

**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. *[Reserved]***

**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 products and services. In particular, POSCO and our other subsidiaries that engage in steel production activities are affected by market demand 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") that began in late 2019, and beginning in the second half of 2021, rapid increases in interest rates globally to combat inflation, have 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 invasion of Ukraine by Russia in February 2022 that has destabilized the global energy sector, difficulties faced by several banks in the United States and Europe in recent months, 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. See "— Korea and the rest of Asia are our most important markets, and our current business and future growth could be materially and adversely affected if economic conditions in the region deteriorate."

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 the COVID-19 pandemic 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. While the sales volume of our principal steel products as well as their prices have recovered in recent years, the overall impact of the ongoing COVID-19 pandemic and its impact on the global steel industry remain uncertain. We increased our production of crude steel from 40.6 million tons in 2020 to 43.0 million tons in 2021 but decreased such production to 37.9 million tons in 2022 due to weaker demand beginning in the second half of 2022. The weighted average unit sales price for our semi-finished and finished steel products produced by us and directly sold to external customers increased from Won 898,008 per ton in 2020 to Won 1,225,209 per ton in 2021, reflecting a rebound in global market conditions in 2021 following a weak 2020 that was adversely impacted by the COVID-19 pandemic. Such weighted average unit sales price further increased from Won 1,225,209 per ton in 2021 to Won 1,435,642 per ton in 2022, reflecting continuation of strong market conditions in the first half of 2022 in part due to global steel supply chain concerns caused by Russia's invasion of Ukraine, which market conditions weakened beginning in the second half of 2022 reflecting a decrease in global demand for steel products, as well as depreciation of the Won against the U.S. dollar in 2022 that increased our export prices in Won terms during 2022. General increases in the prices of key raw materials in recent years have also contributed to increases in the prices of our steel products during 2021 and 2022.

Such weakening demand and a general oversupply in the market have negatively impacted our results of operations for 2022. Although our revenue increased by 11.8%, or Won 8,994 billion, from Won 76,009 billion in 2021 to Won 85,004 billion in 2022, our profit decreased by 50.0%, or Won 3,590 billion, from Won 7,176 billion in 2021 to Won 3,586 billion in 2022. Our results of operations in 2022 were also negatively impacted by flooding of some of the Pohang Works' facilities caused by Typhoon Hinnamnor in September 2022, causing disruptions to our downstream production activities, which adversely impacted our sales. In addition, the flood damage has caused us to incur significant expenses, although we expect a substantial portion will be covered by insurance. 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."

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 ongoing 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.

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

**Steel Segment.** Our subsidiaries that produce steel products, including POSCO, our wholly-owned subsidiary, operate in the highly competitive steel industry and 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, led to production over-capacity in the Chinese steel industry, which in turn led the Chinese government to pursue aggressive consolidation in the Chinese steel industry that has resulted in fewer but larger steel manufacturers that are able to compete more effectively in the global steel industry. 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. POSCO's larger competitors may use their resources, which may be greater than POSCO's, against POSCO 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 recovered in 2021 and the first half of 2022, such demand has weakened starting in the second half of 2022. Production over-capacity in the global steel industry may further intensify if the global economy 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 U.S. dollar terms of our principal products, which in turn may lead to decreases in our sales prices in Korea as well;
- 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, our steel subsidiaries 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 they 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 Segment of the Green Infrastructure Business.** POSCO International Corporation ("POSCO International"), our consolidated subsidiary, 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 historically 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, 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 our business, results of operations or financial condition. We recognized impairment of goodwill of Won 189 billion in 2020, Won 185 billion in 2021 and Won 338 billion in 2022 as a result of a decrease in value-in-use of POSCO International.

**Construction Segment of the Green Infrastructure Business.** POSCO Engineering & Construction Co., Ltd. ("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 our results of operations and financial condition.

**Energy and Other Segment of the Green Infrastructure Business.** On January 1, 2023, POSCO Energy Corporation ("POSCO Energy"), Korea's largest domestic private power utility company and a provider of alternative environmentally-friendly energy solutions, merged into POSCO International. POSCO International's power generation business competes principally with private-sector power generation companies in Korea that are affiliated with major domestic business groups, including SK E&S and GS EPS. POSCO DX Co., Ltd. ("POSCO DX" and previously named POSCO ICT Co., Ltd.) competes principally with system integration service providers in Korea that are affiliated with major domestic business groups, including Samsung SDS, LG CNS and SK Inc. C&C.

**Green Materials and Energy Segment.** In the energy materials market, POSCO Future M Co., Ltd. ("POSCO Future M" and previously named POSCO Chemical Co., Ltd.) competes with other global leading manufacturers of cathode and anode materials, including LG Chemical Co., Ltd. and Ecopro BM Co., Ltd. In its other markets, POSCO Future M competes principally with Chosun Refractories ENG Co., Ltd. and Korea Refractories Co, Ltd.

***Korea and the rest of Asia are our most important markets, and our current business and future growth could be materially and adversely affected if economic conditions in the region deteriorate.***

We are a holding company incorporated in Korea, and a substantial portion of our subsidiaries' operations and assets are located in Korea. Korea is our most important market, and our customers located in Korea accounted for 40.7% of our revenue, prior to basis difference adjustments related to the difference in recognizing revenue and expenses of the Construction Segment of our Green Infrastructure Business, in 2022. Domestic demand for steel 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 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. In the past, the economic indicators in Korea have shown mixed signs of growth and uncertainty. In 2020, the overall Korean economy and the economies of Korea's major trading partners deteriorated due to the debilitating effects of the COVID-19 pandemic but showed signs of recovery starting in 2021. However, future growth of the Korean economy is subject to many factors beyond our control, including developments in the global economy.

In recent years, adverse conditions and volatility in the worldwide financial markets, fluctuations in oil and commodity prices, supply chain disruptions and the increasing weakness of the global

economy, in particular due to the COVID-19 pandemic, and beginning in the second half of 2021, rapid increases in interest rates globally to combat inflation, have contributed to the uncertainty of global economic prospects in general and have adversely affected, and may continue to adversely affect, the Korean economy. The value of the Won relative to major foreign currencies has fluctuated significantly and, as a result of uncertain global and Korean economic conditions, there has been significant volatility in the stock prices of Korean companies recently. Future declines in the KOSPI, and large amounts of sales of Korean securities by foreign investors and subsequent repatriation of the proceeds of such sales may adversely affect the value of the Won, the foreign currency reserves held by financial institutions in Korea, and the ability of Korean companies to raise capital. Any future deterioration of the Korean economy could adversely affect our business, financial condition and results of operations and the market price of our ADSs.

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

- declines in consumer confidence and a slowdown in consumer spending, including as a result of the global COVID-19 pandemic;
- hostilities or, political or social tensions involving Russia (including the invasion of Ukraine by Russia and ensuing actions that the United States and other countries have taken and may take in the future) and any resulting adverse effects on the global supply of oil and other natural resources or the global financial markets;
- 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 the deteriorating economic and trade relations between the United States and China and increased uncertainties in the global financial markets and industry;
- adverse changes or volatility in foreign currency reserve levels, commodity prices (including oil prices), exchange rates (including fluctuation of the U.S. dollar, the Euro or the Japanese Yen exchange rates or revaluation of the Chinese Renminbi), interest rates, inflation rates or stock markets;
- the occurrence of severe health epidemics in Korea or other parts of the world, such as the COVID-19 pandemic;
- 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;
- increased sovereign default risk in select countries and the resulting adverse effects on the global financial markets;
- deterioration in the financial condition or performance of small- and medium-sized enterprises and other companies in Korea due to the Government's policies to increase minimum wages and limit working hours of employees;
- 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;
- the economic impact of any pending or future free trade agreements or of any changes to existing free trade agreements;
- social and labor unrest;
- substantial changes in the market prices of Korean real estate;

- a substantial decrease in tax revenues and a substantial increase in the Government's expenditures for fiscal stimulus measures, unemployment compensation and other economic and social programs, in particular in light of the Government's ongoing efforts to provide emergency relief payments to households and emergency loans to corporations in need of funding in light of COVID-19, which, together, would likely lead to a national budget deficit as well as an increase in the Government's debt;
- 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;
- geopolitical uncertainty and the risk of further attacks by terrorist groups around the world;
- 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 United States and Iran) and Northern Africa and any material disruption in the global supply of oil or sudden increase in the price of oil;
- natural or man-made disasters that have a significant adverse economic or other impact on Korea or its major trading partners; 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.***

We rely on export sales for a significant portion of our total sales. In particular, the Steel Segment's export sales and overseas sales to customers abroad accounted for 59.3% of the Steel Segment's total revenue in 2022. The Steel Segment's export sales to customers in Asia, including China, Japan, Indonesia, Thailand and Malaysia, accounted for 58.9% of the Steel Segment's total export sales revenue in 2022, and we expect our sales to these countries to remain important in the future. In particular, the Steel Segment's export sales to China accounted for 24.9% of the Steel Segment's total export sales revenue in 2022. 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 U.S. 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, construction and energy 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 U.S. 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 2022, 59.3% of the Steel Segment’s total revenue was from 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 U.S. 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 U.S. dollar, Yen and Renminbi terms; and
- a reduction in net sales and accounts receivables in Won from export sales, which are primarily denominated in U.S. 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/U.S. 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 U.S. 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.



Fluctuations in the exchange rate between the Won and the U.S. dollar will also affect the U.S. 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 U.S. 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 49 million dry metric tons of iron ore and 26 million wet metric tons of coal in 2022. Iron ore is imported primarily from Australia, Brazil and Canada. Coal is imported primarily from Australia, Canada and Mozambique. 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 iron ore per dry metric ton (Iron Ore 62% Fe, CFR China Index announced by Platts) was US\$109 in 2020, US\$160 in 2021 and US\$120 in 2022. The average market price of coal per wet metric ton (Premium Low Vol Coking Coal, FOB Australia Index announced by Platts) was US\$124 in 2020, US\$226 in 2021 and US\$364 in 2022. Such increase in the price of coal in 2022 was in large part attributable to sanctions imposed on Russia, a large exporter of coal, following its invasion of Ukraine in February 2022.

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, 2022, 66 million tons of iron ore and 4 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.

***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. For example, Typhoon Hinnamnor, a powerful tropical cyclone that landed in South Gyungsang Province, Korea on September 5, 2022, caused substantial flooding and property damage in cities located near the coastline, including Pohang. The typhoon caused electricity blackouts and flooded some of the Pohang Works' facilities located adjacent to Youngil Bay on the southeastern coast of Korea, causing disruptions to our downstream production activities, which adversely impacted our sales following the flood. In 2022, we recognized Won 790 billion in expenses related to decrease in our production level

following the flood such as unallocated production overheads as part of our depreciation, Won 380 billion in flood damage restoration expenses and Won 95 billion in impairment of inventories and raw materials, all of which were recognized as part of our cost of sales. In addition, we recognized impairment loss of Won 207 billion related to damaged assets from such flooding in 2022, substantially all of which was covered by our insurance policies. By December 2022, we normalized operations at many of the facilities impacted by the flood, but we expect to continue repair activities at certain of our facilities in 2023.

A number of suppliers of our raw materials and customers of our products are also 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.

Furthermore, 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 years. 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 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.

***Expansion of our operations abroad is important to our long-term success, and our limited experience in the operation of our business outside Korea increases the risk that our international expansion efforts will not be successful.***

We conduct steel, international trading, construction and energy 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 production operations internationally by carefully seeking out investment opportunities in regions that we believe offer promising growth prospects. We may enter into additional joint ventures with foreign companies 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 global market conditions. 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 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. For example, we experienced significant losses related to flooding caused by Typhoon Hinnamnor in September 2022. 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.” 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. 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.***

Our subsidiaries engage in global operations, and 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 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. 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. 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, 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.

***The Korean electric power industry is heavily regulated by the Government, whose policies may have a material adverse impact on POSCO International's power generation business.***

The Korean electric power industry is heavily regulated by the Government, which seeks to ensure balanced overall electricity supply and demand in Korea at affordable rates to end users while taking into consideration various other factors, including economic conditions, national standard of living, long-term energy supply and demand plans and seasonality. To achieve such objectives, the

Government has, from time to time, adopted various policy initiatives to foster efficiency in the Korean electric power industry, and has also adopted policy measures that affect electricity tariff rates in order to ease the burden on certain consumers. In addition, these policy initiatives have not always been fully implemented as originally planned and in some cases have been amended or replaced by new initiatives, among others, due to economic or policy considerations or a change in administration. No assurance can be provided that such policies, as well as changes therein, will not have a material adverse effect on POSCO International's power generation business, results of operations or 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 of our Green Infrastructure Business 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 2022 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 may not succeed in implementing our strategy to take advantage of, or fail to realize the anticipated benefits of, our holding company structure and diversification strategy.***

We became a holding company on March 2, 2022, and one of our principal strategies is to take advantage of our holding company structure to invest in promising businesses. 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, as well as entering into new businesses not related to our steel operations such as production of cathode and anode materials for rechargeable batteries, development and production of natural resources (particularly for lithium and nickel used in production of rechargeable batteries), hydrogen-related businesses, energy solutions (particularly liquefied natural gas (“LNG”) trading), innovative architectural works and infrastructure projects, and agricultural trading. From time to time, we may selectively acquire or invest in companies to pursue such diversification strategy. The implementation of this strategy may require additional investments of capital, infrastructure, human resources and management attention. This strategy entails certain risks, including the possibility that we may face significant competition from other holding companies and operating companies in particular segments. If our strategy does not succeed, we may incur losses on our investments and our results of operations and financial condition may suffer.

Furthermore, our success under a holding company structure depends on our ability to realize the anticipated synergies, growth opportunities and cost savings from coordinating the businesses of our various subsidiaries. Although we may integrate certain aspects of our subsidiaries’ operations into our holding company structure, our subsidiaries will generally continue to operate as independent entities with separate management and staff, and our ability to direct our subsidiaries’ day-to-day operations may be limited.

We may continue to increase our equity interest in our subsidiaries or investees and may also consider acquiring or merging with other companies to achieve more balanced growth and further diversify our revenue base. The integration of our new subsidiaries’ or investees’ separate businesses and operations, as well as those of any companies we may acquire or merge with in the future, under our holding company structure could require a significant amount of time, financial resources and management attention. Moreover, that process could disrupt our operations, reduce employee morale, produce unintended inconsistencies in our standards, controls, procedures or policies, and affect our relationships with customers and our ability to retain key personnel. The realization of the anticipated benefits of our holding company structure and any mergers or acquisitions we decide to pursue may be blocked, delayed or reduced as a result of many factors, some of which may be outside our control. These factors include:

- unforeseen contingent risks, including lack of required capital resources or increased tax liabilities, relating to our holding company structure;
- difficulties in integrating the diverse activities and operations of our subsidiaries or investees or any companies we may merge with or acquire;
- unforeseen contingent risks or latent liabilities relating to the acquisition that may become apparent in the future;
- difficulties in managing a larger business;
- unexpected business disruptions;
- loss of key management personnel or customers; and
- labor unrest.

Accordingly, we may not be able to realize the anticipated benefits of our holding company structure, and our business, results of operations and financial condition may suffer as a result.

***We depend on limited forms of funding to fund our operations at the holding company level.***

We are a holding company with no significant assets other than the shares of our subsidiaries. We expect our primary sources of funding and liquidity to be dividends from our subsidiaries, direct borrowings and issuances of equity or debt securities at the holding company level. Our ability to meet our obligations to our direct creditors and employees and our other liquidity needs and regulatory requirements at the holding company level depends on timely and adequate distributions from our subsidiaries and our ability to sell our securities or obtain credit from our lenders.

The ability of our subsidiaries to pay dividends to us depends on their financial condition and operating results. In the future, our subsidiaries may enter into agreements, such as credit agreements with lenders, that impose restrictions on their ability to make distributions to us, and the terms of future obligations and the operation of Korean law could prevent our subsidiaries from making sufficient distributions to us to allow us to make payments on our outstanding obligations. See “As a holding company, we depend on receiving dividends from our subsidiaries to pay dividends on our common shares.” Any delay in receipt of or shortfall in payments to us from our subsidiaries could result in our inability to meet our liquidity needs, and may disrupt our operations at the holding company level.

In addition, creditors of our subsidiaries will generally have claims that are prior to any claims of our creditors with respect to their assets. Furthermore, our inability to sell our securities or obtain funds from our lenders on favorable terms, or at all, could also result in our inability to meet our liquidity needs and may disrupt our operations at the holding company level.

***As a holding company, we depend on receiving dividends from our subsidiaries to pay dividends on our common shares.***

Since our principal assets at the holding company level are the shares of our subsidiaries, our ability to pay dividends on our common shares largely depends on dividend payments from those subsidiaries. Those dividend payments are subject to the Korean Commercial Code and regulatory limitations, generally based on capital levels and retained earnings. For example, under the Korean Commercial Code, dividends may only be paid out of distributable income, an amount which is calculated by subtracting the aggregate amount of a company’s paid-in capital and certain mandatory legal reserves as well as certain unrealized profits from its net assets, in each case as of the end of the prior fiscal period.

Our subsidiaries may not continue to meet the applicable legal and regulatory requirements for the payment of dividends in the future. If they fail to do so, they may stop paying or reduce the amount of the dividends they pay to us, which would have an adverse effect on our ability to pay dividends on our common shares.

***POSCO HOLDINGS INC. and POSCO remain jointly and severally liable for each other’s liabilities existing prior to the spin-off.***

On March 1, 2022, we spun off our domestic steel production and sales business (through a vertical spin-off in accordance with Articles 530-2 through 530-12 of the Korean Commercial Code) to establish a wholly-owned subsidiary, and we converted into a holding company within the meaning of the Monopoly Regulation and Fair Trade Act (the “Spin-off”). The registration of the Spin-off occurred on March 2, 2022. As part of the Spin-off, we amended our name from POSCO to POSCO HOLDINGS INC., and the newly created wholly-owned subsidiary was named POSCO.

Under the relevant provisions of the Commercial Act of Korea relating to spin-offs, both the operating company and the holding company remain jointly and severally liable after the corporate spin-off for all of their liabilities existing prior to the corporate spin-off unless such joint and several liability has been successfully eliminated through a special resolution adopted at a general meeting of shareholders of the splitting company and consents of creditors of the affected debt, including consent



by resolutions at bondholders' meetings, which resolutions are approved by the court. POSCO HOLDINGS INC. and POSCO remain jointly and severally liable for each other's debts and other liabilities that existed prior to March 1, 2022 that currently remain outstanding. POSCO is the successor-in-title to all the assets and liabilities and rights and obligations that were related to the domestic steel production and sales business transferred in the Spin-off, as well as all authorized licenses, employment relations, contracts and lawsuits that were directly related to such business, and POSCO HOLDINGS INC. remains jointly and severally liable for such liabilities. The remaining assets and liabilities and rights and obligations related to other business areas remain with POSCO HOLDINGS INC., and POSCO is jointly and severally liable for such liabilities. Defaults by POSCO of such liabilities, if significant, could have a material adverse effect on our results of operations and financial condition.

***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.

Furthermore, heightened global awareness and international and national commitments to reduce greenhouse gas emissions and counteract climate change (including increased activism by non-governmental and political organizations campaigning against fossil fuel extractions) may lead to increased costs for us. Investor preferences and sentiments are also influenced by environmental, social and corporate governance considerations including climate change and the transition to a lower carbon economy. Changes in such preferences and sentiment, including increased scrutiny from market participants, environmental organizations or the press, as well as compliance with such new and more stringent environmental obligations relating to greenhouse gas emissions may require additional capital expenditures or modifications in operating practices, as well as additional reporting obligations.

***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.

***Labor laws and a recent Supreme Court decision on contract-based workers dispatched by third-party contractors could restrict flexibility in our labor management and result in an increase in our labor-related costs.***

In July 2022, the Supreme Court of Korea held that 59 workers employed by our third-party contractors and dispatched to our production facilities who brought a claim under the Dispatched Worker Protection Act ("DWPA") of Korea were in a direct employment relationship with us. The DWPA limits the maximum period that a worker may be dispatched to a company to two years. Under the DWPA, worker dispatch exceeding such period may result in a company's obligation to directly hire such dispatched workers in certain situations, including where such workers were directly supervised by the company rather than the third-party contractor. Pursuant to such judgment, we hired 55 of such workers that met our working age criteria as our full-time direct employees. In October 2022, all 59 original plaintiffs collectively filed a complaint at the Gwangju District Court claiming an aggregate amount of Won 3.0 billion as unpaid wages for the three-year period that they should have been recognized as our full-time direct employees. The lawsuit is still in progress, and we intend to vigorously defend against such lawsuit.

In addition to the decision rendered by the Supreme Court in July 2022, fourteen lawsuits brought by a total of approximately 3,233 workers employed by our third-party contractors who worked at our production facilities related to such workers' employment status with us remain pending as of January 19, 2023. Many of these cases also seek unpaid wages for the period they claim should have been recognized as our full-time direct employees. Twelve of such fourteen lawsuits remain pending at the district courts. With respect to one of the two remaining lawsuits, which involves eight workers, the district court ruled in our favor but the appellate court ruled against us. We appealed the decision in February 2022, which remains pending at the Supreme Court. With respect to the other remaining lawsuit, which involves 215 workers, both the district court and the appellate court ruled against us. We appealed the appellate court's decision in February 2022, which remains pending at the Supreme Court. We intend to vigorously defend against such lawsuits.

We cannot provide any assurance that there will not be additional lawsuits related to the employment status of workers employed by our third-party contractors who worked at our production facilities, and we have not made any provisions related to any of the pending proceedings. The application of the applicable labor law will be based on the specific facts of the cases, and the general

applicability of the July 2022 Supreme Court ruling cannot be determined with certainty at this time. However, if similar judgments were to be rendered against us, they could restrict our ability to manage our labor force flexibly and significantly increase our labor-related costs, which in turn may have a material adverse effect on our 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. Starting in 2022, North Korea has increased the frequency of its ballistic missile tests, including intercontinental ballistic missiles. 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. 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 depository's custodian in Korea and obtain ADRs, and holders of ADRs may surrender ADRs to the ADR depository and receive shares of our common stock. However, under current Korean laws and regulations, the depository 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 depository 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 depository, 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 engage in activities relating to countries targeted by United States, European Union and United Kingdom economic sanctions.***

The U.S. Department of the Treasury's Office of Foreign Assets Control, or "OFAC," enforces certain laws and regulations ("U.S. Sanctions") that impose prohibitions or restrictions on U.S. persons and, in some instances, foreign entities owned or controlled by U.S. persons, with respect to activities or transactions with or involving certain countries, governments, entities and individuals that are the subject of U.S. Sanctions, including countries and territories subject to a comprehensive embargo (currently the Crimea, Donetsk and Luhansk regions of Ukraine, Cuba, Iran, North Korea and Syria), as well as parties that are subject to, or majority owned by one or more parties subject to, so-called blocking sanctions. U.S. persons are also generally prohibited from facilitating such activities or transactions. Similarly, the European Union enforces certain laws and regulations ("E.U. Sanctions") that impose restrictions on 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. persons are also generally prohibited from activities that promote such activities or transactions. The United Kingdom also enforces certain laws and regulations ("UK Sanctions") that impose restrictions upon UK persons with respect to activities or transactions with parties that are the subject of UK Sanctions. In light of recent international developments, particularly the ongoing war in Ukraine, the

United States, European Union, United Kingdom and other jurisdictions have imposed enhanced sanctions targeting Russia.

We and our subsidiaries engage in limited business activities in Russia, the Crimea region of Ukraine and Iran. In particular, we produce and export, typically through our sales subsidiaries, steel products to such countries, including steel materials. In addition, we purchase raw materials from non-Russian third parties that are sourced from mines in Russia. We believe that such activities do not involve any U.S. goods or services and otherwise do not implicate or violate U.S., E.U. or UK Sanctions. To our knowledge, none of our business in Russia involves parties subject to U.S. blocking sanctions. Our activities in Russia, the Crimea region of Ukraine and Iran together accounted for approximately 0.17% of our consolidated revenues in 2020, 0.18% in 2021 and 0.05% in 2022.

POSCO Steeleon Co., Ltd. ("POSCO Steeleon"), a subsidiary of POSCO, also holds a 70% interest in Myanmar POSCO C&C Co., Ltd. ("Myanmar POSCO C&C"), a joint venture with Myanmar Economic Holdings Public Company Limited ("MEHL") that engages in the production and sale of coated steel roofing sheets in Myanmar. On March 25, 2021, MEHL was designated for U.S. blocking sanctions by OFAC. The U.S. blocking sanctions that apply to MEHL do not extend to Myanmar POSCO C&C, POSCO Steeleon or POSCO. The sales of Myanmar POSCO C&C accounted for approximately 0.05% of our consolidated revenues in 2020, 0.02% in 2021 and 0.02% in 2022. POSCO Steeleon is reassessing the future of this joint venture.

POSCO International holds a 51.0% interest in a gas field project in Myanmar. Myanmar Oil and Gas Enterprise ("MOGE") holds a 15.0% interest in the project and the remaining interests are held by non-sanctioned persons. On February 21, 2022, MOGE was designated for E.U. Sanctions, and certain managers of MOGE have also been subsequently designated for U.S. blocking sanctions. Such sanctions do not extend to POSCO International, POSCO or, to our knowledge, the gas field project. Our revenue recognized from the gas field project accounted for approximately 0.71% of our consolidated revenue in 2020, 0.59% in 2021 and 1.10% in 2022.

We expect to continue to engage in business activities and make investments in countries or territories on which comprehensive U.S. Sanctions have been imposed, including Iran, and also plan to continue to engage in business in Russia. Although we believe that U.S., E.U. and UK Sanctions under their current terms are not applicable to our current activities, the relevant authorities may take a different view, our reputation may be adversely affected, and some of our investors may be required to divest their investments in us, including 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, such as Iran. There can be no assurance that the foregoing will not occur, that sanctions regimes around the world will not change in a way that impacts our business, or that such occurrences will not have a material adverse effect on the value of our 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 value of our assets (generally determined on the basis of a quarterly average) 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, we could be classified as a