HIGHER
PROSPERITY

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HIGHER PROSPERITY

Hyundai Oilbank is realizing its dream of becoming a global total energy company with international competitiveness through sustained facility investment and stable growth.

In 2018, Hyundai Oilbank recorded the industry's first 40% upgrading ratio thanks to its constant facility investment, while ongoing growth of its subsidiaries through business diversification provided a driving force for its growth into a total energy company.

We have earned our reputation as a respected company through our dedication to safety and to practicing sharing and volunteer services. Our sharing and volunteer efforts include donating 1% of monthly employee salaries, and our commitment to safety is shown by our accomplishment of 13 million work hours with no accidents through the development of a safe work environment.

Based on unremitting efforts and investments and progressive changes, Hyundai Oilbank continues to be committed to becoming a global total energy company with international competitiveness.

GOING HIGHER

FY 2014 Higher Reliability
FY 2015 Higher Efficiency
FY 2016 Higher Progress
FY 2017 Higher Performance
FY 2018 Higher Prosperity

INTRODUCTION

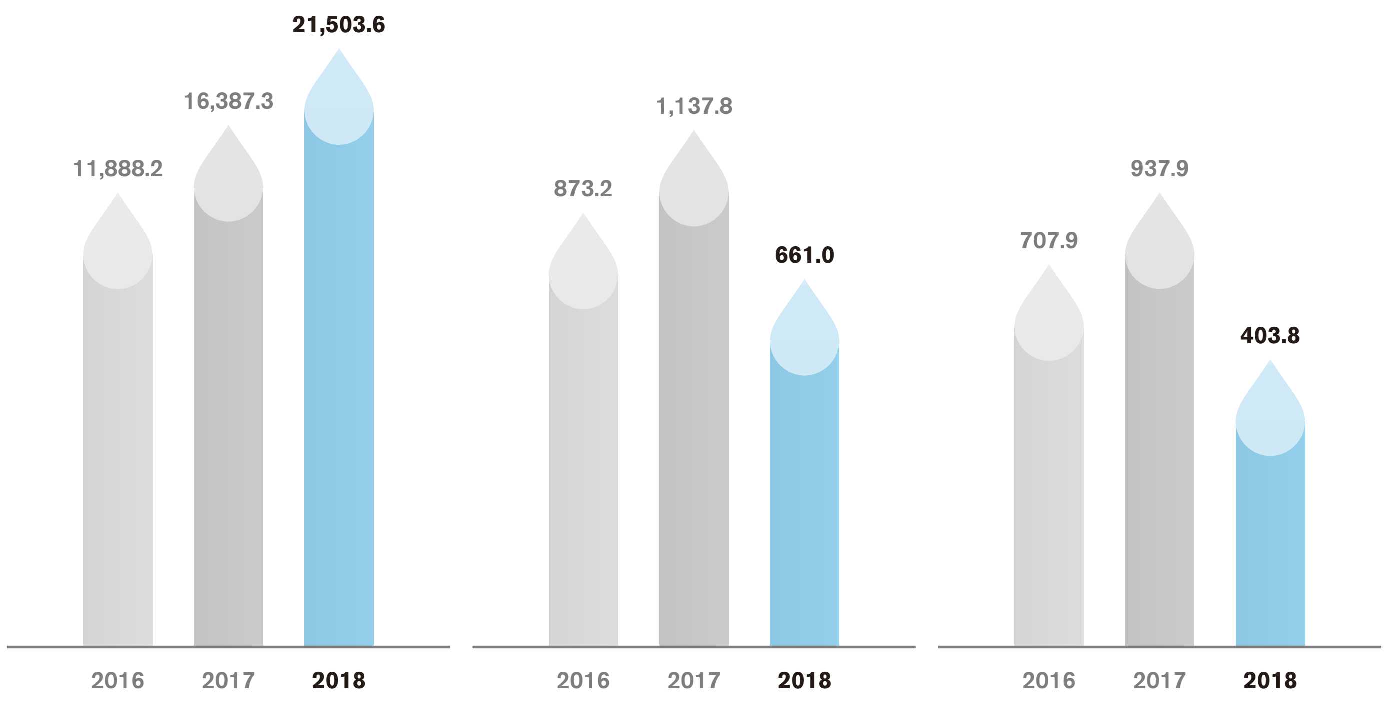
Financial Highlights

In 2018, Hyundai Oilbank continued its stable performance, through its country-leading heavy oil upgrading facilities, ongoing crude oil imports diversification, and business diversification.

Operating Performance

(Unit: KRW billion)

Sales	Operating Profit	Net Income
21,503.6	661.0	403.8



※ Based on the Korean International Financial Reporting Standards (K-IFRS) and consolidated financial statements

Financial Status

(Unit: KRW billion)

	2016	2017	2018
Total Assets	9,408.7	10,941.3	11,744.8
Total Liabilities	4,973.3	5,879.4	6,620.7
Total Equity	4,435.4	5,061.9	5,124.1

Stability Indicators

(Unit: %)

	2016	2017	2018
Current Ratio	98.2	108.1	95.2
Liabilities-to-Equity Ratio	112.1	116.1	129.2
Interest Coverage Ratio	15.5 times	14.7 times	7.2 times

Credit Ratings

Corporate Bond

AA-

Korea Ratings, Korea Investors Service, NICE Investors Service

Commercial Paper

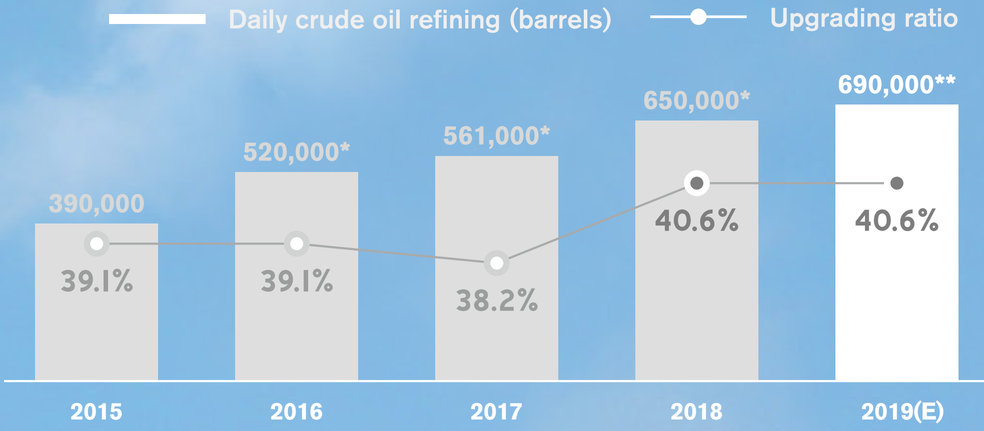
A1

Korea Ratings, Korea Investors Service, NICE Investors Service

※ As of the end of 2018

Competitiveness

The nation's highest heavy oil upgrading ratio



* Including 130,000 barrels of Hyundai Chemical's condensate splitter
** Including 170,000 barrels of Hyundai Chemical's condensate splitter (scheduled for expansion) in 2019

Crude oil imports diversication

	2012	2015	2018
Ratio of imports from the Middle East	91%	82%	54%
Number of Import countries*	13	20	21
Number of oil types*	21	39	52

* Cumulative number of import countries and oil types since 2012

Advancing competitiveness through the completion of upgrading facilities expansion and ongoing oil imports diversification

In 2018, Hyundai Oilbank recorded a 40.6% upgrading ratio, a first in the South Korean industry, through the establishment of a new solvent de-asphalting (SDA) process and the completion of upgrading facilities. Accordingly, we plan to increase the production of high-value-added products. We will also continue our growth by strengthening our competitiveness, which involves continuously diversifying crude oil imports and expanding export markets despite the difficult situation of global oil price fluctuations and policy uncertainties at home and abroad.

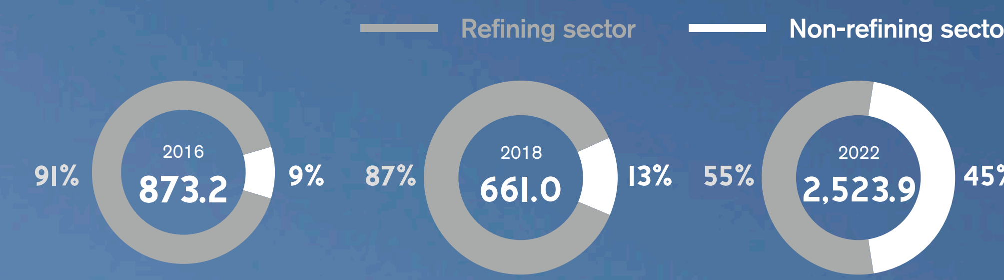
Diversification

Financial Status of Subsidiaries in 2018

(Unit: KRW billion)

	Sales	Operating Profit
Hyundai Chemical	4,152.6	38.7
Hyundai and Shell Base Oil	732.0	65.8
Hyundai Cosmo Petrochemical	2,989.3	168.1
Hyundai OCI	136.1	14.8
Hyundai Oil Terminal	39.3	10.7

Change in operating profit in the non-oil refining sector



* Based on consolidated financial statements
* Operating profit of the refining sector refers to the company's operating profit for that sector by fiscal year, while that of the non-refining sector was calculated by the differences between its consolidated operating profit and its operating profit from the refining sector.

Seeking stable and sustained growth through business diversification and new businesses in the non-refining sector

Hyundai Oilbank has been promoting business diversification with the goal of expanding new businesses in the non-refining sector, and achieving noticeable results through the stable settlement of these new businesses. As a result of these efforts, we increased the ratio of operating profit within the non-refining sector to as much as 13% of our total operating profit, and aim to further raise it to 45% by 2022.

Momentum

HPC project, a new business in the petroleum sector

Investment

KRW 2.7 trillion

Plant site	**Commercial operations**
500,000m²	Year 2021
Estimated polyethylene production	**Estimated polypropylene production**
750,000 tons	400,000 tons

Laying down the framework for growth by continuously discovering new businesses and improving processes through joint ventures

In May 2018, Hyundai Oilbank signed an investment agreement on the Heavy Feed Petrochemical Complex (HPC) with Lotte Chemical. The HPC project, targeting operations in 2021, is a huge new petrochemical business worth KRW 2.7 trillion, which will be built on a 500,000m² site inside the Daesan Refinery Plant. When commercial operations begin, the plant will produce 750,000 tons of polyethylene and 400,000 tons of polypropylene a year, which is expected to contribute significantly to profitability improvement.

Safety

Achieved 13 million zero-accident work hours at Daesan Refinery Plant

13,802,356 work hours

(As of the end of December 2018)

December 2016	8,000,000
September 2017	10,000,000
September 2018	13,000,000
2020 Goal	16,000,000

(Unit: Work hours)

Achieved 13 million zero-accident work hours

The Daesan Refinery Plant of Hyundai Oilbank had been free of accidents for 1,402 days, from October 2013 through September 2018, becoming the first refining plant in South Korea to achieve 13 million zero-accident work hours. Continuing this record to date, we will remain committed to developing the Daesan Refinery Plant into one of the safest workplaces by placing the highest priority on safety.

Sustainability

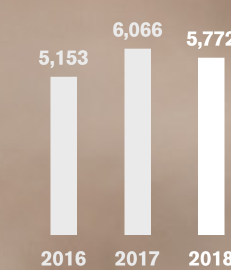
Hyundai Oilbank 1% Nanum Foundation

Sharing 1% of salaries

Donating 1% of employees' monthly salaries
since January 2012

Employee volunteer hours

5,772 hours



Donations by 1% Nanum Foundation

10.47 Unit: KRW billion

(Cumulative from December 2011 to December 2018)

Creating a better world through 1% sharing

Employees of Hyundai Oilbank and its subsidiaries are taking the lead in spreading the culture of sharing. This includes donating 1% of salaries, and engaging in more than 5,000 hours of volunteer services each year for people in need.

We also practice sharing management both at home and abroad, such as expanding support for developing countries. We will continue to fulfill our corporate social responsibilities through a wide range of social contribution initiatives.

Message from the CEO

"In 2018, Hyundai Oilbank performed better than larger competitors in terms of profitability, despite the difficult circumstances in the global business environment. This performance was the result of our steady efforts to diversify our business portfolios and to enhance efficiency in the refining sector. We will fulfill our inherent corporate role of revenue creation backed by our practice of putting safety and eco-friendliness first and giving back to our communities through our corporate social responsibilities activities."

Dear valued shareholders, customers, and other stakeholders:

On behalf of everyone at the company, I would like to report on our performance in 2018, and on our plans for the upcoming year.

In 2018, Hyundai Oilbank recorded sales of KRW 21.504 trillion and operating profit of KRW 661.0 billion on a consolidated basis. Sales increased by about 30% from the previous year, while operating profit fell by about 40%, due primarily to deteriorating refining margins and inventory-related losses following the slide in oil prices.

Unlike other refining companies, Hyundai Oilbank's consolidated operating profit does not include the results of aromatics and lube base oil (LBO) businesses. In 2018, Hyundai Cosmo Petrochemical, which handles the aromatic business, and Hyundai and Shell Base Oil, which handle the LBO business, achieved an operating profit of KRW 168.1 billion and KRW 65.8 billion, respectively. Their operating profits were excluded from our consolidated financial statements since they were jointly controlled companies. When they are included, our operating profit amounted to KRW 894.9 billion.

I believe that we performed better than our larger competitors in terms of profitability even in the midst of a difficult global environment. This success was the result of our efforts to diversify our business portfolios and to enhance the efficiency of our refining business. We will continue these efforts in the upcoming year.

We are now working on the Heavy Feed Petrochemical Complex (HPC) project, with the goal of beginning operations in 2021. This is an ultra-large scale project worth KRW 2.7 trillion, which will dramatically enhance our competitiveness in the petrochemical sector. All of our employees will concentrate their capacities and efforts so that Hyundai Oilbank can become a total refining and petrochemical company through the success of this project. We also plan to push forward to acquire government permits for the second-phase public waters reclamation and identify new businesses to utilize that area.

We are beginning an era of super upgrades by completing the solvent de-asphalting (SDA) process and expanding our existing upgrading facilities. Our efficiency in the oil refining sector will be bolstered further by increasing the input of low-cost extra heavy crude oil, while minimizing the lower-quality heavy oil production. Demand for low-sulfur fuel for vessels should increase following the tightening regulations by the International Maritime Organization (IMO) starting in 2020. In response, we will increase our market share in the marine bunkering market by expanding the domestic terminal business and utilizing our overseas subsidiaries.

In 2019, we will continue to fulfill our inherent corporate role of revenue generation based on our practice of putting safety and eco-friendliness first while giving back to our communities. I look forward to your continued support and interest, and wish you happiness in your family.

Thank you.

President & CEO
Kang Dal-ho

Message from Executives

Our management environment will not be easy in 2019. However, we look at challenges as an opportunity for us to take a new leap forward, relying on our company's highest upgrading ratio in the industry, stable extra heavy oil processing technology, zero-accident stable operation capabilities, and sustained new investments.

Jung Hae-won, Vice President

Head of Safety & Production Division

Preparing for this new leap forward, the Safety & Production Division will concentrate all of its capacity on safety innovation and production innovation. Our top-priority core competency, "Safe and eco-friendly plant operation through safety innovation", is a basic condition for our sustainable growth. Potential risk factors still exist in the #1 plant and the #2 plant, which were completed in 1988 and 1996 respectively. Accordingly, we will pursue our ongoing safety diagnosis activities and investments in preventive facility upgrades so that no serious accidents will occur.

"Unremitting new revenue generation through production innovation" is a prerequisite for our future growth. We will discover new growth drivers by identifying new businesses, while ensuring the best-in-class manufacturing competitiveness through continuous production innovation activities. These activities will include the maximum operation of high-yield processes, improvements to plant efficiencies, and energy savings.

Futurist Elvin Toffler emphasized the importance of change and innovation by saying "Change is not merely necessary to life - it is life." A period of change and innovation will always be exhausting, but it can also be inspiring. When we overcome that exhaustion and achieve our goals of change and improvement, our company will be better than ever before. To this end, we will put in place an organizational culture of trust, pride, and encouragement.

The domestic oil market has faced a difficult environment recently, both internally and externally. Affected by the continued economic recession, domestic demand for light and middle distillate oil is anticipated to remain sluggish in 2019, following its negative growth in 2018.

Han Hwan-gyu, Vice President

Head of Sales & Marketing Division

The number of gas stations going out of business has been increasing every year, due to deteriorating performance in the wake of a rise in personnel expenses and intensifying competition. The number of gas stations has decreased from 13,000 in 2010 to 11,000 at present.

Despite such challenging circumstances, the Sales & Marketing Division is primed for another leap forward, based on its slogan, "Sales & Marketing Division, challenging and growing together". In line with the company's increased scale, including a rise in production capacity and its advance into the petrochemical industry, we will make 2019 a year of quantitative growth.

We will raise our market share by focusing on the development of high-quality new gas stations, and support the qualitative growth of existing gas stations by enhancing our brand value and focusing on customer-oriented marketing strategies. We will establish a process to increase sales of byproducts to ensure stable plant operation, and continue to pursue growth in the lubricant business which has become a 'cash cow' of our division.

In addition, we will aggressively promote various new businesses by utilizing gas station spaces and sharing economy in addition to expanding energy station complexes. Internally, we will continue to ensure working conditions in which all of our employees can work happily and safely.

Uncertainties in international oil prices are expected to rise in 2019 due to an increase in US shale oil production, as well as OPEC and Russian production volume control aimed at defending their oil prices. Refining margins are also expected to deteriorate as new global refining facilities have soared by 55% to 1.9 million barrels per day when compared to average years.

Chu Young-Min, Vice President

Head of Global Business Division

The Global Business Division will boost its cost-effectiveness by reducing crude oil import expenses, which account for 93% of company-wide costs. We will also shore up profitability by diversifying the markets for export products, which make up 50% of our production volume. We will continue to overcome the limitations created by our costs by aggressively introducing US crude oil and increasing the proportion of extra heavy crude oil such as Maya crude, which is much cheaper, to 30%.

In 2019, given that new refining facilities are concentrated on China leading to an increase in the exports of Chinese petroleum products to Southeast Asia and a decline in the profitability of the Southeast Asian market, we will identify alternative markets such as Latin American countries and will raise the proportion of our exports to advanced nations with superior economic feasibility including the US, Australia and New Zealand.

Hyundai Oilbank's refining capacity has almost doubled from 390,000 barrels a day to 650,000 barrels over the past five years. Our upgrading ratio, which is an index of profitability, has reached 40.6% for the first time in the industry with the successful expansion of our solvent de-asphalting (SDA) and other upgrading processes.

Song Myung-Joon, Senior Executive

Head of Planning Office

Our profit growth for the past ten years has been an annual average of 23%, the highest among domestic oil refining companies. The zero-accident index, which measures plant stability, has also surpassed 13 million work hours, for the first time in the industry, earning us an industry evaluation as the best oil refinery in terms as both profitability and stability.

Recently, major oil companies are expanding from a typical business structure of petroleum excavation and refining, to the petrochemical business. Hyundai Oilbank also decided to advance into the petrochemical business last year and is constructing a petrochemical complex with the goal of its completion in 2021.

Requiring an investment of KRW 2.7 trillion in total, the petrochemical business plans to use self-produced competitive raw materials, so it is expected to boast superior competitiveness in raw materials compared to other companies that use naphtha as a raw material. The business will allow Hyundai Oilbank to augment its profitability further while expanding its business from the production of petroleum and aromatics products to basic petrochemicals and polymer products, resulting in the completion of a vertical integration in the entire market of petroleum products.

The oil refining industry is forecast to be highly volatile in 2019 due to global economic slowdowns and the dynamics of oil-producing nations. Hyundai Oilbank will proactively address these changes, based on its accumulated business competitiveness. We will also continue to make unremitting efforts for growth, increasing profitability in the refining business and entering the petrochemical business.

Board of Directors

Hyundai Oilbank strives to meet stakeholders' expectations while enhancing management transparency and efficiency by strengthening the roles and stature of the Board of Directors.

With an aim to ensure transparency in corporate governance, Hyundai Oilbank has further strengthened the roles and stature of its BOD, which is at the center of its governance system. With its widened role and boosted status, the BOD supports the company in meeting the expectations of its shareholders, employees, customers and other stakeholders.

Roles and Composition of BOD

The BOD at Hyundai Oilbank makes strategic decisions on business issues, and undertakes advisory and oversight functions to ensure transparency in management, with the ultimate aim of achieving greater corporate value. In order to perform these functions, the BOD elects and delegates authority to the CEO, oversees executives' performance of their duties, and provides guidance. We continue to strive to benefit shareholders, investors, and markets, by boosting management transparency and efficiency through these BOD activities.

In accordance with Hyundai Oilbank's articles of incorporation and BOD regulations, the BOD consists of five members, including two inside directors and three outside directors, all of whom are elected at the annual general meeting. The BOD is chaired by the CEO. As the company's highest decision-making body on the management of its business, the BOD deliberates freely and in-depth, and then votes on major matters related to the company's business activities, including improvements to the company's financial structure, major investment projects, and other business matters.

Composition of BOD

CEO	Kang Dal-ho	· 2018-Present: President & CEO, Hyundai Oilbank
Inside Director	Kwon Oh-gap	· 2018-Present: Vice Chairman & CEO, Hyundai Heavy Industries · 2014-Present: Inside Director, Hyundai Oilbank
Outside Directors	Yoon Jeung-hyun	· 2011-Present: Director, Yoon Economic Research Institute · 2009-2011: Minister of Strategy and Finance · 2004-2007: Governor, Financial Services Commission and Financial Supervisory Service
	Lee Kyoo-yong	· 2008-Present: Adviser, Kim & Chang law firm · 2007-2008: Minister, Ministry of Environment · 2006-2007: Vice Minister, Ministry of Environment
	Kim Gap-yu	· 2017-Present: Chairman, International Court of Arbitration of Korean Commercial Arbitration Board · 2014-Present: Vice Director, International Court of Arbitration of International Chamber of Commerce · 1996-Present: Lawyer, BAE, KIM & LEE LLC. law firm

※ As of 2018

Sub-committees

Hyundai Oilbank has established three sub-committees under the BOD, in order to enhance independence, expertise and efficiency of the Board. The composition and roles of the Audit Committee, Internal Transaction Monitoring Committee, and Outside Director Nominating Committee are as follows.

Composition and Roles of Sub-committees

Audit Committee	Lee Kyoo-yong Yoon Jeung-hyun Kim Gap-yu	· Examine the company's accounting and corporate activities · Request reports on operations and review the company's financial status · Handle legal and other situations delegated by the articles of incorporation or the Board · Handle selection, replacement, and dismissal of the audit firm
Internal Transaction Monitoring Committee	Lee Kyoo-yong Yoon Jeung-hyun Kim Gap-yu	· Approve and report to the Board on major internal transactions according to the Fair Trade Act
Outside Director Nominating Committee	Kang Dal-ho Yoon Jeung-hyun Kim Gap-yu	· Nominate outside director candidates to be appointed at the AGM

※ As of 2018

Major BOD Activities in 2018

In 2018, the Board held a total of nine meetings to discuss and make decisions on major management issues.

Key Board Reports and Resolutions in 2018

AGM, BOD, Corporate governance	· Approval of the convocation of the AGM, and the adoption of the agenda items for FY 2018 · Appointment of CEO · Appointment of Internal Transaction Monitoring Committee members · Revision of BOD regulations
Investment	· Report on investments in the new petrochemical business
Accounting and Finance	· Approval of the FY 2018 financial statements · Approval of the FY 2018 business report · Approval of the transaction limit terms with financial companies of HHI Group affiliates (3 times) · Approval of the internal transaction limit with HHI Group affiliates (quarterly)
Others	· Approval of a sponsorship agreement with Hyundai Heavy Industries Sports · Approval of a sponsorship agreement with K League

Corporate History

Marking its 54th anniversary in 2018, Hyundai Oilbank continues its commitment to innovation and to increased efforts to grow into a global total energy company.

1964-2000

Nov. 1964 Established as Kukdong Oil Industrial Company, South Korea's first privately-owned petroleum refinery company

Jan. 1969 Changed company name to Kukdong Shell Oil Co., Ltd.

May 1977 Changed company name to Kukdong Oil Co., Ltd.

Aug. 1978 Completed crude refining facility (10,000 bpd)

Aug. 1988 Launched commercial operation of Crude Distillation Unit (60,000 bpd)

Nov. 1988 Changed company name to Kukdong Oil Refining Co., Ltd.

Jul. 1989 Completed the construction of Daesan Plant (Awarded Presidential Citation)

Nov. 1989 Obtained permission for expansion of 0.1 million barrels of crude oil processing

Jul. 1993 Changed company name to Hyundai Oil Refinery Co., Ltd.

Jun. 1994 Launched the Oilbank brand

May 1996 Completed the construction of oil refining facility at Daesan Plant (200,000 bpd)

May 1998 Completed the construction of #1 BTX Plant (400,000 tpa)

Dec. 1999 Acquired Hanwha Energy and merged with Hanwha Energy Plaza

Nov. 1964
Established as Kukdong Oil Industrial Company, South Korea's first privately-owned petroleum refinery company

Jul. 1989
Completed the construction of Daesan Plant (Awarded Presidential Citation)

Jun. 1994
Launched the Oilbank brand

2001-2012

Apr. 2002 Changed company name to Hyundai Oilbank Co., Ltd.

Nov. 2004 Named Good Company for New Management-Employees Culture by the Ministry of Labor

Nov. 2005 Completed the Clean Fuel Project

Mar. 2006 Received a grand prize in Best Ethical Management Company Awards from the Ministry of Commerce, Industry, and Energy in the manufacturing category

Jan. 2007 Received A rating in fair trade compliance program

Apr. 2008 Signed an agreement on strategic alliance for oil refinery business with Cosmo Oil of Japan

Dec. 2008 Received the Prime Minister Award at the 15th Corporate Innovation Awards from Korea Chamber of Commerce and Industry

Mar. 2009 Received the Grand Prix at the 7th Ethical Management Awards from the New Industry Management Academy

Nov. 2009 Launched Hyundai Cosmo Petrochemical

Dec. 2009 Received the USD 5 Billion Export Tower on Trade Day from Korea International Trade Association (KITA)

Jun. 2010 Received the Korea Great Workplace Award from Hankyung Magazine

Aug. 2010 Became an affiliate of the Hyundai Heavy Industries Group

Aug. 2010 Kwon Oh-gap appointed as the CEO of Hyundai Oilbank

Mar. 2011 Launched the Customer Advisory Panel

Sep. 2011 Began commercial operations of the #2 HOU Plant

Nov. 2011 Established Hyundai Oilbank Central Technology R&D Institute

Feb. 2012 Launched Hyundai Oil Terminal

Feb. 2012 Joint business with Shell for lube base oil business

Feb. 2012 Launched Hyundai Oilbank 1% Nanum Foundation

Apr. 2012 Established Hyundai and Shell Base Oil

Apr. 2012 Completed the construction of the Hanmaeum Hall for business partners

Sep. 2012 Received the Presidential Award at the 1st Korea Knowledge Awards

Oct. 2012 Ranked first in KS-CQI in the entire industry category and KS-SQI in refinery category

Dec. 2012 CEO Kwon Oh-gap received the Silver Tower Industrial Medal on Trade Day

Dec. 2012 Received the USD 8 Billion Export Tower on Trade Day from KITA

2013-2015

Feb. 2013 Named one of the top 10 companies at the Best Employers in South Korea by Aon Hewitt

Feb. 2013 Began commercial operations of the #2 BTX Plant of Hyundai Cosmo Petrochemical

Jul. 2013 Signed an MOU for mixed-xylene manufacturing business with LOTTE Chemical

Sep. 2013 Launched lubricant business and XTeer automobile engine oil brand

Dec. 2013 Began commercial operations of Hyundai Oil Terminal

Jan. 2014 Directly-run service stations participated in the 1% profit sharing program

May 2014 Obtained ISO 14001 Energy Management System Certificate

May 2014 Established Hyundai Chemical

Jun. 2014 Announced corporate vision in celebration of 50th anniversary

Aug. 2014 Began commercial operations of the lube base oil plant of Hyundai and Shell Base Oil

Sep. 2014 Moon Jong-bak appointed as the President and CEO of Hyundai Oilbank

Nov. 2014 Ranked first in the service station category at the KS-CQI surveys by Korea Standards Association

Nov. 2014 Received the Prime Minister Award at the Energy Conservation Promotion Rally from Ministry of Trade, Industry and Energy

Nov. 2014 Received Presidential Award at the Labor-Management Culture Awards from Ministry of Employment and Labor

Nov. 2014 Received the Presidential Award at the 13th Korea Safety Awards

Dec. 2014 Received the Presidential Award at the 2014 Corporate Innovation Award from Korea Chamber of Commerce and Industry

Feb. 2015 Received the Grand Prize at the 11th Transparent Management Awards

Jun. 2015 Received the Presidential Award at the 2015 Green Management Awards

Nov. 2015 Received the Presidential Award at the 2015 Korea Electrical Safety Awards

2016

Feb. 2016 Launched Hyundai OCI

May 2016 Completed the construction of the Hanmaeum Hall, a welfare center at an apartment complex for staff

Nov. 2016 Bagan commercial operations of the MX Plant of Hyundai Chemical

Dec. 2016 President & CEO Moon Jong-bak received the Gold Tower Industrial Medal on Trade Day

2017

Sep. 2017 Achieved ten million zero-accident work hours

Oct. 2017 Completed the construction of the Carbon Black Plant of Hyundai OCI

Nov. 2017 Opened Children's Library in National Library of Vietnam in Hanoi, Vietnam

2018

Feb. 2018 Began commercial operations of the Carbon Black Plant of Hyundai OCI

May 2018 Signed an agreement on investment in new olefin business (HPC Project) with Lotte Chemical

May 2018 Held Dream Concert

May 2018 Launched Mobile Lab service

Jul. 2018 Opened the nation's first energy station complex

Aug. 2018 Completed the construction of the solvent de-asphalting (SDA) process

Sep. 2018 Achieved 13 million zero-accident work hours

Dec. 2018 Received Grand Prize in Brand Innovation category at WEB AWARD KOREA for website

Dec. 2018 Kang Dal-ho appointed as the CEO of Hyundai Oilbank

May 2016
Completed the construction of the Hanmaeum Hall, a welfare center at an apartment complex for staff

Nov. 2016
Bagan commercial operations of the MX Plant of Hyundai Chemical

Sep. 2017
Achieved ten million zero-accident work hours

Aug. 2018
Completed the construction of the solvent de-asphalting (SDA) process

Topics from 2018

In 2018, Hyundai Oilbank was dedicated to enhancing its business competitiveness while fulfilling its corporate social responsibilities. These efforts included pursuing the new petrochemical business in May, opening a super-upgrading era in August, and carrying out employee volunteer services in December.

MARCH
Built middle school at a remote village in Nepal

The 1% Naumum Foundation built a middle school in Gorkha, Nepal, in cooperation with the Um Hong Gil Human Foundation. This is the company's fourth overseas education project since the construction of a kindergarten in Thonnam, Vietnam in 2013. The students in this area, which was the epicenter of a great earthquake in Nepal, had previously attended lessons in temporary buildings. Comprising twelve classrooms in two two-story buildings, the school can accommodate up to 400 students.

MAY
Pursued the new petrochemical business with Lotte Chemical

Hyundai Oilbank and Lotte Chemical agreed to jointly pursue a new ultra-large-scale petrochemical business worth KRW 2.7 trillion. The two companies decided to build a plant on a 500,000m^2 site inside the Daesan Refinery Plant of Hyundai Oilbank by additionally investing in Hyundai Chemical, their joint venture. With the goal of commercial operation at the end of 2021, it is expected to increase exports by KRW 3.8 trillion and achieve an operating profit of KRW 600 billion on an annual basis.

JULY
Opened the nation's first energy station complex

Hyundai Oilbank introduced an energy station complex for the first time in South Korea, by installing hydrogen charging infrastructures and electric chargers in the unused spaces between existing gas and LPG charging stations. Gas stations had been selling traditional fuels and alternative fuels at the same time, but this is the first time that all types of fuels for vehicles are sold at one place. The energy station complex was built in the city of Ulsan.

AUGUST
Began a super-upgrading era

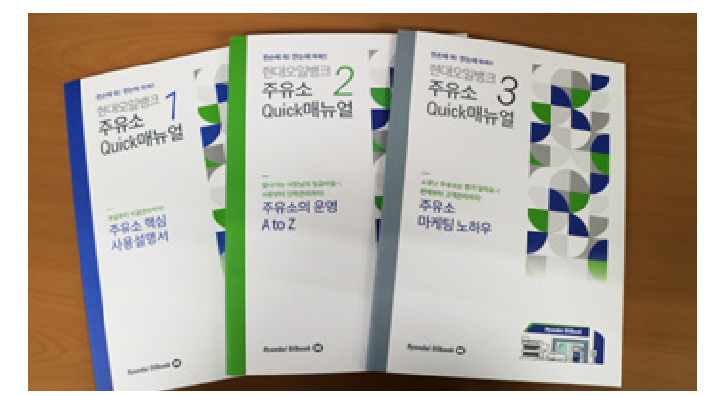
Hyundai Oilbank completed the SDA process worth KRW 800 billion, which had been underway to improve efficiency in the refinery sector since 2017. Through this, the company plans to increase the production of high-value products by removing asphaltene components from residue oil and extracting de-asphalted oil (DAO) to be used as a raw material for upgrading facilities. The company achieved a 40% upgrading ratio for the first time in South Korea, by completing the upgrading facility expansion at the end of September.

OCTOBER
Signed a long-term gasoline supply deal with Mexico

Hyundai Oilbank signed an agreement to supply 2.1 million barrels of gasoline to PMI Comercio Internacional in the first half of 2019. It is the first time that a South Korean oil refiner directly inked a long-term gasoline supply deal with a Mexican state-run oil company without a spot market trader acting as an in-between. Long-term direct deals have an advantage of enabling stable sales under fixed conditions. The company plans to seek a multi-year term deal with PMI in the second half of 2019.

NOVEMBER
Provided Quick Manual to gas station operators

Hyundai Oilbank published the "Quick Manual for Gas Stations" booklet. It was produced by the company's Sales & Marketing Division for the purpose of helping gas station operators to cope effectively with various situations. The three-volume manual covers overall aspects of gas station operation, from the establishment of a gas station to facility management, operation and marketing, and offers tips for the management of the safety environment. It is expected to provide practical use for gas stations operation as it was created in a way that makes it easy to carry and easy to understand.



DECEMBER
Carried out employee volunteer services

The Hyundai Oilbank 1% Nanum Foundation held a "Rudolph Day" gathering in Seoul by inviting Hyundai Oilbank's employees who participated in the 1% sharing of monthly salaries. The goal was to assemble 100 walkers for seniors who visit soup kitchens in the middle of the winter, helping to guide the seniors through the winter weather. The company carried out volunteer services at its Daesan Refinery Plant as well, preparing Christmas cards and gifts for children from low-income families nationwide.

Corporate Vision

Hyundai Oilbank aspires to become a competitive energy company by continuously pursuing its business diversification strategy through stable operation in the oil refining sector and business expansion in the non-refining sector.

An Energy Company with International Competitiveness

Operating highly productive plants by putting safety and eco-friendliness first

Enhancing competitiveness by entering the petrochemical business

Becoming a respected company that fulfills its corporate social responsibilities

Achieving operating profit of KRW 2.5 trillion through business diversification

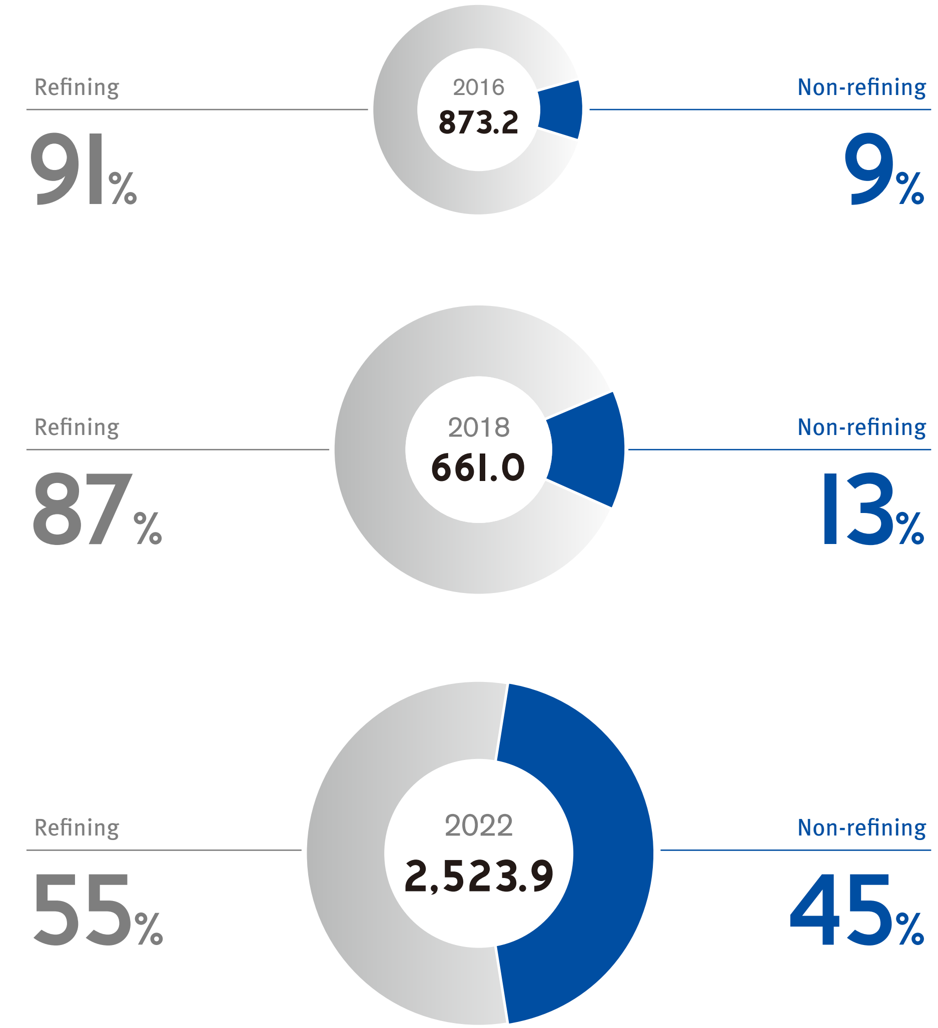
Hyundai Oilbank has continued zero-accident work hours ever since it achieved 13 million zero-accident work hours for the first time in the industry in September 2018. Emergency shutdowns or accidents at refineries not only can generate losses but also can pose a threat to the ongoing operations of a company. Accordingly, we operate our plants with safety and eco-friendliness as our top priority. We are improving profitability in the refining business through the large-scale expansion of our refining facilities and upgrading processes. We will continue to ramp up our capabilities in the existing lube base oil, oil storage, BTX and carbon black businesses in addition to the refining sector, while expanding the proportion of operating profits from non-refining businesses through new undertakings in the petrochemical area.

Achieve operating profit of KRW 2.5 trillion by 2022 by securing new growth engines

Hyundai Oilbank will continue to sharpen its competitiveness in the refining and non-refining sectors. We will strengthen our facility competitiveness by increasing our BTX business capacity and the scale of our upgrading process in preparation for tightening International Maritime Organization (IMO) regulations on sulfur content in fuel oils, and the subsequent increases in demand and margins. The Heavy-feed Petrochemical Complex (HPC) project, which we are carrying out to advance into the naphtha cracking center (NCC) business, will have unrivaled cost competitiveness through the injection of desulfurized heavy oil. The project is also expected to have a competitive edge over other NCCs due to synergies between the refining and petrochemical businesses. With the successful completion of this HPC project, we plan to increase the portion of non-refining businesses' operating profit to 45% of our total operating profit by 2022, and gradually expand that portion to 50% or higher by steadily expanding relevant businesses.

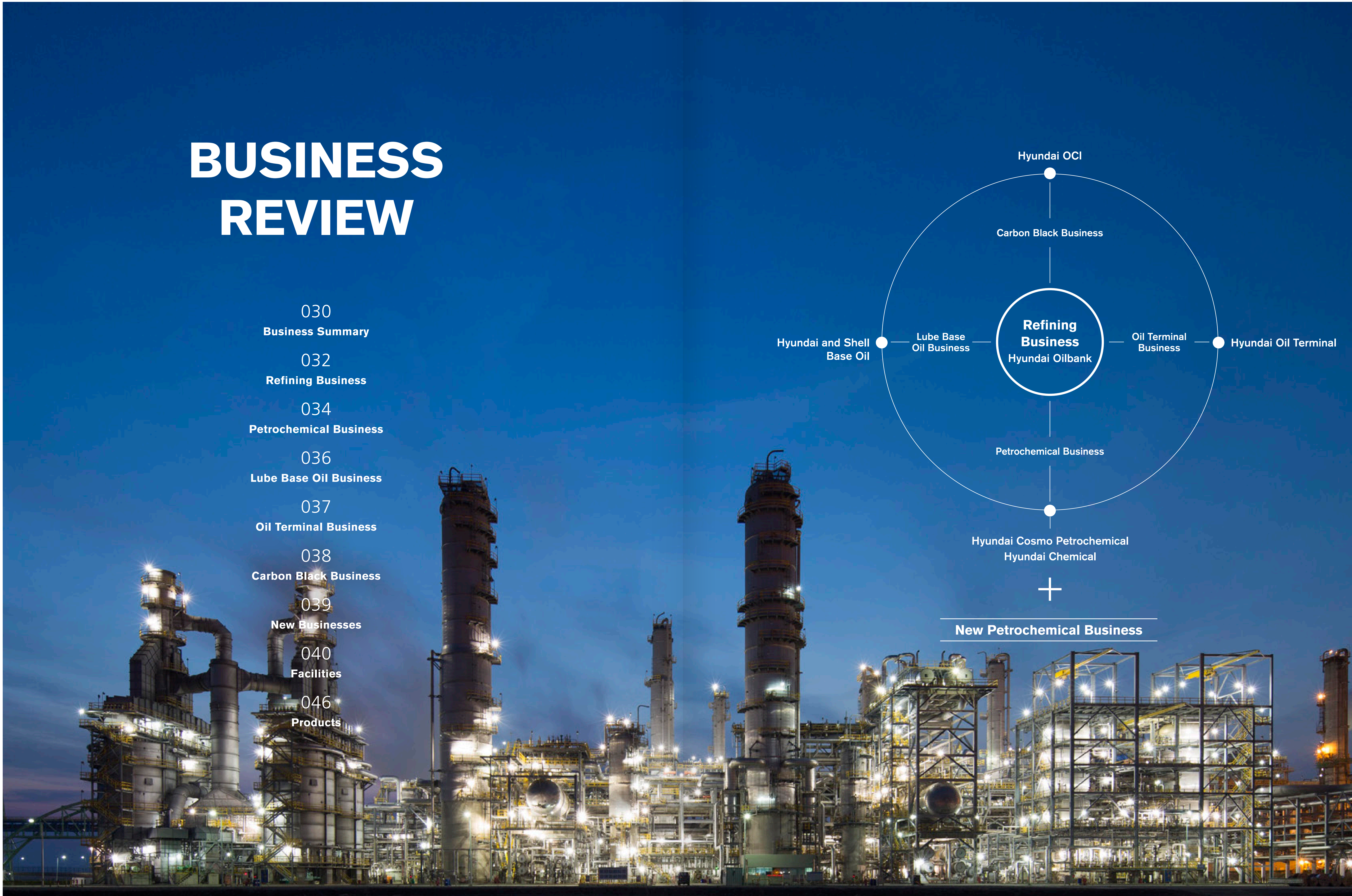
Operating Profit and Portion by Business

Operating Profit (Unit: KRW billion)



※ Based on consolidated financial statements

BUSINESS REVIEW

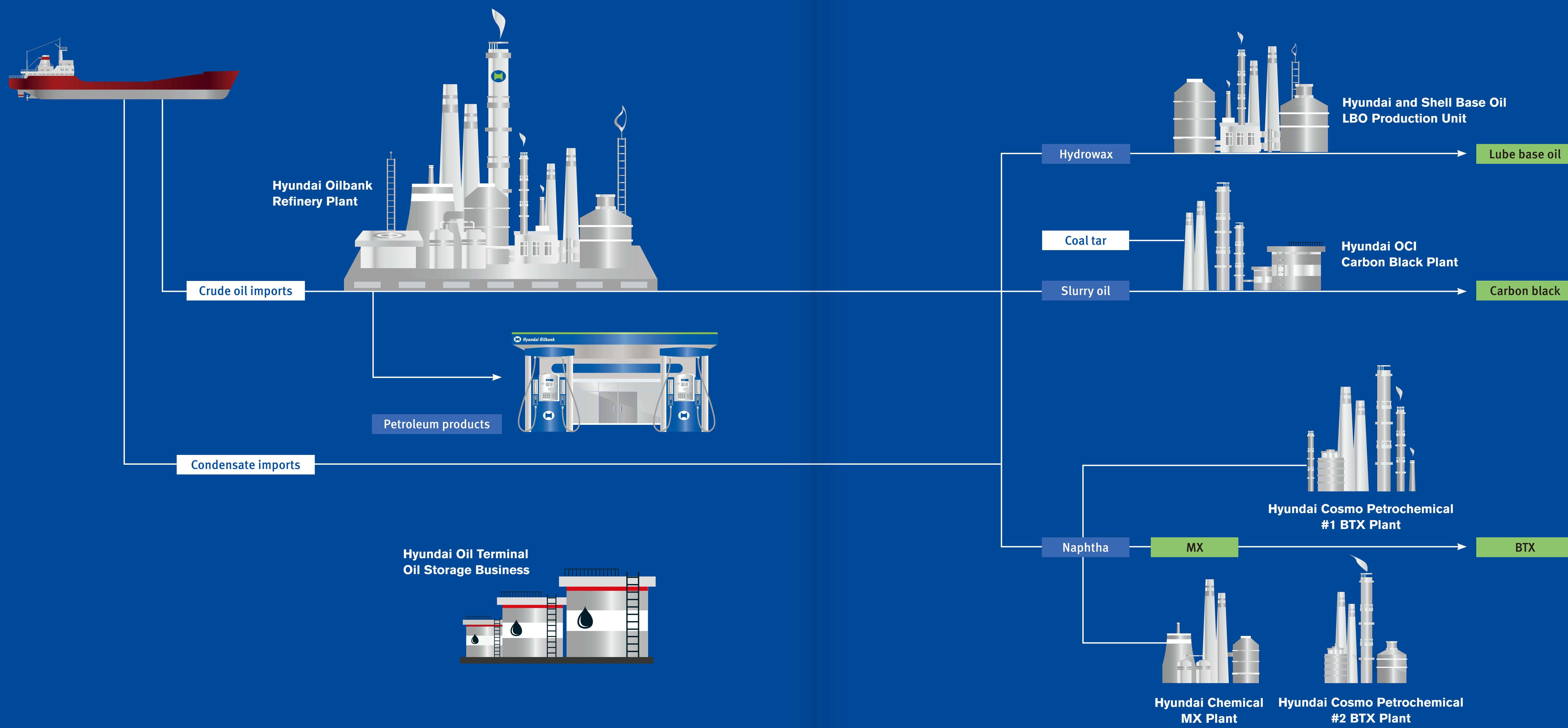


Business Summary

Building stable growth foundations through vertical business integration

Hyundai Oilbank is diversifying its businesses and creating synergies through vertical integration. In 2016, we completed vertical integration in the benzene, toluene, and p-xylene (BTX) businesses as the Mixed-Xylene (MX) Plant of Hyundai Chemical began commercial operations. Hyundai Chemical produces MX, using naphtha produced in Hyundai Oilbank's crude oil refining process together with imported condensate. This MX is then used alongside naphtha as the raw materials for Hyundai Cosmo Petrochemical's BTX production.

We achieved vertical integration in the lubricant base oil business in 2014, from petroleum to lubricant base oil. This was done by advancing into the LBO business through a joint venture with the Shell Petroleum Company Limited. Using our self-produced LBO, we launched XTeer, a new high-quality lubricant product. In addition, we established Hyundai OCI through a partnership with OCI for the purpose of entering the carbon black business, a first among domestic refining companies. Hyundai OCI began commercial operations in February 2018. Following our decision to enter the petrochemical business last year, we are now building a petrochemical complex scheduled for completion in 2021. The petrochemical business will allow us to significantly increase our profitability while completing a vertical integration for all our petroleum products by expanding our business to include basic petrochemicals and polymer products. This way, we are building stable growth foundations and enhancing our operational efficiency through business expansion and vertical integration.



Refining Business

Hyundai Oilbank has a daily crude oil refining capacity of 650,000 barrels, and represents a 21.6 % share of South Korea's light and middle distillate oil market. In addition, we are enhancing our business competitiveness through oil imports diversification and export market expansion to become a global total energy company.

Diversifying crude oil imports

In 2018, Hyundai Oilbank continued to expand the imports of non-Middle East crude oil in response to a rise in US and Central Asian crude output volume and sanctions on Iran. We increased the importation of Mexican crude oil, which is low in price, by leveraging the augmented operating capacity that we obtained from the completion of the solvent de-asphalting (SDA) process, while expanding crude oil imports from the United Kingdom, Kazakhstan and the United States.

Reinforcing brand image

Hyundai Oilbank carried out a variety of promotion and marketing activities in 2018. Our new crop of rice promotion received a commendation from the Agriculture, Food and Rural Affairs Minister in recognition of its contribution to the central government's food policy. We built the nation's first energy station complex at which electric and hydrogen vehicles can be charged, and developed a gas station complex business model through a partnership with Emart 24. We also expanded gas station platforms by implementing a safe delivery service for women through an MOU with the City of Seoul.

We also carried out customer-friendly marketing efforts, which included expanding the use of mobile coupons and renewing apps in line with recent environmental changes. We are further building our customer-friendly image while increasing customer awareness and preference for our brand by executing brand radio ads aimed at drivers.

Strengthening gas station service and quality

In 2018, Hyundai Oilbank took a number of steps to reinforce its gas station services. These involved operating a "Honeymoon Program" to support the early activation of newly opened filling and charging stations; a "Visiting Barista" to offer fresh coffee to gas station visitors; a "Service Academy", which invites gas station operators to share best service practices and successful promotion cases every year; and a Market Designer (MD) team. In addition, our "Mobile Lab" quality inspection system, launched to enhance our quality control, was named a Hit Product of the Year by Digital Chosun, and received the Commerce, Industry and Energy Minister Award in the Oil Quality Management category. We also bolstered our special safety inspections for logistics centers nationwide to enhance our logistics stability, and worked diligently to create gas stations that are safe and easy for customers to use by carrying out monitoring on our directly-run service stations.

Diversifying product specifications and expanding global presence

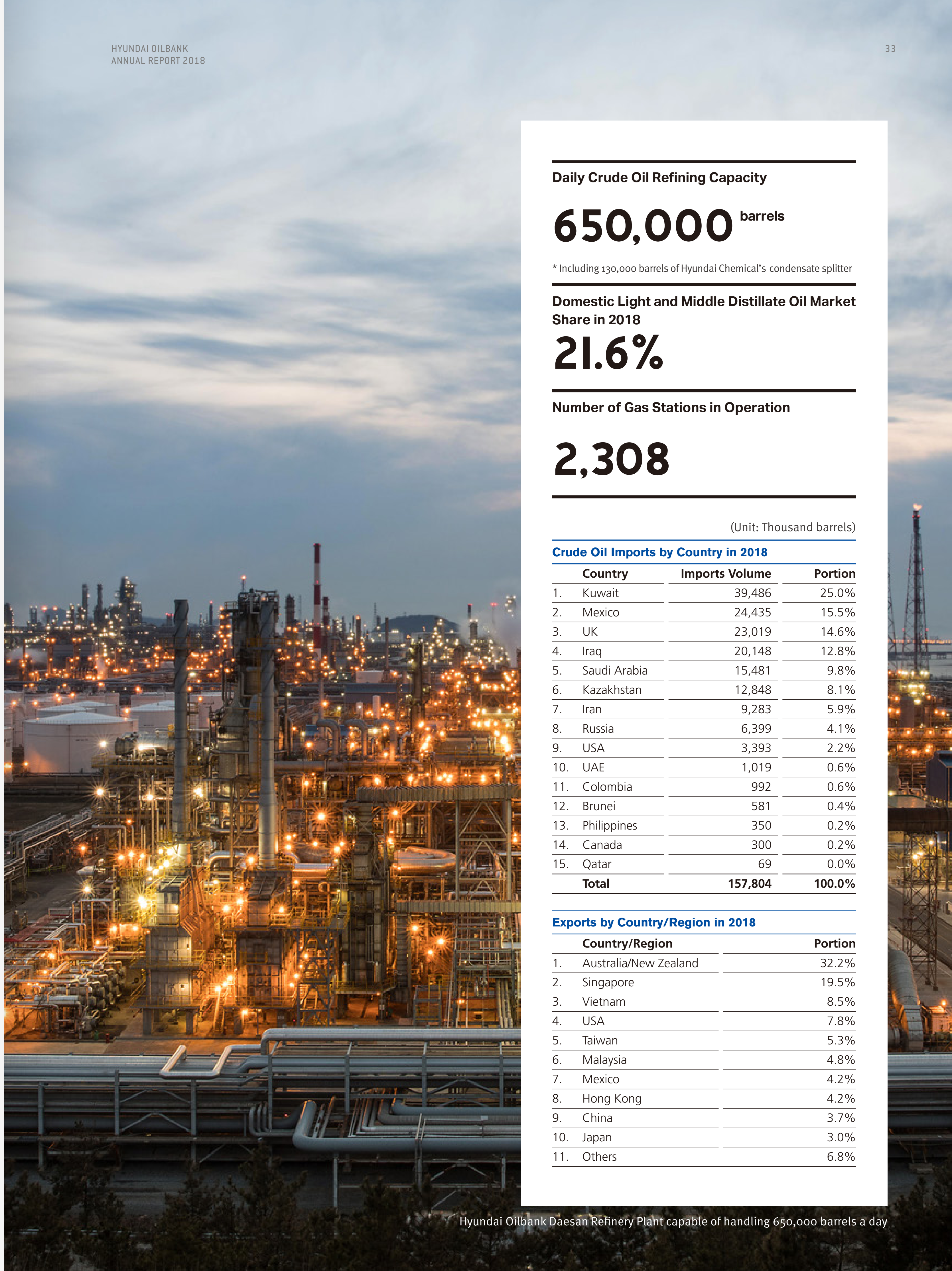
Hyundai Oilbank exported 97.13 million barrels of petroleum products in 2018. We increased the portion of exports to the markets of Australia/New Zealand and Singapore as compared to that in 2017. This was backed by diversifying and improving the specifications of export products, and expanding sales to the maritime diesel oil retail market in Singapore. In order to develop alternative markets, we expanded exports to the Latin American market and signed a long-term gasoline supply agreement with PMI, a Mexican state-owned company. Moving forward, we will aggressively advance into additional high-margin markets by leveraging our overseas subsidiaries, branches, and networks, while increasing the exports of premium gasoline and other high-end products.

Expanding the lubricant business

Hyundai Oilbank developed the highest-quality lubricant for use in the areas of automobiles, shipbuilding, ships, large engines for power generation, construction machinery, transformers and robots, and supplied that lubricant to manufacturers and to the aftermarket. This involved establishing the latest engine dynamometer facilities and conducting joint research with auto makers into engine oils at our Lubricant Research Center. We obtained certifications from Hyundai Motor, Porsche, Mercedes-Benz, BMW, Volvo, MAN and Renault, not to mention Hyundai Heavy Industries. In May of last year, we launched the SN+ grade lubricant, the highest standard of the American Petroleum Association, the first in South Korea.

Sales by Product in 2018 (Unit: Thousand barrels)

Type	Sales Volume
Diesel	65,023
Naphtha	48,888
Gasoline	33,986
Fuel oil	20,636
Jet fuel	16,009
Kerosene	4,703
LPG	4,053
Others	9,016
Total	**202,314**



Daily Crude Oil Refining Capacity

650,000 barrels

* Including 130,000 barrels of Hyundai Chemical's condensate splitter

Domestic Light and Middle Distillate Oil Market Share in 2018

21.6%

Number of Gas Stations in Operation

2,308

(Unit: Thousand barrels)

Crude Oil Imports by Country in 2018

	Country	Imports Volume	Portion
1.	Kuwait	39,486	25.0%
2.	Mexico	24,435	15.5%
3.	UK	23,019	14.6%
4.	Iraq	20,148	12.8%
5.	Saudi Arabia	15,481	9.8%
6.	Kazakhstan	12,848	8.1%
7.	Iran	9,283	5.9%
8.	Russia	6,399	4.1%
9.	USA	3,393	2.2%
10.	UAE	1,019	0.6%
11.	Colombia	992	0.6%
12.	Brunei	581	0.4%
13.	Philippines	350	0.2%
14.	Canada	300	0.2%
15.	Qatar	69	0.0%
	Total	**157,804**	**100.0%**

Exports by Country/Region in 2018

	Country/Region	Portion
1.	Australia/New Zealand	32.2%
2.	Singapore	19.5%
3.	Vietnam	8.5%
4.	USA	7.8%
5.	Taiwan	5.3%
6.	Malaysia	4.8%
7.	Mexico	4.2%
8.	Hong Kong	4.2%
9.	China	3.7%
10.	Japan	3.0%
11.	Others	6.8%

Hyundai Oilbank Daesan Refinery Plant capable of handling 650,000 barrels a day

Petrochemical Business

Hyundai Oilbank has expanded its business portfolio to include petrochemicals by establishing Hyundai Cosmo Petrochemical, a joint venture with Cosmo Oil.

PX&BZ Production Capacity | 1,640,000 tons/year

#2 BTX Plant of Hyundai Cosmo Petrochemica
www.hyundaicosmo.com

Hyundai Cosmo Petrochemical

Hyundai Cosmo Petrochemical was established in November 2009 as a joint venture between Hyundai Oilbank and Cosmo Oil of Japan. Hyundai Cosmo Petrochemical produces and supplies petrochemical products such as benzene, toluene, and xylene (BTX), all of which are basic chemical feedstocks that are widely used to make synthetic fibers, plastics, gasoline additives, and other petrochemical products.

The company now boasts an annual BTX production capacity of 1,640,000 tons, after completing the #2 BTX Plant in February 2013 which improved profitability and responded to the dramatically growing demand from China, India, and other Asian countries.

As a result of cost reductions, better operations processes, and increased para-xylene (PX) production volume, Hyundai Cosmo Petrochemical posted sales of KRW 2.989 trillion and an operating profit of KRW 168.1 billion in 2018. In the future, the company plans to expand its export regions into Taiwan and Southeast Asia while continuously improving its process efficiency and enlarging its production volume.

Hyundai Oilbank, jointly with LOTTE Chemical, established Hyundai Chemical, the first joint venture between an oil refining company and a petrochemical company in South Korea, and began condensate refining and mixed-xylene (MX) manufacturing in 2016.

MX Production Capacity | 1,200,000 tons/year

MX plant of Hyundai Chemical
www.hyundaichemical.co.kr

Hyundai Chemical

Hyundai Chemical is South Korea's first joint venture between petroleum and petrochemical companies, established through a 6:4 investment between Hyundai Oilbank and Lotte Chemical. The company began commercial operations in November 2016.

With the establishment of Hyundai Chemical, Hyundai Oilbank completed vertical integration in the BTX business from crude oil to petrochemicals through linkage with existing plants. In addition, Hyundai Chemical's products and byproducts are sold to its shareholder companies (Hyundai Oilbank and Lotte Chemical), creating business synergies such as imports replacement and export increases.

Hyundai Chemical produces approximately 2,700,000 tons of petrochemical products, including MX and light naphtha, and about 21 million barrels of petroleum products, including jet fuel and diesel, on an annual basis. This is achieved by processing an average of 130,000 barrels of condensate daily. Through its revamp projects, Hyundai Chemical plans to increase the maximum condensate processing capacity to 170,000 barrels from 130,000 barrels per day, and the MX production capacity to 1,400,000 tons from 1,200,000 tons per year.

With the goal of beginning commercial operations in 2021, the company is carrying out the Heavy Feed Petrochemical Complex (HPC) project, worth KRW 2.7 trillion, to produce polyethylene, polypropylene and other petrochemical products by utilizing byproducts from Hyundai Oilbank's refinery plants. Through this project, it aims to become a global petrochemical company with the best-in-class competitiveness.

Lube Base Oil Business

Hyundai Oilbank established Hyundai and Shell Base Oil, in partnership with Shell Petroleum Company Limited, and began to produce eco-friendly lube base oil in 2014. The LBO business has since maintained steady growth and increased profitability, and has become an exemplary model of business diversification.

LBO Production Capacity 1,000,000 tons/year

LBO Unit of Hyundai and Shell Base Oil
www.hsbaseoil.com

Hyundai and Shell Base Oil

Hyundai and Shell Base Oil is a joint venture between Hyundai Oilbank and Shell Petroleum Company Limited. It built a lube base oil (LBO) unit with an annual production capacity of 800,000 tons at the Daesan Refinery Plant, and began commercial operations in 2014.

The company produces American Petroleum Institute (API) standard Group II 70 Neutral, Group II 150 Neutral, and Group II 500 Neutral by processing residue oil from Hyundai Oilbank's heavy oil upgrading process. The products are supplied to industries and lubricant products manufacturing plants both at home and abroad. The company's high-quality LBO boasts various features such as superior low temperature fluidity, clear color, low volatility, thermal stability, and improved fuel economy. Thus, its LBO is widely used for automotive engines, ships and processing, and other industrial purposes.

Since successfully establishing itself in the LBO market in 2015, Hyundai and Shell Base Oil has continued to increase profitability by improving its production yields and strengthening marketing capabilities.

The high-quality LBO produced by Hyundai and Shell Base Oil is supplied in response to the rapidly growing demand for lube base oil, centering on Asia, Americas, and Oceania, including China and India, in addition to South Korea. As of 2018, its LBO was supplied to more than 30 countries.

The company is generating additional profits by developing 100N, 2CST and other new products, while at the same time continuously improving sales margins by adding to its sales areas and channels. In addition, the company continues to expand its sales by securing a production capacity of 1,000,000 tons per year through the production capacity increase project in September 2018.

Oil Terminal Business

Hyundai Oilbank became the first domestic refiner to enter the commercial tank terminal business in 2012 when the company established Hyundai Oil Terminal. Hyundai Oil Terminal is progressing well towards achieving its goal of developing the largest oil logistics base in the southeastern region.

Oil Storage Capacity 280,000 kiloliters

Facilities of Hyundai Oil Termina
www.oilterminal.co.kr

Hyundai Oil Terminal

Hyundai Oil Terminal, a subsidiary of Hyundai Oilbank with 100% ownership, has successfully operated the commercial tank terminal business since December 2013. It has built a large-scale oil storage facility for petroleum and petrochemical products, with a capacity of 280,000 kiloliters, at Ulsan New Port in South Korea. It also has dock facilities capable of handling tankers of up to 50,000 tons (DWT basis).

The company has been contracted to manage seven oil reservoirs owned by Hyundai Oilbank in different regions of the country since 2014, growing into a terminal company with a nationwide network. Sales and operating profit reached KRW 39.3 billion and KRW 10.7 billion, respectively, in 2018.

Hyundai Oil Terminal plans to expand its storage facilities through the acquisition or expansion of commercial terminals at home and abroad. It will also proactively develop relevant businesses to become the nation's best oil logistics company over the next few years.

Carbon Black Business

Hyundai Oilbank established Hyundai OCI, in partnership with OCI Company, and became the first domestic refinery company in South Korea to enter the carbon black business, thus further diversifying its business portfolio.

Carbon Black Production Capacity | 100,000 tons/year

Carbon Black Plant of Hyundai OCI
www.hyundaioci.co.kr

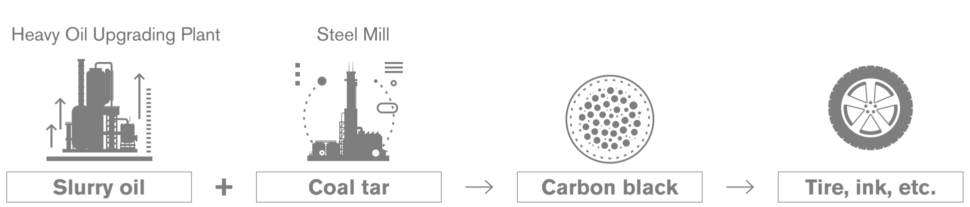
Hyundai OCI

Established in February 2016, Hyundai OCI is a joint venture with OCI Company, the No. 1 carbon black producer in South Korea. Carbon black is a carbon powder that is produced by using coal tar from steel mills and slurry oil from the residue fluidized catalytic cracking (RFCC) process. It is used primarily as a raw material for the compounding agents that reinforce tires and other rubber products, and in printer inks.

In August 2016, Hyundai OCI began the construction of a carbon black unit at the Daesan Industrial Complex, located near Hyundai Oilbank Daesan Refinery Plant. The carbon black unit was completed in October 2017, with an annual production capacity of 100,000 tons, and its commercial operations began in February 2018 following a trial operation period of three months.

Despite difficult economic conditions, Hyundai OCI achieved sales of KRW 136.1 billion and an operating profit of KRW 14.8 billion in 2018, thanks to its stable raw material supply system and excellent carbon black technologies. The company plans to increase its annual production capacity by 50,000 tons to 150,000 tons by the end of 2019, taking a step towards becoming a global carbon black company.

Carbon Black Business System



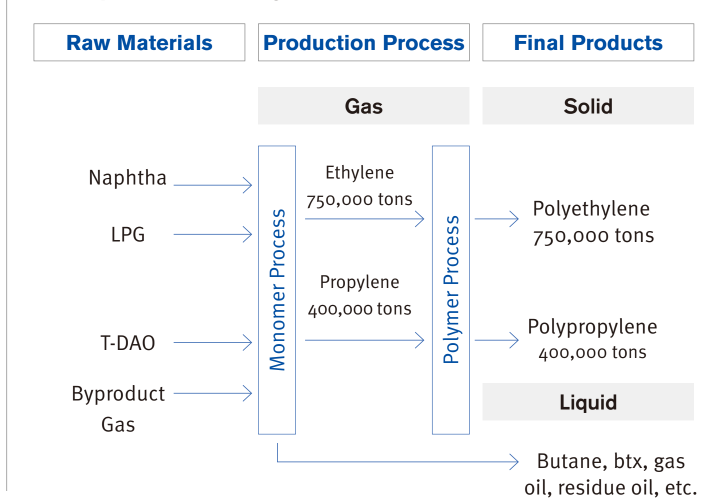
New Businesses

Equipped with the industry's best refining facilities, Hyundai Oilbank strives to realize a stable earnings structure even in the midst of sudden changes in its business environment, through sustained facility investment and new business expansion in the non-refining sector.

In May 2018, Hyundai Oilbank and Lotte Chemical signed an investment agreement for the new petrochemical business. The two companies are pushing for the construction of a petrochemical plant that produces polyethylene and other products on the premises of the Daesan Refinery Plant. The production process will involve the use of more than 60% of refinery byproducts, such as LPG, byproduct gas and desulfurized heavy oil, all of which are cheaper than naphtha. We plan to produce 750,000 tons of polyethylene and 400,000 tons of polypropylene annually, with commercial operations targeted to begin at the end of 2021. By utilizing refinery byproducts, our profitability should improve due to superior cost competitiveness as compared to other companies.

The energy industry's environment has undergone substantial changes recently, including the introduction of policies to increase new and renewable energy and expand the dissemination of electric and hydrogen vehicles. As a total energy company, Hyundai Oilbank is responsible for contributing to an eco-friendly society in response to such government policies. Therefore, the company will not only improve its business competitiveness in the oil refining and petrochemical sectors, but will also actively promote eco-friendly new businesses.

Heavy Oil Cracking Units



Facilities

Hyundai Oilbank has established industry-leading refining facilities, while creating high value through the stable production and supply of petroleum products, raw materials for petrochemicals, and lube base oil. In addition, we are building eco-friendly and safe production bases by minimizing pollutant emissions through ongoing process improvements.

Hyundai Oilbank Daesan Refinery Plant

Hyundai Oilbank's Daesan Refinery Plant, located in Seosan, South Chungcheong-do Province and covering approximately 3.3 million square meters, is the company's key base for the refining of crude oil. With crude oil refining facilities and heavy oil cracking units, the plant is capable of refining 650,000 barrels of crude a day, of which 40.6% can be produced as high-value products.

Hyundai Oilbank is continuously expanding and remodeling its facilities. The company began commercial operations of the #2 BTX Plant in 2013, the lube base oil (LBO) production unit in 2014, and the MX Plant in 2016. By building a carbon black unit and a solvent de-asphalting (SDA) process and expanding the HOU plant in 2018, the Daesan Refinery Plant continues to grow into a world-leading, cutting-edge production base.

Key Facilities

The Daesan Refinery Plant, the corporate headquarter of Hyundai Oilbank, consists of #1 Plant, #2 Plant, #1 BTX Plant, #2 BTX Plant, LBO Production Unit, MX Plant, and Carbon Black Plant.

Total Capacity (Unit: Thousand barrels/day)

Process	#1 Plant	#2 Plant	#1 BTX	#2 BTX	MX Plant	Carbon Black	Total
Crude Distillation Unit (CDU)	160.0	360.0			130.0		**650.0**
Vacuum Distillation Unit (VDU)	99.0						**99.0**
Light End Recovery Unit (LER)	12.0	6.0			5.3		**23.3**
Naphtha/Mogas* Hydrotreating Unit							
Naphtha Hydro Treating (NHT)	12.0	20.0			92.0		**124.0**
Platforming Treating (PLT)	4.6	20.0			56.0		**80.6**
Mogas Hydro Treating (MHT)		41.0					**41.0**
Alkylation Treating (ALK)		21.0					**21.0**
Mogas Merox Treating (MMX)		10.0					**10.0**
Kerosene/Gas Oil Hydro Treating Units							
Kerosene Hydro Treating (KHT)		60.0					**60.0**
Gas Oil Hydro Treating (GHT)	22.0	115.0			18.0		**155.0**
Kerosene Merox (KMX)	22.0				31.0		**53.0**
Heavy Oil Cracking Units							
Hydro Cracking (HCR)	50.0						**50.0**
Delayed Coking Unit (DCU)	50.0						**50.0**
Atmospheric Residue Desulfurization (ARDS)		50.0					**50.0**
Mild Hydro Cracking (MHC*)		25.0					**25.0**
Residue Fluidized Catalytic Cracking (RFCC)		86.0					**86.0**
LBO Production Unit							
Lube Base Oil	25.0						**25.0**
BTX Unit (Tons/year)							
Benzene			144.0	75.0	370.0		**589.0**
Paraxylene			437.0	984.0			**1,421.0**
Mixed-xylene (MX)					1,240.0		**1,240.0**
Carbon Black Production Unit (Thousand tons/year)							
Carbon black						100	**100**

* Mogas: Short for motor gasoline, the material is used to formulate gasoline.
* The existing Atmospheric Residue De-Sulfurization (ARDS) Unit has been rebuilt into a hydro treating facility and a cracking facility for ARDS Module and Mild Hydro Cracking Unit (MHC) module.

Crude Distillation Unit (CDU)

The CDU process separates crude oil into different petroleum fractions according to their boiling points, where the fractions are drawn off from top to bottom based on their boiling points – LPG, naphtha, kerosene, diesel, and fuel oil.

Vacuum Distillation Unit (VDU)

The VDU process conducts distillation at below atmospheric pressure, drawing off the different fractions from top to bottom according to their boiling points – Vacuum Light Gas Oil (VLGO), Vacuum Heavy Gas Oil (VHGO), and Vacuum Residue (VR).

Hydro Cracking Unit (HCR)

The HCR process breaks down the low value Vacuum Heavy Gas Oil (VHGO) from the VDU process to produce high value light and middle distillate oils, including kerosene, diesel, LPG, and naphtha.

Delayed Coking Unit (DCU)

The DCU process breaks down the fuel oil from the CDU or VDU processes at its thermal cracking temperature of 490°C to produce light and middle distillate oil and byproduct coke. The coke is used as fuel for boilers.

Naphtha Hydro Treating (NHT)

The NHT process adds hydrogen to naphtha that is produced from the CDU process to remove impurities and convert it to low-sulfur naphtha. Low-sulfur naphtha is injected into the Platforming (PLT) process or used as a blendstock for various products.

Kerosene Hydro Treating (KHT)

The KHT process adds hydrogen to the kerosene products produced by the CDU process to remove sulfur compounds and convert them into low-sulfur kerosene. Low-sulfur kerosene is sold as kerosene for boilers and other products.

Gasoil Hydro Treating (GHT)

The GHT process adds hydrogen to the diesel products produced by the CDU and DCU to remove sulfur compounds. The produced low-sulfur diesel is used as a blendstock for various products.

Platforming (PLT)
The PLT process converts the heavy naphtha produced by the NHT and HCR into naphtha reformate that is rich in aromatic components. The reformate is used as a gasoline blendstock or feedstock for benzene, toluene, or xylene production.

Atmospheric Residue De-Sulfurization (ARDS)
The ARDS process adds hydrogen to high-sulfur atmospheric residue, which has many impurities, at a high temperature and pressure to convert it to low-sulfur residue, which is used as feedstock for RFCC.

Mild Hydro Cracking Unit (MHC)
The MHC process produces low-sulfur diesel blendstocks and raw materials for the Residue Fluidized Catalytic Cracking (RFCC) process by mild hydrocracking de-asphalted oil from the SDA process.

Residue Fluidized Catalytic Cracking (RFCC)
The RFCC process breaks down low-sulfur atmospheric residue from ARDS in high temperatures using a fluidized catalyst. It produces high-value gasoline products, mixed butane, propylene, and slurry oil, which become raw material for the Carbon Black Unit.

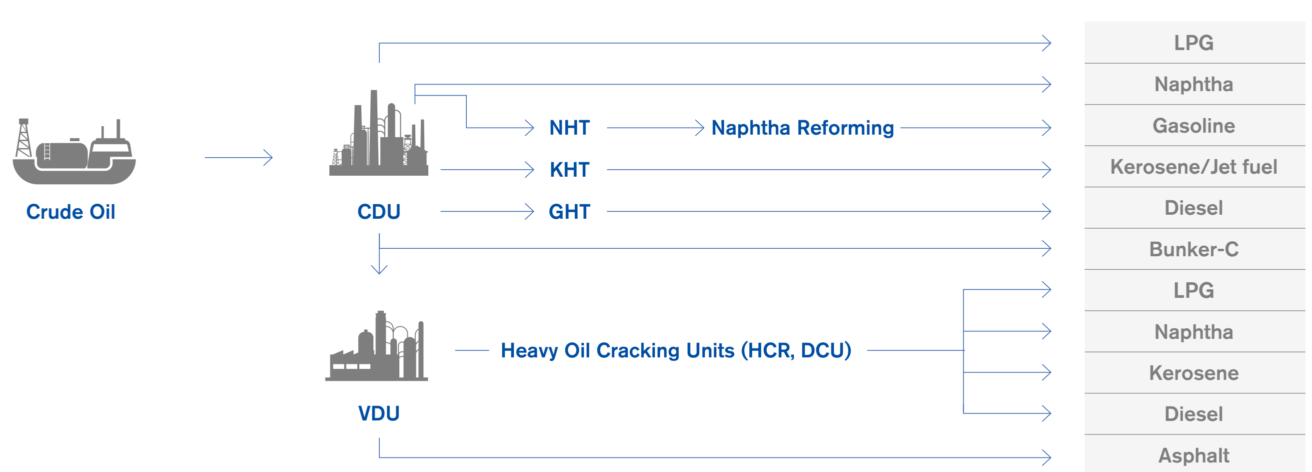
Lube Base Oil Unit (LBO)
The LBO process isomerizes and hydrogenates hydrowax from HCR that has not been converted into kerosene and diesel in the Hydro Cracking Unit to produce high-quality lube base oil.

Benzene Toluene Xylene Unit (BTX)
The BTX process converts heavy naphtha reformate that was produced from the PLT to aromatic hydrocarbons, such as benzene, toluene, and xylene, using catalytic reaction and adsorption.

Carbon Black Unit
The Carbon Black process produces carbon black by the incomplete combustion or pyrolysis of hydrocarbon (coal tar from steel mills and slurry oil from the RFCC process).

Solvent De-Asphaltene Unit (SDA)
This process separates de-asphalted oil and asphaltene by mixing atmospheric residue and vacuum residue with solvents.

Process Flow

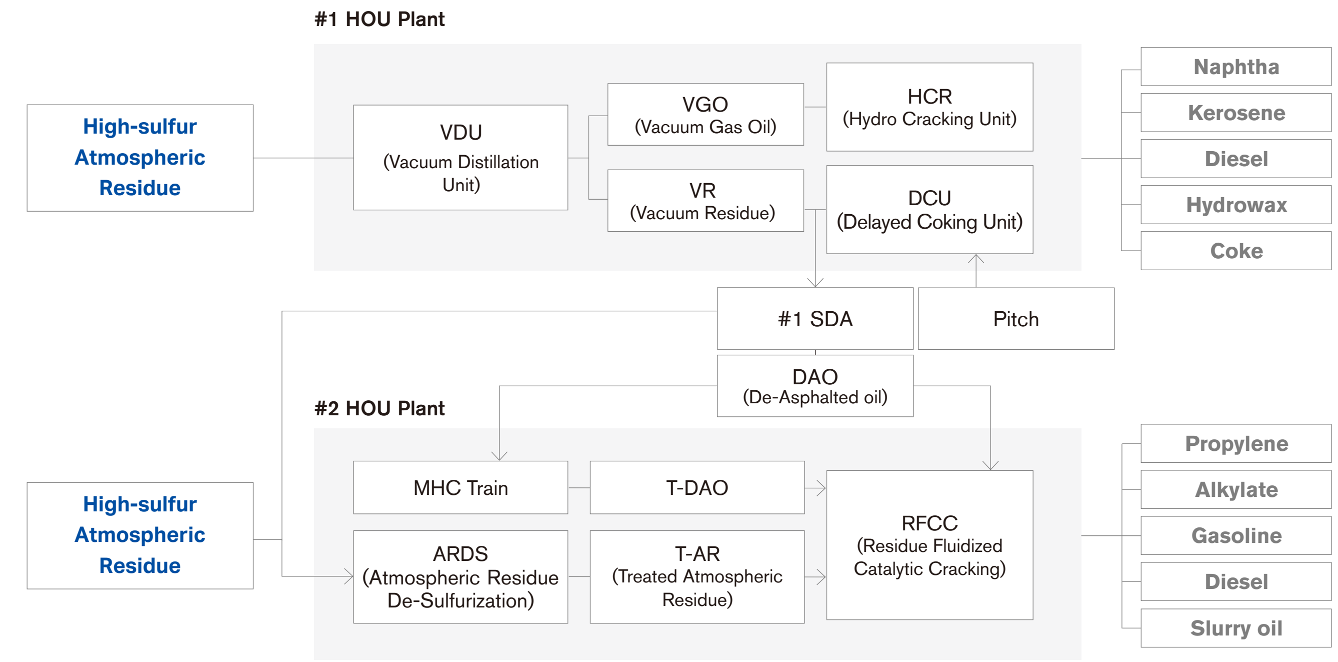


Expansion of HOU Plants
Hyundai Oilbank manufactures eco-friendly, high value-added products by constantly improving its upgrading facilities. In the refining industry, HOU plants are called 'ground oilfields' because of their ability to take low-price high-sulfur heavy oil, which accounts for around 40 to 50% of the products from the crude oil refining process, and convert it into high value-added, eco-friendly petroleum products such as gasoline, diesel, propylene, and alkylate. In September 2011, Hyundai Oilbank completed the #2 HOU Plant, increasing its daily upgrading capacity from 78,500 to 164,500 barrels, thus laid the foundation for the next level. As of the end of 2018, Hyundai Oilbank's upgrading ratio was 40.6%, the highest in South Korea. The upgrading ratio is the percentage of high value-added product manufacturing capacity compared to total oil refining capacity, and is perceived as being a barometer of technological prowess and business profitability. The company also manufactures gasoline and diesel products that meet Californian standards of under-15 parts per million of sulfur content, the world's strictest standard, and exports them to the U.S. and other advanced markets.

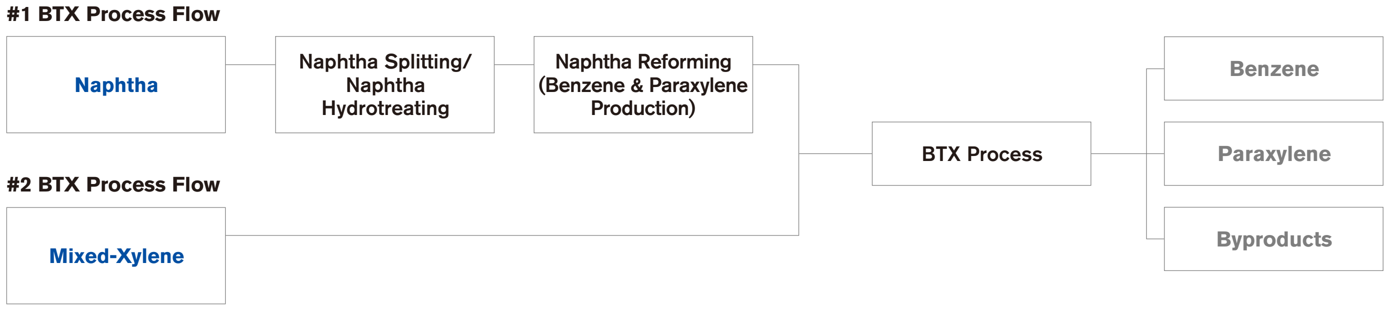
#1 HOU Plant
An HOU plant produces high value-added petroleum products by cracking fuel oil that is created in a CDU. Hyundai Oilbank has two HOU Plants, among which the #1 HOU Plant has mainly produced kerosene and diesel using fuel oil from the #1 CDU as its raw material since beginning operations in 1989. The #1 HOU Plant consists of the HCR unit and DCU, and its daily refining capacity is 50,000 barrels in the HCR and 50,000 barrels in the DCU.

#2 HOU Plant
The #2 HOU Plant uses low-quality fuel oil generated during the crude oil refining process at the #2 CDU to produce petroleum products, such as LPG, gasoline and diesel, and petrochemical feedstocks, such as propylene. The #2 HOU Plant consists of the ARDS process, the MHC process and the RFCC process. It uses low-sulfur bunker-C oil, which is created through the ARDS and MHC processes, as its raw material, to produce high value-added products. Daily refining capacity of the plant is 50,000 barrels through the ARDS process, 25,000 barrels through the MHC process, and 86,000 barrels through the RFCC process.

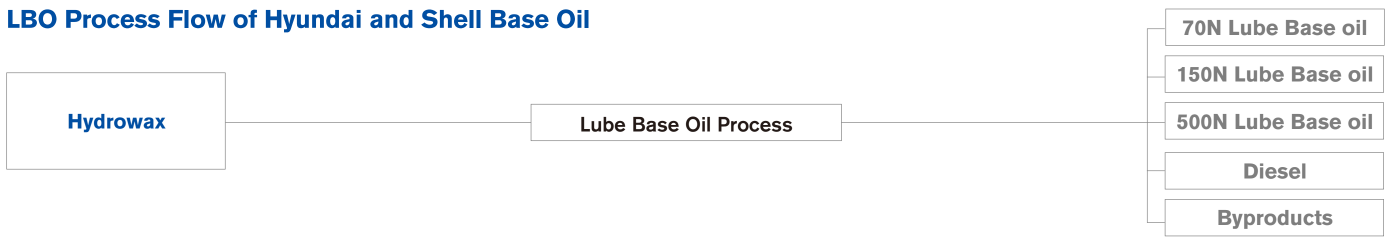
HOU Process Flow



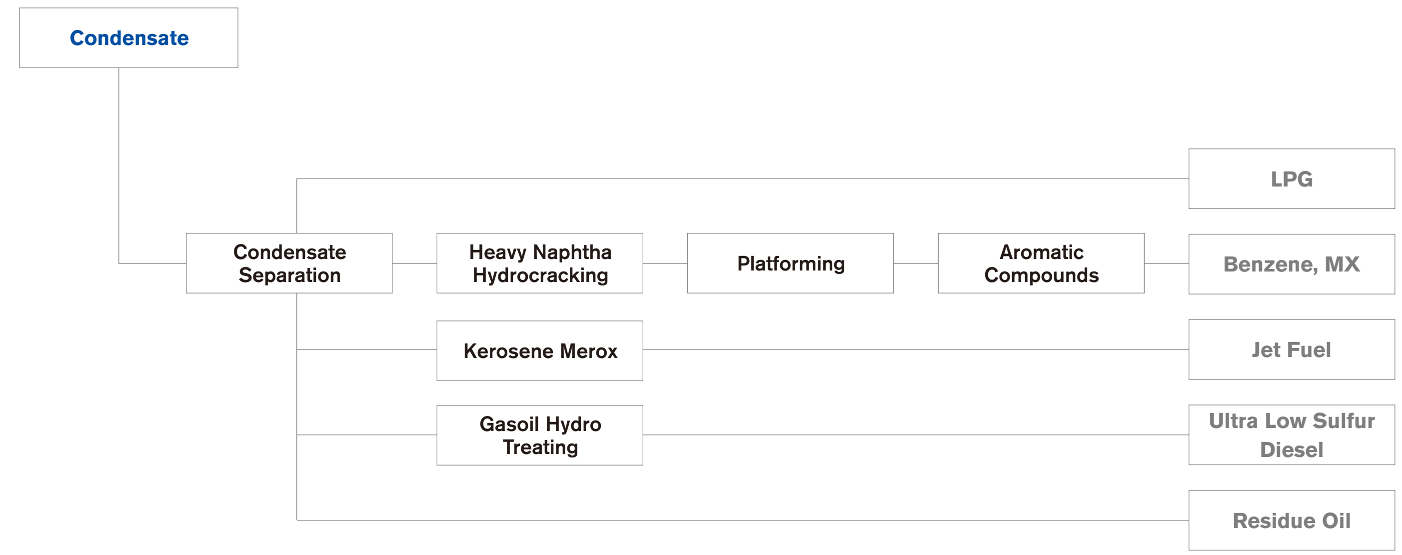
BTX Process Flow of Hyundai Cosmo Petrochemical

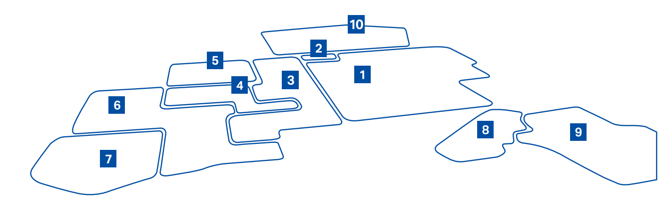


LBO Process Flow of Hyundai and Shell Base Oil



Condensate/MX Process Flow of Hyundai Chemical





1 #1 Plant / #1 HOU Plant
2 LBO Production Unit
3 #2 Plant
4 #1 BTX Plant
5 #2 BTX Plant
6 #2 HOU Plant
7 MX Plant
8 Hyundai Daejuk Park
9 Carbon Black Plant
10 HPC Project (Plant Site)

Major Products

Lube Base Oil

Naphtha

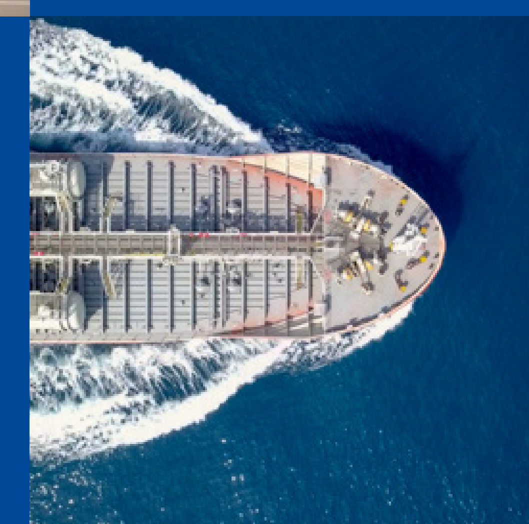
Lubricants

Jet Fuel

Premium Gasoline

Carbon Black

BTX
Benzene, Toluene, P-Xylene



Fuel Oil

Propylene

Alkylate

LPG
(Liquefied Petroleum Gas)

Products

Hyundai Oilbank has played a key role in the modern industry and eased daily living by producing world class petroleum products and petrochemical feedstocks, including fuels for automobiles, ships and jets, and other products for a wide variety of industrial and domestic uses. The company also contributes to a better future for humankind by offering products and services that make a happier future.

Petroleum Products

Premium Gasoline

Hyundai Oilbank's high-quality, high-octane premium gasoline has an octane rating of over 98. Because it uses additives that improve fuel efficiency, it features higher power output and better fuel economy, even in difficult driving conditions over aprolonged period of time. This eco-friendly, high performance gasoline also significantly reduces harmful emissions.

Gasoline

Because gasoline is highly volatile and flammable at room temperature, it is explosive when mixed with air. This is why it is widely used as a fuel in internal combustion engines. Hyundai Oilbank uses engine-cleaning additives for better dispersion and combustion. Also, it ensures that its high-quality gasoline product emits fewer pollutants, exceeding by far the criteria set forth in the Clean Air Conservation Act, which stipulates that gasoline should contain under 0.7% of volume of benzene and under 10 mg/kg of sulfur.

Ultra Low Sulfur Diesel

Hyundai Oilbank was the first in Korea to supply eco-friendly ultra-low sulfur diesel that significantly reduces exhaust fumes and noise compared to standard diesel grades. This diesel also contains high-quality additives that help keep engines clean. Hyundai Oilbank has mixed bio-diesel into all of its diesel products since 2006, which results in more eco-friendly products. The company also provides high-quality diesel with improved low-temperature performance, to suit customers in regions affected by severe cold.

Kerosene

They are free from unpleasant odors, and are virtually smoke- and soot-free when burned, which makes them suitable for indoor heating fuels. They are also very economical, as they deliver excellent caloric value and combustibility.

Fuel Oil

Hyundai Oilbank's fuel oil products are categorized into low sulfur, marine, and classes A, B, and C, according to sulfur content, application, and viscosity. They are mostly used as fuels for internal combustion engines and boilers. Hyundai Oilbank sells marine fuel oil products that differ in viscosity according to engine size, type, and other factors.

Liquefied Petroleum Gas (LPG)

Propane is used for residential and commercial cooking, and for heating. Butane is used as a vehicle fuel, fuel for portable cooking and heating, and for industrial purposes. As a vehicle fuel, Hyundai Oilbank supplies LPG products which vary in the propane-butane mix ratio according to season to help engines to start in any temperature. In addition, all LPG products contain an odorant to ensure customer safety.

Jet Fuel

Hyundai Oilbank's jet fuel products evaporate well even in low-temperature, low-pressure and high-altitude environments, preventing vapor lock. They do not easily freeze, and have good combustibility and caloric value. Hyundai Oilbank produces and supplies JP-8 for military use and Jet A-1 for civilian aviation use.

Naphtha

Widely used in the petrochemical industry, naphtha is a raw material for the production of gasoline, solvents, fertilizer, and other petrochemical products. Naphtha products of Hyundai Oilbank are high quality, with little olefin. They are sold to petrochemical companies, and are also used in Hyundai Cosmo Petrochemical's BTX process.

Petrochemical Products

Benzene, Toluene, P-Xylene (BTX)

BTX is an abbreviation for Benzene, Toluene, and P-Xylene, all of which are aromatic chemicals. They are mainly used in the synthesis of chemicals. Benzene is the most important of the aromatic compounds, and is used in nylon, Styrofoam, and insulation materials. Toluene is used in thinner and other synthetic materials, and P-Xylene is used to make polyester, film, and PET.

Propylene

Propylene is a core petrochemical feedstock, and is used in products such as acetone, isopropyl alcohol, acrylonitrile, nylon 6, polypropylene, propylene oxide, epichlorohydrin, and polyisoprene. These materials are ultimately used to make acrylics, synthetic rubbers, plastics, detergents, and various other products.

Alkylate

Hyundai Oilbank's high-octane alkylate products are ecofriendly gasoline blending stocks that emit almost no environmental pollutants, and contain neither olefin nor aromatic compounds.

Mixed Xylene (MX)

MX is used in the production of para xylene, ortho xylene, and meta xylene. It is also primarily used in the making of paints and agricultural chemicals.

Others

Asphalt

Asphalt is produced at Hyundai Oilbank's Vacuum Distillation Unit (VDU), and is a vital material in road paving. Asphalt products produced by Hyundai Oilbank meet the KS M2201 standards for road paving, and are also the only products from a Korean company that have obtained certification for the JIS K2207 asphalt standards in Japan.

Lube Base Oil

Lube base oil is produced through a catalytic process, using hyrdowax produced at the Hydro Cracking Unit (HCR) as a raw material. Lube base oil is a feedstock that makes up over 80% of lubricant products. Additives are inserted into lube base oil to produce lubricants for automobiles, ships, and for other industrial purposes.

Lubricants

Hyundai Oilbank's lubricants include the 'XTeer' lubricant brand and the 'XTeer α' fuel additive.

Carbon Black

Carbon black is a carbon powder that is produced by the incomplete combustion or pyrolysis of hydrocarbon (including coal tar and slurry oil). It is used primarily as a raw material for the compounding agents that reinforce tires and other rubber products.

MANAGEMENT REVIEW

Management Philosophy & Strategy

Hyundai Oilbank is committed to contributing to economic and social development by achieving its business objectives and also by fulfilling its social responsibilities. The company therefore aims to operate on behalf of all of its stakeholders, and develop strategies for mid-to long-term growth.

Management Philosophy

The management philosophy of Hyundai Oilbank consists of seven detailed policies.

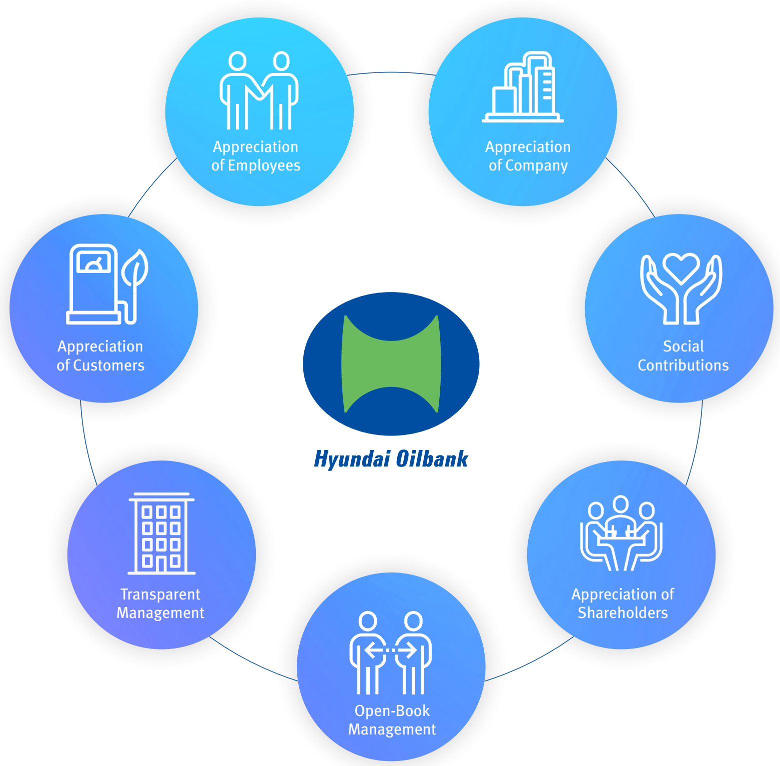
Enhancing Stakeholder Value

Hyundai Oilbank seeks to deliver greater value for its customers, shareholders, employees, and local communities. In addition to working for the company's success, all employees at Hyundai Oilbank recognize that they are essential assets for the company and for each other, so that they show each other mutual respect at all times. Hyundai Oilbank also encourages employees' creativity in order to improve overall corporate capabilities. The company recognizes that customer satisfaction is one of the foundations of its business, which is why it is committed to honesty and sincerity. The company maximizes shareholder value through transparent and efficient management. Hyundai Oilbank also recognizes that the company is the backbone of South Korea's key industry, and it therefore does its best to contribute to national economic and social development, looking for win-win growth with local communities.

Building a Trustworthy Company

The management of Hyundai Oilbank is transparent and open, in order to establish the company as a trusted and respected company. It maintains the highest ethical standards, and ensures transparency and fairness in all management activities. Hyundai Oilbank discloses all information needed, and provides its employees with opportunities where they can freely participate in. By strengthening core capabilities, the company is able to offer the best products and services, while simultaneously meeting the interests of customers, employees, partners, shareholders and local communities. In doing so, Hyundai Oilbank is fulfilling its goals and responsibilities as a corporate entity.

Management Philosophy



The People of Hyundai Oilbank

Hyundai Oilbank defines a model employee as a 'creative doer'. A creative doer, based on the 'Hyundai Spirit', is a talented individual, with the ability to create and fulfill the values that Hyundai Oilbank pursues. The Hyundai Spirit is rooted in the founding spirit of the founder, Chung Ju-yung, who believed that even something that seems impossible can be accomplished through total determination and a strong driving force.

Hyundai Oilbank Model Employee

A passionate talent, with a challenging spirit to become the best

This person leads his/her own growth and the company's development, based on a passion for work and a challenging spirit to become the best. This person creates value for him/herself and the company through a pioneering spirit, passion for customer satisfaction, a professional mindset and sense of responsibility, and strong drive.

+

An innovative talent who changes the world

This person brings about positive change, and shapes a better tomorrow through imagination and creative action. He/she leads innovation and prepares for a better future through extensive experience and learning, great insight, an open mindset, and the ability to lead others.

+

A trusted talent who acts with integrity

This person delivers a strong sense of trust through respect and consideration for others, open communication, and upright and honest conduct. This person embraces diversity without bias, conducts him/herself fairly at all time, and earns the trust of colleagues, local communities, and society through honesty and integrity.

Management Strategy

In 2018, Hyundai Oilbank's operating profit decreased to KRW 661.0 billion on a consolidated basis. This was attributable to a plunge in oil prices to USD 49.5 per barrel as of the end of 2018, and the aggravation of gasoline and naphtha margins to the lowest levels of the past ten years. Oil prices are steadily stabilizing following the OPEC's decision on further reductions since the beginning of 2019, but the forecast for oil prices and product margins will likely not be bright if the US shale oil oversupply and global growth slowdowns continue.

Despite these obstacles, Hyundai Oilbank will improve its plant efficiency by introducing optimized operation systems, and will continue its efforts for energy savings including the recovery of waste heat. We also plan to enhance our cost competitiveness and boost our sales margins. Strategies for achieving this include increasing the import of extra heavy crude oil, the price of which is anticipated to decline following the tightening of IMO regulations, while also producing and selling marine fuel oil that meets the IMO standards. In addition, we will be dedicated to carrying forward the HPC project for our advance into the petrochemical sector, and all of our plants will operate at the highest levels of safety with a specific target of zero emergency stops.

2019 Management Goals

Put safety and eco-friendliness first
Pursue safety and eco-friendliness as a key management goal

Maximize earnings
Realize maximum earnings by enhancing cost competiveness and diversifying markets

Provide company-wide support for HPC project
Ensure company-wide support to successfully complete the large-scale project

Ethical Management

Hyundai Oilbank has adopted ethical management to ensure the highest levels of transparent management. In order to earn the complete trust of all stakeholders, the company is making the utmost effort to ensure that ethical management becomes part of its corporate culture.

Ethical Management System and Programs

Hyundai Oilbank introduced a business ethics system in 2002. The company has set goals of becoming a 'preferred company to conduct transactions' with customers and business partners; a 'preferred company for investment' for shareholders; a 'preferred company to work' for employees; and, 'a company which fulfills its responsibilities for our society'. Since joining the Hyundai Heavy Industries Group in 2010, a group-wide ethical management system has been implemented to strengthen transparency and enhance employees' ethical awareness.

Ethical Management System

In order to practice fair and transparent management, Hyundai Oilbank operates a well-organized practical ethical management system through training, publicity and various action programs, based on ethical standards which include a Charter of Ethics, a Code of Conduct, and Business Ethics Guidelines. The company also added a Special Code of Conduct for six specific duties that demand a stricter ethical mindset.

Major Ethical Management Action Programs

Pledge to practice ethical management	Hyundai Oilbank collects a written pledge annually from all staff and business partners which states that they understand the company's ethical management regulations, and that they commit themselves to observing all policies and systems.
Report on conflicts of interests	All of our employees and business partners are required to submit this report every year. The goal is to ensure total transparency in transactions by reporting when employees are likely to have a conflict of interest while performing their duties.
Ethical management training and publicity	We enhance the understanding and compliance of our employees through group training and customized cyber training on ethical management, using a wide range of PR activities including videos.
Self-inspection on ethical management compliance	Every year, our employees examine their own compliance with the ethical management-related regulations through a questionnaire-style checklist, allowing them to improve both their understanding of the regulations and their compliance.
Listening to field opinions on ethical management	We gather opinions from the field, from employees and business partners, to assess how much our ethical management is being put into practice. We also collect opinions on required improvements and review whether to implement these suggestions.
Report on unethical behavior and whistleblower protection	To prevent unethical activities and establish an ethical corporate culture, we operate a reporting and rewards system. We guarantee confidentiality so that the identities of whistleblowers are not exposed and they are protected from being penalized.
Clean Notice system	If an employee has received a gift from a stakeholder such as a business partner, through unavoidable circumstances, the gift is returned to the giver through a designated delivery company after a simple notification process, or donated to social welfare facilities.

Compliance Program

Hyundai Oilbank set up its Compliance Program (CP) in 2003, and applies it to all management activities. The CP presents standards in management and employee conduct, in order to observe the requirements of the Monopoly Regulation and Fair Trade Act.

Major CP Action Programs

CEO's declaration	• The CEO confirms the company's commitment to CP and its policies through electronic correspondence and the company website
CCO	• Head of the Management Support Division is appointed as Chief Compliance Officer (Team in charge: Government Relations Team)
CP handbook	• Published and distributed in December 2003
Employee training programs	• Internal training: Training on the enacting and amendment of laws / training of employees in charge of compliance /training in parallel with compliance inspections / training for new staff, team leaders, and gas station owners / selected training as required • External training: Supervised by the Korea Fair Competition Federation and Fair Trade Commission • Cyber Training Center: Online training
Oversight system	• Compliance regulations and company-wide work procedures • Internal/external whistleblowing system, including consultation with CP managers by email and report on fair trade • CP inspections / prior business review system
Disciplinary system	• Disciplinary measures are taken based on personnel regulations (reward, disciplinary action regulations) • The Personnel Committee deliberates and makes a decision (up to dismissal)
Document management system	• CP operation-related online and offline document management (Team in charge: Government Relations Team)

Risk Management

Hyundai Oilbank has established a risk management system that reflects the specific risk of the oil refinery market, such as oil price and exchange rate fluctuations. The company also conducts detailed risk analysis to minimize losses amid market volatility.

Risk Management Organization

Hyundai Oilbank operates the Risk Management Committee chaired by the CEO. The Committee engages in integrated management of various risks, including exchange rate, oil price, and refining margin risks.

Oil Price Risk

The crude oil Hyundai Oilbank imports from the Middle East is mostly purchased by contract at a price set during the month of loading. Consequently, price fluctuations that may occur during the one-month shipping period are a risk. The company also determines the portion of the monthly import volume that is exposed to risk from shipping-time lag, and then manages the risk exposure volume first by adjusting base prices and then through hedging and swap transactions. To prevent losses from price fluctuations, the company has also instituted mandatory hedging for additional operating margins, as well as for fixed price bids, oil reserves, and storage facility rental transactions.

Diversification of Crude Oil Import

Hyundai Oilbank is actively diversifying the sources of its crude oil imports in order to avoid the geopolitical risks that arise from importing crude oil from the Middle East, especially Iran. Its crude oil purchases now include Latin America and the North Sea, and its oil benchmarks therefore incorporate West Texas Intermediate (WTI) and Brent crude prices. Hyundai Oilbank strives to maximize the economic efficiency of crude oil imports, changing sources according to market conditions. The company will continue to expand the sources of its crude oil imports, in a seamless connection with its plants. This will enable the company to minimize risk while maximizing revenue.

Exchange Rate Risk

Hyundai Oilbank is exposed to risk from exchange rate fluctuations because the company pays for imports of crude oil and sells refined petroleum products in foreign currencies. To cope with this risk, the company establishes optimal hedging strategies through the Risk Management Committee. The team in charge of exchange rate risk management minimizes risk by actively hedging exposures, based on these hedging strategies.

Quality Management

In order to improve its post-sales service, Hyundai Oilbank has established thorough, by-phase quality inspections and a detailed quality complaint management system. In addition, the company operates the Hyundai Oilbank Central Technology R&D Institute and aims to maximize customer satisfaction through its ongoing R&D efforts.

Managing Quality

At all stages from production to sales, Hyundai Oilbank undertakes quality tests in accordance with regulations stipulated in relevant laws and ordinances. The company also carries out quality inspections throughout the year to ensure top quality right through to the end distribution of its products. In addition, it is enhancing the satisfaction of end consumers through its quality management service and on-site support by using the Mobile Lab.

Certification of Quality Management

Thanks to its strict quality management, Hyundai Oilbank passed all regular fuel quality tests administered to gas stations by the Ministry of Trade, Industry and Energy and the Ministry of Environment in 2015. The objective reliability of its quality tests has been also confirmed for all fuel types and categories each year from 2014 to the present by the Korea Petroleum Quality & Distribution Authority. In 2016, Hyundai Oilbank was recertified for the ISO 9001 quality management system, and won international recognition for its quality management.

Quality Complaint Management System

The Quality Management Team is in charge of issues relating to quality complaints. The team discusses customer complaints with the relevant departments, takes necessary measures, and informs customers about the results. If there are delays in the complaint handling process, the company finds and removes the cause of the delay. Located in Pangyo, the Technical Support Center and the Mobile Lab use cutting-edge testing and analysis equipment to respond immediately to customer requests. Even when the cause of a problem is not clear, representatives visit a customer within 72 hours of receiving the complaint to consult. They collect samples for quality testing, and the results are shared promptly both with the relevant departments and the customer. The Mobile Lab immediately checks the quality of products and provides the results on the spot.

Quality training to the entire sales force and service station operators is offered on a regular basis. In addition, a handbook is published every year to help all employees to promptly address customers' quality concerns. Furthermore, information on any hazardous substances in products and services is provided.

Quality Complaint Handling Procedure

STEP. 1
Complaint received
>
STEP. 2
Sampling
>
STEP. 3
Quality test
>
STEP. 4
Notification of results to a customer and a relevant department within 72 hours

Research & Development

In November 2011, Hyundai Oilbank established the Hyundai Oilbank Central Technology R&D Institute as part of its efforts to diversify business and lead its future growth. In November 2017, the Institute was relocated to the Hyundai Electric Research Institute in Yongin, maximizing synergy effects among HHI Group companies.

Roles and Activities of the Institute

The institute has been the center of next-generation R&D of Hyundai Oilbank since its establishment in 1989. It has brought together the technology development functions and research personnel. The institute is in charge of developing technologies and training leading technical experts in oil refining, catalyst technology, lube base oil, next-generation fuels, and petrochemical products.

The institute actively pursues cooperation with domestic universities, government-run research institutes, and overseas companies for petroleum and petrochemical technologies. It has signed a MOU with Cosmo Oil of Japan, a BTX partner of Hyundai Oilbank, to engage in technological cooperation across all fields of energy businesses. In addition, joint R&D with Heesung Catalysts Corp. enabled Hyundai Oilbank to develop a catalyst for our #1 GHT process; thus, in September 2016, Hyundai Oilbank became the first Korean company to produce its own hydrotreating catalyst technology. Currently, the institute is dedicated to improving the performance of hydro treating catalysts, optimizing refining processes, and developing hydro cracking catalysts and new petrochemical technologies.

Vision and Goals of the Institute

The Hyundai Oilbank Central Technology R&D Institute aims to achieve the following:

First, the institute will undertake its R&D in order to improve the company's technological competitiveness and production technology strategies. Its research on the impact of process changes will use pilot plants to optimize the process operation. Research into catalyst manufacturing and waste catalyst recycling technologies will boost technological competitiveness, and research cooperation between industry and academia will further maximize production efficiency.

Second, the institute is leading research into technologies that will support business diversification. Its capacity is focused on pursuing promising areas including technologies for lubricants and carbon materials manufacturing; adding value to petroleum pitch; developing high-value solvents; modified asphalt; and the new petrochemical business.

Third, the institute strives to recruit outstanding talent that can lead the intensifying global race for technology. The institute is therefore focused on finding and fostering talented people who help to establish excellent technological competitiveness.

Brand Management

Hyundai Oilbank is enhancing customer satisfaction while increasing its sales competitiveness by strengthening brand value, establishing various communication channels, improving service quality, and undertaking distinctive marketing activities centered on customers.

Branding Activities

Hyundai Oilbank makes its best effort to create a friendly corporate image, and to enhance the brand value of the company and its products.

Enhancing Brand Value

Hyundai Oilbank is diversifying its fuel charging business by building an energy station complex where electric and hydrogen vehicles can be charged, for the first time in South Korea. We strive to improve customer convenience by more effectively using gas station spaces, and we are committed to fulfilling our corporate social responsibilities. These efforts include expanding the development of gas station complexes and implementing a safety delivery service for women.

Hyundai Oilbank also focuses on enhancing the brand value of its products. The company obtained engine oil certifications from BMW and Mercedes-Benz in addition to Hyundai Motor, Porsche, Volvo, MAN and Renault to publicize the 'XTeer' lubricant brand and grow it into a global brand. We also launched the highest American Petroleum Institute (API) standard lubricant, a first in South Korea. In addition, we built a lubricant unit in the Daesan Refinery Plant to improve our productivity. Our lubricant research center is also developing the highest-quality lubricants through joint research with Hyundai Heavy Industries and Hyundai Motor in the shipbuilding, engine, construction machinery, electric, robot and automobile areas.

Furthermore, Hyundai Oilbank uses standardized designs for the exterior of its gas stations, attendant uniforms, advertising materials, offices, and other areas with a view to brand management. Other efforts to enhance brand awareness and customer preference include continuously improving and managing gas station PR material designs.

Building different communication channels

Hyundai Oilbank is connecting with consumers through sports sponsorship. We have sponsored the K-League, Korea's top professional football league, and the Ulsan Hyundai Football Club. Of particular note, we have sponsored the Ulsan Hyundai Football Club for twelve consecutive years, enjoying the publicity associated with this sponsorship. In addition, to activate the sales of 'Hyundai XTeer' lubricant brand, we are conducting 90-degree commercials in all of the K-League 1 stadiums in South Korea while implementing A-board/LED board and billboard ads in the Munsu Football Stadium in Ulsan. In 2019, we repeated our 2017 success of hosting a friendly match between the Ulsan Hyundai Football Club and the Vietnamese national team in Hanoi, gaining publicity for 'Hyundai XTeer' and Hyundai Oilbank in that country.

We are also improving our corporate image by communicating better with the younger generations: in May 2018, we produced six commercials with the theme of 'Oh ~ Bang!', our brand slogan, and placed them on SPOTV, YouTube and other new media outlets. In addition, we have renewed our official Facebook and Instagram pages to actively communicate with younger audiences, and are encouraging the hopes and dreams of youth as the main sponsor of the Dream Concert. Going forward, Hyundai Oilbank will continue its efforts to connect better with its consumers.

Ensuring Friendliness and Cleanliness

Hyundai Oilbank undertakes service quality improvements based on its slogan 'Good Service Bank!' in order to build an image of clean and friendly gas stations. The company assigned customer service specialists, known as MDs, around the nation while operating service-dedicated teams for the first time in the domestic industry. A variety of promotions for each region have been offered, including performances, festivals, and alliances with discount stores. We also operate the 'Service Campaign' which supports the improvement of customer service by gas station operators and workers, and 'Service Monitoring', which assesses marketing activities and levels of service from a customer's perspective, and suggests improvements. In addition, a gas station customer service manual was developed, with an aim to provide standardize services.

As a result of these efforts, Hyundai Oilbank ranked first in the gas station category in the 2018 Korea Standard-Service Quality Index (KS-SQI) survey by the Korean Standards Association (KSA) for the fourth consecutive year. In addition, its call center earned top rating in the call center category in the Korean Service Quality Index (KSQI) from Korean Management Association Consulting (KMAC), for the tenth consecutive year. The company also ranked first in the Korean Standard-Contact Service Quality Index (KS-CQI) survey from the KSA for the seventh straight year.

Marketing Activities

Hyundai Oilbank responds to the changing market environment by accurately identifying the ever-changing needs of our consumers, and then undertaking marketing activities that reflect those needs.

Differentiated Customer Relationship Management

Hyundai Oilbank offers differentiated customer service through the analysis of bonus card customer needs. We operate a wide range of customer relationship management (CRM) programs that provide real benefits to Hyundai Oilbank Bonus Card holders. Our flagship CRM activities include the 'specialized CRM by customer' and the 'affiliate CRM'. The company also regularly runs distinctive promotions, such as the 'Happy Four Seasons Promotion', which offers bonus card customers useful benefits in each season of the year, and the 'Online Coupon Event', which offers coupons targeting gas station customers thus contributing to increasing customer loyalty.

Expanding Affiliate Marketing

Hyundai Oilbank is expanding the number of locations where its customer can accumulate and use bonus card points through partnerships with leading companies in different industries, including department stores, online shopping, automobiles, food and beverage, and restaurants. As such, Hyundai Oilbank carries out marketing activities which truly benefit its consumers while continuously strengthening alliances to expand non-oil businesses, including the gas station complex development.

Building Partnerships with Affiliate Service Stations

Hyundai Oilbank is strengthening its partnerships with affiliate service stations through the Partner Relationship Management (PRM) program, which provides premium services to gas station and LPG filling station owners. The company hosts a cultural event every year for owners and their families, to provide a special family experience, offers regular support programs, including discounts on health check-ups at major hospitals, and donates items for congratulatory and consolatory occasions. There is also the 'Visiting Barista' program, which provides free coffee to customers with an aim to invigorate promotions at gas stations. We also support joint purchasing so that gas station operators can purchase high-quality promotional items at the lowest price. In 2018, we introduced a "Honeymoon Program" to assist new gas stations. We also provide easy-to-read manuals (including safety management, marketing know-how, and business management) to help gas station operators manage their business sites.

Environmental Management

Hyundai Oilbank is strengthening its environmental management, with an aim to minimize its ecological footprints of its production while operating safety inspection and accident response programs to establish a safe work environment.

Integrated Environmental Management System

In order to minimize the environmental impact of its manufacturing activities, Hyundai Oilbank has established an integrated environmental management system, and makes continued investments into environmental facilities. The company has established environmental policies and uses them as guidelines for environmental management activities. The company has been certified with ISO 14001, an international standard on environmental management system, and operates its environmental management system based on international standards. Hyundai Oilbank has also built an integrated environmental information system that enables the company to efficiently and systematically manage data on the atmosphere, water quality, waste, chemicals, and training.

Major Areas of Integrated SHE System

Prior environmental impact assessment	Assess potential environmental impact from all management activities of the company and formulate corrective measures
Environmental goal management and disclosure	Inspect, review, and audit the progress with achieving environmental goals on a regular basis, and disclose goals
Compliance with environmental management regulations	Comply with environmental management regulations set forth by the International Convention on Environment, environmental laws and regulations in Korea, and Hyundai Oilbank
Prevention of environmental pollution	Establish environmental goals and improvement plans, and continuously improve processes and strengthen prevention and control capabilities to promote the prevention of environmental pollution
Ongoing training	Implement ongoing training and give motivation so that all employees fulfill their environmental protection responsibilities when conducting work

Major Environmental Management Activities

Environmental Investment
Hyundai Oilbank has built highly efficient pollution prevention facilities while periodically operating road sweepers in order to reduce fine dust on the roads surrounding our facilities. We concluded a voluntary agreement on fine dust reductions with the Chungcheongnam-do Province in 2017 and the Ministry of Environment in 2019, and plan to continuously increase our investment in these activities.

Responding to Climate Change
Hyundai Oilbank aims to reduce greenhouse gas emissions through energy intensity management, process improvements, waste heat recovery, and operational improvements. In addition, the company is an active participant in the Korean government's emissions trading scheme, thus taking the lead in creating a low-carbon society.

Environmental Conference and Inspections
Hyundai Oilbank regularly conducts safety and environmental inspections, and runs the Safety and Environmental Conference, all in effort to prevent and remove safety and environmental risks as part of its commitment to accident prevention and mitigation.

Safety and Environmental Inspections

- Ascertain environmental risk factors through prior inspections
- Manage the results of implementing action plans following environmental inspections
- Confirm compliance with environmental laws, regulations, and guidelines
- Carry out on-site checks on facility management
- Conduct semiannually: Directly-run service stations, logistics centers, Safety & Production Division

Safety and Environmental Conference

- Establish safety and environmental investment plans and identify execution results
- Establish measures for major pending issues
- Monitor pollutant discharge concentration by discharge facility
- Share revisions to important laws and regulations
- Hold every quarter: Sales Division, Safety & Production Division, Subsidiaries

Chemical Emergency Response Programs

With an aim to promptly respond to any chemical incidents and minimize damage to the environment, Hyundai Oilbank has established and operates the Chemical Safety Team (CST) in partnership with the Geum River Basin Environmental Office of the Ministry of Environment and other companies in the Daesan Industrial Complex. In addition, the company has overhauled its incident response manual to improve in-house prevention and control capabilities, and holds prevention and control drills for potential accident scenarios according to the company's annual plans.

CST

Ministry of Environment (Geumgang River Basin Environmental Office), Hyundai Oilbank, LG Chemical, Hanwha Total Petrochemical, LOTTE Chemical, KCC

Major roles

- Provide information on the accident location and chemi cals, in the event of a chemical accident
- Provide control equipment from each company and assist in control outside hazard sites in the event of an accident
- Share information inside the regional industrial complex and form an emergency communications network

CSR Management

Hyundai Oilbank is engaged in carrying out its corporate social responsibilities through its 1% Nanum Foundation. We are creating a bright and healthy society by conducting a wide variety of volunteer activities participated in by our employees and their families and by gas stations.

Hyundai Oilbank 1% Nanum Foundation

The Hyundai Oilbank 1% Nanum Foundation was established in September 2011, when staff at the company came to the decision to donate 1% of their salaries to help those in need. Hyundai Oilbank therefore became the first large corporation in South Korea to donate 1% of employee salaries every month. The foundation has contributed to the culture of sharing joined by other companies, gas station owners and staff families. All of our business cards carry the phrase ‘a company sharing 1% of salaries’, which reflects the pride that our employees have in this initiative. The foundation is actively carrying out a wide range of CSR projects to help those in need. These projects include providing heating oil and facility renovations to energy vulnerable groups, delivering lunches to the elderly, and helping children in underdeveloped countries.

현대오일뱅크 1% 나눔재단

Vision of Hyundai Oilbank 1% Nanum Foundation

By adding ‘99% hopeful energy’ to the ‘value of sharing 1% of salaries’, we are aiming to help the underprivileged and build a more warm-hearted society.

Major CSR Activities

Seosan regional rice-purchasing program

Rockfish re-stocking program

Hunger-free program for seniors

Family invitation for car wash attendants with disabilities

Supporting Local Communities

Hyundai Oilbank runs various CSR programs to build win-win relationships with residents in Seosan, where its headquarters is located. The company has operated a local rice-purchasing program since 2003 to help lift incomes of local farmers, buying an annual KRW 1 billion worth of rice produced in the region. We have also run an annual rockfish re-stocking program since 2002 with approximately 150,000 rockfish being released into nearby waters to increase the incomes of fishermen, and to promote the local economy. The rockfish re-stocking program has become a leading local festival called the ‘Samgilpo Rockfish Festival’, and is contributing to attracting tourists to the region. Hyundai Oilbank also undertakes coastal clean-ups in the Samgilpo area as part of its efforts to protect the marine environment.

Launched in 2003, the Hyundai Oilbank Scholarship Foundation offers scholarships worth KRW 50 million annually to junior high school, high school, and university students from low-income families living near its headquarters.

In September 2011, the construction of Hyundai Daejuk Park was completed on a 17,400m^2 site that includes a natural grass soccer field, basketball and volleyball courts, and facilities for regular exercise and relaxation. The park is open to local residents for free. In June 2014, Hyundai Oilbank developed an ecological park and hiking trails at the Hwagok Reservoir Park in Seosan, giving local residents a pleasant nearby area for relaxation. We also put aside KRW 50 million for the park's continued maintenance including flower tree planting and coastal maintenance, thereby contributing to community development.

Volunteer Activities

Employees of Hyundai Oilbank have provided more than 5,000 hours of community service every year since 2005 through the ‘Sharing Happiness Volunteer Program’. They visit places in need of helping hands, and the company makes a financial contribution to the charities its employees support, giving a grant of KRW 10,000 per volunteer hour. In addition, the company donates up to KRW 2 million worth of supplies to the charities. Our new employees who sign a pledge for the 1% sharing of monthly salaries assemble and present solar lanterns to underdeveloped countries. Our employees also transform themselves into Santa Claus for a day for children at the end of the year.

Public Service and Support Programs

Hyundai Oilbank’s ‘One Company, One Military Unit’ program supports the Yeonpyeong Unit of the Marine Corps by carrying out morale boosting activities and inviting the Unit’s members to the company’s events. During winter, Hyundai Oilbank provides heating oil to small-scale social welfare facilities and low-income households. In addition, scholarships are offered to the children of cargo transporter drivers in need and coast guards.

Hiring the Disabled

Hyundai Oilbank has been an active participant in a job creation program for the disabled, in partnership with the Korea Employment Agency for the Disabled since 2003. The company hires disabled people, including some with severe challenges, to be car wash attendants at its directly-run gas stations. A total of 19 disabled employees have been working as car wash attendants at eleven directly-run gas stations for more than ten years. The company has also supported family invitation events for these employees every year, including VR experience and outings to amusement parks and arboretums.

FINANCIAL REVIEW

Management Discussion & Analysis

Disclaimer on Forward-Looking Statements

This report contains forward-looking statements related to future activities, events, and developments that reflect the company's expectations regarding its financial results and business conditions at the time of this publication. These forward-looking statements are based on multiple predictions regarding the future business environment and may prove to be incorrect. Actual results may differ materially due to various risks and uncertainties underlying the company's assumptions. Such risks and uncertainties include, but are not limited to, changes in the company's internal management and in the external environment.

Hyundai Oilbank undertakes no obligation to publicly update or revise any forward-looking statements to reflect risks or uncertainties that have occurred after the publication of this report. Consequently, the company can give no assurance that the circumstances or events presented in these forward-looking statements will take place as forecast, as they are based on expectations at the time of writing. The company will not provide an update on any changes to its risk factors or forward-looking statements after the publication date.

I. Economic & Market Overview

1. 2018 Economic Overview

In 2018, the global economic growth weakened slightly compared to the previous year due to global trade disputes, US interest rate hikes, and increasing uncertainties relating to Brexit. Domestic economic growth also declined year-on-year due largely to the negative effects of global trade disputes and monetary tightening policies centering on developed countries, plus weakening household consumption following employment contraction, and continuously sluggish construction and facility investments at home.

2. Market Overview

1) International Crude Oil Price and Foreign Exchange Rate

The international crude oil market is characterized by limited availability, concentrated regional production, uncertain supply and demand, and price volatility. It can be described as a seller's market, with the market controlled by major sellers.

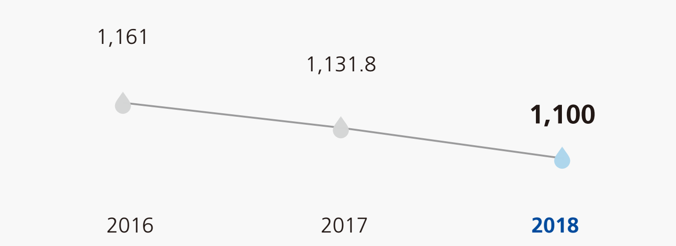
Major oil producing nations are clustered in the Middle East, with oil producing countries of the Middle East accounting for 75% of the world's proven reserves and 40% of the world's annual production. Since most of the Middle Eastern oil producing countries are members of OPEC, the organization has had enormous influence in the international oil markets. However, non-OPEC producers are rapidly increasing their market share, giving them expanding influence over prices due in particular to a rise in shale oil production.

In 2018, oil prices rose from the previous year due to production disruptions in Venezuela and the resumption of US sanctions on Iran. However, Dubai oil prices plummeted to USD 53 at the end of the year because of concerns about oversupply. This was primarily caused by the global economic slowdown, production increases in Saudi Arabia and Russia, and expanded US crude inventory in the fourth quarter.

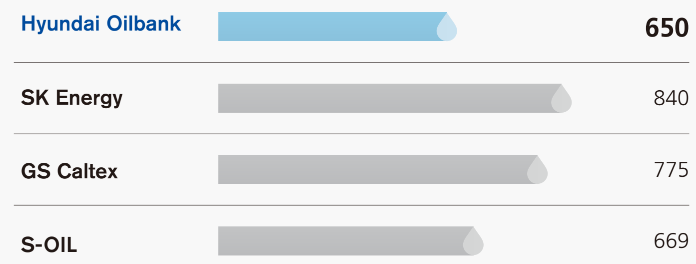
In 2019, the volatility of international oil prices is expected to continue to increase, reflecting concerns about a slowdown in demand for crude oil and the implementation of a production cut agreement by oil-producing countries. However, it will likely show a rise in the first half of the year and a decline in the second half, since the OPEC shows strong will to cut output, led by Saudi Arabia, and the US production increase is forecast to accelerate in the second half.

The won/dollar exchange rate displayed a decline in the first half and a rise in the second half of 2018, driven by the US interest rate hike and the US-China trade dispute. The exchange rate in the first half of the year showed a relatively stable trend within the range between KRW 1,050 and KRW 1,100 thanks to the stronger won, due mainly to optimism about the global economy and summit talks between the North and South Korea. The exchange rate surged after June, however, as the US dollar strengthened following a rise in the US bond yields and the US-Chinese trade tariffs were introduced. At the end of the year, the global economy slowed, the US Federal Reserve signaled a possible slowdown in the rate hike, and the dollar weakened. Consequently, the won/dollar exchange rate closed the year at KRW 1,118.1.

Average Foreign Exchange Rate (Unit: KRW/USD)



Refining Capacity (Unit: Thousand barrels/day)



* Including 130,000 barrels of Hyundai Chemical's condensate splitter

In 2019, the won/dollar exchange rate will likely rise slightly driven by the global economic slowdown and the prolonged US-China trade disputes. However, South Korea's economic fundamentals remain relatively satisfactory when compared to other emerging economies. Accordingly, the won/dollar exchange rate is anticipated to fluctuate between KRW 1,050 and KRW 1,150.

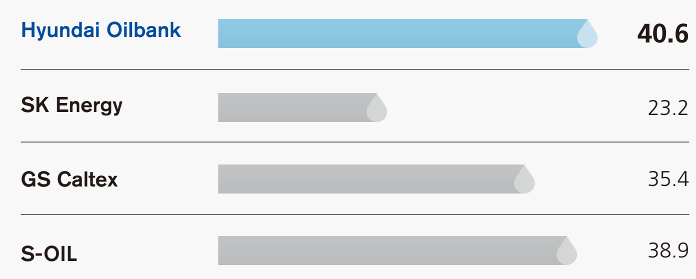
2) Overview of the Domestic Oil Refining Industry

The South Korean oil refining industry has the world's sixth-largest crude refining capacity, thanks to large-scale refinery expansion projects in the early 1990s. These facilities enable economies of scale and give the domestic oil refining industry a competitive advantage in exports. In fact, the South Korean oil refining industry is not domestic demand-oriented any more, and exports more than half of its total production.

In 2018, the South Korean oil refining industry was able to enjoy a favorable market environment as refining margins improved from the previous year due to an upturn in international oil prices during the first half of the year. Operating profit fell year-on-year, however, as earnings diminished following plunges in oil prices and gasoline and naphtha cracks in the fourth quarter.

The combined refining margins are expected to remain robust in 2019 as the effects of the IMO regulations to be implemented in 2020 will become full scale in the second half of the year despite the scheduled large-scale refining capacity expansion around the world. There are also uncertainties, including geopolitical risks and the potential for a downfall in oil prices following the expansion of shale oil production in the United States and a failure in implementing the OPEC's agreement to reduce production. Given the uncertainties in the petroleum product market, Hyundai Oilbank plans to strengthen its competitiveness through a wide range of sales strategies including exports diversification and quality improvement; sustained heavy oil upgrading; and investments in the expansion of production capacity.

Upgrading Ratio (Unit: %)



Management Discussion & Analysis

II. Business Results

1. Operating Performance

(Unit: KRW billion)

	2018	2017	Change	
1. Sales	**21,503.6**	16,387.3	5,116.3	31.2%
2. Cost of Goods Sold	**20,431.5**	14,830.7	5,600.8	37.8%
3. Gross Profit	**1,072.1**	1,556.6	-484.5	-31.1%
4. Selling and Administrative Expenses	**411.1**	418.8	-7.7	-1.8%
5. Operating Profit	**661.0**	1,137.8	-476.8	-41.9%
6. Non-Operating Income (Expenses)	**-123,5**	95.2	-218.7	-229.7%
7. Profit before income tax	**537.5**	1,233.0	-695.5	-56.4%
8. Income Tax Expense	**-133.7**	-295.1	161.4	-54.7%
9. Net Income	**403.8**	937.9	-534.1	-56.9%
Operating Margin	**3.1%**	6.9%	-3.8%p	-55.1%
Net Margin	**1.9%**	5.7%	-3.8%p	-66.7%

※ Based on consolidated financial statements

To respond to the challenges of international oil price fluctuations and the economic uncertainties at home and abroad, Hyundai Oilbank has focused on improving profitability across the range of its businesses, from importing crude oil to production and sales, with the goal to achieve the best possible efficiency. The company also strived to diversify its business portfolio through the early settlement of new businesses.

On-site, Hyundai Oilbank has carefully managed its refining margins by flexibly adjusting its plant operating capacity, and focusing on maintaining the most efficient product inventories throughout the year. In addition, we have undertaken an economic analysis of each demand channel, for both domestic sales and exports to maximize earnings from sales through channels with outstanding margins.

We will continue our efforts to improve profitability through the stable operation of our highly profitable upgrading facilities and continuous cost reductions.

Hyundai Oilbank has built its competitive edge through continued commitment to management improvement.

First, productivity was enhanced thanks to the energy savings from the installation of fluidized bed combustion (FBC) boilers, waste heat recovery, and energy consulting, as well as process automation and increased efficiency in upgrading processes.

Second, Hyundai Oilbank has solidified the cost competitiveness of its crude oil imports. The company has expanded imports of crude oil products from sources other than the Middle East, including the Forties Oil Field in the North Sea, Sokol in Russia, and Maya and Isthmus in Mexico. It has also increased imports of supplementary materials by developing basic new materials, such as C5C6 and solvent xylene.

Third, Hyundai Oilbank has made continual investments to establish best upgrading facilities in Korea. Furthermore, the company has operated its facilities safely, achieving 13 million work hours with no accidents. Based on its accumulated expertise, Hyundai Oilbank now has the ability to maximize its revenues through the stable operation of its state-of-the-art facilities.

2. Sales Analysis

1) Sales

In recent years, the demand for petroleum products has slowed down and low oil prices continue due mainly to the shale band. Hyundai Oilbank has focused on balanced market management of domestic consumption and exports, while responding flexibly to market conditions. The company has therefore enhanced its sales competitiveness by diversifying sales channels and developing new channels, improved profitability by building competitive sales networks, and created new revenue models by reinforcing its ability to incorporate new businesses.

2) Sales by Channel

The company adjusts sales flexibly to react proactively to market changes while applying sales strategies that are appropriate for each channel to maximize profitability.

Retail Sales

Hyundai Oilbank sells its products to gas stations, agencies, the National Agricultural Cooperative Federation, general stores, LPG filling stations, and other retail sales channels through which light and middle distillate oil is mainly supplied. The retail sales channel is the main channel that the company is seeking to expand in strategic regions in Korea, as well as increasing sales through more advertising and mass promotions. The company also strives to build its brand value by ensuring friendly and clean services at gas stations, and to increase operating profits and asset values through the development of gas station complexes.

Direct Sales

Direct sales channels include industrial firms, the military and government, and tender sales. The company provides corporate customers with a variety of products, such as marine fuel oil, jet fuel, asphalt and naphtha, unlike retail sales which deal primarily with the supply of light and middle distillate oil. In addition, we strive to create new revenue sources by developing special oil types and finding new clients.

Exports

Exports have increased steadily thanks to the increasing operating capacity ratio and a more diverse range of export products since the expansion of heavy oil upgrading (HOU) facilities. Given the increasingly close interconnection between the domestic and overseas marketplaces, Hyundai Oilbank focuses on maximizing profits by optimizing its domestic sales and exports portfolio. The company is also aiming to grow by exporting gasoline to Vietnam, and starting a bunkering business in Singapore.

3) Sales by Product

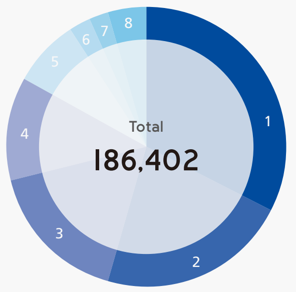
With the beginning of operations at the HOU plants, Hyundai Oilbank's upgrading ratio rose from 36.7% in 2014 to 40.6% in 2018, the highest in Korea. As a result, the percentage of sales from light and middle distillate oil products, including gasoline, jet fuel, kerosene, and light oil has remained stable. In terms of product sales by volume, light oil led with 35.6% of the total, followed by naphtha, gasoline, and fuel oil. The HOU plants have allowed the company to produce more high-value-added products, which in turn has improved competitiveness and profitability.

Sales by Product (Unit: Thousand barrels)

2018

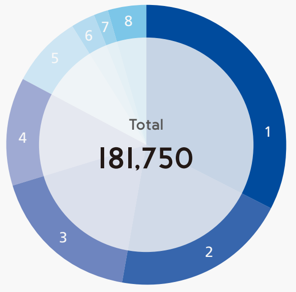
1. Gas Oil	65,023	35.6%
2. Naphtha	48,888	21.1%
3. Gasoline	33,986	17.3%
4. Fuel Oil	20,636	9.3%
5. Jet Fuel	16,009	8.4%
6. Kerosene	4,703	2.6%
7. LPG	4,053	1.4%
8. Others	9,016	4.3%

2017



1. Gas Oil	60,673	32.5%
2. Naphtha	41,000	22.0%
3. Gasoline	31,140	16.7%
4. Fuel Oil	22,323	12.0%
5. Jet Fuel	14,244	7.6%
6. Kerosene	4,982	2.7%
7. LPG	3,748	2.0%
8. Others	8,292	4.4%

2016



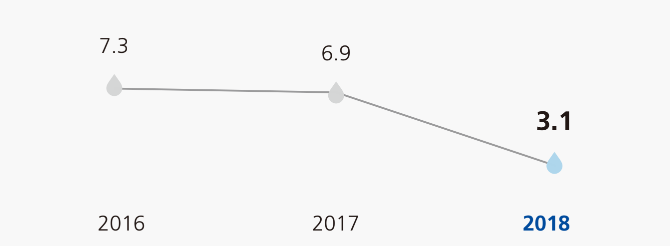
1. Gas Oil	59,417	32.7%
2. Naphtha	36,714	20.2%
3. Gasoline	32,014	17.6%
4. Fuel Oil	22,346	12.3%
5. Jet Fuel	15,226	8.4%
6. Kerosene	5,152	2.8%
7. LPG	3,214	1.8%
8. Others	7,667	4.2%

Management Discussion & Analysis

3. Profitability Analysis

The company has achieved strong operating profit margins thanks to its industry leading upgrading ratio, a considerable domestic market share for its refining capacity, and management strategies that focus on profitability. The company recorded satisfactory operating profits in 2014, despite a worsening external business environment, and had maintained record-long surplus streak for 25 consecutive quarters, thereby realizing stable operating profits. In 2018, Hyundai Oilbank maintained the industry's highest operating margin in the refining sector despite having recorded an operating deficit due to a large-scale loss from the valuation of inventory following a plunge in oil prices.

Operating Margin (Unit: %)



※ Based on consolidated financial statements

In the first half of 2019, the combined refining margins are expected to be weak compared to the same period of the previous year, as gasoline cracks continue to be sluggish due to an increase in US refinery operations, which enjoy the benefits of low-cost raw materials following the bearish West Texas Intermediate (WTI). However, oil prices are anticipated to rise, recovering from a supply glut in the first half of 2019. Light product cracks should rise following IMO regulations in the second half of the year, leading to a gradual improvement in operating performance.

In order to react to this mid- to long-term market outlook, Hyundai Oilbank will focus on maximizing profits by building new businesses, and will also pursue improvements in productivity, energy savings, high-margin overseas market development, and earnings improvements in each business division. The company expects to maintain outstanding profitability in 2019 by increasing efficiency across all areas of its business, from crude oil imports to production and sales.

4. Future Investment Analysis

Established in November 2011, the Hyundai Oilbank Central Technology R&D Institute pursues technological innovation and R&D with the aim of reinforcing the company's capabilities in its refining and petrochemical businesses, and to create future value by establishing new businesses.

Consisting of R&D 1 Team and 2 Team and Plant Support Team, the institute develops catalysts, provides technological assistance to the Daesan Refinery Plant, and carries out research in the use of desulfurization gypsum, in its efforts to boost the competitiveness of existing businesses. In addition, it is creating drivers of new growth by developing synthetic lube base oil and functional specialty products.

The institute is also involved in national projects, including carbon materials manufacturing technology development, using heavy oil, and the slurry hydro cracker process and catalyst development. By undertaking research projects jointly with the industrial, academic, and research sectors, and by engaging in technology exchanges with overseas research institutes, the Hyundai Oilbank Central Technology R&D Institute is both strengthening the competitiveness of existing businesses and developing engines for future growth.

5. Financial Status

1) Summary of Financial Position

The company's total assets amounted to KRW 11.745 trillion at the end of 2018, up 7.3% from the previous year. Current assets grew by 6.2% year-on-year to reach KRW 4.358 trillion. This was attributable to an increase in inventory due to an expansion in operating capacity, and a decrease in receivables arising from lower oil prices at the end of the year. There was an increase in tangible assets due to facility investments, which led to an 8.0% increase in Non-current assets to KRW 7.387 trillion. Current liabilities surged by 20.5% to KRW 4.578 trillion, due primarily to an increase in short-term borrowings. Non-current liabilities edged down by 1.9% to KRW 2.427 trillion, and total liabilities climbed by 12.6% to reach KRW 6.621 trillion. Total shareholders' equity was up 1.2% to KRW 5.124 trillion, and the liabilities-to-equity ratio rose by 13.1% points to 129.2%.

Key Financial Indicators

(Unit: KRW billion)

	2018	2017	Change	
Current Assets	**4,358.3**	4,103.6	254.7	6.2%
Non-current Assets	**7,386.5**	6,837.7	548.8	8.0%
Total Assets	**11,744.8**	10,941.3	803.5	7.3%
Current Liabilities	**4,578.0**	3,797.7	780.3	20.5%
Non-current Liabilities	**2,042.7**	2,081.7	-39.0	-1.9%
Total Liabilities	**6,620.7**	5,879.4	741.3	12.6%
Share Capital	**1,225.4**	1,225.4	0	0.0%
Hybrid Equity Securities	**224.3**	224.3	0	0.0%
Share Premium	**1.7**	1.7	0	0.0%
Accumulated Other Comprehensive Income	**228.6**	214.8	13.8	6.4%
Retained Earnings	**3,109.9**	3,064.2	45.7	1.5%
Non-controlling Interest	**334.2**	331.5	2.7	0.8%
Total Shareholders' Equity	**5,124.1**	5,061.9	62.2	1.2%
Liabilities-to-Equity Ratio	**129.2%**	116.1%	13.1%p	11.3%

※ Based on consolidated-financial statements

2) CAPEX

Hyundai Oilbank continues to make the investments needed to improve its position in the refining and petrochemical industry, and to create new value by building new businesses. The company is increasing the value of its existing businesses by expanding its crude refining and upgrading capacity. It is also operating new businesses, including establishing the solvent de-asphalting (SDA) process, constructing new boilers, and the lubricants business. In addition, the company is enhancing the efficiency of its investments, ensuring safe operations at its plants, making additional investments into its network, and continuing to invest into subsidiaries in order to diversify business. These investments are boosting Hyundai Oilbank's global competitiveness by developing engines for its mid- to long-term growth and by establishing sustainable revenues.

(Unit: KRW billion)

	2018	2017	Change	
New Investment	**460.7**	371.4	89.3	24.0%
Additional Investment	**247.2**	175.0	72.2	41.3%
Total	**707.9**	546.4	161.5	29.6%

※ Based on separate financial statements

6. Liquidity and Financing

1) Liquidity

Consisting of cash and cash equivalents and short-term financial assets, the company's liquidity stood at KRW 168.9 billion at the end of 2018. The company continuously monitors its liquidity in order to maintain it at an appropriate level and to satisfy capital requirements, including working capital requirements.

2) Financing

Hyundai Oilbank maintains a stable long-term financial structure through the issuance of corporate bonds and hybrid bonds. Total borrowings at the end of 2018 were KRW 3.261 trillion, a year-on-year increase of KRW 543.8 billion. This was caused by new investments to upgrade refining facilities and increase daily refining capacity and routine maintenances on #1 Plant. Total liabilities moved up by 12.6% over the year to stand at KRW 6.621 trillion at the end of 2018, and the liabilities to-equity ratio rose by 13.1% points to 129.2%.

Independent Auditors' Report

(Based on a report originally issued in Korean)

**To the Board of Directors and Shareholders of
Hyundai Oilbank Co., Ltd.**

Opinion

We have audited the consolidated financial statements of Hyundai Oilbank Co., Ltd. and its subsidiaries ("the Group"), which comprise the consolidated statements of financial position as of December 31, 2018, the consolidated statements of income and other comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2018, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Korean International Financial Reporting Standards ("K-IFRS").

Basis for Opinion

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

Other Matter

The consolidated financial statements of the Group as of December 31, 2017 and for the year then ended, including the retrospective adjustments described in Note 34 to the consolidated financial statements, which together form the basis for the comparative information, were audited by other auditors who expressed an unmodified opinion on those statements on March 9, 2018, except as to the retrospective adjustments described in Note 34 to the consolidated financial statements, which is as of July 6, 2018.

The procedures and practices utilized in the Republic of Korea to audit such consolidated financial statements may differ from those generally accepted and applied in other countries.

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

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with K-IFRS, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

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

Auditors' Responsibilities for the Audit of the Separate Financial Statements

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

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

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

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

· Evaluate the appropriateness of accounting policies used in the preparation of the consolidated financial statements and the reasonableness of accounting estimates and related disclosures made by management.

· Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group to cease to continue as a going concern.

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

· Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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

Seoul, Korea
March 19, 2019

This report is effective as of March 19, 2019, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

Hyundai Oilbank Co., Ltd. and Subsidiaries
Consolidated Statements of Financial Position
December 31, 2018 and 2017

(In thousands of Korean won)

	Notes	December 31, 2018	December 31, 2017
Assets			
Current assets			
Cash and cash equivalents		**162,638,021**	148,231,468
Short-term financial assets	8	**6,300,000**	10,183,166
Financial assets at fair value through profit or loss	20	**210,024**	-
Derivative financial assets	20	**13,082,543**	43,847,366
Trade and other receivables	10,32	**1,348,515,254**	1,694,497,926
Inventories	11	**2,740,226,114**	2,118,970,938
Other current assets		**87,287,201**	87,850,579
		4,358,259,157	4,103,581,443
Non-current assets			
Investments in associates	12	**457,079,019**	382,028,112
Long-term financial assets	8	**1,023,000**	2,024,500
Available-for-sale financial assets	9	**-**	3,000,000
Trade and other receivables	10	**129,322,184**	114,143,596
Investment properties	13	**10,634,973**	10,634,973
Property, plant and equipment	14	**6,677,979,279**	6,199,156,466
Intangible assets	15	**95,689,938**	96,379,356
Deferred tax assets	29	**3,705,402**	521,921
Other non-current assets		**11,114,449**	29,853,842
		7,386,548,244	6,837,742,766
Total assets		**11,744,807,401**	10,941,324,209

Hyundai Oilbank Co., Ltd. and Subsidiaries
Consolidated Statements of Financial Position, Continued
December 31, 2018 and 2017

(In thousands of Korean won)

	Notes	December 31, 2018	December 31, 2017
Liabilities			
Current liabilities			
Short-term financial liabilities	17	**1,573,656,843**	1,015,431,307
Financial liability at fair value through profit or loss	20	**23,911**	-
Derivative financial liabilities	20	**4,238,136**	52,125,144
Trade and other payables	16,32	**2,758,191,024**	2,485,296,334
Current tax liabilities	29	**71,146,385**	192,603,446
Provisions	19	**96,439,367**	2,535,000
Other current liabilities		**74,301,568**	49,707,202
		4,577,997,234	3,797,698,433
Non-current liabilities			
Long-term financial liabilities	17	**1,856,126,526**	1,860,017,024
Trade and other payables	16	**8,444,579**	7,963,539
Long-term provisions	19	**2,416,875**	4,061,800
Deferred income		**30,448,984**	29,293,634
Deferred tax liabilities	29	**138,354,248**	173,801,556
Other non-current liabilities		**6,957,112**	6,567,249
		2,042,748,324	2,081,704,802
Total liabilities		**6,620,745,558**	5,879,403,235
Equity attributable to owners of the Parent Company			
Share capital	21	**1,225,412,110**	1,225,412,110
Hybrid equity securities	22	**224,272,850**	224,272,850
Share premium		**1,698,271**	1,698,271
Accumulated other comprehensive income	23	**228,615,084**	214,828,147
Retained earnings	24	**3,109,867,157**	3,064,227,952
Non-controlling interest		**334,196,371**	331,481,644
Total equity		**5,124,061,843**	5,061,920,974
Total liabilities and equity		**11,744,807,401**	10,941,324,209

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

Hyundai Oilbank Co., Ltd. and Subsidiaries
Consolidated Statements of Income
Years Ended December 31, 2018 and 2017

(In thousands of Korean won)

	Notes	2018	2017
Revenue	7,32	**21,503,643,132**	16,387,306,976
Cost of sales	26,32	**20,431,523,587**	14,830,724,480
Gross profit		**1,072,119,545**	1,556,582,496
Selling and administrative expenses	25, 26	**411,083,184**	418,749,926
Operating profit		**661,036,361**	1,137,832,570
Finance income	27	**47,807,134**	107,502,628
Finance costs	27	**175,506,965**	92,493,645
Other non-operating income	28	**246,537,620**	186,419,694
Other non-operating expenses	28	**335,349,419**	205,373,596
Share of profit of associates and joint ventures	12	**92,949,192**	99,066,800
Profit before income tax		**537,473,923**	1,232,954,451
Income tax expense	29	**133,666,562**	295,005,257
Profit for the year		**403,807,361**	937,949,194
Profit is attributable to:			
Owners of the Parent Company		**402,009,631**	861,802,708
Non-controlling interest		**1,797,730**	76,146,486
Basic earnings per share (in Korean won)	30	**1,596**	3,472

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

Hyundai Oilbank Co., Ltd. and Subsidiaries
Consolidated Statements of Comprehensive Income
Years Ended December 31, 2018 and 2017

(In thousands of Korean won)

	2018	2017
Profit for the year	**403,807,361**	937,949,194
Other comprehensive income		
Items that that may be subsequently reclassified to profit or loss:		
Cash flow hedges	**14,603,590**	(4,664,653)
Share of other comprehensive income of associates	**111,297**	313,007
Exchange differences	**1,687,304**	(3,913,862)
Items that will not be reclassified to profit or loss:		
Remeasurements of net defined benefit liabilities	**(4,176,210)**	11,117,972
Share of other comprehensive loss of associates	**(9,582)**	(71,424)
Gain (loss) on revaluation of land	**-**	(9,364,075)
Other comprehensive income for the year	**12,216,399**	(6,583,035)
Total comprehensive income for the year	**416,023,760**	931,366,159
Total comprehensive income for the year is attributable to:		
Owners of the Parent Company	**413,309,033**	855,725,901
Non-controlling interest	**2,714,727**	75,640,258
	416,023,760	931,366,159

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

Hyundai Oilbank Co., Ltd. and Subsidiaries
Consolidated Statements of Changes in Equity
Years Ended December 31, 2018 and 2017

(In thousands of Korean won)

	Share capital	Hybrid Equity securities	Share premium	Accumulated Other comprehensive Income	Retained Earnings	Non-controlling Interest	Total
Balance at January 1, 2017	1,225,412,110	224,272,850	1,698,271	232,162,893	2,496,033,711	255,841,386	4,435,421,221
Total comprehensive income for the period							
Profit for the period	-	-	-	-	861,802,708	76,146,486	937,949,194
Cash flow hedges	-	-	-	(3,883,295)	-	(781,358)	(4,664,653)
Remeasurements of net defined benefit liabilities	-	-	-	-	10,842,842	275,130	11,117,972
Share of other comprehensive income of associates and joint ventures	-	-	-	241,583	-	-	241,583
Exchange differences	-	-	-	(3,913,862)	-	-	(3,913,862)
Gain(loss) on revaluation of land	-	-	-	(9,779,172)	415,097	-	(9,364,075)
Transactions with owners							
Dividends	-	-	-	-	(294,098,906)	-	(294,098,906)
Dividends of hybrid equity securities	-	-	-	-	(10,767,500)	-	(10,767,500)
Balance at December 31, 2017	1,225,412,110	224,272,850	1,698,271	214,828,147	3,064,227,952	331,481,644	5,061,920,974
Balance at January 1, 2018	**1,225,412,110**	**224,272,850**	**1,698,271**	**214,828,147**	**3,064,227,952**	**331,481,644**	**5,061,920,974**
Total comprehensive income for the period							
Profit for the period	-	-	-	-	402,009,631	1,797,730	403,807,361
Cash flow hedges	-	-	-	13,446,706	-	1,156,884	14,603,590
Remeasurements of net defined benefit liabilities	-	-	-	-	(3,936,323)	(239,887)	(4,176,210)
Share of other comprehensive income of associates and joint ventures	-	-	-	101,715	-	-	101,715
Exchange differences	-	-	-	1,687,304	-	-	1,687,304
Gain(loss) on revaluation of land	-	-	-	(1,448,788)	1,448,788	-	-
Transactions with shareholders							
Dividends paid	-	-	-	-	(343,115,391)	-	(343,115,391)
Dividends of hybrid equity securities	-	-	-	-	(10,767,500)	-	(10,767,500)
Balance at December 31, 2018	**1,225,412,110**	**224,272,850**	**1,698,271**	**228,615,084**	**3,109,867,157**	**334,196,371**	**5,124,061,843**

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

Hyundai Oilbank Co., Ltd. and Subsidiaries
Consolidated Statements of Cash Flows
Years Ended December 31, 2018 and 2017

(In thousands of Korean won)

	Notes	2018	2017
Cash flows from operating activities			
Cash generated from operations			
Profit for the period		**403,807,361**	937,949,194
Adjustments	31	**724,013,827**	602,587,202
Changes in operating assets and liabilities	31	**(173,119,953)**	(428,456,821)
		954,701,235	1,112,079,575
Interest received		**4,287,261**	4,995,080
Interest paid		**(98,812,196)**	(80,553,737)
Dividend received		**18,000,000**	-
Income tax paid		**(300,464,143)**	(246,294,778)
Net cash inflow from operating activities		**577,712,157**	790,226,140
Cash flows from investing activities			
Increase in short-term financial assets		**(12,019,926)**	(11,294,438)
Decrease in short-term financial assets		**15,903,091**	16,171,614
Decrease (increase) in financial assets at fair value through profit or loss		**(4,743,371)**	3,908,271
Decrease in long-term financial assets		**1,001,500**	2,500
Payment for acquisition of property, plant and equipment		**(758,966,940)**	(751,701,711)
Proceeds from disposal of property, plant and equipment		**6,705,877**	6,673,103
Payment for acquisition of intangible assets		**(20,338)**	(43,430)
Proceeds from disposal of intangible assets		**-**	354,545
Increase in loan and receivables		**(29,395,935)**	(14,998,734)
Collection of loans and receivables		**14,246,823**	16,626,535
Net cash outflow from investing activities		**(767,289,219)**	(734,301,745)

Hyundai Oilbank Co., Ltd. and Subsidiaries
Consolidated Statements of Cash Flows
Years Ended December 31, 2018 and 2017

(In thousands of Korean won)

	Notes	2018	2017
Cash flows from financing activities			
Proceeds from short-term financial liabilities		**10,114,361,624**	4,858,664,931
Repayments of short-term financial liabilities		**(9,600,694,052)**	(4,857,252,634)
Repayments of current portion of long-term financial liabilities		**(2,087,507)**	(17,027,096)
Repayments of current portion of bonds		**(320,000,000)**	(380,000,000)
Proceeds from Issuance of bonds		**348,634,720**	338,974,960
Proceeds from long-term financial liabilities		**16,700,000**	155,903,099
Dividends of hybrid capital securities		**(10,767,500)**	(10,767,500)
Dividends paid		**(343,115,391)**	(294,098,906)
Net cash inflow (outflow) from financing activities		**203,031,894**	(205,603,146)
Net increase (decrease) in cash and cash equivalents		**13,454,832**	(149,678,751)
Cash and cash equivalents at the beginning of the period		**148,231,468**	300,571,957
Effects of exchange rate changes on cash and cash equivalents		**951,721**	(2,661,738)
Cash and cash equivalents at the end of the period		**162,638,021**	148,231,468

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

Notes to the Consolidated Financial Statements

December 31, 2018 and 2017

Hyundai Oilbank Co., Ltd. and Subsidiaries

1. General Information

Hyundai Oilbank Co., Ltd. (the Company) was established in 1964 to engage in the production and sale of petroleum products. The Company and its production facilities are located in Daesan, South Chungcheong Province. The Company and its subsidiaries (collectively referred to as "the Group") have a production capacity of 520,000 barrels per stream day (BPSD) in petroleum and 130,000 barrels per stream day (BPSD) in condensate processing.

As at December 31, 2018, Hyundai Heavy Industries Holdings Co., Ltd. (formerly, Hyundai Robotics Co., Ltd.) owns 91.13% of the Company's total outstanding shares. The shares of the Company held by Hyundai Heavy Industries Co., Ltd. were transferred to Hyundai Heavy Industries Holdings Co., Ltd. (formerly, Hyundai Robotics Co., Ltd.), a newly established entity through equity spin-off from Hyundai Heavy Industries Co., Ltd, on April 1, 2017. As a result, Hyundai Heavy Industries Holdings Co., Ltd. (formerly, Hyundai Robotics Co., Ltd.) became the Company's major shareholder.

The consolidated subsidiaries as at December 31, 2018 and 2017, are as follows:

Subsidiaries	Location	Ownership interest held by the Group (%)		Business
		December 31, 2018	December 31, 2017	
HDO Singapore Pte. Ltd.	Singapore	100%	100%	Petroleum trading
MS Dandy Ltd.	Marshall Islands	100%	100%	Ships leasing
Hyundai Oil Terminal Co., Ltd.	Korea	100%	100%	Oil storage industry
Hyundai Oilbank (Shanghai) Co., Ltd.	China	100%	100%	Petroleum trading
Hyundai Chemical Co., Ltd.	Korea	60%	60%	Crude petroleum refining
Grande Ltd.	Marshall Islands	100%	100%	Ships leasing
HYUNDAI OCI Co., Ltd.	Korea	51%	51%	Carbon black production

Notes to the Consolidated Financial Statements

December 31, 2018 and 2017

Summarized financial information for consolidated subsidiaries as at December 31, 2018 and 2017 and for the periods ended December 31, 2018 and 2017, is as follows:

(in thousands of Korean won)

Subsidiaries	December 31, 2018		2018	
	Assets	Liabilities	Sales	Profit (loss) for the period
HDO Singapore Pte. Ltd.	528,860,911	472,015,672	6,952,332,279	15,669,057
MS Dandy Ltd.	15,388,932	1,342	1,297,749	357,160
Hyundai Oil Terminal Co., Ltd.	126,412,248	14,473,456	39,266,655	8,314,116
Hyundai Oilbank (Shanghai) Co., Ltd.	27,112,973	24,437,947	151,003,802	(1,978,495)
Hyundai Chemical Co., Ltd.	1,882,677,202	1,185,913,599	4,152,627,249	(5,946,700)
Grande Ltd.	24,320,889	16,746,603	2,246,033	195,137
HYUNDAI OCI Co., Ltd.	270,414,059	156,347,681	136,120,826	8,606,103

(in thousands of Korean won)

Subsidiaries	December 31, 2017		2017	
	Assets	Liabilities	Sales	Profit (loss) for the period
HDO Singapore Pte. Ltd.	439,269,235	407,310,217	4,257,161,250	7,178,367
MS Dandy Ltd.	14,398,400	1,286	1,358,524	174,940
Hyundai Oil Terminal Co., Ltd.	121,472,920	11,745,280	32,887,166	6,874,821
Hyundai Oilbank (Shanghai) Co., Ltd.	50,770,806	46,135,356	271,571,301	(793,695)
Hyundai Chemical Co., Ltd.	2,032,676,533	1,332,304,467	3,373,580,260	186,559,707
Grande Ltd.	24,583,534	17,515,617	2,138,453	158,983
HYUNDAI OCI Co., Ltd	230,962,258	125,464,640	53,625,632	3,009,411

2. Significant Accounting Policies

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

2.1 Basis of Preparation

The Group maintains its accounting records in Korean won and prepares statutory financial statements in the Korean language (Hangul) in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS). The accompanying consolidated financial statements have been condensed, restructured and translated into English from the Korean language financial statements.

The consolidated financial statements of the Group have been prepared in accordance with Korean IFRS. These are the standards, subsequent amendments and related interpretations issued by the International Accounting Standards Board (IASB) that have been adopted by the Republic of Korea.

The preparation of financial statements requires the use of critical accounting estimates. Management also needs to exercise judgment in applying the Group's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 3.

2.2 Changes in Accounting Policy and Disclosures

2.2.1 New and amended standards adopted by the Group

The Group has applied the following standards and amendments for the first time for their annual reporting period commencing January 1, 2018.

(1) Amendments to Korean IFRS 1028 Investments in Associates and Joint Ventures

When an investment in an associate or a joint venture is held by, or is held indirectly through, an entity that is a venture capital organization, or a mutual fund, unit trust and similar entities including investment-linked insurance funds, the entity may elect to measure that investment at fair value through profit or loss in accordance with Korean IFRS 1109. The amendments clarify that an entity shall make this election separately for each associate of joint venture, at initial recognition of the associate or joint venture. The Group does not believe the amendments had any significant impact on the consolidated financial statements because the Group is not a venture capital organization.

(2) Amendments to Korean IFRS 1040 Transfers of Investment Property

Paragraph 57 of Korean IFRS 1040 clarifies that a transfer to, or from, investment property, including property under construction, can only be made if there has been a change in use that is supported by evidence, and provides a list of circumstances as examples. The amendment will be effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Group does not believe the amendment had any significant impact on the consolidated financial statements.

(3) Amendments to Korean IFRS 1102 Share-based Payment

Amendments to Korean IFRS 1102 clarify accounting for a modification to the terms and conditions of a share-based payment that changes the classification of the transaction from cash-settled to equity-settled. Amendments also clarify that the measurement approach should treat the terms and conditions of a cash-settled award in the same way as for an equity-settled award. The Group does not believe the amendments had any significant impact on the consolidated financial statements.

(4) Enactments to Interpretation 2122 Foreign Currency Transaction and Advance Consideration

According to these enactments, the date of the transaction for the purpose of determining the exchange rate to use on initial recognition of the related asset, expense or income (or part of it) is the date on which an entity initially recognizes the non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration. The Group does not believe the enactments had any significant impact on the consolidated financial statements.

(5) Enactments to Korean IFRS 1109 Financial Instruments

The Group has adopted Korean IFRS 1109, 'Financial Instruments', on January 1, 2018 as the initial application date. The comparative financial statements have not been restated in accordance with the transitional provisions of Korean IFRS 1109 and the details of the impact of adopting Korean IFRS 1109 are explained in note 33.

Notes to the Consolidated Financial Statements

December 31, 2018 and 2017

(6) Enactment of Korean IFRS 1115 Revenue from Contracts with Customers

The Group has adopted the Korean IFRS 1115, 'Revenue from Contracts with Customers'. The comparative financial statements have not been restated in accordance with the transitional provisions of Korean IFRS 1115 and the adoption of Korean IFRS 1115 has not had a material impact on the financial statements.

2.2.2 New standards and interpretations not yet adopted by the Group

Certain new accounting standards and interpretations that have been published that are not mandatory for annual reporting period commencing January 1, 2018 and have not been early adopted by the Group are set out below.

- Korean IFRS 1116 Leases

Korean IFRS 1116 Leases issued on May 22, 2017 is effective for annual periods beginning on or after January 1, 2019, with early adoption permitted. This standard will replace Korean IFRS 1017 Leases. The Group will apply K-IFRS 1116 from the fiscal year beginning on January 1, 2019.

The new standard requires the lessee to recognize assets and liabilities for all leases for which the lease term is greater than 12 months and the underlying asset does not have a low value when new. The lessee must recognize right-of-use asset and lease liability, which represents the obligation to pay the lease payments.

In assessing the financial impact of the initial adoption of Korean IFRS 1116, the Group is analyzing the impact on the financial statements for 2018 based on the information and available information as of December 31, 2018. It is difficult to provide a reasonable estimate of the financial impact before the Group completes the analysis.

2.3 Consolidation

The Group has prepared the consolidated financial statements in accordance with Korean IFRS 1110, Consolidated Financial Statements.

2.3.1 Subsidiaries

Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

The acquisition method of accounting is used to account for business combinations by the Group. The consideration transferred is measured at the fair values of the assets transferred, and identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. The Group recognizes any non-controlling interest in the acquired entity on an acquisition-by-acquisition basis either at fair value or at the non-controlling interest's proportionate share of the acquired entity's net identifiable assets. All other non-controlling interests are measured at fair values, unless otherwise required by other standards. Acquisition-related costs are expensed as incurred.

The excess of consideration transferred, amount of any non-controlling interest in the acquired entity and acquisition-date fair value of any previous equity interest in the acquired entity over the fair value of the net identifiable assets acquired is recorded as goodwill. If those amounts are less than the fair value of the net identifiable assets of the business acquired, the difference is recognized directly in the profit or loss as a bargain purchase.

Intercompany transactions, balances and unrealized gains on transactions between group companies are eliminated. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

2.3.2 Changes in ownership interests in subsidiaries without change of control

The Group treats transactions with non-controlling interests that do not result in a loss of control as transactions with equity owners of the Group. A changed in ownership interest results in an adjustment between the carrying amounts of the controlling and non-controlling interest to reflect their relative interest in the subsidiary. Any difference between the amount of the adjustment to non-controlling interest and any consideration paid or received is recognized in a separate reserve within equity attributable to owners of the Parent Company.

2.3.3 Disposal of subsidiaries

When the Group ceases to consolidate for a subsidiary because of a loss of control, any retained interest in the subsidiary is re-measured to its fair value with the changes in carrying amount recognized in profit or loss.

2.3.4 Associates

Associates are entities over which the Group has significant influence but not control or joint control. Investments in associates are accounted for using the equity method of accounting, after initially being recognized at cost. Unrealized gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. If there is objective evidence of impairment for the investment in the associate, the Group recognizes the difference between the recoverable amount of the associate and its book value as impairment loss.

2.3.5 Joint Arrangements

A joint arrangement, wherein two or more parties have joint control, is classified as either a joint operation or a joint venture. A joint operator recognizes its direct right to the assets, liabilities, revenues and expenses of joint operations and its share of any jointly held or incurred assets, liabilities, revenues and expenses. Interests in joint ventures are accounted for using the equity method, after initially being recognized at cost in the consolidated statement of financial position.

2.4 Foreign Currency Translation

2.4.1 Functional and presentation currency

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

Notes to the Consolidated Financial Statements

December 31, 2018 and 2017

2.4.2 Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at year end exchange rates are generally recognized in profit or loss. Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined. Translation differences on assets and liabilities carried at fair value are reported as part of the fair value gain or loss.

2.4.3 Translation into the presentation currency

The results and financial position of foreign operations that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- assets and liabilities for each statement of financial position presented are translated at the closing rate at the end of the reporting period,
- income and expenses for each statement of income are translated at average exchange rates,
- all resulting exchange differences are recognized in other comprehensive income.

When foreign operations are wholly or partially sold, exchange differences recognized in equity are transferred to profit or loss in the statement of income. When the Group ceases to control the subsidiary, exchange differences that were recorded in equity are recognized in the statement of income as part of the gain or loss on sale.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate. Exchange differences arising are recognized in other comprehensive income.

2.5 Cash and cash equivalents

Cash and cash equivalents are composed of cash on hand, demand deposits and short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

2.6 Financial Assets

The Group adopted Korean IFRS 1109, 'Financial Instruments', effective from January 1, 2018.

2.6.1 Classification

The Group classifies financial assets into the following measurement categories:

- Financial assets recognized fair value through other comprehensive income,
- Financial assets recognized fair value through profit or loss,
- Financial assets recognized amortized cost.

The classification of financial assets is based on the business model in which the financial asset is managed and its contractual cash flow characteristics.

Gains or losses on financial assets measured at fair value are recognized in profit or loss or other comprehensive income. Investments in debt instruments are recognized in profit or loss or other comprehensive income in accordance with the business model in which the asset is held. The Group reclassifies debt instruments only if it changes the business model that manages financial assets.

The Group may make irrevocable election to designate that subsequent change in the fair value of investments in equity instruments other than short-term investments will be presented in other comprehensive income at initial recognition. Changes in the fair value of investments in undesignated equity instruments are recognized in profit or loss.

2.6.2 Measurement

The Group measures financial assets at their fair value at initial recognition. If financial assets are not financial assets recognized fair value through profit or loss, transaction costs that are directly attributable to the acquisition of that financial asset or to the issuance of that financial liability are added to the fair value of the financial assets. Transaction costs of financial assets recognized fair value through profit or loss are charged to profit or loss.

A composite contract that includes an embedded derivative considers the entire composite contract when determining whether contractual cash flows consist solely of principal and interest.

(1) Debt investment

Subsequent measurement of financial assets is based on the contractual cash flow characteristics of the financial asset and the business model for managing the financial asset. The Group classifies debt investment into three categories:

a. Amortization cost

Under a business model that is intended to hold to receive contractual cash flows, assets that hold financial assets and their contractual cash flows consist solely of principal and interest are recognized at amortized cost. The gain or loss on a financial asset measured at amortized cost, which is not subject to hedge accounting, is recognized in profit or loss when the financial asset is derecognized or impaired. Interest income on a financial asset recognized under the effective interest method is included in 'financial income'.

b. Financial assets recognized at fair value through other comprehensive income

Under a business model that achieves the objective through both receipt of contractual cash flows and sale of financial assets, assets that hold financial assets and their contractual cash flows consist solely of principal payments are recognized at fair value through other comprehensive income. The gain or loss of financial assets recognized at fair value through other comprehensive income, except for impairment losses (reversals) and interest income and foreign exchange gains and losses, are recognized in other comprehensive income. When a financial asset is derecognized, the cumulative gain or loss previously recognized is reclassified from equity to profit or loss. Interest income on financial assets recognized under the effective interest method is included in 'financial income'. Foreign exchange gains and losses are presented as 'Other income or other expense' and impairment loss is presented as 'Other expense'.

c. Financial assets recognized at fair value through profit or loss

Debt instruments which are not financial assets recognized at amortization cost or financial assets recognized at fair value through other comprehensive income are measured at fair value through profit or loss. The gain or loss on financial assets recognized at fair value through profit or loss, which is not subject to hedge accounting, is recognized in profit or loss and are reported as 'other income or other expenses' in the statement of income in the period in which they arise.

Notes to the Consolidated Financial Statements

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(2) Equity investment
The Group subsequently measures investment in all equity instruments at fair value. For equity investment for which changes in fair value are elected to be presented in other comprehensive income, the amounts recognized in other comprehensive income are not reclassified to profit or loss even when equity instruments are eliminated. Dividend income on these equity investment is recognized in profit or loss as 'financial income' when the entity's right to receive dividends is established.

Changes in the fair value of a financial asset recognized at fair value through profit or loss are presented as 'Other income or other expense' in the income statement. The impairment loss (reversal) of an equity investment measured at fair value through other comprehensive income is not separately recognized.

2.6.3 Impairment

The Group assesses expected credit losses on debt instruments recognized at amortized cost or fair value through other comprehensive income, based on forward-looking information. The method of impairment is determined by whether the credit risk increases significantly. However, for trade receivables, the Group applies the simplified method to recognize expected credit losses for the whole period from the date of initial recognition of the receivables.

2.6.4 Offsetting of financial instruments

Financial assets and liabilities are offset and the net amount is reported in the consolidated statements of financial position where there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or realize the assets and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Group or the counterparty.

2.6.5 Derecognition

If a transfer does not result in derecognition because the Group has retained substantially all the risks and rewards of ownership of the transferred asset, the Group continues to recognize the transferred asset in its entirety and recognizes a financial liability for the consideration received. The Group classified the financial liability as "borrowings" in the statement of financial position.

2.7 Derivative Financial Instruments

Derivatives are initially recognized at fair value on the date when a derivative contract is entered into and are subsequently re-measured at their fair value at the end of each reporting period. Changes in the fair value of any derivative instrument that does not qualify for hedge accounting are recognized immediately in profit or loss within 'other non-operating income (expenses)' based on the nature of transactions.

2.8 Inventories

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the moving average method (monthly average method) except Materials-in-transit.

2.9 Non-current Assets (or Disposal Group) Held for Sale

Non-current assets (or disposal group) are classified as held for sale when their carrying amount will be recovered principally through a sale transaction rather than through continuing use and a sale is considered highly probable. The assets are measured at the lower amount between their carrying amount and the fair value less costs to sell.

2.10 Property, Plant and Equipment

Land is shown at fair value based on valuations by external independent valuers. Valuations of land are made on regularity with which significant changes in fair value can occur, and a further revaluation is performed when the fair value of land differs materially from its carrying amount.

Property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment losses. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Land is not depreciated. Depreciation on assets is calculated using the straight-line method to allocate the difference between their cost and their residual values over their estimated useful lives, as follows:

	Useful lives
Buildings	25 - 50 years
Structures	25 - 50 years
Machinery	2 - 36 years
Vessels	15 years
Tools and fixtures	5 years
Vehicles	5 years
Others	2 - 6 years

The assets' depreciation method, residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

2.11 Borrowing Costs

General and specific borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset are capitalized during the period of time that is required to complete and prepare the asset for its intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization. Other borrowing costs are expensed in the period in which they are incurred.

2.12 Intangible Assets

Goodwill is measured as described in Note 2.3.1, and carried at cost less accumulated impairment losses.

Intangible assets, except for goodwill, are initially recognized at its historical cost, and carried at cost less accumulated amortization and accumulated impairment losses.

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Software development costs that are directly attributable to internally generated by the Group are recognized when the criteria; such as, technically feasible, generate probable future economic benefits and other, are met. Membership rights that have an indefinite useful life are not subject to amortization because there is no foreseeable limit to the period over which the assets are expected to be utilized. The Group amortizes intangible assets with a limited useful life using the straight-line method over the following periods:

	Useful lives
Trademark and licenses, Development costs	4 - 20 years

2.13 Investment Property

Investment property is property held to earn rentals or for capital appreciation or both. An investment property is measured initially at its cost. An investment property is measured after initial measurement at depreciated cost (less any accumulated impairment losses). After recognition as an asset, investment property is carried at cost less accumulated depreciation and impairment losses. The Group depreciates investment properties, except for land, using the straight-line method over their useful lives of 25 to 50 years.

2.14 Impairment of Non-financial Assets

Goodwill and intangible assets that have an indefinite useful life are not subject to amortization and are tested annually for impairment. Other assets are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. Assets are grouped into the lowest level of group (cash generating unit) in which identifiable cash flow is generated to measure impairments. Non-financial assets other than goodwill that suffered impairment are reviewed for possible reversal of the impairment at the end of each reporting period.

2.15 Financial Liabilities

2.15.1 Classification and measurement

The Group's financial liabilities at fair value through profit or loss are financial instruments held for trading. A financial liability is held for trading if it is incurred principally for the purpose of repurchasing in the near term. A derivative that is not a designated as hedging instruments and an embedded derivative that is separated are also classified as held for trading.

The Group classifies non-derivative financial liabilities, except for financial liabilities at fair value through profit or loss, financial guarantee contracts and financial liabilities that arise when a transfer of financial assets does not qualify for derecognition, as financial liabilities carried at amortized cost and present as 'trade payables', 'borrowings', and 'other financial liabilities' in the statement of financial position.

Preferred shares that require mandatory redemption at a particular date are classified as liabilities. Interest expenses on these preferred shares using the effective interest method are recognized in the statement of income as 'finance costs', together with interest expenses recognized from other financial liabilities.

2.15.2 Derecognition

Financial liabilities are removed from the statement of financial position when it is extinguished; for example, when the obligation specified in the contract is discharged or cancelled or expired or when the terms of an existing financial liability are substantially modified.

2.16 Financial Guarantee Contract

Financial guarantee contracts are recognized as a financial liability at the time the guarantee is issued. The liability is initially measured at fair value, subsequently at the higher of the following;

- Provision determined in accordance with expected credit loss
- The amount initially recognized less cumulative revenue in accordance with Korean IFRS 1115 'Revenue from Contracts with Customers'.

The liability is recognized in the statement of financial position within 'other financial liabilities'.

2.17 Provisions and contingent liabilities

The Group recognize provisions when the Group has present obligations (legal or constructive) as a result of a past event; it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and a reliable estimate can be made of the amount of the obligation.

Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the end of the reporting period, and the increase in the provision due to the passage of time is recognized as interest expense.

In addition, it is presented as contingent liability in case past events have occurred but if there is a potential obligation to confirm the existence by the occurrence of uncertain future events or in case there is a current obligation as a result of a past event or transaction but the possibility of the outflow of resources is not high or if the amount cannot be estimated reliably.

With enforcement of The Act on the Allocation and Trading of Greenhouse Gas Emission Permits, the allocation received from the government for free of charge are measured at zero while purchased emission permits are measured at acquisition cost and presented net of accumulated impairment loss. Emissions obligations are measured as the sum of the carrying amount of the allocated allowances that will be submitted to the government and the best estimate of expenditure required to settle the obligation at the end of reporting period for any excess emission. Emission permits and emission obligations are classified as intangible assets and provisions, respectively, in the statement of financial position.

2.18 Current and Deferred Income Tax

The tax expense for the period consists of current and deferred tax. Current and deferred tax is recognized in profit or loss, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity, respectively. The tax expense is measured at the amount expected to be paid to the taxation authorities, using the tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. The Group recognizes current income tax on the basis of amounts expected to be paid to the tax authorities.

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Deferred income tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss.

Deferred tax assets are recognized only if it is probable that future taxable amounts will be available to utilize those temporary differences and losses.

The Group recognizes a deferred tax liability all taxable temporary differences associated with investments in subsidiaries, associates, and interests in joint arrangements, except to the extent that the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. In addition, The Group recognizes a deferred tax asset for all deductible temporary differences arising from such investments to the extent that it is probable the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and when the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset where the entity has a legally enforceable right to offset and intends either to settle on a net basis.

2.19 Contributed Equity

2.19.1 Equity Investments

Ordinary stocks are classified as equity and incremental cost occurred directly from equity transactions are deducted from equity as net amount including tax effect.

2.19.2 Hybrid Equity Securities

The Group classifies equity securities to financial liabilities or equity investments in accordance with its contract conditions. Hybrid equity securities which the Group has unconditional right to avoid transfer of financial assets, such as cash, to settle contractual liabilities are classified as equity investments and presented as a part of equity.

2.20 Earnings per Share

Basic earnings per share is profit or loss attributed to ordinary shareholder of the Group divided by the weighted average number of ordinary shares outstanding during the period.

Diluted earnings per share is profit or loss attributed to ordinary shareholder of the Group divided by the weighted average number of ordinary shares outstanding and weighted average number of dilutive potential ordinary shares of the Group during the period. Dilutive potential ordinary shares affect diluted earnings per share only when dilution occurs.

2.21 Employee Benefits

The Group operates a defined benefit plan.

A defined benefit plan is a pension plan that is not a defined contribution plan. Generally, post-employment benefits are payable after the completion of employment, and the benefit amount depended on the employee's age, periods of service or salary levels. The liability recognized in the statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms approximating to the terms of the related obligation. Re-measurement gains and losses arising from experience adjustments and changes in actuarial assumptions are recognized in the period in which they occur, directly in other comprehensive income. Changes in the present value of the defined benefit obligation resulting from plan amendments or curtailments are recognized immediately in profit or loss as past service costs.

The asset recognized in the statement of financial position in respect of defined benefit pension plans is excess reserve which is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets and the asset is less than asset recognition limit.

Other long-term employee benefits that are not payable within twelve months from the end of periods in which the service is provided are the discounted present value of the future salary for the service provided in the period and the past. Re-measurement gains and losses are recognized in the period in which they occur, directly in profit and loss.

2.22 Revenue Recognition

The Group has adopted the Korean IFRS 1115, 'Revenue from Contracts with Customers' effective from January 1, 2018.

2.22.1 Identifying Performance Obligation

The Group engages in the production and sale of petroleum products and identify performance obligation from contracts with customers such as supply of goods in accordance with Korean IFRS 1115 'Revenue from Contracts with Customers'.

2.22.2 Variable Consideration and Allocating Transaction Price

The Group determines and allocates transaction prices to various performance obligations identified from a single contract based on relative individual sales price. Contracts with customers do not provide form of variable consideration.

2.23 Lease

A lease is an agreement, whereby the lessor conveys to the lessee, in return for a payment or series of payments, the right to use an asset for an agreed period of time. Leases in which a significant portion of the risks and rewards of ownership are not transferred to the Group are classified as operating leases. Payments made under operating leases are charge to profit or loss on a straight-line basis over the period of lease.

Leases where the Group, as lessee, has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalized at the lease's inception at the fair value of the leased property or, if lower, the present value of the minimum lease payments. The corresponding rental obligations, net of finance charges, are included in other short-term and long-term payables. Each lease payment is allocated between the liability and finance cost.

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If the Group is a lessor, a lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership at the inception of the lease. A lease other than a finance lease is classified as an operating lease. Lease income from operating leases is recognized in income on a straight-line basis over the lease term. Initial direct costs incurred by the lessor in negotiating and arranging an operating lease is added to the carrying amount of the leased asset and recognized as an expense over the lease term on the same basis as the lease income.

2.24 Government Grants

Government grants are recognized at fair value when there is reasonable assurance that the Group will comply with the conditions attaching to them and the grants will be received. Grants related to income are deferred and recognized in the statement of financial position in the period in which the purpose of grant and related income and expense corresponds. Government grants related to acquisition of specific assets is accounted as deferred income and deferred income related government grants is amortized over useful life of related asset and recognized in profit or loss.

2.25 Segment Reporting

Information of each operating segment is reported in a manner consistent with the internal business segment reporting provided to the chief operating decision-maker (Note 7). The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the steering committee that makes strategic decisions.

2.26 Approval of Issuance of the Financial Statements

The consolidated financial statements as of and for the period ended December 31, 2018 were approved for issue by the Board of Directors on January 28, 2019, It is possible to be amended and approved in the regular general meeting of shareholders.

3. Critical Accounting Estimates and Judgments

The preparation of financial statements requires the Group to make estimates and assumptions concerning the future. Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

3.1 Estimated Goodwill Impairment

The Group tests whether goodwill has suffered any impairment on an annual basis. The recoverable amount of a cash generating unit (CGU) is determined based on value-in-use calculations. The calculations are based on estimations.

3.2 Useful Lives of Property, Plant and Equipment

The Group determines the estimated useful lives and related depreciation expenses of property, plant and equipment such as machinery. The estimation is based on the expected cycles of the products and it can vary depending on the behavior of the competitors to respond to changes in the technical and industrial cycles. When there is a reduction in useful lives the management will increase depreciation expense accordingly. Also, when assets are abandoned, disposed or obsolete, its value can be reduced or removed from the book.

3.3 Income Taxes

The Group recognized expected future income tax and deferred tax generated from operations during the period, which is the result of best estimation. However, it is possible that actual future final income tax might not be equivalent to related assets and liabilities. This difference can affect income tax and deferred tax assets or liabilities when ultimate tax effect is determined (Note 29).

3.4 Provisions

As at December 31, 2018, the Group recognizes provisions for environmental restoration as explained in Note 19. These provisions are estimated based on past experience.

3.5 Customer Loyalty Programme

The Group operates a customer loyalty programme and the granted reward to the customer from the program is a separately identifiable component of the initial sale transaction that grants the reward. The allocation of the reward portion is estimated based on the past experience.

3.6 Net Defined Benefit Liability

The present value of net defined benefit liability depends on a number of factors that are determined on an actuarial basis using a number of assumptions including the discount rate (Note 18).

3.7 Fair Value of Financial Instrument

The Group determines the fair value of financial instruments which are not traded in active market using various evaluation methods and assumptions based on principal market conditions as of December 31, 2018.

4. Financial Risk Management

4.1 Financial Risk Factors

Due to the Group's activities, the Group is exposed to a variety of financial risks: market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize any adverse effects on the financial performance of the Group. The Group uses derivative financial instruments to hedge certain risk exposures.

Risk management is carried out under policies approved by the Board of Directors. The Board reviews and approves written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, use of derivative financial instruments and non-derivative financial instruments and investment of excess liquidity.

4.1.1 Market Risk

(1) Foreign exchange risk

The Group operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the US dollar. Foreign exchange risk arises from future commercial transactions and recognized assets and liabilities. The Group's risk management policy is to hedge the risk of changes in currency from foreign currency assets and liabilities through derivatives such as forward exchange contracts, and others.

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The Group's financial assets and liabilities exposed to foreign currency risk as at December 31, 2018 and 2017 are as follows:

(in thousands of Korean won)

December 31, 2018	USD	EUR	JPY	Others	Total
Cash and cash equivalents	4,679,217	-	-	16,574	**4,695,791**
Trade receivables	471,881,110	-	-	-	**471,881,110**
Other receivables	4,784,033	-	-	-	**4,784,033**
	481,344,360	**-**	**-**	**16,574**	**481,360,934**
Trade payables	(1,138,090,389)	(60,643)	-	-	**(1,138,151,032)**
Other payables	(10,279,804)	-	(40,309)	(1,107)	**(10,321,220)**
Financial liabilities	(819,167,546)	-	-	-	**(819,167,546)**
	(1,967,537,739)	**(60,643)**	**(40,309)**	**(1,107)**	**(1,967,639,798)**

(in thousands of Korean won)

December 31, 2017	USD	EUR	JPY	GBP	Total
Cash and cash equivalents	518,631	-	-	-	**518,631**
Trade receivables	867,840,272	-	-	-	**867,840,272**
Other receivables	15,954,285	-	-	-	**15,954,285**
	884,313,188	**-**	**-**	**-**	**884,313,188**
Trade payables	(1,456,210,207)	(108,002)	(1,516,096)	-	**(1,457,834,305)**
Other payables	(4,466,187)	(151,251)	(242,522)	-	**(4,859,960)**
Financial liabilities	(649,477,045)	-	-	-	**(649,477,045)**
	(2,110,153,439)	**(259,253)**	**(1,758,618)**	**-**	**(2,112,171,310)**

The effect of foreign currency risk to profit is a sum of net foreign currency fluctuations of Korean won against other foreign currency fluctuations. Hedge effectiveness on derivative instruments has not been reflected. As at December 31, 2018 and 2017, if the foreign exchange rate of the Korean won (KRW ₩ Foreign Currency) fluctuated by 5% while other variables held constant, the effects on profit would be as follows:

(in thousands of Korean won)

	2018		2017	
	5% Increase	5% Decrease	5% Increase	5% Decrease
Foreign currency assets	24,068,047	(24,068,047)	44,215,659	(44,215,659)
Foreign currency liabilities	(98,381,990)	98,381,990	(105,608,565)	105,608,565
Net effect	(74,313,943)	74,313,943	(61,392,906)	61,392,906

(2) Price risk

The Group is exposed to price risk of financial instruments because of investments held by the Group and classified on the statement of financial position either as available-for-sale or at fair value through profit or loss.

(3) Interest rate risk

The Group's cash flow interest rate risk arises from long-term borrowings. Borrowings issued at variable rates expose the Group to cash flow interest rate risk which is partially offset by cash held at variable rates.

As at December 31, 2018, if interest rates on Korean won-denominated borrowings were 0.1%(10 basis points) higher/lower with all other variables held constant, comprehensive income for the period would be ₩ 318,538 thousand (2017: ₩ 242,707 thousand) lower/higher, mainly as a result of higher/lower interest expense on long-term floating rate borrowings.

4.1.2 Credit Risk

Credit risk is managed on a Group basis. Credit risk arises from cash and cash equivalents, derivative financial instruments and deposits with banks and financial institutions, as well as credit exposures to wholesale and retail customers, including outstanding receivables and committed transactions. For banks and financial institutions, only independently rated parties with a minimum rating of 'A' are accepted. If wholesale customers are independently rated, these ratings are used. If there is no independent rating, the credit quality of the customer is evaluated taking into account its financial position, past experience and other factors. Individual risk limits are set based on internal or external ratings in accordance with limits set by the board. The utilization of credit limits is regularly monitored.

The maximum exposure to credit risk as at December 31, 2018 and 2017 is as follows:

(1) Book amount

(In thousands of Korean won)

	December 31, 2018	December 31, 2017
Cash and cash equivalents	162,486,188	147,752,722
Short-term financial instruments	6,300,000	10,183,166
Financial asset at fair value through profit or loss	210,024	-
Derivative financial assets	13,082,543	43,847,366
Trade and other receivables	1,162,221,265	1,694,497,926
Long-term financial assets	1,023,000	2,024,500
Long-term trade and other receivables	129,322,184	114,143,596
Financial guarantee contracts	8,385,750	16,071,000
Total	**1,483,030,954**	**2,028,520,276**

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The maximum credit exposure amount is equivalent to total financial assets, less cash and equity securities. The Group is exposed to credit risk up to the maximum amount of payment guarantee provided to subsidiaries (Note 32).

(2) Each region of the maximum exposure to credit risk

(In thousands of Korean won)

	December 31, 2018	December 31, 2017
Korea	924,741,931	1,112,661,061
North America	26,524,424	10,431,270
Asia	515,379,660	855,645,744
Europe	8,213,946	5,457,015
Others	8,170,993	44,325,186
Total	**1,483,030,954**	**2,028,520,276**

4.1.3 Liquidity Risk

The Group monitors rolling forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet operational needs while maintaining sufficient headroom on its undrawn committed borrowing facilities at all times so that the Group does not breach borrowing limits or covenants (where applicable) on any of its borrowing facilities. The Group's liquidity management policy involves projecting cash flows in major currencies and considering the level of liquid assets necessary to meet these, monitoring balance sheet liquidity ratios against internal and external regulatory requirements and maintaining debt financing plans.

The analyses of the Group's liquidity risk as at December 31, 2018 and 2017, are as follows:

(1) December 31, 2018

(in thousands of Korean won)

	Book amount	Contractual cash flow(*1)	Maturity			
			Less than 6 months	Between 6 months and 1 year	Between 1 and 3 years	Over 3 years
Short-term financial liabilities	1,573,656,843	1,582,497,790	1,136,189,718	446,308,072	-	-
Financial asset at fair value through profit or loss	23,911	23,911	23,911	-	-	-
Trade payables and other liabilities	2,102,296,526	2,102,296,525	1,745,088,781	357,207,744	-	-
Long-term financial liabilities	1,856,126,526	1,389,025,052	124,655,140	28,359,162	420,240,874	815,769,876
Long-term trade payables and other liabilities	8,444,579	8,444,579	-	-	-	8,444,579
Derivative financial liabilities designated as hedged items	4,238,136	4,238,136	4,238,136	-	-	-
Financial guarantee contracts	-	8,385,750	8,385,750	-	-	-

(*1) Includes interest amount to be paid and does not include present value discount.

(2) December 31, 2017

(in thousands of Korean won)

	Book amount	Contractual cash flow(*1)	Maturity			
			Less than 6 months	Between 6 months and 1 year	Between 1 and 3 years	Over 3 years
Short-term financial liabilities	1,015,431,307	1,018,970,811	1,017,935,280	1,035,531	-	-
Trade payables and other liabilities	2,485,296,334	2,485,296,334	2,485,296,334	-	-	-
Long-term financial liabilities	1,860,017,024	2,097,351,459	125,415,823	27,091,243	775,017,727	1,169,826,666
Long-term trade payables and other liabilities	7,963,539	7,963,539	-	-	7,963,539	-
Derivative financial liabilities designated as hedged items	52,125,144	52,125,144	52,125,144	-	-	-
Financial guarantee contracts	-	16,071,000	16,071,000	-	-	-

(*1) Includes interest amount to be paid and does not include present value discount.

4.2 Capital Management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

The Group monitors capital on the basis of the gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is total borrowings (including 'short and long-term borrowings' as shown in the consolidated statement of financial position) less cash and cash equivalents. Total capital is 'equity' as shown in the consolidated statement of financial position plus net debt.

The gearing ratios as at December 31, 2018 and 2017 are as follows:

(In thousands of Korean won)

	December 31, 2018	December 31, 2017
Total borrowings	3,429,783,369	2,875,448,331
Less: cash and cash equivalents	(162,638,021)	(148,231,468)
Net debt	3,267,145,348	2,727,216,863
Total equity	5,124,061,843	5,061,920,974
Total capital	8,391,207,191	7,789,137,837
Gearing ratio	39%	35%

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4.3 Offsetting Financial Assets and Financial Liabilities

The following table presents the recognized financial assets that are offset, or subject to enforceable master netting arrangements and other similar agreements but not offset, as at December 31, 2018 and 2017.

(1) December 31, 2018

(in thousands of Korean won)

	Gross liabilities	Gross assets set off	Net amounts presented in the statement of financial position	Amounts not offset		Net amount
				Financial instruments	Cash collateral	
Other payables	24,322,129	3,090,476	21,231,653	-	-	21,231,653

(2) December 31, 2017

(in thousands of Korean won)

	Gross liabilities	Gross assets set off	Net amounts presented in the statement of financial position	Amounts not offset		Net amount
				Financial instruments	Cash collateral	
Other payables	18,544,187	11,529,884	7,014,303	-	-	7,014,303

5. Fair Value

5.1 Fair Value of Financial Instruments by Category

Carrying amount and fair value of financial instruments by category as at December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	December 31, 2018		December 31, 2017	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets(*1,2)				
Financial assets at fair value through profit or loss	210,024	210,024	-	-
Derivative financial assets	13,082,543	13,082,543	43,847,366	43,847,366
Financial liabilities(*2)				
Financial liabilities at fair value through profit or loss	23,911	23,911	-	-
Derivative financial liabilities	4,238,136	4,238,136	52,125,144	52,125,144

(*1) Equity instruments that do not have a quoted price in an active market are measured at cost because their fair value cannot be measured reliably and excluded from the fair value disclosures.
(*2) Short-term trade receivables and payables whose carrying amount is a reasonable approximation of fair value are excluded from the fair value disclosures.

5.2 Fair Value Hierarchy

Financial instruments that are measured at fair value are categorized by the fair value hierarchy, and the defined levels are as follows:

- Quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1).
- All inputs other than quoted prices included in level 1 that are observable (either directly that is, prices, or indirectly that is, derived from prices) for the asset or liability (Level 2).
- Unobservable inputs for the asset or liability (Level 3).

Fair value hierarchy classifications of the financial instruments that are measured at fair value as at December 31, 2018 and 2017, are as follows:

(1) December 31, 2018

(in thousands of Korean won)

	Level 1	Level 2	Level 3	Total
Financial assets/liabilities that are measured at fair value				
Financial assets at fair value through profit or loss	-	210,024	-	**210,024**
Financial liabilities at fair value through profit or loss	-	23,911	-	**23,911**
Derivative financial assets	-	13,082,543	-	**13,082,543**
Derivative financial liabilities	-	4,238,136	-	**4,238,136**

(2) December 31, 2017

(in thousands of Korean won)

	Level 1	Level 2	Level 3	Total
Financial assets/liabilities that are measured at fair value				
Derivative financial assets	-	43,847,366	-	**43,847,366**
Derivative financial liabilities	-	52,125,144	-	**52,125,144**

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5.3 Valuation Technique and the Inputs

Valuation techniques and inputs used in the recurring fair value measurements categorized within Level 2 of the fair value hierarchy as at December 31, 2018 and 2017, are as follows:

(1) December 31, 2018

(in thousands of Korean won)

	Fair value	Level	Valuation techniques
Financial assets at fair value through profit or loss			
Commodity forward contracts	210,024	2	Present value technique
Derivative assets			
Commodity forward contracts	13,082,543	2	Present value technique
Financial liabilities at fair value through profit or loss			
Commodity forward contracts	23,911	2	Present value technique
Derivative liabilities			
Commodity forward contracts	4,238,136	2	Present value technique

(2) December 31, 2017

(in thousands of Korean won)

	Fair value	Level	Valuation techniques
Derivative assets			
Commodity forward contracts	43,847,366	2	Present value technique
Derivative liabilities			
Commodity forward contracts	52,125,144	2	Present value technique

6. Financial Instruments by Category

6.1 Carrying Amounts of Financial Instruments by Category

Categorizations of financial assets and liabilities as at December 31, 2018, are as follows:

(1) December 31, 2018

(in thousands of Korean won)

	Amortized cost	Financial liabilities at fair value through profit or loss	Cash flow hedging instrument	Total
Cash and cash equivalents	162,638,021	-	-	162,638,021
Short-term financial assets	6,300,000	-	-	6,300,000
Financial assets at fair value through profit or loss	-	210,024	-	210,024
Derivative financial assets	-	-	13,082,543	13,082,543
Trade receivables and other receivables(*1)	1,291,543,449	-	-	1,291,543,449
Long-term financial assets	1,023,000	-	-	1,023,000
	1,461,504,470	**210,024**	**13,082,543**	**1,474,797,037**

(*1) Assets that are not based on contracts are excluded.

(in thousands of Korean won)

	Amortized cost	Financial liabilities at fair value through profit or loss	Cash flow hedging instrument	Total
Short-term financial liabilities	1,573,656,843	-	-	1,573,656,843
Financial liabilities at fair value through profit or loss	-	23,911	-	23,911
Derivative financial liabilities	-	-	4,238,136	4,238,136
Trade payables and other payables(*1)	2,110,741,105	-	-	2,110,741,105
Long-term financial liabilities	1,856,126,526	-	-	1,856,126,526
	5,540,524,474	**23,911**	**4,238,136**	**5,544,786,521**

(*1) Assets that are not based on contracts are excluded.

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December 31, 2018 and 2017

Categorizations of financial assets and liabilities as at December 31, 2017, are as follows:

(2) December 31, 2017

(in thousands of Korean won)

	Loans and receivables	Available-for-sale financial assets	Other financial assets[*1]	Total
Cash and cash equivalents	148,231,468	-	-	148,231,468
Short-term financial assets	10,183,166	-	-	10,183,166
Available-for-sale financial assets	-	3,000,000	-	3,000,000
Derivative financial assets	-	-	43,847,366	43,847,366
Trade receivables and other receivables	1,808,641,522	-	-	1,808,641,522
Long-term financial assets	2,024,500	-	-	2,024,500
	1,969,080,656	**3,000,000**	**43,847,366**	**2,015,928,022**

[*1] Other financial assets include derivative instruments designated as hedged items that are not subject to the categorization.

(in thousands of Korean won)

	Financial liabilities at amortized cost	Other financial liabilities[*1]	Total
Short-term financial liabilities	1,015,431,307	-	1,015,431,307
Derivative financial liabilities	-	52,125,144	52,125,144
Trade payables and other payables [*1]	2,493,259,873	-	2,493,259,873
Long-term financial liabilities	1,860,017,024	-	1,860,017,024
	5,368,708,204	**52,125,144**	**5,420,833,348**

[*1] Other financial liabilities include derivative instruments designated as hedged items that are not subject to the categorization.

6.2 Net gains or Losses by Category of Financial Instruments

Net gains or net losses on each category of financial instruments for the periods ended December 31, 2018 and 2017, are as follows:

(1) 2018

(in thousands of Korean won)

	Amortized cost	Financial assets at fair value through profit or loss	Financial liabilities at fair value through profit or loss	Total
Interest income	4,324,936	-	-	4,324,936
Gain on valuation of financial assets at fair value through profit or loss	-	210,024	-	210,024
Gain on disposal of financial assets at fair value through profit or loss	-	4,233,460	-	4,233,460
Gain on foreign currency translation	12,963,939	-	-	12,963,939
Gain on foreign currency transactions	225,678,882	-	-	225,678,882
Interest expense	(92,235,636)	-	-	(92,235,636)
Loss on sales of trade receivables	(6,330,360)	-	-	(6,330,360)
Loss on valuation of financial assets at fair value through profit or loss	-	-	(23,911)	(23,911)
Loss on disposal of financial assets at fair value through profit or loss	-	(1,227,911)	(7,748,920)	(8,976,831)
Loss on foreign currency translation	(5,142,640)	-	-	(5,142,640)
Loss on foreign currency transactions	(283,617,122)	-	-	(283,617,122)
Provision for impairment	(418,980)	-	-	(418,980)

(2) 2017

(in thousands of Korean won)

	Financial assets at fair value through profit or loss	Loans and receivables	Financial liabilities at fair value through profit or loss	Financial liabilities at amortized cost	Total
Interest income	-	4,957,019	-	-	4,957,019
Gain on disposal of financial assets at fair value through profit or loss	6,272,792	-	-	-	6,272,792
Gain on foreign currency translation	-	464,019	-	38,116,568	38,580,587
Gain on foreign currency transactions	-	28,481,771	-	199,310,353	227,792,124
Reversal of provision for impairment	-	332,534	-	-	332,534
Interest expense	-	-	-	(77,196,426)	(77,196,426)
Loss on disposal of financial assets at fair value through profit or loss	-	-	(2,645,079)	-	(2,645,079)
Loss on foreign currency translation	-	(14,370,771)	-	(2,467,431)	(16,838,202)
Loss on foreign currency transactions	-	(128,971,005)	-	(52,233,438)	(181,204,443)

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7. Segment Information

Breakdown of the Group's segment revenue for the periods ended December 31, 2018 and 2017, are as follows:

(In thousands of Korean won)

	2018	2017
Sale of goods	21,373,861,140	16,260,024,775
Others	129,781,992	127,282,201
	21,503,643,132	**16,387,306,976**

Major customer information for the periods ended December 31, 2018 and 2017, is as follows:

(In thousands of Korean won)

	2018	2017
Sale of goods		
Major customer (*1)	2,164,274,121	1,700,426,350

(*1) Customers who contribute more than 10% of the Group's revenue

8. Restricted Financial Instruments

As at December 31, 2018, deposit for current accounts which is classified as long-term financial asset, amounting to ₩ 23 million (2017: ₩ 24.5 million) is restricted.

9. Available-for-sale Financial Assets

Available-for-sale financial assets as at December 31, 2018 and 2017, are as follows:

(In thousands of Korean won)

	December 31, 2018	December 31, 2017
Investment (unlisted) (*1)	-	3,000,000

(*1) Since the range of reasonable fair value estimates is significant and the probabilities of the various estimates cannot be reasonably assessed, these instruments are measured at cost.

Changes in available-for-sale financial assets for the periods ended December 31, 2018 and 2017, are as follows:

(In thousands of Korean won)

	2018	2017
Beginning balance	3,000,000	3,000,000
Acquisition	-	-
Disposal	(3,000,000)	-
Ending balance	-	3,000,000

10. Trade and Other Receivables

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

(In thousands of Korean won)

	December 31, 2018	December 31, 2017
Trade receivables(*1)	1,033,994,395	1,533,861,052
Other receivables	308,815,122	140,851,505
Accrued income	5,154,397	19,314,458
Deposits	551,340	470,911
	1,348,515,254	**1,694,497,926**

(*1) As at December 31, 2018, trade receivables that were transferred but have not matured yet amount to ₩ 549,403 million (2017: ₩ 106,000 million). The Group transferred the receivables to DBS bank and substantially all the risks and rewards were transferred. As a result, the transaction has been accounted for disposal of trade receivables (Note 19).

The aging analysis of trade receivables as at December 31, 2018 and 2017, are as follows:

(In thousands of Korean won)

	December 31, 2018	December 31, 2017
Trade receivables not past due	1,322,844,353	1,669,777,544
Trade receivables past due but not impaired (*1)		
Less than 6 month	23,779,225	24,346,456
Over 6 months	1,891,676	373,926
Trade receivables impaired (*2)		
Up to 1 year	326,788	-
Over 1 year	39,092	-
	1,348,881,134	**1,694,497,926**

(*1) Trade receivables that are temporarily overdue.
(*2) Total trade receivables impaired less the recoverable amount (receivables pledged as collateral) is set as provisions for impairment.

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Details of long-term trade and other receivables of the Group as at December 31, 2018 and 2017, are as follows:

(In thousands of Korean won)

	December 31, 2018	December 31, 2017
Long-term loans	65,847,251	58,607,433
Deposits	63,474,933	55,536,163
	129,322,184	**114,143,596**

Movements in provisions for impairment of trade and other receivables for the periods ended December 31, 2018 and 2017, are as follows:

(In thousands of Korean won)

	2018	2017
Beginning balance	349,919	769,401
Impairment loss on trade receivables (Reversal)	418,980	(332,534)
Receivables written off during the period as uncollectible	(53,100)	(86,948)
Ending balance	**715,799**	**349,919**

11. Inventories

(1) Inventories as at December 31, 2018 and 2017, are as follows:

(In thousands of Korean won)

	December 31, 2018	December 31, 2017
Products	43,430,589	22,492,941
Finished goods	368,609,203	276,763,197
Work in process	198,849,412	154,908,052
Raw materials	677,383,605	512,590,423
Supplies	37,232,277	32,489,266
Materials-in-transit	1,414,721,028	1,119,727,059
	2,740,226,114	**2,118,970,938**

(2) Details of cost of inventories recognized for the periods ended December 31, 2018 and 2017, are as follows:

(In thousands of Korean won)

	2018	2017
Cost of inventories (cost of sales)	19,476,183,190	13,942,647,970
Loss on valuation of inventory (reversal)	138,463,410	3,617,656

12. Investments in Associates and Joint Ventures

Investments in joint ventures as at December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	Country	Ownership (%)	December 31, 2018		December 31, 2017	
			Acquisition cost	Book amount	Acquisition cost	Book amount
Joint Ventures						
Hyundai Cosmo Petrochemical Co., Ltd.	Korea	50	316,100,000	258,351,940	316,100,000	196,909,833
Hyundai and Shell Base Oil Co. Ltd.	Korea	60	78,000,000	198,727,079	78,000,000	185,118,279
			394,100,000	**457,079,019**	**394,100,000**	**382,028,112**

Details of valuation of investments in associates and joint ventures that are accounted for using the equity method for the periods ended December 31, 2018 and 2017, are as follows:

(1) 2018

(in thousands of Korean won)

	Beginning	Acquisition	Share of profit of joint ventures	Share of other comprehensive income of joint ventures	Disposal	Dividends received	Ending
Joint Ventures							
Hyundai Cosmo Petrochemical Co., Ltd.	196,909,833	-	61,340,122	101,985	-	-	258,351,940
Hyundai and Shell Base Oil Co. Ltd.	185,118,279	-	31,609,070	(270)	-	(18,000,000)	198,727,079
	382,028,112	**-**	**92,949,192**	**101,715**	**-**	**(18,000,000)**	**457,079,019**

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(2) 2017

(in thousands of Korean won)

	Beginning	Acquisition	Share of profit of joint ventures	Share of other comprehensive income of joint ventures	Disposal	Dividends received	Ending
Joint Ventures							
Hyundai Cosmo Petrochemical Co., Ltd.	158,333,920	-	38,352,497	223,416	-	-	196,909,833
Hyundai and Shell Base Oil Co. Ltd.	154,385,808	-	60,714,303	18,168	-	(30,000,000)	185,118,279
	312,719,728	**-**	**99,066,800**	**241,584**	**-**	**(30,000,000)**	**382,028,112**

Elimination of unrealized gains and losses for the periods ended December 31, 2018 and 2017, is as follows:

(1) 2018

(in thousands of Korean won)

	Transaction	Beginning	Increased	Realized	Ending
Joint Ventures					
Hyundai Cosmo Petrochemical Co., Ltd.	Disposal of PP&E	(112,309,266)	-	296,562	(112,012,704)
	Sale of inventories	(1,541,440)	(1,517,198)	1,541,440	(1,517,198)
Hyundai and Shell Base Oil Co., Ltd.	Disposal o PP&E	(113,003)	-	-	(113,003)
	Sale of inventories	(1,804,390)	(939,635)	1,804,390	(939,635)
		(115,768,099)	**(2,456,833)**	**3,642,392**	**(114,582,540)**

(2) 2017

(in thousands of Korean won)

	Transaction	Beginning	Increased	Realized	Ending
Joint Ventures					
Hyundai Cosmo Petrochemical Co., Ltd.	Disposal of PP&E	(112,832,057)	-	522,791	(112,309,266)
	Sale of inventories	(1,385,238)	(1,541,440)	1,385,238	(1,541,440)
Hyundai and Shell Base Oil Co., Ltd.	Disposal o PP&E	(113,003)	-	-	(113,003)
	Sale of inventories	(1,182,361)	(1,804,390)	1,182,361	(1,804,390)
		(115,512,659)	**(3,345,830)**	**3,090,390**	**(115,768,099)**

Financial information of the investees as at and for the period ended December 31, 2018, is as follows:

(3) December 31, 2018

(in thousands of Korean won)

Joint Ventures	Assets	Liabilities	Sales	Profit for the period
Hyundai Cosmo Petrochemical Co., Ltd.	1,355,402,870	611,639,187	2,989,275,339	122,038,636
Hyundai and Shell Base Oil Co. Ltd.	578,186,924	245,220,727	731,996,868	51,240,524

13. Investment Property

Investment property as at December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	December 31, 2018	December 31, 2017
Land	10,634,973	10,634,973

During the period, rental income from investment property is ₩ 12 million (2017: ₩ 12 million), and direct operating expenses (including repairs and maintenance) arising from investment property that generated rental income during the period are ₩ 45 million (2017: ₩ 42 million). Fair value of investment property as at December 31, 2018, is ₩ 11,740 million (2017: ₩ 11,740 million). The valuation of fair value is performed by an independent valuer.

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14. Property, Plant and Equipment

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

(1) 2018

(in thousands of Korean won)

	Land	Buildings	Structures	Machinery and equipment	Vessels	Vehicles	Tools	Construction -in-progress	Others	Total
Opening acquisition cost	1,180,961,933	326,639,097	1,598,669,960	4,195,882,095	43,727,999	13,786,226	174,306,027	555,281,432	337,145,652	8,426,400,421
Opening accumulated depreciation	-	(77,070,109)	(500,950,907)	(1,275,517,007)	(6,621,183)	(11,958,375)	(121,126,738)	-	(233,999,636)	(2,227,243,955)
Opening net book amount	1,180,961,933	249,568,988	1,097,719,053	2,920,365,088	37,106,816	1,827,851	53,179,289	555,281,432	103,146,016	6,199,156,466
Acquisitions	2,658,297	287,950	2,788,640	1,308,436	-	36,190	10,333,979	807,913,037	-	825,326,529
Disposals	(5,205,443)	(990,710)	(212,278)	(1,744,735)	-	(26)	(122,040)	-	(6)	(8,275,238)
Transfer	55,839,492	36,563,975	87,886,180	797,306,942	-	503,369	3,713,003	(1,088,500,162)	97,398,940	(9,288,261)
Depreciation charge	-	(8,627,176)	(41,664,945)	(225,011,285)	(2,245,492)	(679,771)	(18,359,842)	-	(33,932,994)	(330,521,505)
Exchange differences	-	-	-	-	1,581,079	-	209	-	-	1,581,288
Closing acquisition cost	1,234,254,279	361,882,545	1,688,542,549	4,982,759,088	45,634,007	13,889,418	184,254,916	274,694,307	425,912,660	9,211,823,769
Closing accumulated depreciation	-	(85,079,518)	(542,025,899)	(1,490,534,642)	(9,191,604)	(12,201,805)	(135,510,318)	-	(259,300,704)	(2,533,844,490)
Closing net book amount	1,234,254,279	276,803,027	1,146,516,650	3,492,224,446	36,442,403	1,687,613	48,744,598	274,694,307	166,611,956	6,677,979,279

(2) 2017

(in thousands of Korean won)

	Land	Buildings	Structures	Machinery and equipment	Vessels	Vehicles	Tools	Construction -in-progress	Others	Total
Opening acquisition cost	1,185,267,095	320,915,623	1,566,263,907	3,934,792,736	49,292,506	13,186,991	163,687,589	246,465,060	272,021,174	7,751,892,681
Opening accumulated depreciation	-	(69,888,661)	(458,847,574)	(1,086,002,461)	(5,002,144)	(11,550,874)	(107,854,248)	-	(191,807,852)	(1,930,953,814)
Opening net book amount	1,185,267,095	251,026,962	1,107,416,333	2,848,790,275	44,290,362	1,636,117	55,833,341	246,465,060	80,213,322	5,820,938,867
Acquisitions	502,812	541,733	290,721	2,103,581	29,079	237,565	8,139,496	708,428,029	-	720,273,016
Disposals	(5,255,613)	(941,219)	(855,642)	(9,287,085)	-	(19)	(204,658)	-	-	(16,544,236)
Transfer	447,639	6,894,383	33,661,051	279,501,425	-	531,399	7,103,164	(399,611,657)	65,216,073	(6,256,523)
Depreciation charge	-	(7,952,871)	(42,793,409)	(200,743,108)	(2,307,819)	(577,211)	(17,689,594)	-	(42,283,380)	(314,347,392)
Exchange differences	-	-	-	-	(4,904,806)	-	(2,460)	-	-	(4,907,266)
Closing acquisition cost	1,180,961,933	326,639,097	1,598,669,960	4,195,882,095	43,727,999	13,786,226	174,306,027	555,281,432	337,145,652	8,426,400,421
Closing accumulated depreciation	-	(77,070,109)	(500,950,907)	(1,275,517,007)	(6,621,183)	(11,958,375)	(121,126,738)	-	(233,999,636)	(2,227,243,955)
Closing net book amount	1,180,961,933	249,568,988	1,097,719,053	2,920,365,088	37,106,816	1,827,851	53,179,289	555,281,432	103,146,016	6,199,156,466

Line items including depreciation in the statements of income for the periods ended December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	2018	2017
Cost of sales	311,792,473	295,864,141
Selling and administrative expenses	18,729,032	18,483,251
	330,521,505	**314,347,392**

During the period, the Group has capitalized borrowing costs amounting to ₩ 8,455 million (2017: ₩ 6,502 million) on property, plant and equipment that are qualifying assets. The capitalization rate of borrowings used to determine the amount of borrowing costs to be capitalized is 2.59% (2017: 3.01%).

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Details of property, plant and equipment provided as collaterals as at December 31, 2018, are as follows:

(1) December 31, 2018

(in thousands of Korean won, thousands of USD)

	Book amount	Secured amount	Related line item	Related amount	Secured party
Land / Building	86,317,550	858,000,000	Borrowings (Note 17)	715,000,000	Korea Development bank and other financial institutions
Machinery	848,480,899				
Construction-in-progress	76,811,063				
Construction-in-progress	214,042,603	144,000,000		119,700,000	Korea Development bank and other financial institutions
Vessel	22,969,552	USD 14,957		USD 14,957	HIHD Co., Ltd.

The following table analyzes the book amount of land measured under revaluation model and cost model as at December 31, 2018.

(in thousands of Korean won)

	Revaluation model	Cost model
Land	1,234,254,279	934,862,065

Operating lease

The lease payments recognized as expenses for the periods ended December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	2018	2017
Total lease payments	21,138,254	22,653,418

Total minimum lease payments in relation to non-cancellable operating leases that are payable at the end of the reporting period are as follows:

(in thousands of Korean won)

	2018	2017
Within one year	13,738,191	18,930,374
Later than one year but not later than two years	5,246,739	8,284,080
Later than two years	7,814,037	5,398,922
	26,798,967	**32,613,376**

15. Intangible Assets

Changes in intangible assets for the periods ended December 31, 2018 and 2017, are as follows:

(1) 2018

(in thousands of Korean won)

	Goodwill	Development costs	Membership rights	Others	Total
Book amount at January 1, 2018	56,629,475	10,159,985	13,184,586	16,405,310	**96,379,356**
Additions	-	7,000	13,338	-	**20,338**
Disposals	-	-	-	(1)	**(1)**
Amortization	-	(3,385,384)	-	(2,047,352)	**(5,432,736)**
Transfer	-	2,612,411	-	2,099,012	**4,711,423**
Exchange differences	-	-	11,559	(1)	**11,558**
Book amount at December 31, 2018	56,629,475	9,394,012	13,209,483	16,456,968	**95,689,938**

(2) 2017

(in thousands of Korean won)

	Goodwill	Development costs	Membership rights	Others	Total
Book amount at January 1, 2017	56,629,475	9,377,056	13,108,566	15,996,781	**95,111,878**
Additions	-	-	32,116	11,314	**43,430**
Disposals	-	-	(620,139)	-	**(620,139)**
Amortization	-	(2,718,078)	-	(1,576,545)	**(4,294,623)**
Transfer	-	3,501,007	696,421	1,974,073	**6,171,501**
Exchange differences	-	-	(32,378)	(313)	**(32,691)**
Book amount at December 31, 2017	56,629,475	10,159,985	13,184,586	16,405,310	**96,379,356**

Line items including amortization in the statements of income for the periods ended December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	2018	2017
Cost of sales	1,306,691	806,924
Selling and administrative expenses	4,126,045	3,487,699
	5,432,736	**4,294,623**

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Impairment of Intangible Assets

The Group's goodwill as at December 31, 2018 and 2017, represents the goodwill arising from past acquisition. Goodwill is distributed based on the cash-generating units, by which the executives manage the goodwill.

(in thousands of Korean won)

	Goodwill allocation amount	
	December 31, 2018	December 31, 2017
Goodwill	56,629,475	56,629,475

Assumptions	Rate	
	2018	2017
Operating profit margin compared to sales volume	5.87%	6.77%
Growth rate of the sales volume(*1)	(-)0.19%	0.64%
Growth rate beyond 5 years(*2)	0.93%	0.71%
Pre-tax discount rate(*3)	5.81%	7.56%

(*1) Weighted average of sales growth rate calculated based on historical growth rate to forecast cash flows for five years.
(*2) Consistent with the growth rate beyond five years used in the Industrial Report.
(*3) Pre-tax discount rate applied in forecasted cash flows.

Additionally, no issue of impairment regarding goodwill has been identified through impairment test.

16. Trade and Other Payables

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

(in thousands of Korean won)

	December 31, 2018	December 31, 2017
Current		
Trade payables	1,741,274,927	1,746,989,568
Other payables	992,028,166	710,488,055
Accrued expenses	24,887,931	27,818,711
	2,758,191,024	**2,485,296,334**
Non-current		
Long-term withholdings	8,444,579	7,963,539
	8,444,579	**7,963,539**

17. Short and Long-term Financial Liabilities

Details of short-term financial liabilities as at December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	December 31, 2018	December 31, 2017
Short-term borrowings	1,201,667,546	693,477,044
Current portion of long-term borrowings	62,151,587	2,047,796
Current portion of bonds	309,837,710	319,906,467
	1,573,656,843	**1,015,431,307**

Details of long-term financial liabilities as at December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	December 31, 2018	December 31, 2017
Long-term borrowings	838,635,738	882,199,459
Bonds	1,017,490,788	977,817,565
	1,856,126,526	**1,860,017,024**

Details of short-term borrowings as at December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

Type of borrowings	Creditor	Interest (%)	December 31, 2018	December 31, 2017
Commercial paper	KB Securities Co., Ltd. and others	2.25%~2.31%	360,000,000	40,000,000
Invoice Loan	Korea Development Bank and others	2.75%~3.27%	697,229,330	474,693,333
Usance L/C	Korea Development Bank and others	2.65%~3.09%	105,166,716	174,783,711
Import Loan	Bank of China	2.96%	16,771,500	-
General loan	Shinhan Bank and others	3.37%~3.84%	22,500,000	4,000,000
			1,201,667,546	**693,477,044**

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Details of long-term borrowings as at December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

Type of borrowings	Creditor	Interest (%)	December 31, 2018	December 31, 2017
Commercial paper	Shinhan Bank	2.20%	60,000,000	60,000,000
Energy invest loan	Korea Development Bank	1.75%	575,600	1,151,200
Facility loan	Korea Development Bank and others	3.72%	705,607,531	704,249,584
Facility loan	Korea Development Bank and others	3.63%	117,881,015	101,349,578
Shipbuilding loan	HIHD Co., Ltd.	4.40%	16,723,179	17,496,893
			900,787,325	**884,247,255**
Less: Current maturities			**(62,151,587)**	**(2,047,796)**
			838,635,738	**882,199,459**

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

(in thousands of Korean won)

Series	Issuance date	Maturity date	Interest (%)	December 31, 2018	December 31, 2017
111-2nd	2012-10-23	2019-10-23	3.52%	99,956,515	99,904,333
112-1st	2014-01-27	2018-01-27	3.35%	-	149,985,567
112-2nd	2014-01-27	2019-01-27	3.59%	49,995,815	49,945,596
113th	2014-06-25	2018-06-25	3.01%	-	99,948,950
114-2nd	2014-11-21	2019-11-21	2.59%	159,885,380	159,760,340
114-3rd	2014-11-21	2021-11-21	2.94%	59,893,708	59,857,265
115-1st	2015-03-27	2018-03-27	1.98%	-	69,971,950
115-2nd	2015-03-27	2020-03-27	2.20%	189,804,335	189,647,804
115-3rd	2015-03-27	2022-03-27	2.53%	139,733,019	139,650,871
116-1st	2017-07-07	2022-07-07	2.58%	179,550,530	179,407,815
116-2nd	2017-07-07	2024-07-07	2.85%	99,705,589	99,643,541
117th	2018-01-26	2023-01-26	2.89%	149,522,642	-
118-1st	2018-08-28	2021-08-28	2.21%	69,745,227	-
118-2nd	2018-08-28	2023-08-28	2.44%	89,688,995	-
118-3rd	2018-08-28	2025-08-28	2.63%	39,846,743	-
				1,327,328,498	**1,297,724,032**
Less: Current maturities				**(309,837,710)**	**(319,906,467)**
				1,017,490,788	**977,817,565**

18. Net Defined Benefit Liability

Details of net defined benefit liabilities recognized in the statements of financial position as at December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	December 31, 2018	December 31, 2017
Present value of funded defined benefit obligations	216,798,107	195,765,320
Fair value of plan assets	(226,043,108)	(223,705,551)
Contribution to National Pension Fund	(314,594)	(330,154)
Net defined benefit liabilities in the statement of financial position(*1)	(9,559,595)	(28,270,385)

(*1) The excess portion of fair value of plan asset over present value of funded defined benefit obligations is recorded as other non-current assets.

Movements in the defined benefit obligations for the periods ended December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	2018	2017
Beginning balance	195,765,320	189,007,747
Current service cost	23,194,519	26,844,901
Interest expense	5,854,998	5,266,098
Remeasurements:	2,286,541	(14,057,312)
Actuarial loss from change in demographic assumptions	-	-
Actuarial loss(gain) from change in financial assumptions	9,192,551	(10,752,743)
Actuarial gain from experience adjustments	(6,906,010)	(3,304,569)
Benefits payments	(12,227,719)	(11,863,940)
Effect of transference	1,924,448	567,826
Ending balance	216,798,107	195,765,320

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

(in thousands of Korean won)

	2018	2017
Beginning balance	223,705,551	202,395,666
Expected return on plan assets	6,638,933	5,389,700
Remeasurements:		
Return on plan assets (excluding amounts included in interest income)	(3,426,837)	(2,646,589)
Contributions:		
Employers	9,191,255	29,955,632
Payments from plans:		
Benefit payments	(10,065,794)	(11,388,858)
Ending balance	226,043,108	223,705,551

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

At the end of the reporting period, plan assets are invested in principal-guaranteed products.

Expected contributions to post-employment benefit plans for the financial year following the reporting period are ₩ 23,766 million.

The significant actuarial assumptions as at December 31, 2018 and 2017, are as follows:

(in percentage, %)

	2018	2017
Discount rate	2.66% ~ 2.84%	3.19%
Salary growth rate	1.87% ~ 3.46%	1.86% ~ 3.74%

The sensitivity of the defined benefit obligations to changes in the principal assumptions is as follows:

(in percentage, %)

	Effect on defined benefit obligations		
	Changes in principal assumption	Increase in principal assumption	Decrease in principal assumption
Discount rate	1%	9.87% decrease	11.66% increase
Salary growth rate	1%	11.47% increase	9.91% decrease

The weighted average maturity of the defined benefit obligations at the end of the reporting period is 11.72 years.

Expected maturity analysis of undiscounted pension benefits as at December 31, 2018, is as follows:

(in thousands of Korean won)

	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years	Total
Pension benefits	9,014,327	17,342,694	34,655,829	754,560,551	**815,573,401**

19. Provisions, Contingent Liabilities and Commitments

19.1 Provisions

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

(1) 2018

(in thousands of Korean won)

	Beginning balance	Provision	Reversal	Use	Ending balance
Provision for environmental restoration costs	6,596,800	1,165,097	(2,721,300)	(1,222,855)	3,817,742
Other provision	-	95,038,500	-	-	95,038,500
	6,596,800	96,203,597	(2,721,300)	(1,222,855)	98,856,242

As of December 31, 2018, the amount of ₩ 2,417 million recognized as long-term provisions constitutes a provision for environmental restoration costs.

(2) 2017

(in thousands of Korean won)

	Beginning balance	Increase	Decrease	Ending balance
Provision for environmental restoration costs	6,529,598	2,998,299	(2,931,097)	6,596,800
Provision for carbon gas emission	5,331,117	-	(5,331,117)	-
	11,860,715	2,998,299	(8,262,214)	6,596,800

As of December 31, 2017, the amount of ₩ 4,062 million recognized as long-term provisions constitutes a provision for environmental restoration costs.

In regards to Carbon gas emissions, the Group sets provision for expected expenses due to emissions exceeding the emission rights capacity in a given year. As at December 31, 2018, emission rights for allocation of no cost are as follows:

(in thousands of Korean won)

	2018	2019	2020	Total
Emission allowances allocated free of charge	3,447	3,447	3,447	**10,341**

The carrying amount of emission right is nil and none of rights are pledged as collateral.

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19.2 Contingent Liabilities

(in billions of Korean won)

	Description	Amount	Outcome and expectation
Lawsuit as the defendant	Damage claim suit (The Fair Trade Commission)	12.4	-Pending at Seoul Central District Court -Unable to expect the outcome
	Damage claim suit (THE HANKOOK SHELL OIL CO.,LTD.)	14.2	-Pending at Seoul High Court -Partially in favor of the company at Seoul Central District Court

In addition, the Group received a grand jury subpoena from the U.S. Department of Justice in 2018 in regards to alleged collusion in supplying fuel to the U.S. Army bases in Korea between 2005 and 2016. The Group submitted the information requested to the U.S. Department of Justice.

19.3 Commitments

As at December 31, 2018, the Group has entered into bank overdraft agreements with KEB Hana Bank and others for up to ₩30,000 million (2017: ₩30,000 million) and agreement for a discount note for the amount of ₩40,000 million (2017: ₩40,000 million) and medium and long-term agreement for a discount note for the amount of ₩60,000 million (2017: ₩40,000 million) with Shinhan Bank and the exercised amounts are ₩60,000 million. Also, the Group has entered into mutual support agreements with Woori Bank for cooperation partner amounting to ₩30,000 million (2017: ₩30,000 million) and general loan agreement amounting to ₩30,000 million (2017: ₩30,000 million) as at December 31, 2018.

The Group has entered a corporate purchase price and an import letter of credit arrangement of ₩325,000 million and US$ 4,137 million (2017: ₩355,000 million and US$3,920 million) with Korea Development Bank and others. Payment of US$1,457 million has been made as at December 31, 2018, to the beneficiary.

The Group has entered into a factoring agreement with ING Bank for up to ₩140,000 million (2017: ₩0), with DBS Bank for up to ₩130,000 million (2017: ₩110,000 million), with KEB Hana Bank for up to ₩80,000 million (2017: ₩0) and US$80 million, with ANZ Bank and others for up to US$210 million, and ₩277,000 million and US$244 million has been paid at December 31, 2018(Note 10).

As at December 31, 2018, the Group has entered into a cash deficiency support agreement on borrowings with Lotte Chemical Corp., and OCI Co. Ltd for up to ₩286,000 million and ₩120,000 million respectively.

The Group has entered into a share option agreement with Shell Petroleum Company Limited (“Shell”), a joint venture partner of Hyundai and Shell Base Oil Co., Ltd. (“HSB”).
According to the agreement, Shell holds a put option to sell 40% stake to the Company as the evaluation value of the external valuation institution(From August 2014 to August 2021: if the supply of raw materials from the Company to HSB is below a certain level, after August 2021: no condition).
In addition, the Company has a call option to acquire 40% stake from Shell as the evaluation value of the external valuation institution (From August 2021 to August 2029: if the amount of products Shell purchased from HSB is below a certain level, after August 2029: no condition).

20. Derivative Financial Instruments

Details of derivative financial instruments as at December 31, 2018, are as follows:

(in thousands of USD)

Purpose	Type of contract	Details of contract	Contract unit	Contract value	
				Sell	Buy
Cash flow hedge	Commodity forward contracts	Refining margin risk hedge	USD	22,873	21,443
		Product price risk hedge	USD	324,170	324,151
Trading purposes hedge	Commodity forward contracts	Product price risk hedge	USD	3,660	7,988

Derivative financial instruments as at December 31, 2018 and 2017, are as follows:

(1) December 31, 2018

(in thousands of Korean won)

	Type of contract	Financial assets at fair value through profit or loss	Financial liabilities at fair value through profit or loss	Derivative financial assets	Derivative financial liabilities
Cash flow hedge	Commodity forward contracts	-	-	13,082,543	4,238,136
Trading purposes hedge	Commodity forward contracts	210,024	23,911	-	-

(2) December 31, 2017

(in thousands of Korean won)

	Type of contract	Financial assets at fair value through profit or loss	Financial liabilities at fair value through profit or loss	Derivative financial assets	Derivative financial liabilities
Cash flow hedge	Commodity forward contracts	-	-	43,847,366	52,125,144

Expected transactions with high possibility of occurrence of hedged items, regarding cash flow hedge, are estimated to occur within varying periods of 12 month, and will further effect gain or loss in 12 month to come. No expected transaction, under hedge accounting that requires amendment due to less likelihood of occurrence, exists in above financial statements. The effective portion of changes in fair value of derivatives that are recognized as other comprehensive income, as at 2018, amounts to ₩7,732 million (2017: ₩(-)5,714 million), and the associated gains or losses that are reclassified from equity to profit or loss, as at 2018, amounts to ₩2,769 million (2017: ₩(-)2,217 million).

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For the periods ended December 31, 2018 and 2017, realized and unrealized gain (loss) from derivative instruments transactions are as follows:

(3) 2018

(in thousands of Korean won)

	Type of contract	Disposal of financial instruments at fair value through profit or loss		Valuation of financial instruments at fair value through profit or loss	
		Gain	Loss	Gain	Loss
Trading purposes	Foreign exchange forward contracts	4,233,460	7,748,920	-	-
	Commodity forward contracts	-	1,227,911	210,024	23,911
		4,233,460	**8,976,831**	**210,024**	**23,911**

(4) 2017

(in thousands of Korean won)

	Type of contract	Disposal of financial instruments at fair value through profit or loss		Valuation of financial instruments at fair value through profit or loss	
		Gain	Loss	Gain	Loss
Trading purposes	Foreign exchange forward contracts	5,453,088	2,364,521	-	-
	Commodity forward contracts	819,704	280,558	-	-
		6,272,792	**2,645,079**	**-**	**-**

21. Equity

The Company's number of authorized shares is 500,000,000 shares. Total number of ordinary shares issued is 245,082,422 shares, and the par value per share is ₩5,000.

22. Hybrid Equity Securities

Details of bond-type hybrid equity securities classified as equity as at December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	Issue date	Maturity date	Interest rate	December 31, 2018	December 31, 2017
1-1st Private hybrid equity securities	2015-12-11	2045-12-11	4.80%	160,000,000	160,000,000
1-2nd Private hybrid equity securities	2015-12-11	2045-12-11	4.75%	65,000,000	65,000,000
				225,000,000	**225,000,000**
Less: issuance expenses				**(727,150)**	**(727,150)**
				224,272,850	**224,272,850**

The condition of hybrid equity securities issued for the period ended December 31, 2018 is as follows:

(in thousands of Korean won)

	1-1st Private hybrid equity securities	1-2nd Private hybrid equity securities
Issue amount	160,000,000	65,000,000
Maturity	30 years (At maturity, it can be extended on the Company's decision)	
Rate	From issue date to December 11, 2020 : Fixed rate 4.80% per year Recalculated and applied every 5 years, Yield rate of government bond with 5 year maturity+ annual 2.865% + annual 2.00% (step-up clauses)	From issue date to December 11, 2020: Fixed rate 4.75% per year, Recalculated and applied every 5 years Yield rate of government bond with 5 year maturity + annual 2.815% + annual 2.00% (step-up clauses)
Condition for interest paid	Three months deferred payment and it is possible to selectively extend the payment date.	
Others	Prepayment is allowed after 5 years from the issuance date or every interest payment date depending on the Company's decision.	

The Group has a right to extend the maturity date of hybrid equity securities. In addition, payment of interest on bonds can be postponed at the discretion of The Group which in that case The Group cannot resolve and pay the dividend of common stocks until the interest is fully paid. Hybrid equity securities where The Group has an unconditional right to avoid delivering cash or another financial asset to settle a contractual obligation are classified as equity instruments.

23. Accumulated Other Comprehensive Income (Loss)

Accumulated other comprehensive income (loss) as at December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	December 31, 2018	December 31, 2017
Gain on revaluation of land	218,796,187	220,244,975
Exchange differences	(264,791)	(1,952,094)
Share of other comprehensive income of associate	2,351,303	2,249,587
Derivative instruments for cash flow hedge	7,732,385	(5,714,321)
	228,615,084	**214,828,147**

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24. Retained Earnings

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

(in thousands of Korean won)

	December 31, 2018	December 31, 2017
Legal reserves(*1)	119,820,366	85,508,827
Unappropriated retained earnings	2,990,046,791	2,978,719,125
	3,109,867,157	**3,064,227,952**

(*1) The Commercial Code of the Republic of Korea requires the Group to appropriate for each financial period, as a legal reserve, an amount equal to a minimum of 10% of cash dividends paid until such reserve equals 50% of its issued share capital. The reserve is not available for cash dividends payment, but may be transferred to share capital or used to reduce accumulated deficit. When the accumulated legal reserves (the sum of capital reserves and earned profit reserves) are greater than 1.5 times the paid-in capital amount, the excess legal reserves may be distributed.

25. Selling and Administrative Expenses

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

(in thousands of Korean won)

	2018	2017
Salaries	94,811,343	93,677,783
Employee benefit	16,828,372	16,036,949
Promotional expenses	13,323,566	10,821,453
Advertising expenses	22,677,822	19,376,142
Service costs	51,739,244	51,994,340
Commission expenses	27,963,630	22,030,745
Freight expenses	104,406,757	128,369,307
Depreciation	18,729,032	18,483,251
Amortization	4,126,045	3,487,699
Rental expenses	26,792,807	27,171,422
Others	29,684,566	27,300,835
	411,083,184	**418,749,926**

26. Expenses by Nature

Expenses by nature for the periods ended December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	2018	2017
Changes in inventories	(621,255,176)	(826,204,340)
Purchase of inventories	20,097,438,366	14,768,852,311
Depreciation	330,521,505	314,347,392
Amortization	5,432,736	4,294,623
Salaries	282,215,489	266,632,735
Others	748,253,851	721,551,685
	20,842,606,771	**15,249,474,406**

The sum of total expenses by nature equals to the sum of cost of sales and selling and administrative expenses in the statement of comprehensive income.

27. Finance Income and Costs

Finance income and costs for the periods ended December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	2018	2017
Finance income		
Interest income	4,324,936	4,957,019
Gain on foreign currency translation	5,868,644	17,161,101
Gain on foreign currency transactions	37,613,554	85,384,508
	47,807,134	**107,502,628**
Finance costs		
Interest expense	92,235,636	76,658,996
Loss on sales of trade receivables	6,330,360	537,430
Loss on foreign currency translation	391,725	1,196
Loss on foreign currency transactions	76,549,244	15,296,023
	175,506,965	**92,493,645**

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28. Other Non-operating Income and Expenses

Other non-operating income and expenses of the Group for the periods ended December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	2018	2017
Other non-operating income		
Gain on disposal of financial assets at fair value through profit or loss	4,233,460	6,272,792
Gain on valuation of financial assets at fair value through profit or loss	210,024	-
Gain on foreign currency translation	7,095,295	21,419,486
Gain on foreign currency transactions	188,065,328	142,407,616
Gain on disposal of property, plant, and equipment	1,038,926	367,049
Miscellaneous income	45,894,587	15,952,751
	246,537,620	**186,419,694**
Other non-operating expenses		
Loss on disposal of financial assets at fair value through profit or loss	8,976,831	2,645,079
Loss on valuation of financial assets at fair value through profit or loss	23,911	-
Loss on foreign currency translation	4,750,914	16,837,006
Loss on foreign currency transactions	207,067,879	165,908,420
Loss on disposal of property, plant, and equipment	2,608,287	10,734,156
Loss on disposal of intangible assets	1	265,593
Donations	7,463,782	3,854,843
Miscellaneous expenses	104,457,814	5,128,499
	335,349,419	**205,373,596**

29. Income Tax Expense

Income tax expense for the periods ended December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	2018	2017
Current tax	172,571,787	276,467,051
Deferred tax due to temporary differences	(38,630,789)	24,779,236
Deferred tax due to tax credit	-	-
Deferred tax charged to equity	(274,436)	(6,241,030)
Income tax expense	133,666,562	295,005,257

The tax on the Group's profit before tax differs from the theoretical amount that would arise using the weighted average tax rate applicable to profits of the Group as follows:

(in thousands of Korean won)

	2018	2017
Profit before income tax expense	537,473,923	1,232,954,451
Tax calculated at domestic tax rates applicable to profits in the respective countries	123,306,246	295,651,323
Effect of income not subject to tax	(15,258,830)	(8,408,116)
Effect of expenses not deductible for tax purposes	28,911,543	1,554,855
Effect of tax exemptions	(3,224,411)	(853,752)
Impact of changes in Korean tax rate	-	11,665,278
Income tax refunds	-	(4,378,470)
Others	(67,986)	(225,861)
	133,666,562	**295,005,257**
Effective tax rate	24.87%	23.93%

Changes in deferred tax assets and liabilities for the peirods ended December 31, 2018 and 2017, are as follows:

(1) 2018

(in thousands of Korean won)

Type	Temporary differences			Deferred tax assets (liabilities)
	Beginning balance	Changes	Ending balance	
Depreciation	85,858,917	6,660,273	92,519,190	25,483,233
Construction-in-progress	30,203,111	(1,154,715)	29,048,396	7,988,309
Contingent liabilities	500,000	-	500,000	137,500
Impairment loss	8,480,066	(365,911)	8,114,155	2,231,393
Accrued income	(171,074)	(36,984)	(208,058)	(57,062)
Provisions	35,890,434	(1,623,708)	34,266,726	9,423,350
Loss on valuation of Inventories	7,395,041	122,731,324	130,126,365	35,784,750
Loss(gain) on disposal of property, plant, and equipment	1,218,725	(81,517)	1,137,208	312,732
Post-employment benefit obligations	185,358,855	21,733,825	207,092,680	56,490,070
Plan assets	(207,824,411)	(3,074,575)	(210,898,986)	(57,501,446)
Loss(gain) on valuation of derivative instruments	6,789,603	(9,592,484)	(2,802,881)	(729,921)
Promotion expense	842,977	2,403,550	3,246,527	892,795
Revaluation of assets	(667,418,294)	8,730,031	(658,688,263)	(180,086,221)
Advanced depreciation provision	(91,858,101)	-	(91,858,101)	(25,260,978)
Accrued expenses	6,957,008	1,573,350	8,530,358	2,214,157
Other payables	19,083,198	10,589,925	29,673,123	8,160,109
Government subsidy	1,274,433	(1,030,791)	243,642	67,001
Others	142,752,049	51,773,562	194,525,611	(20,198,617)
	(434,667,463)	**209,235,155**	**(225,432,308)**	**(134,648,846)**

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(2) 2017

(in thousands of Korean won)

Type	Temporary differences			Deferred tax assets (liabilities)
	Beginning balance	Changes	Ending balance	
Depreciation	69,652,608	16,206,309	85,858,917	23,656,841
Construction-in-progress	31,202,759	(999,648)	30,203,111	8,305,856
Contingent liabilities	500,000	-	500,000	137,500
Impairment loss	9,217,177	(737,111)	8,480,066	2,332,018
Accrued income	(206,738)	35,664	(171,074)	(46,869)
Provisions	34,022,980	1,867,454	35,890,434	9,869,869
Loss on valuation of Inventories	3,914,169	3,480,872	7,395,041	2,033,636
Loss(gain) on disposal of property, plant, and equipment	1,301,238	(82,513)	1,218,725	335,149
Post-employment benefit obligations	93,572,842	16,995,387	110,568,229	30,064,867
Plan assets	(180,671,531)	(27,152,880)	(207,824,411)	(56,710,824)
Loss(gain) on valuation of derivative instruments	(452,279)	7,241,882	6,789,603	1,782,099
Promotion expense	683,129	159,848	842,977	231,819
Revaluation of assets	(676,945,492)	9,527,198	(667,418,294)	(182,486,979)
Advanced depreciation provision	(91,858,874)	773	(91,858,101)	(25,260,978)
Actuarial gains and losses	85,224,459	(10,433,833)	74,790,626	21,132,068
Accrued expenses	6,537,643	419,365	6,957,008	1,840,186
Other payables	-	19,083,198	19,083,198	5,247,879
Government subsidy	2,398,933	(1,124,500)	1,274,433	350,469
Provision for carbon gas emission	5,331,117	(5,331,117)	-	-
Others	95,286,406	47,465,643	142,752,049	(16,094,241)
	(511,289,454)	**76,621,991**	**(434,667,463)**	**(173,279,635)**

Details of deferred income tax charged to equity are as follows:

(in thousands of Korean won)

	2018	2017
Cash flow hedges	(736,496)	1,782,099
Gain on revaluation of land	(81,539,173)	(82,246,164)
Actuarial losses	22,669,236	21,132,068
	(59,606,433)	**(59,331,997)**

Details of unrecognized deductible (taxable) temporary differences as deferred tax liabilities as at December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	December 31, 2018	December 31, 2017	Remarks
Interests in subsidiary	178,567,779	147,587,377	No plans for disposal

30. Earnings per Share

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

(in thousands of Korean won, except per share amount)

	2018	2017
Profit attributable to the ordinary equity holders of the Parent Company	402,009,631	861,802,708
Dividends of hybrid equity securities	(10,767,500)	(10,767,500)
Weighted average number of ordinary shares outstanding(shares)	245,082,422	245,082,422
Basic earnings per share(in Korean won)	1,596	3,472

The Group did not issue any potential ordinary shares. Therefore, basic earnings per share is identical to diluted earnings per share.

Notes to the Consolidated Financial Statements

December 31, 2018 and 2017

31. Cash Generated from Operations

Cash generated from operations for the periods ended December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	2018	2017
Adjustments for:		
Post-employment benefits	22,410,584	26,721,299
Depreciation	330,521,505	314,347,392
Amortization	5,432,736	4,294,623
Impairment loss(reversal)	418,980	(226,897)
Impairment loss(reversal) of other receivables	-	(105,636)
Interest expense	92,235,636	76,658,996
Loss on sales of trade receivables	6,330,360	537,430
Loss on foreign currency translation	5,142,639	16,838,202
Loss on valuation of financial assets at fair value through profit or loss	23,911	-
Loss on disposal of financial assets at fair value through profit or loss	8,976,831	2,645,079
Loss on valuation of inventory (reversal)	138,463,410	3,617,656
Loss on disposal of property, plant, and equipment	2,608,287	10,734,156
Loss on disposal of intangible assets	1	265,593
Income tax expense	133,666,562	295,005,257
Miscellaneous losses	95,059,065	-
Interest income	(4,324,936)	(4,957,019)
Gain on foreign currency translation	(12,963,939)	(38,580,587)
Gain on valuation of financial assets at fair value through profit or loss	(210,024)	-
Gain on disposal of financial assets at fair value through profit or loss	(4,233,460)	(6,272,792)
Gain on disposal of property, plant, and equipment	(1,038,926)	(367,049)
Share of profit of investments accounted for using the equity method	(92,949,192)	(99,066,800)
Provision for restoration costs	1,165,097	498,299
Reversal of provision for restoration costs	(2,721,300)	-
	724,013,827	**602,587,202**

(in thousands of Korean won)

	2018	2017
Changes in operating assets and liabilities		
Trade receivables	505,594,095	(381,696,095)
Other receivables	(144,113,692)	4,185,656
Inventories	(762,938,121)	(840,363,013)
Other current assets	605,811	(2,773,725)
Other non-current assets	(43,735)	54,789
Trade payables	(147,203,490)	927,958,387
Other payables	358,979,683	(84,804,167)
Other current liabilities	24,609,267	(17,897,157)
Long-term trade and other payables	481,040	525,400
Net defined benefit liability	(9,413,171)	(29,821,063)
Provisions	(1,222,855)	(5,762,214)
Deferred income	1,155,351	1,800,252
Other non-current liabilities	389,864	136,129
	(173,119,953)	**(428,456,821)**

Significant non-cash investing and financing activities for the periods ended December 31, 2018 and 2017, are as follows:

(in thousands of Korean won)

	2018	2017
Transferred from construction-in-progress to other property, plant and equipment and intangible assets accounts	1,088,500,162	399,611,656
Other payables related to the acquisition of property, plant and equipment	57,904,792	(36,268,786)

Changes in liabilities arising from financing activities for the periods ended December 31, 2018 are as follows.

(1) 2018

(in thousands of Korean won)

	Beginning balance	Cash flows from financing activities	Non-cash activities		Ending balance
			Amortization	Foreign currency conversion effect	
Short-term borrowings	693,477,045	513,667,572	-	(5,477,071)	1,201,667,546
Long-term borrowings	884,247,255	14,612,493	1,189,384	738,193	900,787,325
Bonds	1,297,724,032	28,634,720	969,746	-	1,327,328,498
	2,875,448,332	**556,914,785**	**2,159,130**	**(4,738,878)**	**3,429,783,369**

Notes to the Consolidated Financial Statements

December 31, 2018 and 2017

32. Related Party Transactions

As at December 31, 2018, the Parent company is Hyundai Heavy Industries Holdings Co., Ltd. (formerly Hyundai Robotics Co., Ltd.) (percentage of ownership: 91.13%), a newly established entity through equity spin-off from Hyundai Heavy Industries Co., Ltd. on April 1, 2017. Hyundai Heavy Industries Holdings Co., Ltd. (formerly Hyundai Robotics Co., Ltd.) is also the ultimate parent company of the Company.

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

	2018	2017
Joint venture	Hyundai Cosmo Petrochemical Co., Ltd.	Hyundai Cosmo Petrochemical Co., Ltd.
	Hyundai and Shell Base Oil Co., Ltd.	Hyundai and Shell Base Oil Co., Ltd.
Other related parties	Hyundai Construction Equipment Co., Ltd.	Hyundai Construction Equipment Co., Ltd.
	Hyundai Electric & Energy Systems Co., Ltd.	Hyundai Electric & Energy Systems Co., Ltd.
	Hyundai Global Service Co., Ltd.	Hyundai Global Service Co., Ltd.
	Hyundai Heavy Industries Co., Ltd.	Hyundai Heavy Industries Co., Ltd.
	The subsidiaries of Hyundai Heavy Industries Co., Ltd. and others	The subsidiaries of Hyundai Heavy Industries Co., Ltd. and others

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

(in thousands of Korean won)

		2018			
		Sales	Other Sales	Purchases	Other purchases
Joint venture	Hyundai Cosmo Petrochemical Co., Ltd.	2,136,325,957	27,948,164	1,140,437,718	7,357,372
	Hyundai and Shell Base Oil Co., Ltd.	636,786,543	7,104,983	171,109,378	-
Other related parties	Hyundai Heavy Industries Co., Ltd.	39,384,923	93	-	23,235,959
	Hyundai Construction Equipment Co., Ltd.	8,477,014	-	-	-
	Hyundai Electric & Energy Systems Co., Ltd.	2,273,012	-	-	2,969,436
	Hyundai Mipo Dockyard Co., Ltd.	6,741,564	-	-	-
	Hyundai Samho Heavy Industries Co., Ltd.	20,088,092	-	-	3,265
	HYUNDAI HYMS CO., LTD.	41,735,598	-	-	-
	Hyundai Global Service Co., Ltd.	89,495,175	-	-	-
	Others	10,332,287	-	-	11,170,599
		2,991,640,165	**35,053,240**	**1,311,547,096**	**44,736,631**

(in thousands of Korean won)

		2017	
		Sales and others	Purchases and others
Joint venture	Hyundai Cosmo Petrochemical Co., Ltd.	1,700,426,350	1,025,060,892
	Hyundai and Shell Base Oil Co., Ltd.	565,226,458	154,517,430
Other related parties	Hyundai Heavy Industries Co., Ltd.	50,434,307	7,974,314
	Hyundai Construction Equipment Co., Ltd.(*1)	6,014,266	-
	Hyundai Electric & Energy Systems Co., Ltd.(*1)	1,640,336	7,931,166
	Hyundai Mipo Dockyard Co., Ltd.	6,017,768	-
	Hyundai Samho Heavy Industries Co., Ltd.	11,994,898	3,366
	HYUNDAI HYMS CO., LTD.	85,711,699	-
	Others	6,569,422	10,471,182
		2,434,035,504	**1,205,958,350**

(*1) This company was newly established on April 1, 2017 through equity spin-off from Hyundai Heavy Industries Co., Ltd. The amount includes the transaction amount from its establishment to December 31, 2017.

Outstanding balances arising from sales/purchases of goods and services as at December 31, 2018 and 2017, are as follows:

(1) December 31, 2018

(in thousands of Korean won)

		Receivables		Payables	
		Trade receivables	Other receivables	Trade payables	Other payables
Joint venture	Hyundai Cosmo Petrochemical Co., Ltd.	21,690,633	5,599,491	82,068,280	1,074,865
	Hyundai and Shell Base Oil Co., Ltd.	8,812,789	103,450	18,004,535	41,968
Other related parties	Hyundai Heavy Industries Co., Ltd.	18,326,631	26,894	-	77,959
	Hyundai Construction Equipment Co., Ltd.	3,020,117	-	-	-
	Hyundai Electric & Energy Systems Co., Ltd.	321,136	-	-	-
	Hyundai Mipo Dockyard Co., Ltd.	883,740	-	-	-
	Hyundai Samho Heavy Industries Co., Ltd.	6,697,242	10,319	-	294
	HYUNDAI HYMS CO., LTD.	61,409	-	-	-
	Hyundai Global Service Co., Ltd.	9,073,126	-	-	-
	Others	2,408,476	2,466,667	-	321,860
		71,295,299	**8,206,821**	**100,072,815**	**1,516,946**

Notes to the Consolidated Financial Statements

December 31, 2018 and 2017

(2) December 31, 2017

(in thousands of Korean won)

		Receivables		Payables	
		Trade receivables	Other receivables	Trade payables	Other payables
Joint venture	Hyundai Cosmo Petrochemical Co., Ltd.	178,612,643	7,011,338	111,192,222	1,016,190
	Hyundai and Shell Base Oil Co., Ltd.	61,488,832	-	15,356,136	-
Other related parties	Hyundai Heavy Industries Co., Ltd.	19,200,897	-	-	442,571
	Hyundai Construction Equipment Co., Ltd.	3,391,457	-	-	-
	Hyundai Electric & Energy Systems Co., Ltd.	544,356	-	-	90,354
	Hyundai Mipo Dockyard Co., Ltd.	329,762	-	-	44,388
	Hyundai Samho Heavy Industries Co., Ltd.	2,308,541	55,049	-	309
	HYUNDAI HYMS CO., LTD.	7,915,243	-	-	-
	Others	450,539	-	-	-
		274,242,270	**7,066,387**	**126,548,358**	**1,593,812**

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

(in thousands of Korean won)

		Dividend	
		2018	2017
Parent Company	Hyundai Heavy Industries Holdings Co., Ltd. (formerly, Hyundai Robotics Co., Ltd.)	(312,664,141)	(267,997,835)
Joint venture	Hyundai and Shell Base Oil Co., Ltd.	18,000,000	30,000,000

On November 27, 2018, Hi Investment & Securities Co., Ltd., was excluded from the business group and excluded from related parties. Before being excluded from related parties, the Group has entrusted Hi Investment & Securities Co., Ltd., an other related party of the Company, with short-term funds to invest in Money Market Trust(MMT) with an average daily balance of ₩ 60,672 million(2017: ₩ 72,933 million). For the periods ended 2018 and 2017, the Company does not have remaining balances in the MMT. The Company had deposited plan assets of ₩ 6,076 million in Hi Investment & Securities Co., Ltd. account as at December 31, 2017.

Details of payment guarantees provided by the Group for the funding sources of the related parties as at December 31, 2018, are as follows. No collateral is provided by the Group, and no collateral and payment guarantees are provided by the related parties:

Guarantee

(in thousands of USD)

		Guaranteed by	Guaranteed amount	Guarantee period	Remark
Joint Venture	Hyundai Cosmo Petrochemical Co., Ltd.[*1]	Mizuho Bank	USD 7,500	2012-10-26 ~ 2019-9-30	Borrowings

[*1] The amount guaranteed is the unpaid balance of the total contracted amount of USD 30 million.

The compensation paid or payable to key management for employee services consists of:

(in thousands of Korean won)

	2018	2017
Short-term salaries	4,199,149	2,590,287
Post-employment benefits	806,989	329,980
	5,006,138	**2,920,267**

Key management includes directors (executive and non-executive) who have the authority and responsibility in planning, operations and control of the Group's operations.

33. Changes in accounting policies

33.1 Application of Korean IFRS 1109 Financial Instruments

As explained in Note 2, the Group adopted Korean IFRS 1109 on January 1, 2018 as the initial date of adoption. The Group has not restated its financial statements of 2017 in accordance with the transition rules. The effect of adoption of Korean IFRS 1109 on the financial statements is as follows.

Notes to the Consolidated Financial Statements

December 31, 2018 and 2017

33.1.1 Classification and measurement of financial instruments

There is no change in the beginning retained earnings due to the classification and measurement of financial instruments.

Management has evaluated the business model applied to the financial assets held as of January 1, 2018, the initial application date of Korean IFRS 1109, and classified the financial assets in accordance with Korean IFRS 1109. The effect of this reclassification is as follows.

(in thousands of Korean won)

	Loans and receivables	Available-for-sale financial assets	Amortized cost	Fair value through profit or loss	Total of financial assets
Beginning book value - KIFRS 1039	1,969,080,656	3,000,000	-	-	**1,972,080,656**
Reclassification of loans and receivables as amortized cost	(1,969,080,656)	-	1,969,080,656	-	-
Reclassification of available-for-sale financial assets as financial assets recognized fair value through profit or loss	-	(3,000,000)	-	3,000,000	-
Beginning book value - KIFRS 1109	-	-	1,969,080,656	3,000,000	**1,972,080,656**

(1) Reclassification of available-for-sale financial assets as Financial assets recognized fair value through profit or loss

The Group has elected to classify the equity investment ₩3,000 million, previously classified as available-for-sale, as assets measured at fair value through profit or loss, for which all subsequent changes in fair value are recognized in profit or loss.

(2) Reclassification of financial instruments upon adoption of Korean IFRS 1109

The reclassification of financial assets as a result of adoption of Korean IFRS 1109 as of January 1, 2018, which is the initial application date, is as follows.

(in thousands of Korean won)

	Measurement category		Book value		
	KIFRS 1039	KIFRS 1109	KIFRS 1039	KIFRS 1109	Difference
Current assets					
Cash and cash equivalents	Loans and receivables	Amortization cost	148,231,468	148,231,468	-
Short-term financial assets	Loans and receivables	Amortization cost	10,183,166	10,183,166	-
Derivative assets	Cash flow hedging instruments	Cash flow hedging instruments	43,847,366	43,847,366	-
Trade and other receivables	Loans and receivables	Amortization cost	1,694,497,926	1,694,497,926	-
Non-current assets					
Long-term financial assets	Loans and receivables	Amortization cost	2,024,500	2,024,500	-
Debt instruments (investment funds)	Available-for-sale financial assets	Fair value through profit or loss	3,000,000	3,000,000	-
Trade and other receivables	Loans and receivables	Amortization cost	114,143,596	114,143,596	-
Current liabilities					
Derivative liabilities	Cash flow hedging instruments	Cash flow hedging instruments	52,125,144	52,125,144	-

33.1.2 Impairment of financial assets

The adoption of Korean IFRS 1109 has changed the recognition policy of impairment loss and has no effect on the beginning retained earnings of the Group.

The Group has elected to measure loss allowances for trade receivables and contract assets at an amount equal to lifetime expected credit losses.

33.2 Application of Standard 1115 'Revenue from Contract with Customer'

As described in Note 2, the Group has adopted Korean IFRS 1115 from the beginning of 2018, and the comparative financial statements have not been restated. The adoption of this standard did not have a significant effect on the consolidated financial statements.

34. Restatement of Financial Statements

Due to changes in scope for consolidation, consolidated financial statements of the Group as at and for the periods ended December 31, 2017, were restated as follows.

The Group has established Hyundai and Shell Base Oil Co., Ltd., a joint venture which is engaged in the production and sale of lube base oils with The Shell Petroleum Company Limited (Shell) on April 12, 2012, with the ownership interest of 60% and 40% by the Company and Shell, respectively. Its Board of Directors consists of three persons appointed by the Group and two persons appointed by Shell.

Notes to the Consolidated Financial Statements

December 31, 2018 and 2017

Hyundai and Shell Base Oil Co., Ltd. purchases 100% of raw materials from the Company, manufactures lube base oils and sells them to the Company, Shell and other customers and all the by-products are also sold to the Company. The entire operation of the plant and part of the general management services of Hyundai and Shell Base Oil Co., Ltd., are provided by the Company.

Based on the ownership interest of 60% from its establishment in 2012, the supply of raw materials and the control over production and operating activities of Hyundai and Shell Base Oil Co., Ltd., the Group had classified Hyundai and Shell Base Oil Co., Ltd. as a subsidiary included it in the consolidation.

However, in the review of the accounting treatments for the Company's initial public offering in 2018, management of the Company has concluded that Hyundai and Shell Base Oil Co., Ltd. should have been accounted for as a joint venture since the joint approval of Shell is significant in its decision making despite 60% ownership of the Company. As a result, the Group classified Hyundai and Shell Base Oil Co., Ltd. as a joint venture and determined to restate financial statements.

(a) Consolidated statements of financial position

(in thousands of Korean won)

	December 31, 2017		
	Before adjustment	**After adjustment**	**Difference**
Current assets	4,306,617,000	4,103,581,443	(203,035,557)
Non-current assets	6,955,428,992	6,837,742,766	(117,686,226)
Total assets	11,262,045,992	10,941,324,209	(320,721,783)
Current liabilities	3,823,736,338	3,797,698,433	(26,037,905)
Non-current liabilities	2,304,976,494	2,081,704,802	(223,271,692)
Total liabilities	6,128,712,832	5,879,403,235	(249,309,597)
Equity attributable to owners of the Parent Company	4,677,247,668	4,730,439,330	53,191,662
Non-controlling interest	456,085,492	331,481,644	(124,603,848)
Total equity	5,133,333,160	5,061,920,974	(71,412,186)
Total liabilities and equity	11,262,045,992	10,941,324,209	(320,721,783)

(b) Consolidated statements of income and consolidated statements of comprehensive income

(in thousands of Korean won)

	2017		
	Before adjustment	**After adjustment**	**Difference**
Revenue	16,376,191,660	16,387,306,976	11,115,316
Operating profit	1,260,549,035	1,137,832,570	(122,716,465)
Profit for the period	978,425,396	937,949,194	(40,476,202)
Other comprehensive income (loss)	(6,570,923)	(6,583,035)	(12,112)
Total comprehensive income	971,854,473	931,366,159	(40,488,314)

(c) Consolidated statements of changes in equity

Consolidated statements of changes in equity was restated in accordance with consolidated statement of financial position and consolidated statements of comprehensive income.

(d) Consolidated statements of cash flows

(in thousands of Korean won)

	2017		
	Before adjustment	**After adjustment**	**Difference**
Cash flows from operating activities	873,862,278	790,226,140	(83,636,138)
Cash flows from investing activities	(737,784,417)	(734,301,745)	3,482,672
Cash flows from financing activities	(225,603,146)	(205,603,146)	20,000,000
Net increase (decrease) in cash and cash equivalents	(89,525,285)	(149,678,751)	(60,153,466)
Cash and cash equivalents at the beginning of the period	300,946,654	300,571,957	(374,697)
Effects of exchange rate changes on cash and cash equivalents	(4,579,004)	(2,661,738)	1,917,266
Cash and cash equivalents at the end of the period	206,842,365	148,231,468	(58,610,897)

(e) Notes

Notes were restated in accordance with consolidated statement of financial position, consolidated statements of income, consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows.

35. Events after the reporting period

(1) Saudi Aramco plans to acquire up to 19.9% stake in Hyundai Oilbank Co., Ltd. owned by Hyundai Heavy Industries Holdings Co., Ltd., for a maximum of 1.8 trillion won, according to an agreement between Hyundai Heavy Industries Holdings Co. Ltd. and Saudi Aramco. The agreement on investment promotion will be completed through the share purchase agreement between the two companies and the signing of the share agreement, and the size and amount of the equity sale may be changed through final negotiation.

(2) The Board of Directors of the Group decided to acquire business and non-current assets for the expansion of terminal business as follows,

(in millions of Korean won)

	Business transfer	**Acquisition of non-current assets**
Date of transaction (expected)	February 15, 2019	July 31, 2019
Opponent	PLS Co., Ltd.	GS E&R Corp.
Objects	Tank terminal storage business of PLS Co., Ltd. and related assets, contracts, liabilities, employees, facts and others	Land, buildings, storage tanks and others
Amount	4,400	35,000

(3) The Board of Directors of the Group has decided to conclude a cash deficiency support agreement on additional facility borrowings with OCI Co. Ltd for ₩40 billion.

Global Network

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Cheonan Mobile
18 Beodeul-ro (Munhwa-dong),
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Mokpo Mobile
63-12 Sinhang-ro, Samho-eup,
Yeongnam-gun, Jeollanam-do, Korea
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Gyeongbuk Branch
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