Provision for legal contingencies and claims	111,150	26,407	(37,087)	(18,098)	2,112	84,484
Provision for the restoration	89,168	23,559	(13,411)	(14,379)	2,366	87,303
Others	313,460	95,747	(38,260)	(86,458)	68,118	352,607
	₩729,489	321,630	(197,700)	(125,456)	90,528	818,491

(*1) Includes adjustments of foreign currency translation differences and others.

2) For the year ended December 31, 2020

(in millions of Won)	Beginning	Increase	Utilization	Reversal	Others(*1)	Ending
Provision for bonus payments	₩123,669	106,855	(109,835)	(6,334)	7,596	121,951
Provision for construction warranties	170,428	86,691	(23,916)	(5,311)	(795)	227,097
Provision for legal contingencies and claims	84,484	30,894	(16,444)	(9,087)	(2,397)	87,450
Provision for the restoration	87,303	67,501	(6,525)	(15,811)	7,277	139,745
Others	352,607	349,639	(142,440)	(133,294)	(36,513)	389,999
	₩818,491	641,580	(299,160)	(169,837)	(24,832)	966,242

(*1) Includes adjustments of foreign currency translation differences and others.

21. Employee Benefits

(a) Defined contribution plans

The expenses related to post-employment benefit plans under defined contribution plans for the years ended December 31, 2018, 2019 and 2020 were as follows:

(in millions of Won)	2018	2019	2020
Expense related to post-employment benefit plans under defined contribution plans	₩42,825	46,846	50,694

(b) Defined benefit plans

1) The amounts recognized in relation to net defined benefit liabilities in the statements of financial position as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Present value of funded obligations	₩ 2,416,203	2,439,938
Fair value of plan assets(*1)	(2,255,149)	(2,397,717)
Present value of non-funded obligations	15,677	13,415
Net defined benefit liabilities	₩ 176,731	55,636

(*1) As of December 31, 2019 and 2020, the Company recognized net defined benefit assets amounting to ₩4,280 million and ₩86,149 million, respectively, since there are consolidated entities whose fair value of plan assets exceeded the present value of defined benefit obligations.

2) Changes in present value of defined benefit obligations for the years ended December 31, 2019 and 2020 were as follows:

(in millions of Won)	**2019**	**2020**
Defined benefit obligations at the beginning of year	₩2,137,161	2,431,880
Current service costs	236,735	245,047
Interest costs	51,900	47,485
Remeasurements :	152,713	(52,732)
- Loss (gain) from change in financial assumptions	103,850	(76,744)
- Loss (gain) from change in demographic assumptions	(492)	27,399
- Loss (gain) from change in others	49,355	(3,387)
Benefits paid	(152,275)	(225,293)
Others	5,646	6,966
Defined benefit obligations at the end of year	₩2,431,880	2,453,353

3) Changes in fair value of plan assets for the years ended December 31, 2019 and 2020 were as follows:

(in millions of Won)	**2019**	**2020**
Fair value of plan assets at the beginning of year	₩1,997,717	2,255,149
Interest on plan assets	48,210	44,208
Remeasurement of plan assets	(8,692)	(600)
Contributions to plan assets	342,915	307,367
Benefits paid	(124,962)	(213,246)
Others	(39)	4,839
Fair value of plan assets at the end of year	₩2,255,149	2,397,717

The Company expects to make an estimated contribution of ₩179,367 million to the defined benefit plan assets in 2021.

4) The fair value of plan assets as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	**2019**	**2020**
Equity instruments	₩ 10,386	17,886
Debt instruments	1,013,716	696,583
Deposits	1,159,455	1,614,796
Others	71,592	68,452
	₩2,255,149	2,397,717

5) The amounts recognized in consolidated statement of comprehensive income for the years ended December 31, 2018, 2019 and 2020 were as follows:

(in millions of Won)	2018	2019	2020
Current service costs	₩212,323	236,735	245,047
Net interest costs(*1)	4,166	3,690	3,277
	₩216,489	240,425	248,324

(*1) The actual return on plan assets amounted to ₩31,023 million, ₩39,518 million and ₩43,608 million for the years ended December 31, 2018, 2019 and 2020, respectively.

The expenses by function were as follows:

(in millions of Won)	2018	2019	2020
Cost of sales	₩150,822	169,206	177,223
Selling and administrative expenses	64,505	70,060	69,256
Others	1,162	1,159	1,845
	₩216,489	240,425	248,324

6) Accumulated actuarial gains (losses), net of tax recognized in other comprehensive income for the years ended December 31, 2018, 2019 and 2020 were as follows:

(in millions of Won)	2018	2019	2020
Beginning	₩(299,155)	(472,644)	(589,796)
Current actuarial gains (losses)	(173,489)	(117,152)	36,576
Ending	₩(472,644)	(589,796)	(553,220)

7) The principal actuarial assumptions as of December 31, 2019 and 2020 are as follows:

(%)	2019	2020
Discount rate	1.72 ~ 13.00	0.53 ~ 13.00
Expected future increase in salaries(*1)	2.00 ~ 11.00	1.92 ~ 11.00

(*1) The expected future increase in salaries is based on the average salary increase rate for the past 5 years.

All assumptions are reviewed at the end of the reporting period. Additionally, the total estimated defined benefit obligation includes actuarial assumptions associated with the long-term characteristics of the defined benefit plan.

8) Reasonably possible changes at the reporting date to one of the relevant actuarial assumptions, holding the other assumptions constant, would have affected the defined benefit obligation by the amounts shown below:

(in millions of Won)	1% Increase		1% Decrease	
	Amount	Percentage(%)	Amount	Percentage(%)
Discount rate	₩(178,233)	(7.3)	205,950	8.4
Expected future increase in salaries	206,013	8.4	(181,444)	(7.4)

9) As of December 31, 2020, the maturity of the expected benefit payments are as follows:

(in millions of Won)	Within 1 year	1 year - 5 years	5 years - 10 years	10 years - 20 years	After 20 years	Total
Benefits to be paid	₩245,294	861,968	561,987	890,845	399,429	2,959,523

The maturity analysis of the defined benefit obligation is based on nominal amounts according to expected remaining working lives of employees.

22. Other Liabilities

Other liabilities as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Current		
Due to customers for contract work	₩ 644,947	629,399
Advances received	746,169	951,521
Unearned revenue	61,795	24,433
Withholdings	388,486	332,327
Firm commitment liability	15,637	35,993
Others	8,604	8,304
	₩1,865,638	1,981,977
Non-current		
Advances received	116,178	311,277
Unearned revenue	27,161	17,953
Others	52,349	19,067
	₩ 195,688	348,297

23. Financial Instruments

(a) Classification and fair value of financial instruments

1) The carrying amount and the fair values of financial assets and financial liabilities by fair value hierarchy as of December 31, 2019 and 2020 are as follows:

① December 31, 2019

(in millions of Won)		Fair value			
	Book value	Level 1	Level 2	Level 3	Total
Financial assets					
Fair value through profit or loss					
Derivative assets	₩ 106,104	—	106,104	—	106,104
Short-term financial instruments	6,861,242	—	6,861,242	—	6,861,242
Debt securities	28,087	—	—	28,087	28,087
Other securities	340,008	1,222	3,330	335,456	340,008
Other receivables	2,000	—	—	2,000	2,000
Derivative hedging instruments	6,174	—	6,174	—	6,174
Fair value through other comprehensive income					
Equity securities	1,204,902	782,108	73	422,721	1,204,902
Debt securities	5,686	—	—	5,686	5,686
Financial assets measured at amortized cost(*1)					
Cash and cash Equivalents	3,514,872	—	—	—	—
Trade accounts and notes receivable	8,214,459	—	—	—	—
Other receivables	2,193,700	—	—	—	—
Debt securities	334,153	—	—	—	—
Deposit instruments	1,779,082	—	—	—	—
	₩24,590,469	783,330	6,976,923	793,950	8,554,203
Financial liabilities					
Fair value through profit or loss					
Derivative liabilities	₩ 32,193	—	32,193	—	32,193
Derivative hedging instruments	12,861	—	12,861	—	12,861
Financial liabilities measured at amortized cost(*1)					
Trade accounts and notes payable	3,442,989	—	—	—	—
Borrowings	20,441,613	—	20,666,476	—	20,666,476
Financial guarantee liabilities	64,267	—	—	—	—
Others	2,401,382	—	—	—	—
	₩26,395,305	—	20,711,530	—	20,711,530

(*1) Fair value of financial assets and liabilities measured at amortized cost except borrowings approximates their carrying amounts.

② December 31, 2020

(in millions of Won)	Book value	Fair value			
		Level 1	Level 2	Level 3	Total
Financial assets					
Fair value through profit or loss					
Derivative assets	₩ 79,995	—	79,995	—	79,995
Short-term financial instruments	9,133,404	—	9,133,404	—	9,133,404
Debt securities	20,797	—	—	20,797	20,797
Other securities	364,404	47,321	2,242	314,841	364,404
Other receivables	2,000	—	—	2,000	2,000
Derivative hedging instruments(*2)	37,880	—	37,880	—	37,880
Fair value through other comprehensive income					
Equity securities	1,120,968	729,342	—	391,626	1,120,968
Debt securities	2,471	—	—	2,471	2,471
Financial assets measured at amortized cost(*1)					
Cash and cash Equivalents	4,754,644	—	—	—	—
Trade accounts and notes receivable	7,329,596	—	—	—	—
Other receivables	2,300,515	—	—	—	—
Debt securities	151,146	—	—	—	—
Deposit instruments	2,359,951	—	—	—	—
	₩27,657,771	776,663	9,253,521	731,735	10,761,919
Financial liabilities					
Fair value through profit or loss					
Derivative liabilities	₩ 180,773	—	180,773	—	180,773
Derivative hedging instruments(*2)	31,591	—	31,591	—	31,591
Financial liabilities measured at amortized cost(*1)					
Trade accounts and notes payable	3,777,836	—	—	—	—
Borrowings	20,497,607	—	20,821,353	—	20,821,353
Financial guarantee liabilities	62,629	—	—	—	—
Others	2,347,244	—	—	—	—
	₩26,897,680	—	21,033,717	—	21,033,717

(*1) Fair value of financial assets and liabilities measured at amortized cost except borrowings approximates their carrying amounts.

(*2) The Company applies hedge accounting which uses forward contracts as hedging instrument in order to hedge the risk of changes in fair value of product prices regarding firm commitments or purchase commitments. Also, the Company applies cash flow hedge accounting which uses currency swap as hedging instrument in order to hedge the risk of interest rate and foreign exchange rate changes in foreign currency which influences cash flow from borrowings.

2) Financial assets and financial liabilities classified as fair value hierarchy Level 2

Fair values of derivatives are measured using the derivatives instrument valuation models such as discounted cash flow method. Inputs of the derivatives instrument valuation model include forward rate, interest rate and others. They differ depending on the type of derivatives and the nature of the underlying assets.

3) Financial assets and financial liabilities classified as fair value hierarchy Level 3

① Fair value measurement method and significant but not observable inputs for the financial assets classified as fair value hierarchy Level 3 as of December 31, 2020 are as follows:

(in millions of Won)	Fair value	Valuation technique	Inputs	Range of inputs	Effect on fair value assessment with unobservable input
Financial assets at fair value	₩331,780	Discounted cash flows	Growth rate	0% ~ 0.5%	As growth rate increases, fair value increases
			Discount rate	7.8% ~ 17.4%	As discount rate increases, fair value decreases
	2,967	Proxy firm valuation method	Price multiples	0.728 ~ 2.742	As price multiples increases, fair value increases
	396,988	Asset value approach	—	—	—

② Sensitivity analysis of financial assets and financial liabilities classified as Level 3 of fair value hierarchy

If other inputs remain constant as of December 31, 2020 and one of the significant but not observable input is changed, the effect on fair value measurement is as follows:

(in millions of Won)	Input variable	Favorable changes	Unfavorable changes
Financial assets at fair value	Fluctuation 0.5% of growth rate	₩ 212	206
	Fluctuation 0.5% of discount rate	19,040	17,350

③ Changes in fair value of financial assets and financial liabilities classified as Level 3 for the years ended December 31, 2019 and 2020 were as follows:

(in millions of Won)	2019	2020
Beginning	₩709,660	793,950
Acquisition	68,461	78,241
Loss on valuation of financial assets	(9,412)	(41,537)
Other comprehensive income(loss)	106,586	(44,469)
Disposal and others	(81,345)	(54,450)
Ending	₩793,950	731,735

4) Finance income and costs by category of financial instrument for the years ended December 31, 2018, 2019 and 2020 were as follows:

① For the year ended December 31, 2018

(in millions of Won)	Finance income and costs						
	Interest income (expense)	**Gain and loss on valuation**	**Gain and loss on foreign currency**	**Gain and loss on disposal**	**Others**	**Total**	**Other comprehensive income (loss)**
Financial assets at fair value through profit or loss	₩ 140,116	(43,293)	—	11,919	3,644	112,386	—
Derivative assets	—	47,720	—	233,187	—	280,907	—
Financial assets at fair value through other comprehensive income	—	—	—	—	59,701	59,701	(149,188)
Financial assets measured at amortized cost	197,142	—	234,606	(39,970)	(370)	391,408	—
Derivative liabilities	—	8,592	—	(194,446)	—	(185,854)	(212)
Financial liabilities measured at amortized cost	(741,296)	—	(438,708)	—	(16,990)	(1,196,994)	—
	₩(404,038)	13,019	(204,102)	10,690	45,985	(538,446)	(149,400)

② For the year ended December 31, 2019

(in millions of Won)	Finance income and costs						
	Interest income (expense)	**Gain and loss on valuation**	**Gain and loss on foreign currency**	**Gain and loss on disposal**	**Others**	**Total**	**Other comprehensive income (loss)**
Financial assets at fair value through profit or loss	₩ 142,873	(23,551)	—	5,556	630	125,508	—
Derivative assets	—	123,538	—	184,861	—	308,399	—
Financial assets at fair value through other comprehensive income	—	—	—	—	74,825	74,825	(10,541)
Financial assets measured at amortized cost	209,511	—	295,319	(36,935)	(8,042)	459,853	—
Derivative liabilities	—	(7,494)	—	(217,072)	—	(224,566)	(90)
Financial liabilities measured at amortized cost	(755,711)	—	(330,808)	(2,432)	(24,988)	(1,113,939)	—
	₩(403,327)	92,493	(35,489)	(66,022)	42,425	(369,920)	(10,631)

③ For the year ended December 31, 2020

(in millions of Won)	Finance income and costs						
	Interest income (expense)	**Gain and loss on valuation**	**Gain and loss on foreign currency**	**Gain and loss on disposal**	**Others**	**Total**	**Other comprehensive income (loss)**
Financial assets at fair value through profit or loss	₩ 165,160	(15,883)	—	9,979	329	159,585	—
Derivative assets	—	56,273	—	318,820	—	375,093	—
Financial assets at fair value through other comprehensive income	—	—	—	—	38,019	38,019	(77,627)
Financial assets measured at amortized cost	207,014	—	(222,215)	(15,779)	(5,821)	(36,801)	—
Derivative liabilities	—	(170,155)	—	(376,823)	—	(546,978)	(331)
Financial liabilities measured at amortized cost	(638,797)	—	450,984	—	(16,010)	(203,823)	—
	₩(266,623)	(129,765)	228,769	(63,803)	16,517	(214,905)	(77,958)

(b) Credit risk

1) Credit risk exposure

The carrying amount of financial assets represents the Company's maximum exposure to credit risk. The maximum exposure to credit risk as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Cash and cash equivalents	₩ 3,514,872	4,754,644
Derivative assets	112,278	117,875
Short-term financial instrument	6,861,242	9,133,404
Debt securities	367,926	174,414
Other securities	340,008	364,404
Other receivables	2,195,700	2,302,515
Trade accounts and notes receivable	8,214,459	7,329,596
Deposit instruments	1,779,082	2,359,951
	₩23,385,567	26,536,803

The Company provided financial guarantee for the repayment of loans of associates, joint ventures and third parties. As of December 31, 2019 and 2020, the maximum exposure to credit risk related to the financial guarantee amounted to ₩4,959,011 million and ₩4,069,562 million, respectively.

2) Impairment losses on financial assets

The Company assesses expected credit losses by estimating the default rate based on the credit loss experience of prior periods and current overdue conditions and considers the credit default swap (CDS) premium to reflect changes in credit risk by sector. For credit-impaired assets and significant receivables where the credit risk is significantly increased, credit losses are individually assessed.

① Allowance for doubtful accounts as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Trade accounts and notes receivable	₩465,524	386,650
Other accounts receivable	210,313	177,037
Loans	195,339	184,610
Other assets	27,098	5,396
	₩898,274	753,693

② Impairment losses on financial assets for the years ended December 31, 2019 and 2020 were as follows:

(in millions of Won)	2019	2020
Bad debt expenses (reversal)	₩(28,105)	829
Other bad debt expenses(*1)	88,787	71,092
Less: Recovery of allowance for other bad debt accounts	(8,464)	(17,987)
	₩ 52,218	53,934

(*1) Other bad debt expenses are mainly related to loans and other accounts receivable.

③ The aging and allowance for doubtful accounts of trade accounts and notes receivable as of December 31, 2019 and 2020 are as follows:

	2019		2020	
(in millions of Won)	Trade accounts and notes receivable	Impairment	Trade accounts and notes receivable	Impairment
current (not past due)	₩7,528,607	75,324	7,042,308	82,836
Over due less than 1 month	876,753	9,395	279,548	4,238
1 month - 3 months	228,115	6,647	198,807	4,775
3 months - 12 months	134,888	7,954	286,274	21,042
Over 12 months	965,977	366,204	776,375	273,759
	₩9,734,340	465,524	8,583,312	386,650

④ The aging and allowance for doubtful accounts of other receivables as of December 31, 2019 and 2020 are as follows:

	2019		2020	
(in millions of Won)	Loans and other account receivable	Impairment	Loans and other account receivable	Impairment
current (not past due)	₩1,220,756	56,354	1,836,372	132,209
Over due less than 1 month	432,220	1,546	50,858	199
1 month - 3 months	91,521	239	39,053	100
3 months - 12 months	271,814	10,846	47,978	10,033
Over 12 months	612,139	363,765	695,297	224,502
	₩2,628,450	432,750	2,669,558	367,043

⑤ Changes in the allowance for doubtful accounts for the years ended December 31, 2018, 2019 and 2020 were as follows:

(in millions of Won)	2018	2019	2020
Beginning	₩1,094,464	916,790	898,274
Initial application of IFRS No.9	107,454	—	—
Bad debt expenses(reversal)	74,781	(28,105)	829
Other bad debt expenses	63,092	80,323	53,105
Others(*1)	(423,001)	(70,735)	(198,515)
Ending	₩ 916,790	898,273	753,693

(*1) Others for the years ended December 31, 2018, 2019 and 2020, included decreases mainly due to write-off amounting to ₩383,714 million, ₩78,505 million and ₩150,417 million, respectively.

(c) Liquidity risk

1) Contractual maturities of non-derivative financial liabilities are as follows:

(in millions of Won)	Book value	Contractual cash flow	Within 1 year	1 year - 5 years	After 5 years
Trade accounts and notes payable	₩ 3,777,836	3,779,718	3,756,208	23,510	—
Borrowings	20,497,607	21,760,887	9,006,218	11,508,890	1,245,779
Financial guarantee liabilities(*1)	62,629	4,069,562	4,069,562	—	—
Lease liabilities	739,675	1,085,102	277,438	433,629	374,035
Other financial liabilities	1,607,569	1,619,326	1,543,779	75,547	—
	₩26,685,316	32,314,595	18,653,205	12,041,576	1,619,814

(*1) For issued financial guarantee contracts, the maximum amount of the guarantee is allocated to the earliest period in which the guarantee could be called.

2) Contractual maturities of derivative financial liabilities are as follows:

(in millions of Won)	Within 1 year	1 year - 5 years	After 5 years	Total
Currency forward	₩26,664	66	—	26,730
Currency swap	14,622	127,347	1,509	143,478
Interest rate swap	8,430	565	18	9,013
Others	33,143	—	—	33,143
	₩82,859	127,978	1,527	212,364

(d) Currency risk

1) The Company has exposure to the risk that the fair value or future cash flows of a financial instrument will fluctuate because of the changes in foreign exchange rates. The exposure to currency risk as of December 31, 2019 and 2020 is as follows:

(in millions of Won)	**2019**		**2020**	
	Assets	**Liabilities**	**Assets**	**Liabilities**
USD	₩ 4,423,107	6,166,765	4,331,058	6,768,169
EUR	592,381	180,816	459,423	939,160
JPY	79,664	253,542	110,569	644,675
Others	481,455	319,046	714,324	461,162

2) As of December 31, 2019 and 2020, provided that functional currency against foreign currencies other than functional currency hypothetically strengthens or weakens by 10%, the changes in gain or loss for the years ended December 31, 2019 and 2020 were as follows:

(in millions of Won)	**2019**		**2020**	
	10% increase	**10% decrease**	**10% increase**	**10% decrease**
USD	₩ (174,366)	174,366	(243,711)	243,711
EUR	41,156	(41,156)	(47,974)	47,974
JPY	(17,388)	17,388	(53,411)	53,411

(e) Interest rate risk

1) The carrying amount of interest-bearing financial instruments as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	**2019**	**2020**
Fixed rate		
Financial assets	₩ 13,391,637	17,291,726
Financial liabilities	(13,264,607)	(14,601,638)
	127,030	2,690,088
Variable rate		
Financial liabilities	₩ (7,852,476)	(6,635,644)

2) Sensitivity analysis on the cash flows of financial instruments with variable interest rate

The Company's interest rate risk mainly arises from borrowings with variable interest rate. As of December 31, 2019 and 2020, provided that other factors remain the same and the interest rate of borrowings with floating rates increases or decreases by 1%, the changes in interest expense for the years ended December 31, 2019 and 2020 were as follows:

(in millions of Won)	**2019**		**2020**	
	1% increase	**1% decrease**	**1% increase**	**1% decrease**
Variable rate financial instruments	₩ (78,525)	78,525	(66,356)	66,356

24. Share Capital and Capital Surplus

(a) Share capital as of December 31, 2019 and 2020 are as follows:

(Share, in Won)	2019	2020
Authorized shares	200,000,000	200,000,000
Par value	₩ 5,000	5,000
Issued shares(*1)	87,186,835	87,186,835
Shared capital(*2)	₩ 482,403,125,000	482,403,125,000

(*1) As of December 31, 2020, total number of ADRs of 25,853,808 outstanding in overseas stock market are equivalent to 6,463,452 shares of common stock.

(*2) As of December 31, 2020, the difference between the ending balance of common stock and the aggregate par value of issued common stock is W46,469 million due to retirement of 9,293,790 treasury stocks.

(b) The changes in issued common stock for the years ended December 31, 2019 and 2020 were as follows:

(share)	2019			2020		
	Issued shares	Treasury shares	Number of outstanding shares	Issued shares	Treasury shares	Number of outstanding shares
Beginning	87,186,835	(7,185,703)	80,001,132	87,186,835	(7,071,194)	80,115,641
Acquisition of treasury shares	—	—	—	—	(4,100,169)	(4,100,169)
Disposal of treasury shares	—	114,509	114,509	—	—	—
Ending	87,186,835	(7,071,194)	80,115,641	87,186,835	(11,171,363)	76,015,472

(c) Capital surplus as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Share premium	₩ 463,825	463,825
Gain on disposal of treasury shares	796,623	796,623
Other capital deficit	125,259	59,555
	₩1,385,707	1,320,003

(d) On February 25, 2017, POSCO ENERGY CO., LTD., a subsidiary of the Company, issued redeemable convertible preferred shares amounting to ₩245,000 million (8,643,193 shares) which were classified as non-controlling interests in the consolidated statement of financial position. Repayments of the redeemable convertible preferred shares were made on February 25, 2020 (4,477,246 shares) and March 30, 2020 (4,165,947 shares).

25. Hybrid Bonds

(a) Hybrid bonds classified as equity as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	Date of issue	Date of maturity	Interest rate (%)	2019	2020
Hybrid bond 1-2(*1)	2013-06-13	2043-06-13	4.60	₩ 200,000	200,000
Issuance cost				(616)	(616)
				₩ 199,384	199,384

(*1) Details of issuance of hybrid bonds as of December 31, 2020 are as follows:

	Hybrid bond 1-2
Maturity date	30 years (POSCO has a right to extend the maturity date)
Interest rate	Issue date ~ 2023-06-12 : 4.60% Reset every 10 years as follows; · After 10 years : return on government bond (10 years) + 1.40% · After 10 years : additionally +0.25% according to Step-up clauses · After 30 years : additionally +0.75%
Interest payments condition	Quarterly (Optional deferral of interest payment is available to POSCO)
Others	POSCO can call the hybrid bond at year 10th anniversary of issuance and interest payment date afterwards

The hybrid bond holder’s preference in the event of liquidation is senior to the common stockholders, but subordinate to other creditors. The interest accumulated but not paid on the hybrid bonds as of December 31, 2020 amounts to ₩479 million.

(b) POSCO ENERGY CO., LTD., a subsidiary of the Company, issued hybrid bonds, which are classified as non-controlling interests in the consolidated financial statements. Hybrid bonds as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	Date of issue	Date of maturity	Interest rate (%)	2019	2020
Hybrid bond 1-4(*1)	2013-08-29	2043-08-29	5.21	₩140,000	140,000
Issuance cost				(429)	(429)
				₩139,571	139,571

(*1) Details of hybrid bonds of POSCO ENERGY CO., LTD .as of December 31, 2020 are as follows:

	Hybrid bond 1-4
Maturity date	30 years (The issuer has a right to extend the maturity date)
Interest rate	Issue date ~ 2023-08-29 : 5.21% Reset every 10 years as follows; · After 10 years : return on government bond (10 years) + 1.55% · After 10 years : additionally +0.25% according to Step-up clauses · After 30 years : additionally +0.75%
Interest payments condition	Quarterly (Optional deferral of interest payment is available to the Company)
Others	The issuer can call the hybrid bond at year 10th anniversary of issuance and interest payment date afterwards

The hybrid bond holders' preference in the event of liquidation is senior to the common stockholders, but subordinate to other creditors. The interest accumulated but not paid on the hybrid bonds as of December 31, 2020 amounts to ₩679 million.

26. Reserves

(a) Reserves as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Accumulated comprehensive loss of investments in associates and joint ventures	₩ (648,712)	(693,176)
Changes in fair value of equity investments at fair value through other comprehensive income	(285,073)	(359,283)
Foreign currency translation differences	(202,636)	(339,707)
Gain or losses on valuation of derivatives	(438)	(699)
Others	(21,121)	11,947
	₩(1,157,980)	(1,380,918)

(b) Changes in fair value of equity investments at fair value through other comprehensive income for the years ended December 31, 2019 and 2020 were as follows:

(in millions of Won)	2019	2020
Beginning balance	₩(295,300)	(285,073)
Changes in unrealized fair value of equity investments	(9,422)	(72,808)
Reclassification upon disposal	21,902	2,726
Others	(2,253)	(4,128)
Ending balance	₩(285,073)	(359,283)

27. Treasury Shares

Based on the Board of Directors' resolution, POSCO holds treasury shares for business purposes including its share price stabilization. The changes in treasury shares for the years ended December 31, 2019 and 2020 were as follows:

(shares, in millions of Won)	2019		2020	
	Number of shares	Amount	Number of shares	Amount
Beginning	7,185,703	₩1,532,728	7,071,194	₩1,508,303
Acquisition of treasury shares	—	—	4,100,169	883,220
Disposal of treasury shares	(114,509)	(24,425)	—	—
Ending	7,071,194	₩1,508,303	11,171,363	₩2,391,523

During the year ended December 31, 2020, the Company entered into a trust contract of acquiring treasury shares following approval of the Board of Directors. The amount committed to purchase treasury shares by this trust contract is ₩1,000 billion, and the contract period is from April 13, 2020 to April 12, 2021.

28. Revenue

(a) Disaggregation of revenue

1) Details of revenue disaggregated by types of revenue and timing of revenue recognition for the years ended December 31, 2018, 2019 and 2020 were as follows:

① For the year ended December 31, 2018

(in millions of Won)	Steel	Trading	Construction	Others	Total
Types of revenue					
Revenue from sales of goods	₩31,733,609	21,632,183	3,568	605,206	53,974,566
Revenue from services	583,359	611,752	63,922	2,274,606	3,533,639
Revenue from construction contract	—	—	6,860,995	272,778	7,133,773
Others	41,041	163,782	17,784	290,051	512,658
	₩32,358,009	22,407,717	6,946,269	3,442,641	65,154,636
Timing of revenue recognition					
Revenue recognized at a point in time	₩31,774,650	21,795,965	743,448	906,120	55,220,183
Revenue recognized over time	583,359	611,752	6,202,821	2,536,521	9,934,453
	₩32,358,009	22,407,717	6,946,269	3,442,641	65,154,636

② For the year ended December 31, 2019

(in millions of Won)	Steel	Trading	Construction	Others	Total
Types of revenue					
Revenue from sales of goods	₩31,456,714	21,629,838	—	712,196	53,798,748
Revenue from services	573,463	369,730	49,696	2,217,862	3,210,751
Revenue from construction contract	—	—	7,308,401	30,998	7,339,399
Others	48,276	157,564	5,393	225,578	436,811
	₩32,078,453	22,157,132	7,363,490	3,186,634	64,785,709
Timing of revenue recognition					
Revenue recognized at a point in time	₩31,504,990	21,787,402	747,917	943,037	54,983,346
Revenue recognized over time	573,463	369,730	6,615,573	2,243,597	9,802,363
	₩32,078,453	22,157,132	7,363,490	3,186,634	64,785,709

③ For the year ended December 31, 2020

(in millions of Won)	Steel	Trading	Construction	Others	Total
Types of revenue					
Revenue from sales of goods	₩28,394,790	18,796,522	—	917,307	48,108,619
Revenue from services	462,489	388,222	45,359	1,811,380	2,707,450
Revenue from construction contract	—	—	6,197,497	27,949	6,225,446
Others	35,599	160,478	7,196	221,891	425,164
	₩28,892,878	19,345,222	6,250,052	2,978,527	57,466,679
Timing of revenue recognition					
Revenue recognized at a point in time	₩28,430,389	18,957,000	141,916	1,139,197	48,668,502
Revenue recognized over time	462,489	388,222	6,108,136	1,839,330	8,798,177
	₩28,892,878	19,345,222	6,250,052	2,978,527	57,466,679

(b) Details of contract assets and liabilities from contracts with customers as of December 31, 2019 and 2020, are as follows.

(in millions of Won)	2019	2020
Receivables		
Account receivables	₩8,214,459	7,329,596
Contract assets		
Due from customers for contract work	1,054,357	867,066
Contract liabilities		
Advance received	864,480	1,264,615
Due to customers for contract work	644,947	629,399
Unearned revenue	88,733	42,040

29. Revenue – Contract Balances

(a) Details of outstanding contracts as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Accumulated cost	₩27,281,031	29,168,745
Accumulated contract profit	2,462,008	2,262,854
Accumulated contract loss	(1,185,200)	(1,262,933)
Accumulated contract revenue	28,557,839	30,168,666

(b) Details of due from customers for contract work and due to customers for contract work as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Unbilled due from customers for contract	₩1,128,116	941,793
Due to customers for contract work	(644,947)	(629,399)
	₩ 483,169	312,394

(c) Due to the factors causing the cost variation for the years ended December 31, 2019 and 2020, the estimated total contract costs have changed. Details of changes in estimated total contract costs and the impact on profit before income taxes for the years ended December 31, 2019 and 2020 and future periods are as follows:

(in millions of Won)	2019	2020
Changes in estimated total contract costs	₩ 533,639	180,065
Changes in profit before income taxes of construction contract :		
- Current period	(166,077)	40,743
- Future periods	(43,584)	105,137

The effect on the current and future profit is estimated based on the circumstances that have occurred from the commencement date of the contract to the end of reporting period. The estimation is evaluated for the total contract costs and expected total contract revenue as of the end of the reporting period. Also, it may change during future periods.

(d) Uncertainty of estimates

1) Total contract revenues

Total contract revenues are measured based on contractual amount initially agreed. However, the contract revenues can increase due to additional contract work, claims and incentive payments, or decrease due to penalty when the completion of contract is delayed due to the Company's fault. Therefore, the measurement of contract revenues is affected by the uncertainty of the occurrence of future events.

2) Total contract costs

Contract revenues are recognized based on the percentage of completion, which is measured on the basis of the gross cost amount incurred to date. Total contract costs are estimated based on estimates of future material costs, labor costs, outsourcing cost and others. There is uncertainty in estimates on future contract costs due to various internal and external factors such as fluctuation of market, the risk of business partner and the experience of project performance and others. The significant assumptions including uncertainty of the estimate of total contract costs are as follows:

	Method of significant assumption
Material cost	Assumption based on recent purchasing price and quoted market price
Labor cost	Assumption based on standard monthly and daily labor cost
Outsourcing cost	Assumption based on the past experience rate of similar project and market price

Management reviews the assumptions used in estimated contract costs at each reporting period end and adjusts them, if necessary.

(e) As of December 31, 2020, revenue expected to be recognized in the future in relation to performance obligations that have not been fulfilled (or partially fulfilled) is as follows:

(in millions of Won)	2021	2022	2023	After 2024	Total
Expected Revenue	₩5,823,397	4,541,484	2,701,438	1,747,264	14,813,583

30. Selling and Administrative Expenses

(a) Other administrative expenses

Other administrative expenses for the years ended December 31, 2018, 2019 and 2020 were as follows:

(in millions of Won)	2018	2019	2020
Wages and salaries	₩ 813,467	840,599	828,667
Expenses related to post-employment benefits	73,290	88,880	83,037
Other employee benefits	176,240	177,908	187,075
Travel	40,929	42,692	17,513
Depreciation	101,274	131,337	146,483
Amortization	112,418	112,171	115,254
Communication	10,616	11,150	10,390
Electricity	8,309	8,799	7,968
Taxes and public dues	71,973	78,932	59,274
Rental	69,516	39,886	34,966
Repairs	15,291	13,454	8,952
Entertainment	11,816	11,123	8,328
Advertising	106,875	82,574	71,743
Research & development	108,352	110,315	116,273
Service fees	165,938	193,486	156,530
Vehicles maintenance	8,942	7,660	4,880
Industry association fee	9,571	9,609	9,586
Conference	14,510	15,104	11,576
Increase to provisions	14,433	18,071	12,285
Others	51,995	47,536	48,822
	₩1,985,755	2,041,286	1,939,602

(b) Selling expenses

Selling expenses for the years ended December 31, 2018, 2019 and 2020 were as follows:

(in millions of Won)	2018	2019	2020
Freight and custody	₩184,675	180,341	180,503
Operating expenses for distribution center	10,614	9,222	6,977
Sales commissions	79,080	73,941	86,851
Sales advertising	4,821	1,552	1,284
Sales promotion	13,792	9,989	7,086
Sample	2,716	2,287	1,650
Sales insurance premium	37,251	32,632	30,364
Contract cost	16,992	38,081	46,247
Others	19,304	20,273	15,978
	₩369,245	368,318	376,940

31. Research and Development Expenditures Recognized as Expenses

Research and development expenditures recognized as expenses for the years ended December 31, 2018, 2019 and 2020 were as follows:

(in millions of Won)	2018	2019	2020
Administrative expenses	₩108,352	110,315	116,273
Cost of sales	418,250	389,460	351,861
	₩526,602	499,775	468,134

32. Other Operating Income and Expenses

Details of other operating income and expenses for the years ended December 31, 2018, 2019 and 2020 were as follows:

(in millions of Won)	2018	2019	2020
Other operating income			
Gain on disposals of assets held for sale	₩ 27,171	37,461	841
Gain on disposals of investment in subsidiaries, associates and joint ventures	45,241	27,836	88,836
Gain on disposals of property, plant and equipment	53,139	49,367	15,548
Gain on disposals of investment property	12,232	1,087	10
Gain on disposals of intangible assets	117,139	1,896	815
Subsidies income	1,932	4,042	4,095
Gain on valuation of firm commitment	39,028	60,201	107,511
Gain on valuation of emission rights	—	25,440	—
Gain on disposals of emission rights	—	11,141	24,851
Reversal of other provisions	3,557	36,522	5,154
Premium income	14,034	3,326	25,253
Miscellaneous Income(*1,3)	200,793	189,610	111,701
Others	9,320	2,962	17,721
	₩ 523,586	450,891	402,336
Other operating expenses			
Impairment loss on assets held for sale	₩ (50,829)	(38,328)	(5,030)
Loss on disposals of investments in subsidiaries, associates and joint ventures	(5,226)	(6,539)	(14,632)
Loss on disposals of property, plant and equipment	(117,614)	(120,227)	(142,126)
Loss on disposals of intangible assets	(2,472)	(6,119)	(4,595)
Impairment loss on property, plant and equipment	(1,004,704)	(442,700)	(27,040)
Impairment loss on investment property	(51,461)	(32,642)	—
Impairment loss on intangible assets	(337,519)	(191,021)	(197,776)
Loss on valuation of firm commitment	(66,281)	(37,685)	(93,098)
Idle tangible asset expenses	(9,257)	(34,152)	(19,276)
Increase to provisions	(134,632)	(23,074)	(30,536)
Donations	(52,074)	(51,567)	(45,652)
Miscellaneous losses(*2)	(161,955)	(95,878)	(63,525)
Others	(20,438)	(10,032)	(2,288)
	₩(2,014,462)	(1,089,964)	(645,574)

(*1) During the year ended December 31, 2019, the Company recognized other operating income for the refunded amount of ₩74,044 million as a result of request for judgment on value added tax related to imported LNG.
(*2) During the year ended December 31, 2018, the Company recognized other operating expenses of ₩52,997 million in fines for additional value tax related to imported LNG.
(*3) During the year ended December 31, 2018, the Company recognized other operating income of ₩55,306 million as a result of request for judgment and correction tax investigation.

33. Finance Income and Costs

Details of finance income and costs for the years ended December 31, 2018, 2019 and 2020 were as follows:

(in millions of Won)	2018	2019	2020
Finance income			
Interest income(*1)	₩ 337,258	352,384	372,174
Dividend income	63,345	75,455	38,348
Gain on foreign currency transactions	716,060	824,565	1,147,692
Gain on foreign currency translations	212,443	206,019	574,463
Gain on derivatives transactions	247,513	195,933	352,005
Gain on valuations of derivatives	96,986	163,491	115,642
Gain on disposals of financial assets at fair value through profit of loss	8,742	8,525	15,550
Gain on valuations of financial assets at fair value through profit or loss	16,149	42,297	51,581
Others	7,474	3,474	10,044
	₩ 1,705,970	1,872,143	2,677,499
Finance costs			
Interest expenses	₩ (741,296)	(755,711)	(638,797)
Loss on foreign currency transactions	(810,857)	(746,603)	(1,067,907)
Loss on foreign currency translations	(321,748)	(319,470)	(425,479)
Loss on derivatives transactions	(208,772)	(228,144)	(410,008)
Loss on valuations of derivatives	(40,674)	(47,447)	(229,524)
Loss on disposals of trade accounts and notes receivable	(39,970)	(36,935)	(15,816)
Loss on disposals of financial assets at fair value through profit or loss	(1,474)	(2,969)	(5,571)
Loss on valuations of financial assets at fair value through profit or loss	(59,442)	(65,848)	(67,464)
Others	(20,183)	(38,936)	(31,836)
	₩(2,244,416)	(2,242,063)	(2,892,402)

(*1) Interest income calculated using the effective interest method for the years ended December 31, 2018, 2019 and 2020 were ₩197,142 million, ₩209,511 million and ₩207,014 million, respectively.

34. Expenses by Nature

Expenses that are recorded by nature as cost of sales, selling and administrative expenses, impairment loss on other receivables and other operating expenses in the statements of comprehensive income for the years ended December 31, 2018, 2019 and 2020 were as follows (excluding finance costs and income tax expense):

(in millions of Won)	2018	2019	2020
Raw material used, changes in inventories and others	₩38,884,690	39,279,866	34,555,624
Employee benefits(*2)	3,639,192	3,623,611	3,624,953
Outsourced processing cost	7,462,656	8,250,372	7,808,343
Electricity	949,435	912,832	656,121
Depreciation(*1)	2,911,048	3,029,868	3,156,181
Amortization	356,581	431,247	465,558
Freight and custody	1,414,940	1,446,628	1,428,012
Sales commissions	79,080	73,941	86,851
Loss on disposal of property, plant and equipment	117,614	120,227	142,126
Impairment loss on property, plant and equipment	1,004,704	442,700	27,040
Impairment loss on goodwill and intangible assets	337,519	191,021	197,776
Donations	52,074	51,567	45,652
Other	4,445,124	4,168,470	3,638,393
	₩61,654,657	62,022,350	55,832,630

(*1) Includes depreciation of investment property.
(*2) The details of employee benefits expenses for the years ended December 31, 2018, 2019 and 2020 were as follows:

(in millions of Won)	2018	2019	2020
Wages and salaries	₩3,372,831	3,313,642	3,316,364
Expenses related to post-employment benefits	266,361	309,969	308,589
	₩3,639,192	3,623,611	3,624,953

35. Income Taxes

(a) Income tax expense for the years ended December 31, 2018, 2019 and 2020 was as follows:

(in millions of Won)	2018	2019	2020
Current income taxes(*1)	₩1,577,581	913,286	692,870
Deferred income tax due to temporary differences	(38,851)	164,078	(481,303)
Items recorded directly in equity	144,900	11,005	12,705
Income tax expense	₩1,683,630	1,088,369	224,272

(*1) Refund (additional payment) of income taxes when filing a final corporation tax return is credited (charged) directly to current income taxes.

(b) The income taxes credited (charged) directly to equity for the years ended December 31, 2018, 2019 and 2020 were as follows:

(in millions of Won)	2018	2019	2020
Net changes in fair value of equity investments at fair value through other comprehensive income	₩ 47,423	(26,744)	26,850
Gain on disposal of treasury shares	(50)	—	—
Others	97,527	37,749	(14,145)
	₩144,900	11,005	12,705

(c) The following table reconciles the calculated income tax expense based on POSCO's statutory rate (27.5%) to the actual amount of taxes recorded by the Company for the years ended December 31, 2018, 2019 and 2020.

(in millions of Won)	2018	2019	2020
Profit before income tax expense	₩3,616,016	3,126,534	1,972,763
Income tax expense computed at statutory rate	982,287	847,017	533,875
Adjustments:			
Tax credits	(32,103)	(39,709)	(90,093)
Additional income tax expense for prior years (over provisions from prior years)	44,336	(35,389)	(14,362)
Tax effect from tax audit	130,196	14,775	11,796
Investment in subsidiaries, associates and joint ventures	114,856	317,977	147,874
Tax effects due to permanent differences	64,708	(5,588)	2,591
Others(*1,2)	379,350	(10,714)	(367,409)
	701,343	241,352	(309,603)
Income tax expense	₩1,683,630	1,088,369	224,272
Effective tax rate (%)	46.56%	34.81%	11.37%

(*1) Includes the effect of non-deductible impairment loss related to Synthetic Natural Gas (SNG) facility for the year ended December 31, 2018.

(*2) In connection with the impairment loss on SNG facility recognized in 2018 and business combination of Off-gas Power Station Business Sector in 2019, whether the amounts can be deductible for tax purpose depend on the occurrence of certain events within a specified number of years after the recognition of impairment or the communication of business combination. During 2020, due to the change in estimate regarding the probability of the occurrence of events pursuant to the tax regulations, ₩328,543 million of income tax benefit was recognized.

(d) The movements in deferred tax assets (liabilities) for the years ended December 31, 2019 and 2020 were as follows:

(in millions of Won)	2019			2020		
	Beginning	**Inc. (Dec.)**	**Ending**	**Beginning**	**Inc. (Dec.)**	**Ending**
Deferred income tax due to temporary differences						
Allowance for doubtful accounts	₩ 181,143	(28,007)	153,136	153,136	(5,912)	147,224
PP&E - Depreciation	9,837	12,374	22,211	22,211	10,025	32,236
Share of profit or loss of equity-accounted investees	227,594	(108,480)	119,114	119,114	100,317	219,431
Allowance for inventories valuation	10,676	(1,231)	9,445	9,445	2,097	11,542
PP&E - Revaluation	(1,789,748)	(28,713)	(1,818,461)	(1,818,461)	84,462	(1,733,999)
Prepaid expenses	17,259	(2,047)	15,212	15,212	4,619	19,831
PP&E - Impairment loss	4,613	132,713	137,326	137,326	246,177	383,503
Gain or loss on foreign currency translation	(38,010)	45,046	7,036	7,036	(58,681)	(51,645)
Defined benefit liabilities	(73,589)	(22,094)	(95,683)	(95,683)	(26,137)	(121,820)
Provision for construction losses	7,405	(102)	7,303	7,303	10,302	17,605
Provision for construction warranty	70,318	(8,517)	61,801	61,801	1,714	63,515
Accrued income	(13,094)	(17,722)	(30,816)	(30,816)	(10,360)	(41,176)
Impairment loss on AFS	75,919	36,636	112,555	112,555	(3,957)	108,598
Difference in acquisition costs of treasury shares	70,532	(1,124)	69,408	69,408	—	69,408
Others	352,355	(91,492)	260,863	260,863	128,862	389,725
	(886,790)	(82,760)	(969,550)	(969,550)	483,528	(486,022)
Deferred income taxes recognized directly to equity						
Net changes in fair value of equity investments at fair value through other comprehensive income	156,885	(26,744)	130,141	130,141	26,850	156,991
Others	130,272	37,749	168,021	168,021	(14,145)	153,876
	287,157	11,005	298,162	298,162	12,705	310,867
Deferred tax from tax credit						
Tax credit carry-forward and others	115,589	(23,750)	91,839	91,839	(19,433)	72,406
Investments in subsidiaries, associates and joint ventures						
Investments in subsidiaries, associates and joint ventures	203,938	(68,574)	135,364	135,364	4,503	139,867
	₩ (280,106)	(164,079)	(444,185)	(444,185)	481,303	37,118

(e) Deferred tax assets and liabilities as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019			2020		
	Assets	**Liabilities**	**Net**	**Assets**	**Liabilities**	**Net**
Deferred income tax due to temporary differences						
Allowance for doubtful accounts	₩ 153,136	—	153,136	147,243	(19)	147,224
PP&E - Depreciation	68,649	(46,438)	22,211	84,890	(52,654)	32,236
Share of profit or loss of equity-accounted investees	177,467	(58,353)	119,114	281,049	(61,618)	219,431
Allowance for inventories valuation	9,445	—	9,445	11,542	—	11,542
PP&E - Revaluation	—	(1,818,461)	(1,818,461)	—	(1,733,999)	(1,733,999)
Prepaid expenses	15,212	—	15,212	19,859	(28)	19,831
PP&E - Impairment loss	137,326	—	137,326	383,503	—	383,503
Gain or loss on foreign currency translation	136,360	(129,324)	7,036	101,244	(152,889)	(51,645)
Defined benefit liabilities	426,930	(522,613)	(95,683)	478,144	(599,964)	(121,820)
Provision for construction losses	7,303	—	7,303	17,605	—	17,605
Provision for construction warranty	61,801	—	61,801	63,515	—	63,515
Accrued income	—	(30,816)	(30,816)	—	(41,176)	(41,176)
Impairment loss on AFS	112,555	—	112,555	108,598	—	108,598
Difference in acquisition costs of treasury shares	69,408	—	69,408	69,408	—	69,408
Others	338,700	(77,836)	260,863	571,199	(181,474)	389,725
	1,714,292	(2,683,841)	(969,550)	2,337,799	(2,823,821)	(486,022)
Deferred income taxes recognized directly to equity						
Net changes in fair value of equity investments at fair value through other comprehensive income	220,276	(90,135)	130,141	167,070	(10,079)	156,991
Others	193,384	(25,363)	168,021	177,938	(24,062)	153,876
	413,660	(115,498)	298,162	345,008	(34,141)	310,867
Deferred tax from tax credit						
Tax credit carry-forward and others	91,839	—	91,839	72,406	—	72,406
Investments in subsidiaries, associates and joint ventures						
Investments in subsidiaries, associates and joint ventures	441,172	(305,808)	135,364	422,338	(282,471)	139,867
	₩ 2,660,963	(3,105,147)	(444,185)	3,177,551	(3,140,433)	37,118

(f) As of December 31, 2020, deductible temporary differences of ₩7,928,964 million and taxable temporary differences of ₩7,041,140 million (deferred tax liabilities of ₩1,885,211 million) related to investments in subsidiaries and associates were not recognized as deferred tax assets or liabilities, because it is not probable they will reverse in the foreseeable future.

(g) The Company recognized current tax payable or receivable at the amount expected to be paid or received that reflects uncertainty related to income taxes.

36. Earnings per Share

Basic earnings per share for the years ended December 31, 2018, 2019 and 2020 were as follows:

(in Won, except share information)	2018	2019	2020
Profit attribute to controlling interest	₩1,711,901,875,666	1,864,405,092,477	1,581,207,551,926
Interests of hybrid bonds	(17,720,986,299)	(6,669,999,999)	(6,688,273,972)
Weighted-average number of common shares outstanding(*1)	80,000,606	80,113,759	79,120,963
Basic earnings per share	₩ 21,177	23,189	19,900

(*1) The weighted-average number of common shares used to calculate basic earnings per share are as follows:

(shares)	2018	2019	2020
Total number of common shares issued	87,186,835	87,186,835	87,186,835
Weighted-average number of treasury shares	(7,186,229)	(7,073,076)	(8,065,872)
Weighted-average number of common shares outstanding	80,000,606	80,113,759	79,120,963

Since there were no potential shares of common stock which had dilutive effects as of December 31, 2018, 2019 and 2020, diluted earnings per share is equal to basic earnings per share.

37. Related Party Transactions

(a) Significant transactions between the controlling company and related companies for the years ended December 31, 2018, 2019 and 2020 were as follows:

1) For the year ended December 31, 2018

(in millions of Won)	Sales and others(*1)		Purchase and others(*2)			
	Sales	Others	Purchase of material	Purchase of fixed assets	Outsourced processing cost	Others
Subsidiaries(*3)						
POSCO ENGINEERING & CONSTRUCTION CO., LTD.	₩ 7,827	97	—	322,924	47	36,428
POSCO COATED & COLOR STEEL Co., Ltd.	476,105	2,725	—	—	9,211	1,434
POSCO ICT(*4)	2,624	7,479	—	341,472	34,376	196,252
eNtoB Corporation	12	60	377,198	27,508	390	31,455
POSCO CHEMICAL CO., LTD	417,957	35,762	531,452	21,730	319,868	2,802
POSCO ENERGY CO., LTD.	206,638	1,445	—	—	—	—
POSCO INTERNATIONAL Corporation	5,835,226	42,888	690,345	—	57,624	4,318
POSCO Thainox Public Company Limited	299,450	5,335	10,115	—	—	71
POSCO America Corporation	336,366	—	—	—	—	2,486
POSCO Canada Ltd.	—	2,155	300,982	—	—	—
POSCO Asia Co., Ltd.	1,857,665	253	536,280	650	2,449	6,524
Qingdao Pohang Stainless Steel Co., Ltd.	188,252	7	—	—	—	34
POSCO JAPAN Co., Ltd.	1,353,313	6	25,773	4,204	—	5,411
POSCO-VIETNAM Co., Ltd.	273,573	156	—	—	—	8
POSCO MEXICO S.A. DE C.V.	299,276	17	—	—	—	35
POSCO Maharashtra Steel Private Limited	563,618	584	—	—	—	156
POSCO(Suzhou) Automotive Processing Center Co., Ltd.	196,095	—	2,616	—	—	5
Others(*5)	1,158,122	44,098	456,804	31,787	264,060	140,869
	13,472,119	143,067	2,931,565	750,275	688,025	428,288
Associates and joint ventures(*3)						
POSCO PLANTEC Co., Ltd.	10,904	240	3,166	215,023	24,192	10,257
SNNC	5,105	4,108	558,425	—	—	80
POSCO-SAMSUNG-Slovakia Processing Center	61,981	—	—	—	—	—
Roy Hill Holdings Pty Ltd	—	—	810,196	—	—	—
Others	14,199	54,747	64,335	—	—	6
	92,189	59,095	1,436,122	215,023	24,192	10,343
	₩13,564,308	202,162	4,367,687	965,298	712,217	438,631

(*1) Sales and others mainly consist of sales of steel products to subsidiaries, associates and joint ventures.
(*2) Purchases and others mainly consist of subsidiaries' purchases of construction services and purchases of raw materials to manufacture steel products.
(*3) As of December 31, 2018, the Company provided guarantees to related parties (Note 38).
(*4) Others (purchase) mainly consist of service fees related to maintenance and repair of ERP System.

(*5) During the year ended December 31, 2018, the Company made loans of ₩2,950 million to Suncheon Eco Trans Co., Ltd., a subsidiary of the Company. As of December 31, 2018, corresponding amounts of those loans were recorded as allowance for doubtful accounts.

2) For the year ended December 31, 2019

(in millions of Won)	**Sales and others(*1)**		**Purchase and others(*2)**			
	Sales	**Others**	**Purchase of material**	**Purchase of fixed assets**	**Outsourced processing cost**	**Others**
Subsidiaries(*3)						
POSCO ENGINEERING & CONSTRUCTION CO.,LTD.	₩ 6,688	11,137	4,725	416,734	57	24,174
POSCO COATED & COLOR STEEL Co., Ltd.	468,070	2,014	95	—	20,298	724
POSCO ICT(*4)	2,924	4,994	—	344,977	34,638	181,128
eNtoB Corporation	15	60	304,846	64,845	126	25,754
POSCO CHEMICAL CO., LTD	389,731	35,592	522,493	17,549	315,530	4,561
POSCO ENERGY CO., LTD.	148,205	2,211	5,123	94	—	7,561
POSCO INTERNATIONAL Corporation	6,025,938	46,661	541,002	—	49,506	7,149
POSCO Thainox Public Company Limited	265,374	13,795	10,037	—	—	3
POSCO America Corporation	300,598	—	—	—	—	2,994
POSCO Canada Ltd.	1,067	1,833	306,552	—	—	—
POSCO Asia Co., Ltd.	1,781,841	1,352	390,056	1,338	1,574	7,561
Qingdao Pohang Stainless Steel Co., Ltd.	146,468	—	—	—	—	110
POSCO JAPAN Co., Ltd.	1,509,631	36	38,631	6,269	—	5,835
POSCO-VIETNAM Co., Ltd.	265,849	368	—	—	—	66
POSCO MEXICO S.A. DE C.V.	303,924	159	—	—	—	809
POSCO Maharashtra Steel Private Limited	644,652	311	—	—	—	800
POSCO(Suzhou) Automotive Processing Center Co., Ltd.	121,633	27	2,189	—	—	—
POSCO VST CO., LTD.	299,307	—	—	—	—	114
POSCO INTERNATIONAL SINGAPORE PTE LTD.	—	154	694,600	—	—	—
Others	964,532	20,679	134,296	34,444	246,184	169,849
	13,646,447	141,383	2,954,645	886,250	667,913	439,192
Associates and joint ventures(*3)						
POSCO PLANTEC Co., Ltd.	1,364	86	2,882	306,927	15,089	30,317
SNNC	5,527	4,100	588,276	—	—	9
POSCO-SAMSUNG-Slovakia Processing Center	65,688	—	—	—	—	—
Roy Hill Holdings Pty Ltd	—	—	1,272,878	—	—	—
Others	16,084	112,390	76,427	—	—	85,167
	88,663	116,576	1,940,463	306,927	15,089	115,493
	₩13,735,110	257,959	4,895,108	1,193,177	683,002	554,685

(*1) Sales and others mainly consist of sales of steel products to subsidiaries, associates and joint ventures.
(*2) Purchases and others mainly consist of subsidiaries' purchases of construction services and purchases of raw materials to manufacture steel products.
(*3) As of December 31, 2019, the company provided guarantees to related parties (Note 38)
(*4) Others (purchase) mainly consist of service fees related to maintenance and repair of ERP System.

3) For the year ended December 31, 2020

(in millions of Won)	Sales and others(*1)		Purchase and others(*2)			
	Sales	Others	Purchase of material	Purchase of fixed assets	Outsourced processing cost	Others
Subsidiaries(*3)						
POSCO ENGINEERING & CONSTRUCTION CO.,LTD.	₩ 6,790	11,123	15	772,846	220	63,467
POSCO COATED & COLOR STEEL Co., Ltd.	418,619	1,820	—	—	28,523	639
POSCO ICT(*4)	2,747	4,996	—	374,914	41,384	181,554
eNtoB Corporation	15	60	214,750	34,217	76	25,870
POSCO CHEMICAL CO., LTD	258,154	34,944	456,780	23,003	304,135	4,816
POSCO ENERGY CO., LTD.	1,262	2,396	14,011	3	—	23,336
POSCO INTERNATIONAL Corporation	5,644,017	56,322	342,520	—	11,371	4,375
POSCO Thainox Public Company Limited	311,924	137	2,538	—	—	—
POSCO America Corporation	121,377	—	—	—	—	1,249
POSCO Canada Ltd.	—	1,325	162,385	—	—	—
POSCO Asia Co., Ltd.	1,514,154	1,060	151,373	4,331	1,508	3,915
Qingdao Pohang Stainless Steel Co., Ltd.	145,006	66	—	—	—	305
POSCO JAPAN Co., Ltd.	1,076,987	—	37,210	5,277	—	6,225
POSCO-VIETNAM Co., Ltd.	253,060	605	—	—	—	96
POSCO MEXICO S.A. DE C.V.	168,188	403	—	—	—	2,000
POSCO Maharashtra Steel Private Limited	328,943	2,507	—	—	—	479
POSCO(Suzhou) Automotive Processing Center Co., Ltd.	112,925	—	—	—	—	—
POSCO VST CO., LTD.	208,464	218	—	—	—	156
POSCO INTERNATIONAL SINGAPORE PTE LTD.	—	—	600,580	—	—	—
Others	1,331,672	23,017	73,575	45,695	270,821	135,698
	11,904,304	140,999	2,055,737	1,260,286	658,038	454,180
Associates and joint ventures(*3)						
POSCO PLANTEC Co., Ltd.(*5)	65	41	916	84,839	4,086	12,431
SNNC	5,651	4,739	545,001	—	—	—
POSCO-SAMSUNG-Slovakia Processing Center	40,512	—	—	—	—	—
Roy Hill Holdings Pty Ltd	—	91,188	1,300,296	—	—	—
Others	34,555	69,110	63,945	—	—	31,637
	80,783	165,078	1,910,158	84,839	4,086	44,068
	₩11,985,087	306,077	3,965,895	1,345,125	662,124	498,248

(*1) Sales and others mainly consist of sales of steel products to subsidiaries, associates and joint ventures.
(*2) Purchases and others mainly consist of subsidiaries' purchases of construction services and purchases of raw materials to manufacture steel products.
(*3) As of December 31, 2020, the company provided guarantees to related parties (Note 38)
(*4) Others (purchase) mainly consist of service fees related to maintenance and repair of ERP System.
(*5) During the year ended December 31, 2020, the Company has lost significant influence over the investee.

(b) The related account balances of receivables and payables resulting from significant transactions between the controlling company and related companies as of December 31, 2019 and 2020 are as follows:

1) December 31, 2019

(in millions of Won)	Receivables			Payables			
	Trade accounts and notes receivable	**Others**	**Total**	**Trade accounts and notes payable**	**Accounts payable**	**Others**	**Total**
Subsidiaries							
POSCO ENGINEERING & CONSTRUCTION CO.,LTD.	₩ 5,702	65	5,767	—	78,512	385	78,897
POSCO COATED & COLOR STEEL Co., Ltd.	57,792	—	57,792	—	11	3,828	3,839
POSCO ICT	225	1	226	1,147	129,424	42,844	173,415
eNtoB Corporation	—	—	—	3,459	27,431	—	30,890
POSCO CHEMICAL CO., LTD	35,102	3,578	38,680	17,839	52,710	19,369	89,918
POSCO ENERGY CO., LTD.	1,876	4	1,880	—	3,229	14,912	18,141
POSCO INTERNATIONAL Corporation	633,073	—	633,073	345	2,218	3,839	6,402
POSCO Thainox Public Company Limited	52,826	2	52,828	916	—	—	916
POSCO America Corporation	8,448	—	8,448	—	—	—	—
POSCO Asia Co., Ltd.	508,962	748	509,710	12,784	171	—	12,955
Qingdao Pohang Stainless Steel Co., Ltd.	29,842	—	29,842	—	—	—	—
POSCO MEXICO S.A. DE C.V.	90,351	702	91,053	—	—	—	—
POSCO Maharashtra Steel Private Limited	235,917	444	236,361	—	—	—	—
Others(*1)	470,734	33,851	504,585	14,397	40,233	87,652	142,282
	2,130,850	39,395	2,170,245	50,887	333,939	172,829	557,655
Associates and joint ventures							
POSCO PLANTEC Co., Ltd.	84	10	94	471	49,511	—	49,982
SNNC	297	65	362	19,769	—	—	19,769
Roy Hill Holdings Pty Ltd	—	—	—	93,383	—	—	93,383
Others	942	706	1,648	3,447	586	—	4,033
	1,323	781	2,104	117,070	50,097	—	167,167
	₩2,132,173	40,176	2,172,349	167,957	384,036	172,829	724,822

(*1) During the year ended December 31, 2018, the Company made loans amounting to ₩2,950 million to Suncheon Eco Trans Co., Ltd., a subsidiary of the Company. As of December 31, 2019, corresponding amounts of those loans were recorded as allowance for doubtful accounts.

2) December 31, 2020

(in millions of Won)	Receivables			Payables			
	Trade accounts and notes receivable	Others	Total	Trade accounts and notes payable	Accounts payable	Others	Total
Subsidiaries							
POSCO ENGINEERING & CONSTRUCTION CO.,LTD.	₩ 6,010	11	6,021	—	81,608	394	82,002
POSCO COATED & COLOR STEEL Co., Ltd.	63,520	—	63,520	—	180	3,709	3,889
POSCO ICT	245	1	246	2,820	118,720	31,411	152,951
eNtoB Corporation	—	—	—	1,361	35,846	18	37,225
POSCO CHEMICAL CO., LTD	19,406	3,434	22,840	13,066	55,515	18,531	87,112
POSCO ENERGY CO., LTD.	261	122	383	—	2,995	12,508	15,503
POSCO INTERNATIONAL Corporation	534,531	—	534,531	2,713	—	—	2,713
POSCO Thainox Public Company Limited	39,920	—	39,920	—	—	—	—
POSCO America Corporation	19	—	19	—	—	—	—
POSCO Asia Co., Ltd.	239,847	898	240,745	3,958	258	—	4,216
Qingdao Pohang Stainless Steel Co., Ltd.	25,838	—	25,838	—	—	—	—
POSCO MEXICO S.A. DE C.V.	71,307	397	71,704	—	—	—	—
POSCO Maharashtra Steel Private Limited	173,285	2,006	175,291	—	—	—	—
Others(*1)	557,841	29,962	587,803	41,564	32,785	86,891	161,240
	1,732,030	36,831	1,768,861	65,482	327,907	153,462	546,851
Associates and joint ventures							
SNNC	106	228	334	33,380	—	—	33,380
Roy Hill Holdings Pty Ltd	—	52,076	52,076	201,924	—	—	201,924
Others	818	17,882	18,700	6,704	—	—	6,704
	924	70,186	71,110	242,008	—	—	242,008
	₩1,732,954	107,017	1,839,971	307,490	327,907	153,462	788,859

(*1) As of December 31, 2020, the Company has loans amounting to ₩2,950 million granted to Suncheon Eco Trans Co., Ltd., a subsidiary of the Company, which has been fully impaired.

(c) Significant transactions between the Company, excluding the controlling company, and related companies for the years ended December 31, 2018, 2019 and 2020 were as follows:

1) For the year ended December 31, 2018

(in millions of Won)	Sales and others		Purchase and others	
	Sales	Others	Purchase of material	Others
Associates and joint ventures				
POSCO PLANTEC Co., Ltd.	₩ 19,394	—	83	24,103
New Songdo International City Development, LLC	30,997	53,316	—	97
SNNC	66,075	128	2,395	71,421
Chuncheon Energy Co., Ltd.	25,693	—	—	—
Noeul Green Energy Co., Ltd.	6,444	—	—	587
VSC POSCO Steel Corporation	12,504	—	2,314	—
USS-POSCO Industries	—	—	2,595	—
CSP—Compania Siderurgica do Pecem	239,922	9,678	346,602	26,324
Zhongyue POSCO (Qinhuangdao) Tinplate Industrial Co., Ltd	46,538	—	62,851	—
BX STEEL POSCO Cold Rolled Sheet Co., Ltd.	—	—	10,572	—
POS-SEAHSTEELWIRE(TIANJIN)CO.,Ltd	12,244	—	—	—
PT. Batutua Tembaga Raya	—	168	15,663	—
POSCO SeAH Steel Wire(Nantong) Co., Ltd.	30,417	—	249	—
Sebang Steel	—	—	13,571	—
DMSA/AMSA	—	—	46,293	—
South-East Asia Gas Pipeline Company Ltd.	—	50,789	—	—
Others	359,124	62,375	20,136	50,918
	₩849,352	176,454	523,324	173,450

2) For the year ended December 31, 2019

(in millions of Won)	Sales and others		Purchase and others	
	Sales	Others	Purchase of material	Others
Associates and joint ventures				
POSCO PLANTEC Co., Ltd.	₩ 15,637	—	39	14,778
New Songdo International City Development, LLC	33,885	44,131	—	36
SNNC	74,034	—	35,910	65,503
Chuncheon Energy Co., Ltd.	1,156	—	—	—
Noeul Green Energy Co., Ltd.	6,579	—	—	1,217
USS-POSCO Industries	4	—	1,835	—
CSP—Compania Siderurgica do Pecem	98,330	12,718	416,541	23,398
Zhongyue POSCO (Qinhuangdao) Tinplate Industrial Co., Ltd	34,895	—	39,733	—
BX STEEL POSCO Cold Rolled Sheet Co., Ltd.	10	—	4,222	—
POS-SEAHSTEELWIRE(TIANJIN)CO.,Ltd	11,500	—	—	—
PT. Batutua Tembaga Raya	—	772	45,841	—
POSCO SeAH Steel Wire(Nantong) Co., Ltd.	30,083	—	353	—
Sebang Steel	—	—	4,862	—
DMSA/AMSA	—	—	71,275	—
South-East Asia Gas Pipeline Company Ltd.	64	42,010	—	—
POSCO MITSUBISHI CARBON TECHNOLOGY	88,506	16,424	4,769	2,144
Samcheok BluePower Co.,Ltd (Formerly, POSPower Co., Ltd.)	163,167	—	—	—
TK CHEMICAL CORPORATION	172,133	—	63,836	—
Others	252,125	53,596	31,460	28,039
	₩982,108	169,651	720,676	135,115

3) For the year ended December 31, 2020

(in millions of Won)	Sales and others		Purchase and others	
	Sales	Others	Purchase of material	Others
Associates and joint ventures				
POSCO PLANTEC Co., Ltd.	₩ 2,558	—	5	—
New Songdo International City Development, LLC	125,909	26,451	—	137
SNNC	61,332	30	48,764	126,060
Chuncheon Energy Co., Ltd.	213	211	—	—
Noeul Green Energy Co., Ltd.	6,059	—	—	829
CSP—Compania Siderurgica do Pecem	47,243	11,432	165,269	14,399
Zhongyue POSCO (Qinhuangdao) Tinplate Industrial Co., Ltd	42,189	—	37,509	151
BX STEEL POSCO Cold Rolled Sheet Co., Ltd.	—	—	5,780	—
POS-SEAHSTEELWIRE(TIANJIN)CO.,Ltd	8,757	—	—	—
PT. Batutua Tembaga Raya	—	1,061	28,174	—
POSCO SeAH Steel Wire(Nantong) Co., Ltd.	29,964	—	384	—
DMSA/AMSA	—	—	29,189	—
South-East Asia Gas Pipeline Company Ltd.	7	71,299	—	—
POSCO MITSUBISHI CARBON TECHNOLOGY	31,068	19,530	3,608	701
Samcheok BluePower Co.,Ltd (Formerly, POSPower Co., Ltd.)	220,372	—	—	—
TK CHEMICAL CORPORATION	104,749	—	26,863	—
Others	182,151	71,955	49,315	37,582
	₩862,571	201,969	394,860	179,859

(d) The related account balances of receivables and payables resulting from significant transactions between the Company, excluding the controlling company, and related companies as of December 31, 2019 and December 31, 2020 are as follows:

1) December 31, 2019

(in millions of Won)	Receivables(*1)				Payables		
	Trade accounts and notes receivable	**Loan**	**Others**	**Total**	**Trade accounts and notes payable**	**Others**	**Total**
Associates and joint ventures							
POSCO PLANTEC Co., Ltd.	₩ 4,121	—	205	4,326	791	8	799
New Songdo International City Development, LLC	23,626	—	20,592	44,218	—	10	10
Chuncheon Energy Co., Ltd.	—	8,234	—	8,234	657	—	657
Samcheok BluePower Co., Ltd. (Formerly, POSPower Co., Ltd.)	34,945	—	—	34,945	—	67,543	67,543
Nickel Mining Company SAS	—	60,516	120	60,636	—	—	—
CSP—Compania Siderurgica do Pecem	244,700	—	14,264	258,964	—	33	33
Zhongyue POSCO (Qinhuangdao) Tinplate Industrial Co., Ltd	10,273	—	—	10,273	633	—	633
PT. Batutua Tembaga Raya	—	36,291	19,993	56,284	56	—	56
POSCO SeAH Steel Wire(Nantong) Co., Ltd.	7,035	—	—	7,035	101	—	101
DMSA/AMSA	—	57,999	1,672	59,671	—	—	—
South-East Asia Gas Pipeline Company Ltd.	14	147,367	—	147,381	—	—	—
POSCO MITSUBISHI CARBON TECHNOLOGY	8,078	—	—	8,078	916	—	916
TK CHEMICAL CORPORATION	37,373	—	—	37,373	110	—	110
Others	94,914	138,663	97,804	331,381	7,128	13,379	20,507
	₩465,079	449,070	154,650	1,068,799	10,392	80,973	91,365

(*1) As of December 31, 2019, the Company recognizes bad debt allowance for receivables amounting to ₩132,554 million.

2) December 31, 2020

(in millions of Won)	Receivables(*1)				Payables		
	Trade accounts and notes receivable	Loan	Others	Total	Trade accounts and notes payable	Others	Total
Associates and joint ventures							
New Songdo International City Development, LLC	23,866	—	20,592	44,458	—	3	3
Chuncheon Energy Co., Ltd.	—	—	—	—	444	—	444
Samcheok BluePower Co., Ltd. (Formerly, POSPower Co., Ltd.)	92,715	—	—	92,715	—	40,536	40,536
Nickel Mining Company SAS	—	62,420	143	62,563	—	—	—
CSP—Compania Siderurgica do Pecem	19,704	—	—	19,704	—	—	—
Zhongyue POSCO (Qinhuangdao) Tinplate Industrial Co., Ltd	6,534	—	—	6,534	1,023	150	1,173
PT. Batutua Tembaga Raya	—	35,355	—	35,355	—	—	—
POSCO SeAH Steel Wire(Nantong) Co., Ltd.	13,889	—	—	13,889	193	—	193
South-East Asia Gas Pipeline Company Ltd.	—	91,003	—	91,003	—	—	—
POSCO MITSUBISHI CARBON TECHNOLOGY	2,799	—	—	2,799	783	—	783
TK CHEMICAL CORPORATION	21,916	—	—	21,916	429	—	429
Others	78,752	166,572	111,083	356,407	7,035	11,446	18,481
	₩260,175	355,350	131,818	747,343	9,907	52,135	62,042

(*1) As of December 31, 2020, the Company recognizes bad debt allowance for receivables amounting to ₩133,997 million.

(e) Significant financial transactions between the Company, excluding the controlling company, and related companies for the years ended December 31, 2019 and 2020 were as follows:

1) December 31, 2019

(in millions of Won)	Beginning	Lend	Collect	Others(*2)	Ending
Associates and joint ventures					
UITrans LRT Co., Ltd.	₩ 5,695	4,884	—	—	10,579
DMSA/AMSA(*1)	64,297	15,451	—	(21,749)	57,999
South-East Asia Gas Pipeline Company Ltd.	191,107	—	(48,027)	4,287	147,367
PT. Batutua Tembaga Raya	35,100	—	—	1,191	36,291
PT. Tanggamus Electric Power	4,423	—	—	157	4,580
PT. Wampu Electric Power	5,330	—	—	189	5,519
PT. POSMI Steel Indonesia	2,236	—	—	80	2,316
Nickel Mining Company SAS	59,664	—	—	852	60,516
KRAKATAU POS-CHEM DONG-SUH CHEMICAL	6,709	—	—	238	6,947
POSCO SeAH Steel Wire(Nantong) Co., Ltd.	3,354	—	(3,354)	—	—
POS-SeAH Steel Wire (Thailand) Co., Ltd.	6,709	—	—	238	6,947
AMCI (WA) PTY LTD	90,480	4,669	—	(16,596)	78,553
POS-AUSTEM YANTAI AUTOMOTIVE CO.,LTD	5,590	—	—	199	5,789
POS-AUSTEM WUHAN AUTOMOTIVE CO.,LTD	8,945	—	—	317	9,262
Hyo-chun Co., Ltd.(*3)	—	—	—	2,382	2,382
Chuncheon Energy Co., Ltd.	—	8,234	—	—	8,234
POS-AUSTEM Suzhou Automotive Co., Ltd	—	5,827	—	(38)	5,789
	₩489,639	39,065	(51,381)	(28,253)	449,070

(*1) During the year ended December 31, 2019, loans amounting to ₩23,682 million have been converted to shares of DMSA/AMSA, which is presented in others.
(*2) Includes adjustments of foreign currency translation differences and others.
(*3) During the year ended December 31, 2019, it was newly classified to associates.

2) December 31, 2020

(in millions of Won)	Beginning	Lend	Collect	Others(*2)	Ending
Associates and joint ventures					
UITrans LRT Co., Ltd.	₩ 10,579	12,873	—	—	23,452
DMSA/AMSA(*1)	57,999	—	—	(57,999)	—
South-East Asia Gas Pipeline Company Ltd.	147,367	—	(47,539)	(8,825)	91,003
PT. Batutua Tembaga Raya	36,291	—	—	(936)	35,355
PT. Tanggamus Electric Power	4,580	—	—	(276)	4,304
PT. Wampu Electric Power	5,519	—	—	(333)	5,186
PT. POSMI Steel Indonesia	2,316	—	—	(140)	2,176
Nickel Mining Company SAS	60,516	—	—	1,904	62,420
KRAKATAU POS-CHEM DONG-SUH CHEMICAL	6,947	—	(1,239)	(268)	5,440
POS-SeaAH Steel Wire (Thailand) Co., Ltd.	6,947	—	—	(419)	6,528
AMCI (WA) PTY LTD	78,553	5,550	—	(812)	83,291
POS-AUSTEM YANTAI AUTOMOTIVE CO.,LTD	5,789	—	—	(349)	5,440
POS-AUSTEM WUHAN AUTOMOTIVE CO.,LTD	9,262	—	—	(558)	8,704
Hyo-chun Co., Ltd.	2,382	—	—	—	2,382
Chun-cheon Energy Co., Ltd.	8,234	—	(8,234)	—	—
POS-AUSTEM Suzhou Automotive Co., Ltd	5,789	11,805	—	(1,274)	16,320
CAML RESOURCES PTY LTD	—	3,219	—	93	3,312
Shinahn wind power generation	—	37	—	—	37
	₩449,070	33,484	(57,012)	(70,192)	355,350

(*1) During the year ended December 31, 2020, loans amounting to ₩60,278 million have been converted to shares of DMSA/AMSA, which is presented in others.
(*2) Includes adjustments of foreign currency translation differences and others.

(f) For the years ended December 31, 2018, 2019 and 2020, details of compensation to key management officers were as follows:

(in millions of Won)	2018	2019	2020
Short-term benefits	₩115,618	119,658	109,546
Long-term benefits	13,400	13,562	15,288
Retirement benefits	21,658	21,231	16,238
	₩150,676	154,451	141,072

Key management officers include directors (including non-standing directors), executive officers and fellow officers who have significant influences and responsibilities in the Company's business and operations.

38. Commitments and Contingencies

(a) Contingent liabilities

Contingent liabilities may develop in a way not initially expected. Therefore, management continuously assesses contingent liabilities to determine whether an outflow of resources embodying economic benefits has become probable. If it becomes probable that an outflow of future economic benefits will be required for an item previously dealt with as a contingent liability, a provision is recognized in the consolidated financial statements of the period in which the change in probability occurs (except in the extremely rare circumstances where no reliable estimate can be made).

Management makes estimates and assumptions that affect disclosures of commitments and contingencies. All estimates and assumptions are based on the evaluation of current circumstances and appraisals with the supports of internal specialists or external consultants.

Management regularly analyzes current information about these matters and provides for probable contingent losses including the estimate of legal expense to resolve the matters. Internal and external lawyers are used for these assessments. In making the decision regarding the need for a provision, management considers whether the Company has an obligation as a result of a past event, whether it is probable that an outflow of cash or other resources embodying economic benefits will be required to settle the obligation and the ability to make a reliable estimate of the amount of the obligation.

(b) Details of guarantees

Contingent liabilities on outstanding guarantees and others provided by the Company as of December 31, 2020 are as follows.

(in millions of Won)

Guarantor	Guarantee beneficiary	Financial institution	Guarantee limit			Guarantee amount	
			Foreign currency		Won equivalent	Foreign currency	Won equivalent
[The Company]							
POSCO	POSCO Asia Co., Ltd.	Credit Agricole and others	USD	100,000,000	108,800	100,000,000	108,800
	POSCO-VIETNAM Co., Ltd.	SMBC and others	USD	156,000,000	169,728	156,000,000	169,728
	POSCO MEXICO S.A. DE C.V.	BOA and others	USD	120,000,000	130,560	120,000,000	130,560
	POSCO COATED STEEL (THAILAND) CO., LTD.	SMBC and others	THB	5,501,000,000	199,908	5,501,000,000	199,908
	POSCO Maharashtra Steel Private Limited	SMBC and others	USD	139,784,000	152,085	139,784,000	152,085
	PT. KRAKATAU POSCO	Export-Import Bank of Korea and others	USD	1,350,300,000	1,469,126	783,740,291	852,710
	POSCO ASSAN TST STEEL INDUSTRY	SOCIETE GENERALE and others	USD	146,527,500	159,422	131,874,750	143,479
POSCO INTERNATIONAL Corporation	POSCO INTERNATIONAL GLOBAL DEVELOPMENT PTE. LTD. (Formerly, Daewoo Global Development Pte., Ltd.)	Export-Import Bank of Korea and others	USD	186,625,000	203,048	178,750,000	194,480

(in millions of Won)			Guarantee limit			Guarantee amount	
Guarantor	**Guarantee beneficiary**	**Financial institution**	**Foreign currency**		**Won equivalent**	**Foreign currency**	**Won equivalent**
	POSCO INTERNATIONAL POWER (PNGLAE) LIMITED	KDB bank	USD	43,117,404	46,912	33,167,234	36,086
	GOLDEN LACE POSCO INTERNATIONAL CO., LTD.	Shinhan Bank and others	USD	11,000,000	11,968	11,000,000	11,968
	PT. Bio Inti Agrindo	Export-Import Bank of Korea and others	USD	148,476,103	161,542	146,341,912	159,220
	POSCO ASSAN TST STEEL INDUSTRY POSCO INTERNATIONAL AMERICA Corp. POSCO INTERNATIONAL SINGAPORE Pte. Ltd.. POSCO INTERNATIONAL MEXICO S.A. de C.V.	ING	USD	14,652,750	15,942	14,652,750	15,942
	POSCO INTERNATIONAL Japan Corp. POSCO INTERNATIONAL Malaysia SDN BHD POSCO INTERNATIONAL Deutschland GmbH POSCO INTERNATIONAL Italia S.R.L.	Bank Mendes Gans	USD	50,000,000	54,400	29,545,000	32,145
	GRAIN TERMINAL HOLDING PTE. LTD.	Export-Import Bank of Korea and others	USD	27,000,000	29,376	27,000,000	29,376
POSCO ENGINEERING & CONSTRUCTION CO., LTD.	POSCO E&C Vietnam Co., Ltd.	POSCO Asia Co., Ltd. and others	USD	42,000,000	45,696	42,000,000	45,696
	Songdo Posco family Housing	Shinyoung securities	KRW	20,000	20,000	20,000	20,000
	JB CLARK HILLS	KOREA INVESTMENT& SECURITIES Co., Ltd.	KRW	60,000	60,000	60,000	60,000
	PT.POSCO E&C INDONESIA	POSCO Asia Co., Ltd. and others	USD	25,900,000	28,179	25,900,000	28,179
POSCO ICT	PT.POSCO ICT INDONESIA	POSCO Asia Co., Ltd. and others	USD	1,500,000	1,632	900,000	979
POSCO CHEMICAL CO., LTD	PT.Krakatau Posco Chemical Calcination (formerly, PT.Krakatau Posco Chemtech Calcination)	POSCO Asia Co., Ltd. and others	USD	15,200,000	16,538	10,000,000	10,880
POSCO COATED & COLOR STEEL Co., Ltd.	Myanmar POSCO C&C Company, Limited.	POSCO Asia Co., Ltd.	USD	13,986,947	15,218	13,986,947	15,218
POSCO ENERGY CO., LTD	PT. KRAKATAU POSCO ENERGY	POSCO Asia Co., Ltd. and others	USD	88,903,407	96,727	88,903,407	96,727
POSCO Asia Co., Ltd.	POSCO America Corporation	SMBC	USD	70,000,000	76,160	70,000,000	76,160
POSCO America Corporation	POSCO AMERICA COMERCIALIZADORA S DE RL DE CV	Bank of America N.A.	USD	37,400,000	40,691	37,400,000	40,691

(in millions of Won)			Guarantee limit			Guarantee amount	
Guarantor	Guarantee beneficiary	Financial institution	Foreign currency		Won equivalent	Foreign currency	Won equivalent
[Associates and joint ventures]							
POSCO	CSP—Compania Siderurgica do Pecem	Export-Import Bank of Korea and others	USD	420,000,000	456,961	370,715,701	403,340
		BNDES	BRL	464,060,000	97,207	464,060,000	97,207
	LLP POSUK Titanium	SMBC	USD	13,500,000	14,688	13,500,000	14,688
	Nickel Mining Company SAS	SMBC	EUR	46,000,000	61,559	46,000,000	61,559
POSCO INTERNATIONAL Corporation	GLOBAL KOMSCO Daewoo LLC	Hana Bank	USD	8,225,000	8,949	7,700,000	8,378
POSCO ENGINEERING & CONSTRUCTION CO., LTD.	New Songdo International City Development, LLC	Others	KRW	686,000	686,000	637,200	637,200
	POHANG E&E Coi., LTD	Heungkuk Life Insurance Co., Ltd.	KRW	71,930	71,930	59,425	59,425
	UITrans LRT Co., Ltd.	Kookmin Bank and others	KRW	125,845	125,845	98,284	98,284
	RPSD	Plan-up Sinsajeilcha Co., Ltd	KRW	45,000	45,000	37,000	37,000
	Metropolitan Outer Ring Expressway Co., ltd	Woori Bank and others	KRW	275,989	275,989	14,486	14,486
	Pureun Tongyeong Enviro Co., Ltd.	KDB Bank and others	KRW	22,714	22,714	15,062	15,062
	Pure Gimpo.Co.,Ltd	KDB Bank and others	KRW	44,740	44,740	31,036	31,036
	Clean Iksan Co.,Ltd	SAMSUNG FIRE & MARINE INSURANCE CO.,LTD and others	KRW	44,054	44,054	29,730	29,730
	NEXTRAIN Co., Ltd	Kookmin Bank and others	KRW	634,752	634,752	9,600	9,600
	Chun-cheon Energy Co., Ltd.	Kookmin Bank and others	KRW	149,200	149,200	145,300	145,300
POSCO ICT	UITrans LRT Co., Ltd.	Kookmin Bank	KRW	50,249	50,249	39,820	39,820
	Hyochun Co., Ltd.	Kyobo Securities	KRW	10,325	10,325	10,325	10,325
	Shinahn wind power generation	NH INVESTMENT & SECURITIES CO.,LTD. and others	KRW	17,860	17,860	17,124	17,124
	Metropolitan Outer Ring Expressway Co., Ltd	Woori Bank	KRW	24,920	24,920	1,308	1,308
	Western Inland highway CO.,LTD.	Kookmin Bank	KRW	47,348	47,348	—	—
POSCO CHEMICAL CO., LTD	KRAKATAU POS-CHEM DONG-SUH CHEMICAL	Hana Bank	USD	1,140,000	1,240	31,667	34
[Others]							
POSCO INTERNATIONAL Corporation	SHERRITT INTERNATIONAL CORP.	Export-Import Bank of Korea	USD	21,818,182	23,738	3,019,552	3,285
POSCO ENGINEERING & CONSTRUCTION CO., LTD.	Ecocity CO.,LTD and others	Kookmin Bank and others	KRW	4,236,319	4,236,319	2,284,596	2,284,596
POSCO ICT	BLT Enterprise and others	Hana Bank and others	KRW	192,847	192,847	116,106	116,106
POSCO AUSTRALIA PTY LTD	Department of Trade and Investment (NSW Government) and others	Woori Bank and others	AUD	11,637,271	9,735	11,637,271	9,735
PT. Bio Inti Agrindo	KSU Mandob	Bank Muamalat	IDR	80,000,000,000	6,192	80,000,000,000	6,192
POSCO Maharashtra Steel Private Limited	MAHARASHTRA STATE ELECTRICITY and others	HSBC and others	INR	188,156,806	2,796	188,156,806	2,796
			USD	3,253,056,293	3,539,326	2,555,913,211	2,780,834
			KRW	6,760,092	6,760,092	3,626,402	3,626,402
			IDR	80,000,000,000	6,192	80,000,000,000	6,192
			INR	188,156,806	2,796	188,156,806	2,796
			THB	5,501,000,000	199,908	5,501,000,000	199,908

(in millions of Won)

Guarantor	Guarantee beneficiary	Financial institution	Guarantee limit			Guarantee amount	
			Foreign currency		Won equivalent	Foreign currency	Won equivalent
			EUR	46,000,000	61,559	46,000,000	61,559
			AUD	11,637,271	9,735	11,637,271	9,735
			BRL	464,060,000	97,207	464,060,000	97,207

(c) Other commitments

Details of other commitments of the Company as of December 31, 2020 are as follows:

	Description
POSCO	POSCO entered into long-term contracts to purchase iron ore, coal, nickel and others. The contracts of iron ore and coal generally have terms of more than three years and the contracts of nickel have terms of more than one year. These contracts provide for periodic price adjustments based on the market price. As of December 31, 2020, 57 million tons of iron ore and 10 million tons of coal remained to be purchased under such long-term contracts. POSCO entered into an agreement with Tangguh Liquefied Natural Gas (LNG) Consortium in Indonesia to purchase 550 thousand tons of LNG annually for 20 years commencing in August 2005. The purchase price is subject to change, based on changes of the monthly standard oil price (JCC) and with a price ceiling. POSCO has long-term service contracts for the transportation of raw materials. As of December 31, 2020, there are 38 vessels under contracts, and the average remaining contract period is about 9 years. As of December 31, 2020, POSCO entered into a commitment with KOREA ENERGY AGENCY for long-term foreign currency borrowings, which are limited up to the amount of USD 4.12 million. The borrowing is related to the exploration of gas hydrates in Western Fergana-Chinabad. The repayment of the borrowings depends on the success of the projects. POSCO is not liable for the repayment in full or in part of the amount borrowed if the respective projects fail. POSCO has agreed to pay a certain portion of its profits under certain conditions, as defined by the borrowing agreements. As of December 31, 2020, the ending balance of the borrowing amounts to USD 1.02 million. POSCO has provided a supplemental funding agreement, as the largest shareholder, as requested from the creditors, including Norddeutsche Landesbank, for seamless funding to POSCO ENERGY Co., LTD., a subsidiary of the Company, under construction of new power plant. POSCO provides a ₩9.8 billion fund supplement agreement for Busan E&E Co., LTD. a subsidiary of our company, at the request of creditors, including the Korea Development Bank.
POSCO INTERNATIONAL Corporation	POSCO INTERNATIONAL Corporation operates a ship-to-ship business in which ships are chartered from ship’s owners and leased out to shippers. The Company has entered into a ship purchase agreement with the ship owners and the shippers, which obliges the shippers to pay the agreed amount either at the end of the contract terms or at the agreed termination and to take over the ownership of

	Description
	the vessel from the ship owners. Only if the shipper fails to fulfill its obligation including payment obligation for the purchase of the vessel, the Company is obliged to take over the ship based on the condition that the shipper's contractual obligations and rights are transferred to the Company. As of December 30, 2021, the amount which is exposed to the ship purchase agreements entered into is USD 208 million. The Company invested in the Ambatovy Nickel Project (DMSA/AMSA) in Madagascar through the Korea Ambatovy Consortium (KAC) formed with Korea Mineral Resources Corporation (KORES) and STX Corporation. SHERRITT INTERNATIONAL CORP., the operator, transferred a portion of the project's interests to Sumitomo and AHL (Ambatovy Holdings Limited) in November 2017, and transferred the remaining interests of the project to Sumitomo and AHL2 (Ambatovy Holdins II Limited) in August 2020. KAC has the rights and obligations to the 15.5% stake held by AHL and AHL2.
POSCO ENGINEERING & CONSTRUCTION CO., LTD.	As of December 31, 2020, POSCO ENGINEERING & CONSTRUCTION CO., LTD. has foreign currency guarantee of up to USD 2,495 million and uses USD 830 million with Woori Bank and others. As of December 31, 2020, the out standing balance of loans related to major liability compliance agreements is ₩165 billion from development of Pangyo the First Park Project. If the responsibility is not fulfilled, the obligation is to compensate for damages of principal and interest. In addition, according to the project agreements related to redevelopment and reconstruction projects, the Company has an agreement to compensate the Korea Housing and Urban Guarantee Corporation for damages of principal and interest amounting to ₩1,249,107 million(limited to ₩2,396,320 million). Futhermore, the Company provides agreements of construction completion (compensation for non-performance) in connection with a number of implementation and union business projects.
POSCO ICT	As of December 31, 2020, the company is provided with a guarantee of ₩134,170 million and ₩8,324 million and ₩305 million, respectively, from the Software credit union and the Seoul guarantee insurance company and Engineering credit union. In connection with 5 projects, including the construction of the Hanam Smart Building, the company is responsible for fulfilling its obligations. If the responsibility is not fulfilled, the Company is liable for damages of principal and interest of lenders (financial institutions that lend to the developer). Outstanding loans related to the liability compliance agreement are worth ₩298.4 billion (loan ceiling ₩352.9 billion) as of December 31, 2020. The company has the right to request the trustee to sell the trust property in the event of a certain reason in the trust contract, such as repaying the liability to the lenders.

(d) Litigation in progress

1) Request for Arbitration of NSC Investment and TGC

In March 2019, NSC Investment and TGC("Applicant"), a former joint venture partner of POSCO ENGINEERING & CONSTRUCTION CO., LTD., in connection with the Songdo International City Development Project in Incheon, filed an arbitration (mediation price: approximately USD 2 billion) for alleged violations of contract by POSCO ENGINEERING & CONSTRUCTION CO., LTD. As of December 31, 2020, the Company has determined that the applicant's claim is without merit, and did not recognize a provision.

2) Other litigations

As of December 31, 2020, litigations in progress that POSCO and certain subsidiaries are defendants in legal actions arising from the normal course of business are as follows:

(in millions of Won, in thousands of foreign currencies)

Company	Legal actions	Claim amount		Won equivalent	Descrioption
POSCO	30	KRW	48,719	48,719	Lawsuit on claim for employee right and others(*1)
	1	BRL	72,774	15,244	Lawsuit on claim for payment for goods
	1	CAD	79,000	67,411	Lawsuit on claim for damages
	2	INR	4,469,396	66,415	Lawsuit on claim for payment on guarantees and others(*1)
	5	KRW	25,092	25,092	Litigation for confirmation of deposit bond and others
	4	USD	22,966	24,987	Lawsuit on claim for damages and others
	1	PKR	124,775	846	Lawsuit on claim for damages
POSCO ENGINEERING & CONSTRUCTION CO., LTD.	105	KRW	470,021	470,021	Lawsuit on claim for damages and others(*1)
POSCO ICT	2	BRL	7,965	1,668	Lawsuit on claim for damage(*1)
	7	KRW	4,938	4,938	Lawsuit on claim for damages and others(*1)
POSCO A&C	8	KRW	8,668	8,668	Lawsuit on claim for payment on construction and others(*1)
POSCO ENERGY CO., LTD.	4	KRW	11,940	11,940	Lawsuit on claim for damages and others
	2	USD	400,000	435,200	Lawsuit on claim for damages
POSCO E&C CHINA CO., LTD.	4	CNY	43,163	7,206	Lawsuit over contract dispute and others(*1)
POSCO O&M Co., Ltd.	2	KRW	1,080	1,080	Lawsuit on claim for damages
POSCO ENGINEERING (THAILAND) CO., LTD.	2	THB	187,648	6,819	Lawsuit on claim for payment on construction and others
	1	USD	221	241	Lawsuit on claim for payment on construction
eNtoB Corporation	2	KRW	31	31	Lawsuit on claim for damages

POSCO and Subsidiaries
Notes to the Consolidated Financial Statements, Continued
As of December 31, 2019 and 2020

(in millions of Won, in thousands of foreign currencies)

Company	Legal actions	Claim amount		Won equivalent	Descrioption
POSCO E&C Vietnam Co., Ltd.	1	USD	211	229	Lawsuit on claim for payment on construction
	1	VND	90,158,406	4,246	Lawsuit on claim for payment on construction
Pos-Sea Pte Ltd	2	USD	15,900	17,299	Lawsuit over contract dispute
POSCO TNPC Otomotiv Celik San. Ve Tic. A.S	6	TRY	307	45	Lawsuit over industrial accidents and others(*1)
POSCO India Steel Distribution Center Private Ltd.	1	INR	223,795	3,326	Lawsuit on claim for tax restitution
Brazil Sao Paulo Steel Processing Center	4	BRL	3,844	805	Lawsuit on claim for labor and others
POSCO ENGINEERING & CONSTRUCTION DO BRAZIL LTDA.	85	BRL	147,667	30,932	Lawsuit on claim for payment on construction and others(*1)
POSCO ASSAN TST STEEL INDUSTRY	1	USD	325	353	Lawsuit on compensation(*1)
POSCO TMC INDIA PRIVATE LIMITED	2	INR	—	—	Lawsuit on claim for employee laid-off
POSCO America Corporation	1	USD	—	—	Lawsuit on claim for labor
POSCO Center Beijing	1	CNY	741	124	Lawsuit on claim for Deposit Return
POSCO INDIA PROCESSING	1	INR	54,420	809	Lawsuit on claim for damages
POSCO-India Pune Processing	1	INR	2,197,800	32,659	Lawsuit over contract dispute
POSCO CHEMCAL CO., LTD	1	KRW	15,383	15,383	Calculation of stock purchase value
POSCO M-TECH	2	KRW	101	101	Lawsuit on claim for damages
POSCO Engineering and Construction India Private Limited	2	INR	522,800	7,769	Lawsuit on claim for payment
POSCO INTERNATIONAL AMERICA Corp.	2	USD	12,106	13,171	Lawsuit on claim for damages
HONG KONG POSCO E&C (CHINA) INVESTMENT Co., Ltd.	1	KRW	3,305	3,305	Lawsuit on claim for payment
POSCO Thainox Public Company Limited	1	KRW	3,506	127	Lawsuit on invalidation of a check
POSCO SPS CORPORATION	1	KRW	3,229	3,229	Lawsuit on claim for damages

(*1) The Company made a reliable estimate in 85 lawsuits by considering the possibility and amount of expected outflow of resources and recognized ₩59,211 million as provision for legal contingencies and claims.

For all the other lawsuits and claims, management does not believe the Company has any present obligations and therefore, the Company has not recognized any provisions as of December 31, 2020 for the matters.

(e) Other contingent circumstances

Other major contingencies for the Company as of December 31, 2020 are as follows:

Company	Description
POSCO	POSCO has provided 3 blank checks to Korea Energy Agency as collateral for long-term foreign currency borrowings.
POSCO INTERNATIONAL Corporation	As of December 31, 2020, POSCO INTERNATIONAL Corporation has provided 30 blank promissory notes and 17 blank checks to Korea Energy Agency and others as collateral for the guarantee on performance for contracts and others.
POSCO ENGINEERING & CONSTRUCTION CO., LTD.	As of December 31, 2020, POSCO ENGINEERING & CONSTRUCTION CO., LTD. has provided 32 blank checks and 4 blank promissory notes as collateral for agreements and outstanding loans, and has provided joint guarantee of ₩6,066,568 million for guarantee that partners had issued from Korea Housing & Urban Guarantee Corporation and others.
POSCO ICT	As of December 31, 2020, POSCO ICT has provided 6 blank checks to financial institutions as collateral for the guarantee on performance for contracts and others.

39. Additional Information of Statement of Cash Flows

(a) Changes in operating assets and liabilities for the years ended December 31, 2018, 2019 and 2020 were as follows:

(in millions of Won)	2018	2019	2020
Trade accounts and notes receivable	₩ 17,806	286,121	818,857
Other receivables	(20,786)	(163,234)	210,630
Inventories	(1,451,009)	1,136,819	1,443,931
Other current assets	1,118	42,337	51,750
Other non-current assets	5,974	(30,010)	(92,068)
Trade accounts and notes payable	379,742	(732,741)	594,414
Other payables	(111,893)	2,762	(78,997)
Other current liabilities	(197,154)	(173,762)	101,027
Provisions	(119,617)	(75,514)	(81,988)
Payments of severance benefits	(189,165)	(152,275)	(225,293)
Plan assets	(245,214)	(217,953)	(94,121)
Other non-current liabilities	(175,528)	(36,595)	207,766
	₩(2,105,726)	(114,045)	2,855,908

(b) Changes in liabilities arising from financial activities for the years ended December 31, 2019 and 2020 were as follows:

1) December 31, 2019

(in millions of Won)	Liabilities				Derivatives that hedge borrowings
	Short-term borrowings	Long-term borrowings	Dividend payable	Lease liabilities	
Beginning	₩ 7,487,780	12,721,490	8,673	94,754	83,523
Changes from financing cash flows	(2,194,727)	1,900,132	(962,712)	(167,427)	7,657
Changes arising from obtaining or losing control of subsidiaries or other business	(45,589)	(88,966)	324	—	—
The effect of changes in foreign exchange rates	238,869	415,028	(649)	(1,867)	—
Changes in fair values	—	—	—	—	(75,656)
Other changes:					
Decrease in retained earnings	—	—	889,900	—	—
Decrease in non-controlling interest	—	—	67,569	—	—
Interest expenses	—	7,596	—	—	—
Initial application of IFRS No.16	—	—	—	677,370	—
Increase in lease assets	—	—	—	72,640	—
Ending	₩ 5,486,333	14,955,280	3,105	675,470	15,524

2) December 31, 2020

(in millions of Won)	Liabilities				Derivatives that hedge borrowings
	Short-term borrowings	Long-term borrowings	Dividend payable	Lease liabilities	
Beginning	₩5,486,333	14,955,280	3,105	675,470	15,524
Changes from financing cash flows	35,525	766,330	(675,684)	(217,312)	4,096
Changes arising from obtaining or losing control of subsidiaries or other business	—	—	—	—	—
The effect of changes in foreign exchange rates	(327,463)	(432,082)	—	(29,728)	—
Changes in fair values	—	—	—	—	159,368
Other changes:					
Decrease in retained earnings	—	—	607,411	—	—
Decrease in non-controlling interest	—	—	67,871	—	—
Interest expenses	—	13,684	—	10	—
Increase in lease assets	—	—	—	311,235	—
Ending	₩5,194,395	15,303,212	2,703	739,675	178,988

40. Operating Segments and Geographic Information

(a) The Company's operating segments are organized based on the nature of markets and customers. The Company has four reportable operating segments—steel, construction, trading and others. The steel segment includes production of steel products and revenue of such products. The construction segment includes planning, designing and construction of industrial plants, civil engineering projects and commercial and residential buildings, both in Korea and overseas. The trading segment consists of exporting and importing a wide range of steel products and raw materials that are both obtained from and supplied to POSCO, as well as between other suppliers and purchasers in Korea and overseas. Other segments include power generation, network and system integration and logistics. The policies of classification and measurement on operating segments were the same for all periods presented.

(b) Information about reportable segments as of and for the years ended December 31, 2018, 2019 and 2020 were as follows:

1) As of and for the year ended December 31, 2018

(in millions of Won)	Steel	Trading	Construction	Others	Total
External revenues	₩32,358,009	22,407,717	6,769,410	3,442,641	64,977,777
Internal revenues	18,063,213	15,911,138	551,324	2,755,176	37,280,851
Including inter segment revenue	12,496,287	8,743,666	465,057	2,639,561	24,344,571
Total revenues	50,421,222	38,318,855	7,320,734	6,197,817	102,258,628
Interest income	199,016	36,437	115,019	23,454	373,926
Interest expenses	(468,681)	(189,165)	(111,101)	(94,613)	(863,560)
Depreciation and amortization	(2,812,666)	(210,493)	(36,840)	(265,416)	(3,325,415)
Impairment loss on property, plant and equipment and others	(1,057,474)	(86,085)	(82,521)	(117,280)	(1,343,360)
Share of loss of equity-accounted investees, net	(733,879)	(160,085)	(155,371)	—	(1,049,335)
Income tax expense	(1,307,292)	(52,914)	(238,441)	(65,611)	(1,664,258)
Segment profit (loss)	1,268,313	49,264	234	13,608	1,331,419
Segment assets	70,976,493	15,550,854	7,333,221	8,017,433	101,878,001
Investment in subsidiaries, associates and joint ventures	16,099,692	1,379,045	511,230	932,107	18,922,074
Acquisition of non-current assets	2,239,467	132,017	49,095	232,281	2,652,860
Segment liabilities	20,289,037	11,454,079	4,386,852	4,134,352	40,264,320

2) As of and for the year ended December 31, 2019

(in millions of Won)	Steel	Trading	Construction	Others	Total
External revenues	₩32,078,453	22,157,131	6,944,629	3,186,635	64,366,848
Internal revenues	17,729,990	15,467,687	743,376	2,796,306	36,737,359
Including inter segment revenue	12,184,743	8,130,503	686,881	2,638,449	23,640,576
Total revenues	49,808,443	37,624,818	7,688,005	5,982,941	101,104,207
Interest income	211,715	41,739	118,102	28,036	399,592
Interest expenses	(529,743)	(183,129)	(77,005)	(81,778)	(871,655)
Depreciation and amortization	(2,892,901)	(276,817)	(29,266)	(226,693)	(3,425,677)
Impairment loss on property, plant and equipment and others	(497,583)	(131,914)	(1,490)	(3,758)	(634,745)
Share of loss of equity-accounted investees, net	(865,769)	(76,038)	(85,628)	—	(1,027,435)
Income tax expense	(725,448)	(119,044)	(86,106)	(105,171)	(1,035,769)
Segment profit	585,948	165,348	27,789	544,961	1,324,046
Segment assets	71,153,809	14,482,538	7,653,637	9,212,225	102,502,209
Investment in subsidiaries, associates and joint ventures	15,650,654	1,409,764	527,418	1,062,215	18,650,051
Acquisition of non-current assets	2,275,103	192,805	30,563	404,963	2,903,434
Segment liabilities	21,101,474	10,184,521	4,584,423	4,454,502	40,324,920

3) As of and for the year ended December 31, 2020

(in millions of Won)	Steel	Trading	Construction	Others	Total
External revenues	₩28,892,877	19,345,222	6,576,170	2,978,527	57,792,796
Internal revenues	15,365,443	12,946,803	1,033,821	2,609,941	31,956,008
Including inter segment revenue	10,545,577	6,413,835	965,409	2,442,961	20,367,782
Total revenues	44,258,320	32,292,025	7,609,991	5,588,468	89,748,804
Interest income	233,833	44,528	103,974	22,607	404,942
Interest expenses	(467,767)	(127,800)	(60,768)	(69,152)	(725,487)
Depreciation and amortization	(3,040,316)	(313,134)	(71,144)	(236,763)	(3,661,357)
Impairment loss on property, plant and equipment and others	(37,623)	(8,226)	(32,184)	(224)	(78,257)
Share of loss of equity-accounted investees, net	(409,889)	(116,074)	(65,409)	(17,631)	(609,003)
Income tax expense	(77,682)	(92,589)	(57,178)	(72,929)	(300,378)
Segment profit	711,883	157,152	150,021	293,513	1,312,569
Segment assets	71,105,618	13,152,462	7,658,130	9,356,528	101,272,738
Investment in subsidiaries, associates and joint ventures	15,425,607	1,958,333	603,752	907,645	18,895,337
Acquisition of non-current assets	2,819,217	180,005	36,385	451,158	3,486,765
Segment liabilities	20,976,864	8,804,555	4,260,003	4,896,040	38,937,462

(c) Reconciliations of total segment revenues, profit or loss, assets and liabilities, and other significant items to their respective consolidated financial statement line items are as follows:

1) Revenues

(in millions of Won)	2018	2019	2020
Total revenue for reportable segments	₩102,258,628	101,104,207	89,748,804
Elimination of inter-segment revenue	(37,280,851)	(36,737,359)	(31,956,008)
Basis difference(*2)	176,859	418,861	(326,118)
	₩ 65,154,636	64,785,709	57,466,678

2) Profit

(in millions of Won)	2018	2019	2020
Total profit (loss) for reportable segments	₩1,331,419	1,324,046	1,312,569
Goodwill and corporate FV adjustments	(77,756)	(80,218)	(74,685)
Elimination of inter-segment profits	638,401	738,809	550,268
Income tax expense	1,670,757	1,070,641	236,934
Basis difference(*2)	53,195	73,256	(52,322)
Profit before income tax expense	₩3,616,016	3,126,534	1,972,764

3) Assets

(in millions of Won)	2019	2020
Total assets for reportable segments(*1)	₩102,502,209	101,272,738
Equity-accounted investees	(14,400,831)	(14,697,612)
Goodwill and corporate FV adjustments	2,622,409	2,518,590
Elimination of inter-segment assets	(11,665,126)	(10,006,743)
Basis difference(*2)	312,147	596,703
	₩ 79,370,808	79,683,676

(*1) As segment assets and liabilities are determined based on separate financial statements, the carrying amount of assets of subsidiaries, which are in a different segment from that of their immediate parent company, in the separate financial statements the immediate parent company is eliminated upon consolidation. In addition, the amount of investment in associates and joint ventures are adjusted from the amount reflected in segment assets to that determined using equity method in consolidated financial statements.

4) Liabilities

(in millions of Won)	2019	2020
Total liabilities for reportable segments	₩40,324,920	38,937,462
Corporate FV adjustments	292,124	263,490
Elimination of inter-segment liabilities	(9,353,090)	(7,788,571)
Basis difference(*2)	343,556	667,772
	₩31,607,510	32,080,153

5) Other significant items

a) December 31, 2018

(in millions of Won)	Total segment	Goodwill and corporate FV adjustments	Elimination of inter-segment transactions	Basis difference(*2)	Consolidated
Interest income	₩ 373,926	—	(36,668)	—	337,258
Interest expenses	(863,560)	1,035	121,229	—	(741,296)
Depreciation and amortization	(3,325,415)	(103,932)	161,718	—	(3,267,629)
Share of profit of equity-accounted investees, net	(1,049,335)	—	1,161,970	—	112,635
Income tax expense	(1,664,258)	25,921	(32,420)	(12,873)	(1,683,630)
Impairment loss on property, plant and equipment and others	(1,343,360)	(779)	(107,258)	—	(1,451,397)

b) December 31, 2019

(in millions of Won)	Total segment	Goodwill and corporate FV adjustments	Elimination of inter-segment transactions	Basis difference(*2)	Consolidated
Interest income	₩ 399,592	—	(47,208)	—	352,384
Interest expenses	(871,655)	806	115,138	—	(755,711)
Depreciation and amortization	(3,425,677)	(109,941)	74,503	—	(3,461,115)
Share of profit of equity-accounted investees, net	(1,027,435)	—	1,301,176	—	273,741
Income tax expense	(1,035,769)	28,917	(63,789)	(17,728)	(1,088,369)
Impairment loss on property, plant and equipment and others	(634,745)	—	(70,011)	—	(704,756)

c) December 31, 2020

(in millions of Won)	Total segment	Goodwill and corporate FV adjustments	Elimination of inter-segment transactions	Basis difference(*2)	Consolidated
Interest income	₩ 404,942	—	(32,768)	—	372,174
Interest expenses	(725,487)	806	85,884	—	(638,797)
Depreciation and amortization	(3,661,357)	(102,385)	142,002	—	(3,621,740)
Share of profit of equity-accounted investees, net	(609,003)	—	742,300	—	133,297
Income tax expense	(300,378)	27,655	35,789	12,662	(224,272)
Impairment loss on property, plant and equipment and others	(78,257)	(761)	(150,828)	—	(229,846)

(*2) Basis difference is related to the difference in recorded revenue and expenses for development and sale of certain residential real estate between the report reviewed by the management and the consolidated financial statements.

(d) Revenue by geographic area for the years ended December 31, 2018, 2019 and 2020 was as follows:

(in millions of Won)	2018	2019	2020
Domestic	₩41,671,930	40,890,972	36,806,651
Japan	2,084,061	2,202,075	1,788,839
China	6,945,266	7,165,271	7,238,063
Asia-other	8,904,532	8,976,593	7,897,041
North America	1,834,534	1,711,859	1,308,943
Others	3,537,454	3,420,078	2,753,259
	64,977,777	64,366,848	57,792,796
Basis difference	176,859	418,861	(326,118)
	₩65,154,636	64,785,709	57,466,678

The information on geography, segment revenue is presented based on the geographical location of customers.

(e) Non-current assets by geographic area as of December 31, 2019 and 2020 are as follows:

(in millions of Won)	2019	2020
Domestic	₩27,742,370	27,652,233
Japan	175,719	168,269
China	1,307,847	1,245,181
Asia-other	4,916,775	4,284,480
North America	221,565	275,245
Others	1,348,397	1,218,946
	₩35,712,673	34,844,354

Non-current assets by geographic area include investment property, property, plant and equipment, goodwill and other intangible assets.

(f) There are no customers whose revenue is 10% or more of the consolidated revenue.

41. Events after the Reporting Period

(a) POSCO CHEMICAL CO., LTD, a subsidiary of the Company, carried out capital increase after the reporting period, and received ₩1,273.5 billion from the increase (including POSCO ₩688.1 billion) on January 21, 2021. The capital increase is part of the Company's mid- to long-term strategy to expand the production facilities of anode materials in response to the demand of lithium-ion battery market.

(b) POSCO INTERNATIONAL Corporation holds interests in several gas field projects in Myanmar and the related revenue for 2020 was ₩605 billion. In February 2021, Myanmar's military declared state of emergency for a year with detention of Myanmar's national adviser Aung San Suu Kyi and senior members of the ruling party's National League for Democracy. As of the authorization date of issuance for the accompanying consolidated financial statements, the Company has not experienced business suspension or delay in delivery of gas due to the political instability in Myanmar. However, and the Company cannot estimate the future impact on POSCO INTERNATIONAL Corporation's business in Myanmar due to the uncertainty of the duration of the matter and the ultimate outcome thereof.

Exhibit Index

1.1	—	Articles of incorporation of POSCO (English translation)
2.1	—	Form of Common Stock Certificate (including English translation) (incorporated by reference to Exhibit 4.3 to the Registrant's Registration Statement No. 33-81554)* (P)
2.2	—	Form of Deposit Agreement (including Form of American Depositary Receipts) (incorporated by reference to the Registrant's Registration Statement (File No. 333-189473) on Form F-6)*
2.3	—	Description of common stock (see Item 10.B. Memorandum and Articles of Association)
2.4	—	Description of American Depositary Shares
8.1	—	List of consolidated subsidiaries
12.1	—	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
12.2	—	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
13.1	—	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101	—	Interactive Data Files (XBRL-related Documents)

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* Filed previously
(P) Paper filing

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

POSCO
(Registrant)

/s/ Choi, Jeong-Woo
Name: Choi, Jeong-Woo
Title: Chief Executive Officer and Representative Director
Date: April 29, 2021

Exhibit 1.1

This English language translation of the Articles of Incorporation has been prepared solely for reference purposes. In the event of any conflict between the Korean language version and this English language version, the Korean language version shall prevail.

ARTICLES OF INCORPORATION

Adopted on	March 6, 1968		
Amended on	July 10, 1968	February 20, 1969	March 20, 1969
	June 16, 1969	February 7, 1970	February 6, 1971
	November 23, 1971	February 4, 1972	November 29, 1972
	February 12, 1973	February 5, 1974	February 8, 1975
	February 6, 1976	February 8, 1977	February 25, 1978
	February 24, 1979	February 28, 1981	February 23, 1982
	February 18, 1984	February 5, 1985	February 26, 1986
	March 7, 1987	February 27, 1988	March 15, 1989
	March 6, 1990	March 14, 1991	March 7, 1992
	October 13, 1992	March 8, 1993	April 15, 1994
	March 15, 1995	March 15, 1996	March 14, 1997
	March 17, 1998	August 20, 1998	March 16, 1999
	March 17, 2000	March 16, 2001	March 15, 2002
	March 14, 2003	March 12, 2004	February 24, 2006
	February 23, 2007	February 27, 2009	February 26, 2010
	February 25, 2011	March 16, 2012	March 11, 2016
	March 9, 2018	March 15, 2019	March 12, 2021

CHAPTER I. GENERAL PROVISIONS

Article 1. Company Name

The name of the Company in Korean shall be **"Chusik Hoesa POSCO"** and in English, **"POSCO"**

Article 2. Purpose

The purpose of the Company is to engage in the following business activities:

1. To manufacture, market, promote, sell and distribute iron, steel and rolled products;
2. To engage in harbor loading and unloading, transportation and warehousing businesses;
3. To engage in the management of professional athletic organizations;
4. To engage in the supply of gas and power generation as well as in the distribution business thereof and in the resources development business;
5. To engage in leasing of real estate and distribution businesses;
6. To engage in the supply of district heating business;
7. To engage in marine transportation, processing and sales of minerals within or outside of Korea;
8. To engage in educational service and other services related to business;

9. To engage in manufacture, process and sale of non-ferrous metal;
10. To engage in technology license sales and engineering business; and
11. To engage in all other conducts, activities or businesses which are related, directly or indirectly, to the attainment and continuation of the foregoing purposes.

Article 3. Location of the Head Office and Branch Offices

The head office of the Company shall be located at Pohang-si, Kyungsangbuk-do, the Republic of Korea ("Korea"). Branch offices may be established elsewhere by resolution of the Board of Directors of the Company.

Article 4. Notices

Public notices by the Company shall be disclosed on the website of the Company(http://www.posco.com). When such online disclosure is made impracticable due to online system error or any other electronic technical failure, public notices by the Company shall be disclosed in the Seoul Shinmun, the Maeil Shinmun and the Kwangju Ilbo, daily newspapers published in Seoul, Daegu Metropolitan City and Kwangju Metropolitan City, respectively.

CHAPTER II. SHARES

Article 5. Total Number of Authorized Shares

The total number of shares which the Company is authorized to issue ("Authorized Shares") is two hundred million (200,000,000) shares.

Article 6. Par Value per Share and Types of Shares

The types of shares to be issued by the Company shall be registered common shares and registered preferred shares, having a par value of KRW 5,000 per share.

Article 7. Number and Contents of Preferred Shares

(1) Preferred shares to be issued by the Company shall be non-voting, and the number thereof shall not exceed the limit prescribed in the mandatory provisions of the applicable laws or regulations.

(2) The dividends on non-voting preferred shares shall be no less than nine percent (9%) per annum of the par value and the rate thereof shall be determined by the Board of Directors at the time of issuance.

(3) Notwithstanding Paragraph (2), a dividend on preferred shares shall not be required to be declared in case the amount available for dividend is less than the aggregate amount of the minimum dividend.

Article 8. Shares to be Issued at the Time of Incorporation

The Company shall issue forty thousand (40,000) shares at the time of incorporation.

Article 9. Electronic Registration of Rights to be Indicated on Share Certificates and Certificates of Preemptive Right

The Company shall electronically register rights to be indicated on its share certificates and certificates of preemptive right on the electronic registrar of the electronic registration agency, in lieu of issuing share certificates and certificates of pre-emptive right.

Article 10. Pre-emptive Rights

(1) Except as otherwise provided by Paragraphs (2) through (4) of this Article 10 and the mandatory provisions of the applicable laws or regulations, in case of the issuance of new shares, the shareholders of the Company shall have the right to subscribe for such newly issued shares in proportion to the number of shares held by each of them; provided, however, that the Company may, by resolution of the Board of Directors, allocate preferred shares to holders of preferred shares in proportion to the number of shares held by each of them.

(2) The Board of Directors may allocate new shares to persons other than the shareholders by a resolution of the Board of Directors in the following cases.

1. If the Company issues new shares by a public offering or has underwriters underwrite new shares by a public offering in accordance with the applicable legislation;
2. If the Company allocates new shares to the members of the Company's Employee Stock Ownership Association in accordance with the applicable legislation;
3. If the Company issues new shares for the issuance of depositary receipts in accordance with the applicable legislation;
4. If the Company issues new shares through offering to the public investors by the resolutions of the Board of Directors in accordance with the applicable legislation;
5. If the Company issues new shares to the existing creditors in order to convert the debt into capital;
6. If the Company issues new shares to the domestic and/or foreign entities in accordance with a joint venture agreement, strategic affiliation or technology license and transfer agreement executed by and between the Company and such entities for the management purposes; and
7. If the Company issues new shares to the domestic and/or foreign financial institutions in order to finance the Company in the emergent cases.

If the Company issues new shares to persons other than the shareholders of the Company pursuant to this Paragraph, the Company shall notify the shareholders or make public two (2) weeks in advance of the date of subscription of the new shares detailing the type, number, issue price, date of subscription and the manner of subscription of the newly issued shares in accordance with the Korean Commercial Code.

(3) Any shares unsubscribed after the exercise of pre-emptive rights by shareholders who are entitled to them or any fractional shares remaining after the allocation of new shares may be disposed of by a resolution of the Board of Directors according to the applicable laws or regulations.

(4) Notwithstanding the provisions of Paragraphs (2) through (3) of this Article 10, new shares may be allocated to persons other than the existing shareholders by a special resolution passed at a General Meeting of Shareholders when it is deemed necessary for attaining the purposes of the Company such as introduction of new technology and financial restructuring.

(5) In case the Company issues new shares by a rights offering, bonus issue or stock dividend, such shares will be deemed to have been issued at the end of the fiscal year immediately preceding the fiscal year during which the shares are issued.

Article 11. Offering to Public Investors, etc.

(1) The Company may issue new shares constituting not more than ten-hundredths (10/100) of the total issued shares of the Company through offering to public investors by the resolution of the Board of Directors in accordance with applicable legislations.

(2) In event that the Company issues new shares in accordance with the resolution of the Board of Directors due to the reasons set forth in Items 5 through 7 of Paragraph (2) of Article 10, the total face amount of new shares shall not exceed one hundred billion (100,000,000,000) Won.

(3) The type, number and the issue price of the shares to be issued by the manner as set forth in Paragraphs (1) and (2) shall be determined by the resolution of the Board of Directors; provided that the issue price of the new shares must be no less than the price as set forth in applicable legislations.

Article 12. (Deleted)

Article 13. Transfer Agent

Electronic registration of shares, management of the shareholder registry and other related businesses shall be entrusted to the transfer agent appointed by resolution of the Board of Directors. Specific procedures therefor shall be in accordance with the applicable laws and regulations and operational regulations determined by the transfer agent.

Article 13-2. Register of Shareholders by Electronic Means

In accordance with the Korean Commercial Code, the Company may make entries in the Register of Shareholders by electronic means.

Article 14. Fees

The Company may, by resolution of the Board of Directors, charge, or have the register agent charge, a fee for services it renders in connection with any of the matters set forth in Article 13 above, or for any services related to shareholder inspection of the Company’s financial statements or other documents, and for providing any copies thereof.

Article 15. Record Date and Suspension of Alterations of Entries in the Register of Shareholders

(1) The Company shall suspend entries of alterations, registration or cancellation of pledges over shares and indication of trust assets and cancellation thereof in the Register of Shareholders of a period commencing on January 1 and ending on January 15 of each year.

(2) The record date of the Register of Shareholders shall be December 31 of each year, and such shareholders listed on the Register of Shareholders as of the record date shall be entitled to exercise their rights thereof at the General Meetings of Shareholders.

(3) The Company may, by resolution of the Board of Directors or by resolution of a committee as authorized by the Board of Directors, suspend the entry of a change as to the matters contained in the Register of Shareholders for a specified period of time or set a record date when deemed necessary and for the purpose of convening an Extraordinary General Meeting of Shareholders; provided, however, that the period of suspension shall not exceed three (3) months and two (2) weeks prior notice of suspension or fixing of a record date has been given to the shareholders. The Board of Directors or such authorized committee may, when deemed necessary, both suspend the entry of a change in the Register of Shareholders and set a record date.

CHAPTER III. BONDS

Article 16. Issuance of Bonds

The Company may issue bonds by a resolution of the Board of Directors

Article 17. Issuance of Convertible Bonds

(1) The Company may issue convertible bonds in the aggregate fact amount not exceeding two trillion (2,000,000,000,000) Won to persons other than the shareholders in the following cases:

1. If the Company issues convertible bonds by public offering.
2. If the Company enters into a joint venture agreement, strategic alliance or technical license and transfer agreement, when it is deemed necessary, and issues convertible bonds to any domestic or international corporation accordingly.
3. If the Company issues convertible bonds to a domestic or international financial institution to provide urgently needed funds.

(2) Convertible bonds mentioned in Paragraph (1) may, by resolution of the Board of Directors, be issued with their conversion rights limited to a certain portion of their face amount.

(3) Upon conversion from the aggregate face amount of convertible bonds, common shares may be issued up to one trillion three hundred billion (1,300,000,000,000) Won and preferred shares may be issued up to seven hundred billion (700,000,000,000) Won, and the conversion price, which shall not be less than the par value of the shares, shall be determined by resolution of the Board of Directors at the time of issuance of the convertible bonds.

(4) The conversion period shall be the period commencing from the date of issuance of the convertible bonds and ending on the date immediately preceding the date of redemption of the convertible bonds. The conversion period may be adjusted by a resolution of the Board of Directors; provided, that the conversion period shall in any event fall within the period mentioned above.

(5) The provisions of Article 10, Paragraph (5) shall apply *mutatis mutandis* to the payment of dividends on the shares issued upon conversion and the payment of interest on the convertible bonds.

Article 17-2. Issuance of Bonds with Warrants

(1) The Company may issue bonds with warrants to persons other than its shareholders to the extent that the aggregate par value of the bonds with warrants do not exceed two trillion (2,000,000,000,000) Won, in case of the events prescribed in Paragraph (1) of Article 17 above.

(2) The amount with respect to which the pre-emptive rights may be exercised shall be determined by resolution of the Board of Directors; provided, that such amount shall not in any event exceed the aggregate face amount of bonds with warrants.

(3) Upon exercise of the warrants, from the aggregate face amount of bonds with warrants, common shares may be issued up to one trillion three hundred billion (1,300,000,000,000) Won and preferred shares may be issued up to seven hundred billion (700,000,000,000) Won, and the issue price, which shall not be less than the face value of the shares, shall be determined by resolution of the Board of Directors at the time of issuance of bonds with warrants.

(4) The period during which the pre-emptive rights may be exercised shall be the period commencing from the date of issuance of bonds with warrants and ending on the date immediately preceding the date of redemption of bonds with warrants. The period during which the pre-emptive rights may be exercised may be adjusted by resolution of the Board of Directors; provided, that such period shall in any event fall within the period mentioned above.

(5) The provisions of Article 10, Paragraph (5) shall apply, *mutatis mutandis*, to the payment of dividends on the new shares issued upon exercise of the pre-emptive rights.

Article 18. Electronic Registration of Rights to be Indicated on Bond and Securities from Pre-emptive Right

The Company shall electronically register rights to be indicated on bond and securities from pre-emptive right on the electronic registrar of the electronic registration agency, in lieu of issuing bond securities and securities from pre-emptive right.

Article 18-2. Provisions Applicable *mutatis mutandis* to the Issuance of Bonds

Articles 13 and 14 of these Articles of Incorporation shall apply *mutatis mutandis* to the issuance of bonds.

CHAPTER IV. GENERAL MEETING OF SHAREHOLDERS

Article 19. Convening of General Meeting of Shareholders

(1) An Ordinary General Meeting of Shareholders shall be held within three (3) months after the end of each fiscal year, and an Extraordinary General Meetings of Shareholders may be convened at any time in compliance with a resolution of the Board of Directors and applicable laws or regulations.

(2) Shareholders may act only with respect to matters set forth in a written notice at a General Meeting of Shareholders.

(3) General Meeting of Shareholders shall be held in Seoul, Korea or at location of the Company’s head office.

(4) A General Meeting of Shareholders shall be convened by the CEO of the Company or by the President or Vice President of the Company acting under the CEO’s authorization.

Article 20. Notices

(1) Written notice of each General Meeting of Shareholders of the Company shall state the date, time, venue and the agenda for which the meeting has been called. The written notice shall be delivered to all shareholders by postal mail or by e-mail transmission at least two weeks prior to the date set for such General Meeting of Shareholders.

(2) Written notice of a General Meeting of Shareholders to be given to shareholders holding one-hundredth (1/100) or less of the total number of issued shares entitled to vote may be substituted by notices made at least twice in each of the Seoul Shinmun published in Seoul, the Maeil Shinmun published in Daegu Metropolitan City and the Kwangju Ilbo published in Kwangju Metropolitan City two weeks prior to the date set for such Meeting, or by notices to be posted on an electronic disclosure database system maintained by the Financial Supervisory Service or the Korea Exchange two weeks prior to the date set for such General Meeting of Shareholders.

Article 21. Presiding Officer

The CEO and the Representative Director shall preside at the General Meetings of Shareholders. In the absence of the CEO, the President and the Vice President among Inside Directors shall act as presiding officer in accordance with their order of authority.

Article 22. Authority of the Presiding Officer

The presiding officer at a General Meeting of Shareholders may order any person to cease making any statements or to leave the meeting or that statements made by such person be stricken from the record if the presiding officer determines that such person is deliberately preventing deliberations or is disturbing the order of the proceedings at the meeting. A person so ordered shall comply with the presiding officer's instructions.

Article 23. Vote by Proxy

(1) Any shareholder entitled to vote at a General Meeting of Shareholders shall have the right to vote by proxy.

(2) A proxy shall submit a document evidencing the power of representation to the Company before the opening of the General Meeting of Shareholders.

Article 24. Quorum and Requisite for Resolutions

(1) Except as otherwise provided in these Articles of Incorporation or by applicable laws or regulations, all resolutions passed at a General Meeting of Shareholders shall be adopted by the affirmative vote of a majority of the voting shares of the shareholders present, which shall represent at least one-fourth (1/4) of the voting shares of the Company then issued and outstanding.

(2) In the following cases, the resolutions of a General Meeting of Shareholders shall be adopted by the affirmative vote of at least two-thirds (2/3) of the voting shares of the shareholders present and by the affirmative vote of at least one-third (1/3) of the voting shares of the total issued and outstanding shares:

1. Amendment of the Articles of Incorporation;
2. Transfer of all or any important part of the business;
3. Execution, amendment or rescission of a contract for leasing the whole of the business, for entrustment of management, or for sharing with another person all profits and losses in relation to the business or of a similar contract;
4. Acquisition of all or part of business of any other company, which may have a great influence upon the business of the Company;
5. Merger or consolidation of the Company (excluding a small scale merger or consolidation);
6. Matters required to be approved by the General Meeting of Shareholders, which have material effects on the company's assets, as determined by the Board of Directors; and
7. Any other matter for which such vote is required by Korean laws and regulations.

Article 25. Exercise of Voting Right in Writing

(1) Any shareholder is entitled to exercise its voting rights at a General Meeting of Shareholders in writing without being present at such General Meeting of Shareholders.

(2) In connection with Paragraph (1) above, the Company shall attach the document necessary for the shareholder's exercise of its voting rights in writing and any reference documents to the written notice for convening a General Meeting of Shareholders.

(3) A shareholder, who intends to exercise its voting rights in writing, shall fill in the document referred to in Paragraph (2) above and submit such document to the Company one (1) day prior to the date of the relevant General Meeting of Shareholders.

Article 26. Minutes of General Meeting of Shareholders

The substance of the course of the proceedings of a General Meeting of Shareholders and the results thereof shall be recorded in the minutes which shall bear the names and seals or signatures thereon of the presiding officer and of the Directors present at the meeting, and shall be preserved in the archives of the Company.

CHAPTER V. BOARD OF DIRECTORS

Article 27. Number of the Directors

The total number of Directors of the Company shall be at least three (3) but no more than thirteen (13) Directors, among which the Outside Directors shall be eight (8) persons or less and Inside Directors shall be five (5) persons or less. The Outside Directors shall constitute the majority of the total number of the Directors.

Article 28. Election of the Directors and Representative Directors

(1) The Directors shall be elected at the General Meeting of Shareholders.

(2) By resolution of the Board of Directors, a number of Representative Directors may be appointed from among Inside Directors. On recommendation of the CEO, the Board of Directors may grant an Inside Director the position of President, Executive Vice President, Senior Managing Director and Managing Director.

(3) If Directors are appointed by a cumulative voting, the Inside Directors and the Independent Outside Directors are separately considered, and then, the cumulative voting shall apply to each group.

Article 29. Appointment of the CEO and the Representative Director

(1) By resolution of the Board of Directors, the CEO and the Representative Director shall be elected from among the Inside Directors after his qualification is approved by the CEO Candidate Recommendation Committee.

(2) In the event a candidate for the position of Inside Director is nominated as the CEO and the Representative Director candidate and approved by the CEO Candidate Recommendation Committee, the Board of Directors shall recommend the name of one (1) CEO and the Representative Director candidate at the General Meetings of Shareholders. Where the CEO and the Representative Director candidate is appointed as an Inside Director at General Meetings of Shareholders, the Board of Directors shall appoint the CEO and the Representative Director candidate as the CEO and the Representative Director.

(3) Details concerning the composition and operation of the CEO Candidate Recommendation Committee shall be determined by the Board of Directors.

Article 29-2. Recommendation of Inside Director Candidate other than the CEO and the Representative Director

A candidate for Inside Director other than the CEO and the Representative Director shall be recommended by the Board of Directors after his qualification is approved by the Director Candidate Recommendation Committee as prescribed in Paragraph (1) of Article 45.

Article 29-3. Qualification for Inside Director Candidate

(1) An Inside Director shall be a person capable of managing the Company, who has working experience as an officer or employee of the Company or sufficient experience in the related business area.

(2) A person (i) who retired prior to the completion of the full term of office due to gross negligence or unsound management, (ii) who was sentenced to imprisonment or a heavier penalty and for whom five years have not passed since the termination thereof or exemption therefrom or (iii) who is serving a suspended sentence or who was sentenced to a stay of execution and for whom two years have not passed since the expiration of the period of stay of execution cannot be an Inside Director of the Company.

Article 30. Recommendation of Candidate for Outside Directors

(1) A candidate for Outside Director shall be recommended by the Director Candidate Recommendation Committee as prescribed in Paragraph (1) of Article 45. Such candidates shall be among those qualified persons as prescribed in Article 31.

(2) A shareholder holding voting shares of the Company may recommend a candidate for Outside Director to the Director Candidate Recommendation Committee by the exercise of the shareholder proposal right under the applicable legislation.

(3) The Director Candidate Recommendation Committee shall determine the details regarding recommendation for, and evaluation on qualification of, candidates for Outside Director.

Article 31. Qualification for Candidate for Outside Directors

An Outside Director must have sufficient and professional knowledge or experience in the areas of industry, finance, education, law, accounting and public administration and also must be qualified under the relevant laws.

Article 32. Duties of Representative Director

(1) Each Representative Director shall represent the Company, execute matters determined by the Board of Directors, control all affairs of the Company and provide all Directors with the updated information regarding the recent status of management and the Company.

(2) The Representative Directors and Directors shall carry on the administration of the affairs of the Company in accordance with the duties assigned to them by the CEO.

Article 33. Duties of Directors

(1) The Directors, as the prudent manager, shall faithfully perform their duties for the Company such as attending the meeting of the Board of Directors, etc. in accordance with the laws and the Articles of Incorporation.

(2) If a Director finds any matter that may inflict any material loss to the Company, he shall immediately report it to the Audit Committee.

Article 34. Term of Directors

The term of office of the Directors shall be within three (3) years; provided, however, that the term of office for Directors shall be extended until the close of an Ordinary General Meeting of Shareholders which is to be held with respect to the fiscal year which is the last to end during their terms in office.

Article 35. By-Election

(1) In the event of any of the absence or inability to perform the duties as a Director, an Extraordinary General Meeting of Shareholders shall be convened to fill the vacancy. However, in the case the number of remaining Directors satisfies the legal requirement and such vacancy does not cause any difficulties in the operation of the business, the appointment through by-election may be suspended, or postponed until the holding of the next Ordinary General Meeting of Shareholders.

(2) In the event that the number of Outside Directors is less than a majority of total number of Directors due to death or resignation of Outside Directors or for any other reason, Outside Directors shall be elected to fill the vacancy at the General Meeting of Shareholders to be held first after such cause so as for the number of Outside Directors to constitute a majority of total number of Directors.

Article 36. Remuneration of Directors

(1) The limit of the salaries and performance incentives of the Directors shall be determined by resolution of the General Meeting of Shareholders. The Board of Directors shall determine the detailed operation standards thereof.

(2) Any severance allowance paid to the Inside Directors shall be in accordance with Severance Allowance Regulations for Directors as approved by shareholders at the General Meeting of Shareholders.

(3) The Company may pay to Outside Directors for expenses incurred during performance of services as required of Outside Directors.

Article 37. Indemnification of Directors

The Company shall indemnify, to the extent permitted by the Korean Commercial Code, the Directors from and against all expenses, losses or liabilities incurred in connection with defending any action, claim or proceeding to protect the interest of the Company, except for in case of the Directors' willful misconduct or negligence with respect to their duties.

Article 38. Authority of the Board of Directors

(1) The Board of Directors shall have the power to take actions in respect of all such acts and things put on the agenda by any of the Directors relating to important matters regarding the administration of the Company or as are required by laws or regulations or by these Articles of Incorporation.

(2) The Board of Directors may delegate its powers to the Special Committees as prescribed in Paragraph (1) of Article 45 in accordance with the Korean laws and regulations and these Articles of Incorporation.

Article 39. Constitution and Convocation of Meeting of the Board of Directors

(1) The Board of Directors shall consist of all the Directors.

(2) The Chairman of the Board may convene all Meetings of the Board of Directors. Any other Director who wishes to convene a Meeting of the Board of Directors shall make his request to the Chairman of the Board and the Chairman shall convene the Meeting. If the Chairman of the Board fails to convene the Meeting without justifiable reasons, other Directors may convene such Meeting.

(3) Written or oral notice of each Meeting of the Board of Directors shall be given at least one day prior to the scheduled meeting date to each of the Directors. No notice shall, however, be required for a regular Meeting of the Board of Directors or if all of the Directors consent thereto.

(4) The Board of Directors may allow the Directors to attend, and vote at, the meeting of the Board of Directors by tele-conferencing, instead of attending and voting in person at such meeting. In such case, a Director participating in the Board Meeting by such arrangement shall be considered to be present at the Meeting of the Board of Directors.

Article 40. Chairman of the Board of Directors

(1) The Chairman of the Board shall be appointed by the resolution of the Board of Directors among Outside Directors.

(2) The term of office of the Chairman of the Board shall be one (1) year, and the Chairman of the Board shall not be reappointed to the office.

(3) In the event that the Chairman of the Board cannot preside at a Meeting of the Board of Directors, Outside Director in order of seniority (if the seniority is the same, the oldest has the priority) shall take his place as Chairman of the Board.

Article 41. Adoption of Resolutions of the Board of Directors

(1) The Majority of Directors shall constitute a quorum for a Meeting of the Board of Directors. All actions and resolutions taken at a Meeting of the Board of Directors shall be adopted by the affirmative vote of a majority of the Directors present. Notwithstanding the foregoing, the adoption of a resolution by the Board of Directors with respect to the election of the CEO and the Representative Director candidate may be separately decided by the Board of Directors whose quorum shall not exceed the affirmative vote of two-thirds (2/3) of all of the Directors.

(2) A Director having a special interest with respect to the resolution shall not exercise his voting right.

Article 42. Formalities of the Board of Directors

Directors shall set the agenda for each Meeting and make proposals for resolution thereat. If any Director plans to make proposals at the Meeting of the Board of Directors, he shall submit a written summary thereof to the Chairman of the Board and the CEO and Representative Director in advance.

Article 43. Matters of Urgency

The CEO and Representative Director may act upon matters of urgency without resolution of the Board of Directors by obtaining prior consent of more than two-thirds (2/3) of other Directors. A Meeting of the Board of Directors for the next term shall be convened to deliberate on and ratify the actions so taken.

Article 44. Minutes of the Meeting of the Board of Directors

With respect to the proceedings of the Meetings of the Board of Directors, the minutes should be made. The agenda, the substances of course, and the results of the proceedings of the Meetings of the Board of Directors, the name of objecting director and the reasons of objection shall be recorded in the minutes which shall bear the names and seals or the signatures thereon of the Directors present at the Meeting.

Article 45. Special Committees

(1) The Company shall have special committees under the control of the Board of Directors as follows:

1. ESG Committee;
2. Director Candidate Recommendation Committee;
3. Evaluation and Compensation Committee;
4. Finance Committee;
5. Executive Management Committee; and
6. Audit Committee

(2) Except as otherwise provided by any relevant laws, authority, constitution and operation of the special committee shall be determined by a resolution of the Board of Directors.

(3) Matters regarding composition and duties of the Audit Committee shall be determined in accordance with Chapter VI.

Article 46. Unregistered Officers

(1) The Company shall have Unregistered Officers to execute the matters resolved by the Board of Directors and the matters important to the management of the Company.

(2) The Unregistered Officers shall be appointed by the CEO and the Representative Director and; provided, however, that the appointment of the Unregistered Officers to the important positions that the Board of Directors decides shall require the approval of the Board of Directors.

(3) The Unregistered Officers are President, Senior Executive Vice Presidents, Senior Managing Directors and Managing Directors, and the salaries and performance incentives payable to such Unregistered Officers shall be determined by the Board of Directors or by the CEO and the Representative Director, to the extent the CEO and the Representative Director has been delegated such authority by the Board of Directors. Any severance allowance shall be distributed in accordance with the standards for the President, Senior Executive Vice Presidents, Senior Managing Directors and Managing Directors pursuant to the Directors Severance Allowance Regulations as approved by the General Meeting of Shareholders.

(4) The allocation of work among the Unregistered Officers shall be decided by the CEO and the Representative Director.

(5) The term of office of the Unregistered Officers shall not be more than two (2) years; provided, however, that the proviso of Article 34 may apply *mutatis mutandis* to the Unregistered Officers.

Article 47. Consultant and Part-time Officer

The Company may have consultants and part-time officers who will be treated as Officers of the Company if it is required for the business.

CHAPTER VI. Audit Committee

Article 48. Constitution and Appointment of Members of Audit Committee

(1) The Audit Committee of the Company shall consist of three (3) or more Directors. All of the members shall be elected from among the Outside Directors.

(2) A member of the Audit Committee shall be appointed or dismissed at the General Meeting of Shareholders. When appointing a member of the Audit Committee, a shareholder holding more than three percent (3%) of the Company's issued and outstanding shares shall not be entitled to exercise his voting rights for that excess portion.

(3) In the event that the number of the Audit Committee does not satisfy the requirement referred to in Paragraph (1) due to the death or resignation of members or any other reasons, the members shall be elected to fill the vacancy at the General Meeting of Shareholders to be held first after such cause so as for the number of members to satisfy the requirement referred to in Paragraph (1).

(4) The chairman of the Audit Committee shall be elected by a resolution of the Audit Committee.

Article 49. Duties of Audit Committee

(1) The Audit Committee shall examine the accounting and financial records of the Company.

(2) The Audit Committee may request to convene an Extraordinary General Meeting of Shareholders by submitting a written request specifying the agenda of the meeting and the reason for the meeting.

(3) If deemed necessary, the Audit Committee may request to convene a Board Meeting by submitting a written request specifying the agenda of a meeting and the reason for a meeting to the Chairman of the Board.

(4) The Audit Committee may directly convene a Board Meeting if a meeting has not been convened immediately on the request of the Audit Committee in accordance with Paragraph (3) of this Article.

(5) If it is required for management purpose, the Audit Committee may demand a subsidiary to make a report on the business. In such case, if the subsidiary fails to make an immediate report, or it is required to confirm the contents of such report, the Audit Committee may investigate the business and assets of the subsidiary.

(6) The Audit Committee shall prepare an audit report on the Company's financial statements and shall report thereof to the General Meeting of Shareholders.

(7) The Audit Committee shall record the course of the proceedings of their meetings and the results thereof in the minutes and shall record the procedure of the inspection and the results thereof in the inspection book, on which the name and seal of the members shall be affixed or which shall be signed by such members.

(8) The Audit Committee may receive advice from outside professionals when necessary, for which the Company shall cover any expenses therefrom.

Article 50. Quorum and Adoption of Resolutions

Article 41 shall apply, *mutatis mutandis*, to the quorum and adoption of resolution of the Audit Committee.

Article 51. Appointment of External Auditor

The Company shall appoint an external auditor selected by the Audit Committee pursuant to the Act on External Audit of Stock Companies. The details of the aforesaid appointment shall be reported to the shareholders at the Ordinary General Meeting of Shareholders for the fiscal year during which such appointment was or shall be made known to the shareholders in accordance with relevant laws and regulations.

CHAPTER VII. ACCOUNTING

Article 52. Fiscal Year

The fiscal year of the Company shall commence on each January 1 and shall end on December 31 of the same year.

Article 53. Submission, Approval and Publication of Financial Statements

(1) After the end of each fiscal year, the Representative Directors shall prepare and submit, with the Board of Directors' approval therefor, to the Audit Committee at least six (6) weeks before the date set for an Ordinary General Meeting of Shareholders, the following documents with its supplementary schedules:

1. A balance sheet;
2. A profit and loss statement;
3. Documents designated by the Presidential Decree and decided by the Board of Directors;
4. A consolidated financial statement; and
5. A business report for the pertinent fiscal year:

(2) Upon receiving the documents specified under Paragraph (1) above, the Audit Committee shall prepare and submit an auditor's report to the Representative Director one (1) week before the date of each Ordinary General Meeting of Shareholders.

(3) The Representative Directors shall make available for inspection for five (5) years at the head office and copies thereof for three (3) years at branch offices, the documents prescribed under Items 1 through 4 of Paragraph (1) of this Article and the auditor's report of the Company beginning from one (1) week before the date of each Ordinary General Meeting of Shareholders.

(4) The Representative Director shall submit and seek approval of the documents prescribed under Items 1 through 4 of Paragraph (1) of this Article at an Ordinary General Meeting of Shareholders. The Representative Directors shall report a business report to an Ordinary General Meeting of Shareholders.

(5) The Representative Director shall make public the balance sheet, without delay, after an Ordinary General Meeting of Shareholders has approved the documents described in Paragraph (4).

Article 54. (Deleted)

Article 55. Disposition of Retained Earnings

Retained earnings for any fiscal year shall be disposed in the following order, but it may be appropriated for purposes other than those listed below if approved by a General Meeting of Shareholders:

1. Legal reserves (required to be more than one-tenth of cash dividends paid for the pertinent fiscal year);
2. Other statutory reserves;

3. Dividends to shareholders;
4. Merits bonuses for retiring Directors;
5. Discretionary reserves;
6. Average dividend reserves and other dispositions; and
7. Retained earnings carried forward to next fiscal year.

Article 56. Dividends

(1) Dividends may be paid in cash, shares, or any other form of property

(2) In the case of stock dividends, the Company may issue different types of shares to the shareholders by resolution of the General Meeting of Shareholders.

(3) The Company may pay quarterly dividends in cash by a resolution of the Board of Directors each fiscal year. In such case, the record date for the distribution of quarterly dividends shall be the last day of March, June and September. The dividends should be paid within 20 days from the resolution above.

(4) Dividends referred to in Paragraphs (1) and (3) shall be paid to the shareholders and registered pledgees whose names appear in the shareholders' register of the Company as of the last day of each fiscal year or the record date for the distribution of quarterly dividends.

Article 57. Cancellation of Treasury Stocks

The Company, by a resolution of the Board of Directors, may repurchase and cancel its outstanding shares following the methods set forth in the applicable laws or regulations.

ADDENDA (March 12, 2021)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 53rd fiscal year.

ADDENDA (March 15, 2019)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 51st fiscal year; provided, however, that the amendments to Articles 6, 9, 9-2, 13 and 18 shall take effect starting from the effective date of the Enforcement Decree of the Act on Electronic Registration of Stocks, Bonds, Etc.

ADDENDA (March 9, 2018)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 50th fiscal year.

ADDENDA (March 11, 2016)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 48th fiscal year.

ADDENDA (March 16, 2012)

Article 27 of the Articles of Incorporation shall be effective from the date the Ordinary General Meeting of Shareholders for the 44th fiscal year approves such Article while the other amended Articles shall be effective from April 15, 2012.

ADDENDA (February 25, 2011)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 43rd fiscal year.

ADDENDA (February 26, 2010)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 42nd fiscal year.

ADDENDA (February 27, 2009)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 41st fiscal year.

ADDENDA (February 23, 2007)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 39th fiscal year.

ADDENDA (February 24, 2006)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 38th fiscal year.

ADDENDA (March 12, 2004)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 36th fiscal year.

ADDENDA (March 14, 2003)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 35th fiscal year.

ADDENDA (March 15, 2002)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 34th fiscal year.

ADDENDA (March 16, 2001)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 33rd fiscal year.

ADDENDA (March 17, 2000)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 32nd fiscal year.

ADDENDA (March 16, 1999)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 31st fiscal year.

ADDENDA (August 20, 1998)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Extraordinary General Meeting of Shareholders for the 31st fiscal year.

ADDENDA (March 17, 1998)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 30th fiscal year.

ADDENDA (March 14, 1997)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 29th fiscal year.

ADDENDA (March 15, 1996)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 28th fiscal year.

ADDENDA (March 15, 1995)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 27th fiscal year.

ADDENDA (April 15, 1994)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Extraordinary General Meeting of Shareholders for the 27th fiscal year.

ADDENDA (March 8, 1993)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 25th fiscal year.

ADDENDA (October 13, 1992)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Extraordinary General Meeting of Shareholders for the 25th fiscal year.

ADDENDA (March 7, 1992)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 24th fiscal year.

ADDENDA (March 14, 1991)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 23rd fiscal year.

ADDENDA (March 6, 1990)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 22nd fiscal year.

ADDENDA (March 15, 1989)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 21st fiscal year.

ADDENDA (February 27, 1988)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 20th fiscal year.

ADDENDA (March 7, 1987)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 19th fiscal year.

ADDENDA (February 26, 1986)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 18th fiscal year.

ADDENDA (February 5, 1985)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 17th fiscal year.

ADDENDA (February 18, 1984)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 16th fiscal year.

ADDENDA (February 23, 1982)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 14th fiscal year.

ADDENDA (February 28, 1981)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 13th fiscal year.

ADDENDA (February 24, 1979)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 11th fiscal year.

ADDENDA (February 25, 1978)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 10th fiscal year.

ADDENDA (February 8, 1977)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 9th fiscal year.

ADDENDA (February 6, 1976)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 8th fiscal year.

ADDENDA (February 8, 1975)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 7th fiscal year.

ADDENDA (February 5, 1974)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 6th fiscal year.

ADDENDA (February 12, 1973)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 5th fiscal year.

ADDENDA (November 29, 1972)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Extraordinary General Meeting of Shareholders for the 5th fiscal year.

ADDENDA (February 4, 1972)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 4th fiscal year.

ADDENDA (November 23, 1971)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Extraordinary General Meeting of Shareholders for the 4th fiscal year.

ADDENDA (February 6, 1971)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 3rd fiscal year.

ADDENDA (February 7, 1970)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 2nd fiscal year.

ADDENDA (June 16, 1969)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Extraordinary General Meeting of Shareholders for the 2nd fiscal year.

ADDENDA (March 20, 1969)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Extraordinary General Meeting of Shareholders for the 2nd fiscal year.

ADDENDA (February 20, 1969)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Ordinary General Meeting of Shareholders for the 1st fiscal year.

ADDENDA (July 10, 1968)

The amended Articles of Incorporation shall be effective from the date on which they are approved by the resolution at the Extraordinary General Meeting of Shareholders for the 1st fiscal year.

ADDENDA (March 6, 1968)

The Articles of Incorporation shall be effective from March 6, 1968.

Exhibit 2.4

Description of American Depositary Shares

Unless otherwise indicated, all references in this exhibit to the terms "we," "us," "our" and "POSCO" refer to POSCO, all references in this exhibit to "American depositary shares" and "ADSs" are to our American depositary shares, all references to "American depositary receipts" and "ADRs" are to the American depositary receipts issued under our ADSs, and all references to "Share" and "Shares" are to share/shares of our common stock.

This summary description assumes you own the ADSs directly by means of an ADS registered in your name and, as such, we refer to you as the "holder." When we refer to "you," we assume the reader owns ADSs.

The following is a summary of the amended and restated deposit agreement, dated as of July 19, 2013, among POSCO, Citibank, N.A. as depositary for the ADSs ("Depositary") and all holders and beneficial owners from time to time of the ADSs issued thereunder. The amended and restated deposit agreement is governed by the laws of the State of New York. Because it is a summary, this description does not contain all the information that may be important to you as an owner of our ADSs. For more complete information, you should read the entire amended and restated deposit agreement and the ADR. The amended and restated deposit agreement has been filed as an exhibit to the registration statement on Form F-6 on June 20, 2013. Copies of the amended and restated deposit agreement are available for inspection at the Principal Office of the Depositary, located at 388 Greenwich Street, New York, New York 10013, United States.

American Depositary Shares

Each ADS will represent the right to receive, and to exercise the beneficial ownership interest in, one-fourth of one Share on deposit with the Depositary and/or the Custodian, subject, in each case, to the terms and conditions of the amended and restated deposit agreement and, if applicable, the ADRs evidencing the ADSs. All Shares deposited or deemed deposited under the deposit agreement and any other securities, cash and other property held under the deposit agreement shall be referred to as "Deposited Securities." We will deposit Deposited Securities with Korea Securities Depository in Seoul, Korea (the "Custodian"), as the custodian of the Deposited Securities. An ADR may represent any number of ADSs. You may hold ADSs either directly or indirectly through your broker or other financial institution. If you hold ADSs directly, you are a holder. This description assumes you hold your ADSs directly. If you hold the ADSs indirectly, you must rely on the procedures of your broker or other financial institution to assert the rights of holders described in this section. You should consult with your broker or financial institution to find out what those procedures are.

Deposit and Withdrawal of Deposited Securities

The Shares represented by the ADSs are delivered to the Depositary's Custodian in book-entry form. Accordingly, no share certificates will be issued but the Depositary will hold the Shares through the book-entry settlement system of the Custodian. The delivery of the Shares pursuant to the deposit agreement will take place through the facilities of the Custodian in accordance with its applicable settlement procedures. The Depositary will execute and deliver ADSs if you or your broker deposit Shares or evidence of rights to receive Shares with the Custodian. Upon payment of its fees and expenses and of any taxes or charges, such as stamp taxes or stock transfer taxes or fees, the Depositary will register the appropriate number of ADSs in the names you designate and will deliver the ADSs at its Principal Office to the persons you designate. The Depositary and the Custodian will refuse to accept Shares for deposit whenever we restrict transfers of Shares to comply with ownership restrictions under applicable law or our articles of incorporation, whenever the deposit would result in any violation of our articles of incorporation or applicable law, or whenever the deposit would cause the total number of Shares deposited to exceed a level we determine from time to time. See "Item 3.D. Risk Factors — If you surrender your ADRs to withdraw shares of our common stock, you may not be allowed to deposit the shares again to obtain ADRs." and "Item 10. Additional Information — Item 10.D. Exchange Controls — Restrictions Applicable to Shares." of our most recent annual report on Form 20-F.

You may surrender your ADSs at the Principal Office of the Depositary to withdraw the underlying Deposited Securities represented thereby. Upon payment of the fees and any governmental charges and taxes provided in the deposit agreement, and subject to applicable laws and regulations of Korea and our articles of incorporation, the Depositary will deliver, at the Custodian's designated office, the amount of Deposited Securities at the time represented by such ADSs. The Depositary may also deliver the amount of Deposited Securities represented by the ADSs at its Principal Office. At your request, risk and expense, we will direct the Custodian to forward any cash or other property (other than securities) held by the Custodian in respect of the Deposited Securities represented by the ADSs to the Depositary for delivery at the Principal Office. If you surrender an ADS representing a number other than a whole number of Shares, the Depositary will deliver the appropriate whole number of Shares and will, at the discretion of the Depositary, either (1) return to the person surrendering such ADSs the number of ADSs representing any remaining fractional Share, or (2) sell or cause to be sold the fractional Share represented by the ADSs so surrendered and remit the proceeds of such sale (net of (a) applicable fees and charges of, and expenses incurred by, the Depositary and (b) taxes withheld) to the person surrendering the ADSs.

Neither the Depositary nor the Custodian will deliver the Shares in any manner or otherwise permit the Shares to be withdrawn from the facility created by the deposit agreement, except upon the receipt and cancellation of ADSs. However, in certain circumstances, subject to the provisions of the deposit agreement, the Depositary may issuer ADSs prior to the receipt of Shares and deliver Shares prior to the receipt of ADSs for withdrawal of Deposited Securities. This is called a pre-release transaction. The pre-release transaction will be (1) subject to a written agreement whereby the person or entity (the "Applicant") to whom ADSs or Shares are to be delivered (w) represents that at the time of the pre-release transaction the Applicant or its customer owns the Shares or ADSs that are to be delivered by the Applicant under such pre-release transaction, (x) agrees to indicate the Depositary as owner of such Shares or ADSs in its records and to hold such Shares or ADSs in trust for the Depositary until such Shares or ADSs are delivered to the Depositary or the Custodian, (y) unconditionally guarantees to deliver to the Depositary or the Custodian, as applicable, such Shares or ADSs, and (z) agrees to any additional restrictions or requirements that the Depositary deems appropriate; (2) at all times fully collateralized with cash, U.S. government securities or such other collateral as the Depositary deems appropriate; (3) terminable by the Depositary on not more than five business days' notice; and (4) subject to further indemnities and credit regulations as the Depositary deems appropriate. In addition, the Depositary will normally limit the number of ADSs and Shares involved in such pre-release, although the Depositary may change or disregard the limit from time to time if it thinks it is appropriate to do so.

Dividends, Other Distributions and Rights

The Depositary has agreed to pay to you the cash dividends or other distributions it or the Custodian receives on Deposited Securities, after deducting its fees and expenses. You will receive these distributions in proportion to the number of ADSs held as of a specified record date.

Whenever we intend to make a cash distribution for the Deposited Securities, upon receipt of confirmation of the deposit of the requisite funds from the Custodian, the Depositary will convert any cash dividend or other cash distribution paid in Won on the Shares into U.S. dollars, if it can do so on a practicable basis and can transfer the U.S. dollars to the United States. If that is not possible or if any approval from the Korean Government is required and cannot be promptly obtained, the deposit agreement allows the Depositary to distribute the Won to holders who have requested the distribution in writing and hold the remainder of the non-convertible Won for the account of those holders who have not been paid. It will not invest the Won it holds and will not be liable for any interest.

Before making a distribution, the Depositary will deduct any withholding taxes that must be paid. See "Item 10. Additional Information — Item 10.E. Taxation — Korean Taxation."

Whenever we intend to distribute property other than cash, Shares or rights to purchase additional Shares, the Depositary will distribute such property to you in any manner that it deems reasonable and practicable, subject to applicable law. If such distribution cannot be made proportionally, or if for any other reason the Depositary deems the distribution not to be practicable, the Depositary may, after consultation with us, dispose of all or a portion of the property in such amounts and in such manner, including by public or private sale, as the Depositary deems reasonable and practicable. The Depositary will distribute to you the net proceeds of any such sale, or the balance of any such property, after deduction of the fees of the Depositary.

Whenever we intend to make a distribution that consists of a dividend in, or a free distribution of, Shares, upon receipt of confirmation of the deposit of the applicable number of Shares, the Depositary will either (1) distribute to you, in proportion to your holdings, additional ADSs representing any Shares we distribute as a dividend or free distribution, or (2) if additional ADSs are not so distributed, take all action necessary so that each ADS issued and outstanding after the ADS record date, to the extent permissible by law, also represent rights and interests in the additional integral number of Shares distributed upon the Deposited Securities represented thereby. The Depositary will only distribute whole ADSs. It will sell shares which would require it to deliver a fractional ADS and distribute the net proceeds in the same way as it does with cash. If the Depositary does not distribute additional ADSs, then each outstanding ADS will also represent the new Shares so distributed.

Whenever we intend to distribute rights to subscribe for additional Shares, the Depositary may make these rights available to you. The Depositary must first determine whether it is lawful and feasible to do so. If the ADR depositary determines that it is not lawful or practicable to make these rights available to you, then at our request, the Depositary will use its best efforts to sell the rights and distribute the proceeds in the same way as it would do with cash. The Depositary may allow the rights that are not distributed or sold to lapse. In that case, you will receive no value for them.

If a registration statement under the Securities Act is required with respect to the securities to which any rights relate in order for us to offer the rights to you and to sell the securities represented by the rights, the Depositary will not offer such rights to you if you have an address in the United States (as defined in Regulation S under the Securities Act) unless and until such a registration statement is in effect, or unless the offering and sale of such securities and such rights to you are exempt from the registration requirements of the Securities Act. The Depositary will not be responsible for any failure to determine that it may be lawful or practicable to make the rights available to you.

Whenever we intend to make a distribution at the election of the holders in cash or in additional Shares, we will give prior notice thereof to the Depositary and will indicate whether we wish the elective distribution to be made available to you. In such case, we will assist the Depositary in determining whether such distribution is lawful and reasonably practicable. The Depositary will make the election available to you only if it is reasonably practicable and if we have provided all of the documentation contemplated in the amended and restated deposit agreement. In such case, the Depositary will establish procedures to enable you to elect to receive either cash or additional ADSs. The Depositary is not obligated to make available to you a method to receive the elective distribution in Shares (rather than ADSs). There can be no assurance that you will be given the opportunity to receive elective distributions on the same terms and conditions as the holders of Shares.

Record Dates

The Depositary will fix a record date in each of the following situations:

- the Depositary receives notice of the fixing of a record date by us for the determination of holders of Deposited Securities entitled to receive any distribution (whether in cash, Shares, rights or other distribution);

- the Depositary causes a change in the number of Shares that are represented by each ADS; or
- the Depositary receives notice of any meeting of, or solicitation of consents or proxies of, holders of Shares or other Deposited Securities.

The record date will, to the extent practicable, either be the same date as the record date fixed by us, or if different from the record date fixed by us, be fixed after consultation with us. The record date will determine (1) the holders who are entitled to receive distribution; (2) the holders who are entitled to give instruction for the exercise of voting rights at, and to attend (without voting or speaking), any such meeting, or to give or withhold such consent or to receive such notice or solicitation or to otherwise take action; or (3) the date on which each ADS will represent a changed number of Shares.

Voting of the Underlying Deposited Securities

Upon receipt of notice of any meeting or solicitation of consents or proxies of holders of Shares or other Deposited Securities, and upon our timely written request, the Depositary will distribute to you a notice that will contain the following:

- the information contained in our notice to the Depositary, or, if requested by us, a summary of the information provided by us;
- a statement that the holders as of the close of business on a specified record date will be entitled to instruct the Depositary as to how to exercise their voting rights for the number of Shares or other Deposited Securities represented by their ADSs, subject to the provisions of applicable Korean law and our articles of incorporation, which provisions, if any, will be summarized in the notice to the extent that they are material; and
- a statement as to the manner in which the holders may give their instructions.

Upon your written request received on or before the date set by the Depositary for this purpose, the Depositary will endeavor, in so far as practicable, to vote or cause to be voted the amount of Shares or other Deposited Securities representing your ADSs in accordance with the instructions set forth in your written request. The Depositary may not itself exercise any voting discretion over any Deposited Securities. You may only exercise the voting rights in respect of four ADSs or multiples of four ADSs.

Changes Affecting Deposited Securities

In the case of a change in the par value, or a split-up, consolidation or any other reclassification of Deposited Securities or upon any recapitalization, reorganization, merger or consolidation or sale of assets affecting us, any securities received by the Depositary or the Custodian in exchange for, in conversion of or in respect of Deposited Securities will be treated as new Deposited Securities under the deposit agreement. In that case, ADSs will, subject to the terms of the deposit agreement and applicable laws and regulations, including any registration requirements under the Securities Act, represent the right to receive the new Deposited Securities, unless additional ADSs are issued, as in the case of a stock dividend, or unless the Depositary calls for the surrender of outstanding ADSs to be exchanged for new ADSs.

Disclosure of Beneficial Ownership; Ownership Restrictions

We may from time to time request you to provide information as to the capacity in which you hold or held ADSs, the identity of any other persons then or previously interested in such ADSs and the nature of the interest, and various other matters. You will agree in the deposit agreement to provide any such information reasonably requested by us or the Depositary whether or not you are still an holder or beneficial owner at the time of the request.

We may restrict transfers of the Shares where the transfer might result in ownership of Shares exceeding the limits under our articles of incorporation and applicable law. See “Item 10. Additional Information — Item 10.D. Exchange Controls — Restrictions Applicable to Shares.” We may also restrict transfers of the ADSs where the transfer may cause the total number of Shares represented by the ADSs beneficially owned by a single holder or beneficial owner of ADSs, taken together with all other shares of common stock beneficially owned by the holder or beneficial owner, including Shares beneficially owned by affiliated owners, to any limit under our articles of incorporation and applicable law with respect to which we may, from time to time, notify the Depositary. We may instruct the Depositary to take action with respect to the beneficial ownership of any holder or beneficial owner of ADSs or common stock represented by the ADSs held by such holder or beneficial owner in excess of the limitations, if and to the extent the disposition is permitted by applicable law. See “Item 10. Additional Information — Item 10.D. Exchange Controls — Restrictions Applicable to ADSs.”

Reports and Notices

We will furnish to the Depositary English language versions of any reports, notices and other communications that we generally transmit to holders of our Shares or other Deposited Securities, including our annual reports, with annual audited consolidated financial statements prepared in conformity with Korean International Financial Reporting Standards (“Korean IFRS”) and, if prepared pursuant to the Exchange Act, a reconciliation of net earnings for the year and stockholders’ equity to U.S. GAAP, and unaudited non-consolidated semiannual financial statements prepared in conformity with Korean IFRS. The Depositary will arrange for the prompt mailing of copies of these documents, or, if we request, a summary of any such notice provided by us to you or, at our request, make notices, reports (other than the annual reports and semiannual financial statements) and other communications available to you on a basis similar to that for the holders of our Shares or other Deposited Securities or on such other basis as we may advise the Depositary or as may be required by any applicable law, regulation or stock exchange requirement.

Notices to you under the deposit agreement will be deemed to have been duly given if personally delivered or sent by mail or cable, telex or facsimile transmission, confirmed by letter, addressed to you at your address as it appears on the transfer books of the Depositary or at such other address as you have notified the Depositary.

In addition, the Depositary will make available for your inspection at its Principal Office any reports, notices and other communications received by it, the Custodian or a nominee of either as a holder of Deposited Securities and which we generally transmit to the holders of Deposited Securities.

Amendment and Termination of the Deposit Agreement

We may agree with the Depositary to amend the deposit agreement and the ADRs without your consent for any reason. If the amendment adds or increases fees or charges, except for taxes and other governmental charges or certain expenses of the Depositary, or prejudices any substantial existing right of the holders, it will only become effective 30 days after the Depositary notifies you of the amendment. If you continue to hold your ADSs at the time an amendment becomes effective, you will be considered to have agreed to the amendment and to be bound by the deposit agreement as amended. Except as otherwise required by any mandatory provisions of applicable law, no amendment may impair your right to surrender your ADSs and to receive the underlying Deposited Securities.

The Depositary will terminate the deposit agreement if we ask it to do so. The Depositary may also terminate the deposit agreement if the Depositary has notified us that it would like to resign and we have not appointed a new depositary within 90 days. In both cases, the Depositary must notify you at least 30 days before the termination date.

If any ADSs remain outstanding after the date of termination, the Depositary will stop performing any further acts under the deposit agreement, except:

- to collect dividends and other distributions pertaining to the Deposited Securities and any other property represented by the outstanding ADSs;
- to sell rights as provided in the deposit agreement; and
- to deliver Deposited Securities, together with any dividends or other distributions received with respect to the Deposited Securities and the net proceeds of the sale of any rights or other property represented by those ADSs in exchange for surrendered ADSs after payment of fees and other charges of the Depositary.

On and after the date of termination, you will be entitled to receive the amount of Deposited Securities represented by the ADS upon (1) surrender of the ADS at the Principal Office of the Depositary, (2) payment of the fees of the Depositary for the surrender of the ADS and (3) payment of any applicable taxes or governmental charges.

At any time after the date of termination, the Depositary may sell any remaining Deposited Securities and hold uninvested the net proceeds in an unsegregated account, together with any other cash or property then held, without liability for interest, for the pro rata benefit of the holders of ADSs that have not been surrendered by then. After making the sale, the Depositary will be discharged from all obligations under the deposit agreement, except for some indemnification obligations and the obligation to account for the net proceeds of the sale and other cash or property (after deducting, in each case, the fee of the Depositary for surrendered ADSs, any expenses for the account of the holder of the ADSs in accordance with the terms and conditions of the deposit agreement, and any applicable taxes or governmental charges). Upon the termination of the deposit agreement, we will also be discharged from all obligations under deposit agreement except for some obligations to the Depositary.

Fees and Charges of the Depositary

Holders are required to pay the following service fees to the Depositary:

Service	Rate	By Whom Paid
(1) Issuance of ADSs upon deposit of Shares (excluding issuances as a result of distributions described in paragraph (4) below).	Up to U.S. $5.00 per 100 ADSs (or fraction thereof) issued.	Person depositing Shares or person receiving ADSs.
(2) Delivery of Deposited Securities against surrender of ADSs.	Up to U.S. $5.00 per 100 ADSs (or fraction thereof) surrendered.	Person surrendering ADSs for the purpose of withdrawal of Deposited Securities or person to whom Deposited Securities are delivered.
(3) Distribution of cash dividends or other cash distributions (*i.e.*, sale of rights and other entitlements).	Up to U.S. $5.00 per 100 ADSs (or fraction thereof) held.	Person to whom distribution is made.
(4) Distribution of ADSs pursuant to (i) stock dividends or other free stock distributions, or (ii) exercise of rights to purchase additional ADSs.	Up to U.S. $5.00 per 100 ADSs (or fraction thereof) held.	Person to whom distribution is made.

Service	Rate	By Whom Paid
(5) Distribution of securities other than ADSs or rights to purchase additional ADSs (*i.e.*, spin-off shares).	Up to U.S. $5.00 per 100 ADSs (or fraction thereof) held.	Person to whom distribution is made.
(6) Depositary Services.	Up to U.S. $5.00 per 100 ADSs (or fraction thereof) held on the applicable record date(s) established by the Depositary.	Person holding ADSs on the applicable record date(s) established by the Depositary.

Holders are responsible for the following charges:

- taxes (including applicable interest and penalties) and other governmental charges;
- registration fees as may from time to time be in effect for the registration of Shares or other Deposited Securities on the share register and applicable to transfers of Shares or other Deposited Securities to or from the name of the Custodian, the Depositary or any nominees upon the making of deposits and withdrawals, respectively;
- cable, telex and facsimile transmission and delivery expenses as are expressly provided in the Deposit Agreement to be at the expense of the person depositing or withdrawing Shares or holders and beneficial owners of ADSs;
- the expenses and charges incurred by the Depositary in the conversion of foreign currency;
- fees and expenses as are incurred by the Depositary in connection with compliance with exchange control regulations and other regulatory requirements applicable to Shares, Deposited Securities, ADSs and ADRs; and
- the fees and expenses incurred by the Depositary, the Custodian, or any nominee in connection with the servicing or delivery of Deposited Securities.

Liability of Holders for Taxes or Other Charges

You are liable for payment to the Depositary of any tax or other governmental charges or expenses payable by the Custodian, the Depositary or its nominee as the registered holder of any Deposited Securities represented by your ADSs. The Depositary may refuse to effect any transfer or split-up or combination of your ADSs or any withdrawal of Deposited Securities represented by your ADSs until the payment is made. The ADR depositary may withhold any dividends or other distributions or sell any part or all of the Deposited Securities represented by the ADSs and apply the dividends or distributions or the proceeds of the sale to the payment of any tax or other governmental charges or expenses. You and the beneficial owner will remain liable for any deficiency. You and the beneficial owner agree to indemnify us, the Depositary, the Custodian, and any of our/their agents, officers, employees and affiliates for, and to hold each of them harmless from, any claims with respect to taxes (including applicable interest and penalties thereon) arising from any tax benefit (including any refund of taxes or reduced rate of withholding at source) obtained for you and/or the beneficial owner.

Regardless of any provision in the deposit agreement, before making any distribution or other payment on any Deposited Securities, we will make deductions (if any) that we are required to make under Korean law in respect of any income tax, capital gains tax or other taxes, and we may also deduct the amount of any tax or governmental charges payable by us in respect of a distribution or other payment or any document signed in connection with such a distribution or payment. In making deductions, we will have no obligation to you to apply a rate under any treaty or other arrangement between Korea and the country in which you are resident unless you have timely provided to us evidence of your residency that is satisfactory to the relevant tax authorities of Korea.

Limitations on Execution, Transfer and Surrender of ADSs

The ADSs are transferable on the books of the Depositary. However, the Depositary may close the transfer books at any time it deems expedient in the performance of its duties or at our request. The Depositary may suspend or refuse the execution and delivery or transfer of ADSs during any period when the transfer books of the Depositary are closed, or at any time we or the Depositary consider the action necessary or advisable.

Before the execution and delivery, registration of transfer, split-up, combination or surrender of any ADS, the delivery of any distribution thereon, or withdrawal of Deposited Securities, we, the Depositary, the Custodian or any registrar of ADSs may require the person presenting the ADS or depositing the Shares to pay a sum sufficient to reimburse us or them for any tax or other governmental charges, any stock transfer or registration fee with respect thereto (including any such tax, charge or fee with respect to Shares being deposited or withdrawn).

The Depositary will refuse to register any transfer of ADSs if the transfer would cause the total number of Shares represented by the ADSs beneficially owned by you, when aggregated with all other Shares beneficially owned by you and certain of your affiliates, to exceed any limit under our articles of incorporation or applicable law of which we may, from time to time, notify the Depositary. The Depositary may also refuse to deliver or register the transfer of any ADSs or make any distribution of Deposited Securities until it has received such proof of citizenship, residence, exchange control approval, payment of applicable taxes or other governmental charges, legal or beneficial ownership or other information as it may reasonably deem necessary or proper or as we may require.

Regardless of any provision in the deposit agreement or the ADRs, the surrender of outstanding ADSs and withdrawal of Deposited Securities may not be suspended except when required in connection with: (1) temporary delays caused by closing the transfer books of the Depositary or us or the deposit of Shares in connection with voting at a shareholders' meeting, or the payment of dividends, (2) the payment of fees, taxes and similar charges, or (3) compliance with any U.S. or foreign laws or governmental regulations relating to the ADRs or the withdrawal of Deposited Securities.

Holders may inspect the transfer books of the Depositary at any reasonable time. However, the inspection may not be for the purpose of communicating with other holders in the interest of a business or object other than our business, including any matter related to the deposit agreement or the ADSs.

General

Neither we nor the Depositary will be liable to you if prevented from or delayed in performing our or their obligations under the deposit agreement by the law of any country, by any governmental authority or stock exchange, by any provision of our articles of incorporation or by any circumstances beyond our or their control. Our obligations and the obligations of the Depositary to the holders and beneficial owners of ADSs are expressly limited to performing our and their respective duties specified in the deposit agreement without negligence or bad faith.

So long as any ADSs are listed on one or more stock exchanges in the United States, the Depositary will act as registrar or, with our approval, appoint a registrar or one or more co-registrars, for registration of the ADSs in accordance with any requirements of these stock exchanges.

Exhibit 8.1

LIST OF CONSOLIDATED SUBSIDIARIES

For a list of POSCO's consolidated subsidiaries as of December 31, 2020 and their jurisdiction of incorporation, please see Note 1(b) of Notes to the Consolidated Financial Statements contained in POSCO's annual report on Form 20-F for fiscal year 2020.

Exhibit 12.1

CERTIFICATION

I, Choi, Jeong-Woo, certify that:

1. I have reviewed this annual report on Form 20-F of POSCO;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;

4. The company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and

5. The company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: April 29, 2021

/s/ Choi, Jeong-Woo

Choi, Jeong-Woo
Chief Executive Officer and
Representative Director

Exhibit 12.2

CERTIFICATION

I, Chon, Jung-Son, certify that:

1. I have reviewed this annual report on Form 20-F of POSCO;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;

4. The company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and

5. The company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: April 29, 2021

/s/ Chon, Jung-Son

Chon, Jung-Son
Senior Executive Vice President and
Representative Director
Head of Global & Infra Business Unit and
Head of Corporate Strategy & Planning Division

Exhibit 13.1

CERTIFICATION

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(Subsection (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsection (a) and (b) of section 1350, chapter 63 of title 18, United States Code), the undersigned officer of POSCO, a corporation organized under the laws of the Republic of Korea (the “Company”), does hereby certify, to such officer’s knowledge, that:

The annual report on Form 20-F for the year ended December 31, 2020 (the “Form 20-F”) fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in the Form 20-F fairly presents, in all material respects, the financial condition and results of operation of the Company.

/s/ Choi, Jeong-Woo

Choi, Jeong-Woo
Chief Executive Officer and
Representative Director

Date: April 29, 2021

/s/ Chon, Jung-Son

Chon, Jung-Son
Senior Executive Vice President and
Representative Director
Head of Global & Infra Business Unit and
Head of Corporate Strategy & Planning Division

Date: April 29, 2021

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to POSCO and will be retained by POSCO and furnished to the Securities and Exchange Commission or its staff upon request.