

OPERATION REPORT

2020

OPERATION
REPORT



CHINASTEEL



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OPERATION REPORT 2020

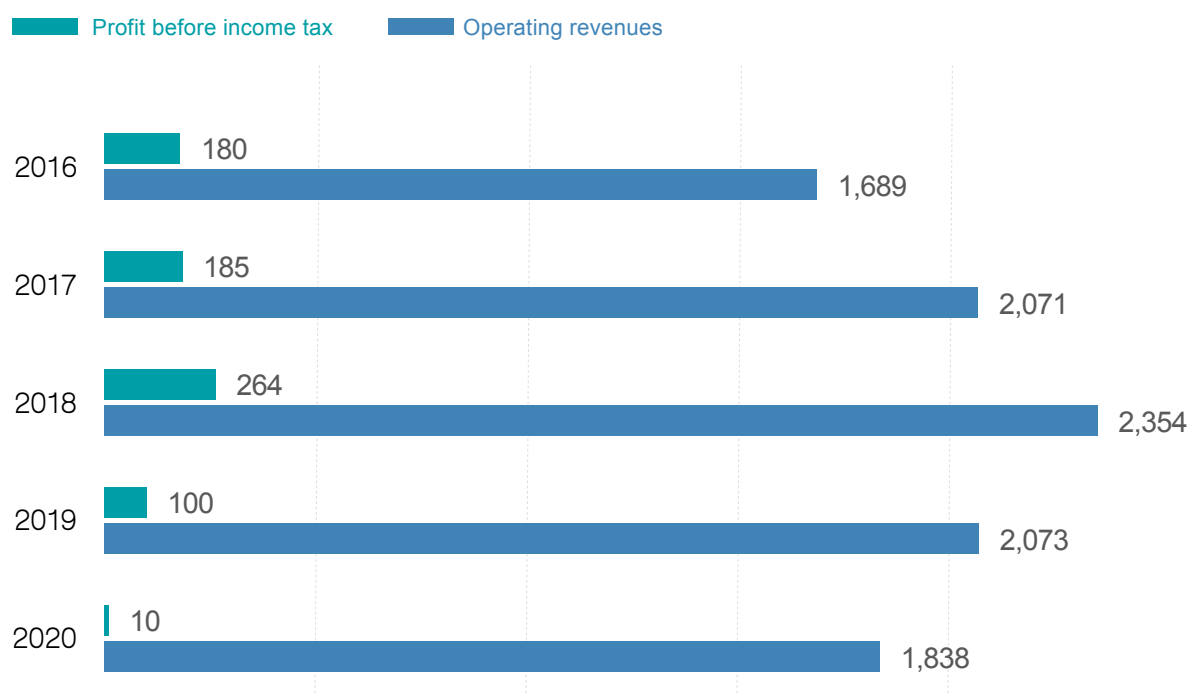
January 1 through December 31, 2020

* This English version is a translation of the Operation Report 2020 published in Chinese. In case of any discrepancy, the Chinese version shall prevail.

Highlights of Operating Results

Operating revenues and profit before income tax

(in hundred millions of New Taiwan Dollars)



		2020	2019
Operating revenues	(Millions of New Taiwan Dollars)	183,842	207,298
Operating costs and expenses		183,105	202,849
Profit from operations		597	4,587
Profit before income tax		1,007	10,035
Employment costs¹		14,727	18,037
Depreciation		15,250	17,429
Interest expenses net¹		990	1,143
Total assets		442,918	466,079
Capital expenditures		16,914	8,249
Equity		293,299	302,559
Output of steel products	(Thousands of metric tons)	8,709	8,740
Sales volume of steel products	(Thousands of metric tons)	10,143	10,291
Number of employees²		9,961	10,230
Return on sales	(%)	0.55	4.84
Return on equity³		0.30	2.86

¹ Excluding capital expenditures

² As of the end of the calendar year

³ Based on net income

Chronology of Major Events

1970

- 1971/12/03** China Steel Corporation ⁴ is officially registered, with head office located in Taipei.
- 1972/09/16** Kaohsiung Plant Site Office is established.
- 1974/09/01** Phase I construction commences.
- 1974/12/26** CSC stock is listed on Taiwan Stock Exchange Corporation.
- 1975/09/15** Head office relocates to Kaohsiung. Plant Site Office closes.
- 1977/07/01** CSC becomes a state enterprise.
- 1977/12/16** Phase I is completed, with capacity ⁵ of 1.5 million tons ⁶ per year.
- 1978/07/01** Phase II construction commences.

1980

- 1982/06/30** Phase II is completed. Capacity ⁵ reaches 3.25 million tons ⁶ per year.
- 1984/07/01** Phase III construction commences.
- 1988/04/30** Phase III is completed. Capacity ⁵ reaches 5.652 million tons ⁶ per year.

1990

- 1993/07/15** Phase IV construction commences.
- 1995/04/12** CSC is privatized.
- 1997/05/31** Phase IV is completed. Capacity ⁵ reaches 8.054 million tons ⁶ per year.
- 1998/06/02** CSC Group's ⁷ corporate identity system is formally introduced to the public.

⁴ Hereinafter also referred to as "the Corporation", "the Company" or "CSC".

⁵ In terms of crude steel.

⁶ All references to "tons" mean metric tons of 1,000 kilograms.

⁷ Hereinafter also referred to as "The group".

⁸ Hereinafter also referred to as "DSC".

2000

- 2006/04/15** Annual production capacity⁵ is officially raised to 9.86 million tons⁶ owing to success in equipment renovations and improvements carried out over the years.
- 2006/11/22** Groundbreaking for the China Steel Building takes place.
- 2008/10/06** Dragon Steel Corporation⁸ becomes a wholly owned subsidiary of CSC.

2010

- 2010/06/30** DSC's stage II phase 1 expansion project is completed. CSC Group's capacity⁵ reaches 13.36 million tons⁶ per year.
- 2013/03/05** DSC's stage II phase 2 expansion project is completed. CSC Group's capacity⁵ reaches 15.86 million tons⁶ per year.
- 2013/10/22** China Steel Building is inaugurated.
- 2017/12/20** The Board of Directors approves the initiation of the revamp of the coke ovens (phases I and II).
- 2018/12/31** CSC Group's operating revenues in 2018 sets the record of exceeding NT\$400 billion for the first time.

2020

- 2020/01/16** CSC positions itself as a steel mill that produces premium products with high value and devotes itself to the development of the green energy industry as the operational and developmental cores in enhancing its competitiveness for the next 50 years.
- 2020/02/21** CSC sets a new milestone in its pricing system by offering monthly and quarterly prices simultaneously for the first time.
- 2020/07/01** To promote the utilization of BOF Slag, CSC and TIPC jointly submit the Environmental Impact Difference Analysis Report for utilizing BOF Slag as an alternative land reclamation material in Taipei Port, approved by the Environmental Impact Assessment and Review Committee of Taiwan EPA.
- 2020/11/11** The first truck of BOF aggregate is successfully utilized as land reclamation material in Taipei Port, which marks a new milestone in BOF aggregate application.

An Overview of the Business Situation



Chairman
Chao-Tung Wong

Chao-Tung Wong

President
Shyi-Chin Wang

Shyi Chin Wang



The major issues that the international steel industry faced in 2020 were:

The global economy plummeted severely due to the impact of the coronavirus (COVID-19) outbreak.

In April, 2021, the International Monetary Fund (IMF) published the 2020 global economic growth rate to be -3.3%.

The global steel demand shrank.

On April 15, 2021, World Steel Association (worldsteel) published the statistics that the global apparent use of finished steel in 2020 was 1.772 billion metric tons, which shrank by 0.2% in comparison with that in 2019 due to the impact of the COVID-19 pandemic and the US-China Trade War.

Global crude steel production grew.

worldsteel also published that the global crude steel production in 2020 was 1.877 billion metric tons, which was increased by 0.1% in comparison with that in 2019.



The main factors which influenced the operations of the steel industry in Taiwan included:

The domestic demand of steel was higher than what had been expected.

According to the statistics published by the Taiwan Steel & Iron Industries Association, the apparent use of finished steel in Taiwan in 2020 was 18.413 million metric tons, which was increased by 4.5% in comparison with that in 2019 mainly because the domestic downstream end users of cold-rolled products, such as the furniture, hardware, fastener, hand tool, automobile, and motorcycle industries, benefited from the continuous improvement of the global terminal demand, and the return of the Taiwanese businessmen to set up factories also led to a substantial increase in demand in terms of steel structure.

Import sales of steel products increased while export sales of steel products declined.

There were a 4.1% increase in import sales and a 3.6% decrease in export sales, which was due to the impact of the international pandemic and drops of export demand, in 2020. The domestic growth was the result of the return of the Taiwanese businessmen to set up factories, which stimulated the increase of domestic demand.

Export sales were prosperous.

According to the statistics on imports and exports published by the Department of Statistics, Ministry of Economic Affairs (MOEA), on January 20, 2021, the accumulated export value of base metals reached US\$533.66 billion in 2020, which was increased by 10.1% in comparison with that of 2019. Steel-related basic metals and machinery products had maintained a double-digit growth trend. The galvanizing and coating industries had benefited from the continuous increase of domestic and international demand for home appliances, automobiles, and construction materials, and the momentum of the market outlook to generate profits continued.

CSC's 2020 operating revenue amounted to NT\$183.842 billion, which was 11.32% less than that in 2019 mainly due to the decrease of the unit prices of the sales volume. Gross profit in 2020 was NT\$8.227 billion, which was 35.25% less than that in 2019 mainly owing to the fact that the decrease of the unit prices was more than that of the unit costs. The non-operating income in 2020 was NT\$0.41 billion, which was 92.47% less than that in 2019 and mainly attributable to the decrease of the share of the profits from the subsidiaries and affiliates recognized under the equity method. Net profit in 2020 amounted to NT\$0.886 billion, which was 89.94% less than that in 2019.

CSC's 2020 operating directives included the following key points:

1 Total reduction of costs to boost profit and operational performance:

The campaign to reduce costs was continuously promoted, and the internal and external R&D resources were linked in an open and innovative manner to accelerate the development of highly-competitive products, low-cost manufacturing processes and value-added application techniques in order to improve the cost-performance of products and create differentiated competitive advantages. In 2020, the costs reduced by CSC were NT\$6.044 billion in total, and the target achievement rate was 132%.

2 Providing diversified services to expand markets:

The target volume of delivery of steel products in 2020 was 9.32 million metric tons, and the actual volume of delivery was 9.1915 million metric tons. The reasons for the failure to meet the target included the worsening of the COVID-19 pandemic, the US-China trade war, and so on, which affected prices and steel demand. In the future, marketing strategies, such as close market pricing, expansion of new customers and markets, etc., will be employed to increase the volume of delivery.

3 Establishing smart plants to promote efficiency:

In terms of smart production and marketing, 13 out of the 40 company-level smart programs had been implemented in 2020. The plan for 2021 aims to promote 32 programs, and differentiation and transformation of equipment and production capabilities, improvement of product manufacturing efficiency, and establishment of a smart steel mill will be implemented continuously for total smart production and sales.

4 Implementation of industrial safety and environmental protection to enhance prestige:

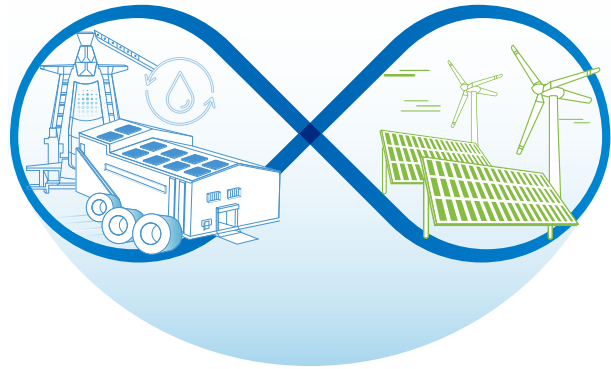
- (1) The awareness of industrial safety of the contractors' safety and health supervisors was strengthened. Effective inspections were promoted. Group industrial safety exchanges were also promoted; medium- and long-term plans for road traffic safety checks in factories, etc., were implemented to achieve the target of zero major occupational accidents in 2020.
- (2) Reduction of pollution emissions was continuously improved, and product circular economy was committed. In 2020, fine slag powder, applied in raw cement materials, amounted to 7,062 metric tons per month on average, and 174,372 metric tons of sludge mixture were recycled and utilized in domestic cement plants.

Since the outbreak of the COVID-19 pandemic in early 2020, the global economy has suffered a severe setback. The major central banks of various countries have successively implemented extremely loose monetary policies to save the economic slump. Governments around the world have provided approximately US\$12 trillion in financial support to timely resolve the further deterioration of the global economic situation. As the economic growth of advanced countries and China in the second quarter of 2020 was better than expected, the pace of recovery in the second half of 2020 accelerated. Regarding 2021, the IMF reported in the "World Economic Outlook" in April, 2021 that the global economic growth rate was estimated to be 6.0%, and that the global economy would demonstrate a V-shape rebound from its bottom; nonetheless, there would still be many challenges on the way to full recovery to the pre-pandemic level. On the whole, having benefited from the expansion of financial stimulus policies and infrastructure and China's strong recovery, the recovery of the global steel demand will be better than expected. It is expected that after the widespread inoculations of the COVID-19 vaccines, the lockdowns will be over, and economic activities around the world will then resume. The global steel demand in 2021 will quickly recover from the deep contraction in 2020. As the global economy continues to reopen, it is expected that it will take some time for the global steel production and sales to return to the pre-pandemic levels. The situation of the reduction of the upstream supply in 2021 will still be difficult to resolve in a short time. With the high costs of coal and iron, the growth momentum of the domestic steel market may continue; the continuous recovery of the domestic steel market can be expected.

To enhance long-term competitiveness, CSC has mapped out its five-year operation and development strategies for the steel business as follows:

CSC aims to become an advanced high-value premium steel mill by means of smart innovations.

It will explore new business opportunities in trendy industries in the field of green energy.



Based on the operating strategies, directives for 2021 include:

1. CSC strives to be a premium steel mill in order to create advantages.
2. It is committed to reducing carbon emissions and utilizing green energy so that business opportunities can be expanded.
3. Smart innovations will be applied for its upgrade.
4. It will increase its profits by having leading-edge production and sales.

Targets for 2021 include: (1) reduction of costs equals to or exceeds NT\$3.66 billion, (2) delivery of steel products equals to or exceeds 9.47 million metric tons, (3) orders for high-grade products, including hot-rolled products produced by DSC, equal to or exceed 4.08 million metric tons and 49% of the total orders, (4) orders for premium products equal to or exceed 350,000 metric tons and 4.2% of the total orders, and (5) no cases of major occupational accidents.

Production and Sales

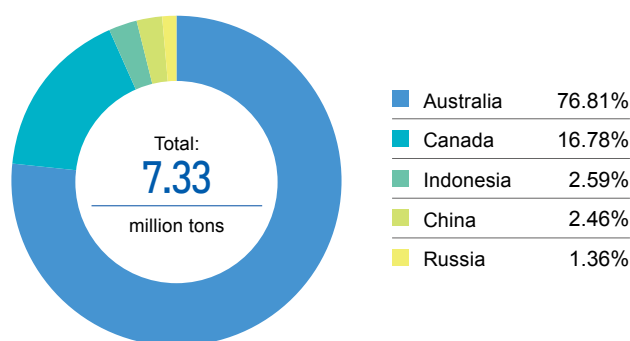


Pouring of molten iron into the BOF

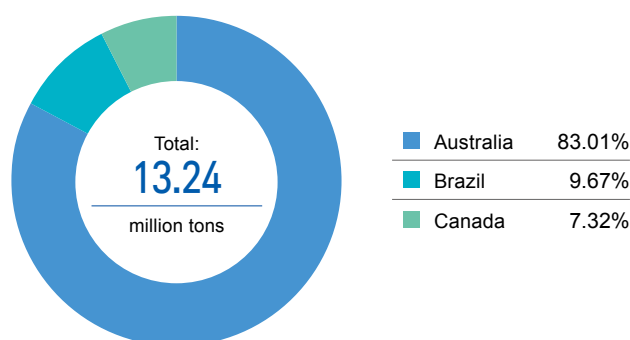


In terms of raw materials, the supply of domestic coal in China was suppressed due to the outbreak of COVID-19 in early 2020. Therefore, Chinese steel mills switched to purchase imported coal transported by sea to make up for their domestic production gap, which pushed the price of the premium coking coal to an annual high of US\$163.5/MT FOB Australia on March 18, 2020. With the spread of the COVID-19 pandemic and the cooling of the economy, steel mills around the world had reduced their production. In particular, India, which was one of the main buyers of the premium coking coal, had been in a lockdown across the country; as a result, the demand for the premium coking coal plunged sharply, and its prices had been falling. The price was US\$105.5/MT FOB Australia on August 12, 2020, which was the lowest level of the prices of the premium coking coal in the past four years. However, as the profits of Chinese steel mills rose, and buyers became optimistic that China would relax the import quotas of Australian coal, coal prices gradually bounced back. However, at the beginning of October, 2020, the Chinese Customs suddenly informed the major Chinese steel mills verbally to immediately suspend the import declaration of Australian coal. Disappointed, the Chinese buyers were forced to sell their coal in transit, which had been ordered but had not been declared yet. Consequently, the price of the premium coking coal was smashed to an annual low of the price of US\$97.25/MT FOB Australia on November 18. With the gradual recovery of the global economy, the demand of coal from steel mills in various countries also resumed. Due to the uncertainty of the Australian coal supply during the Australian cyclone season from November to April of the following year, buyers continued to purchase coal after mid to late January, 2021 to maintain a safe inventory. The price of the premium coking coal rose sharply to US\$157.5/MT FOB Australia on January 27, 2021.

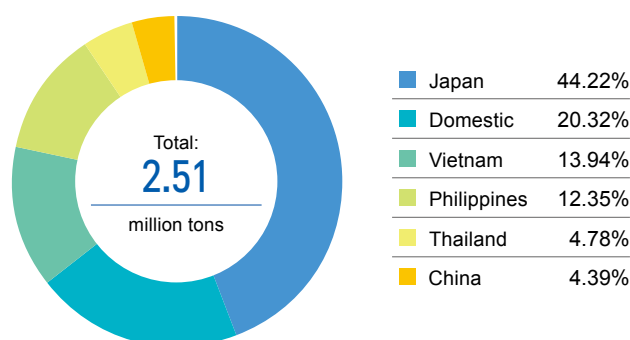
Sources of coking coal, 2020



Sources of iron ore, 2020

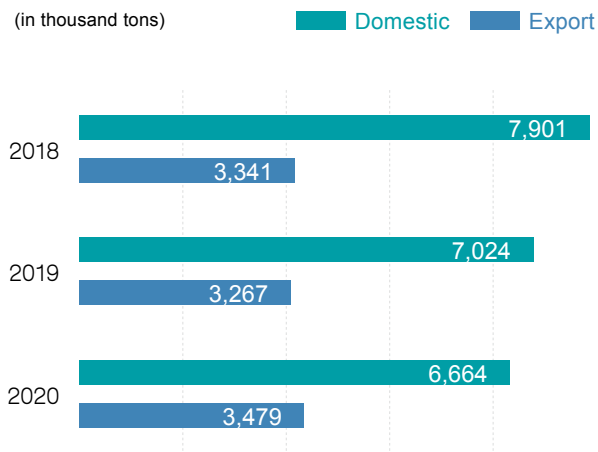


Sources of flux materials, 2020



Steel product sales

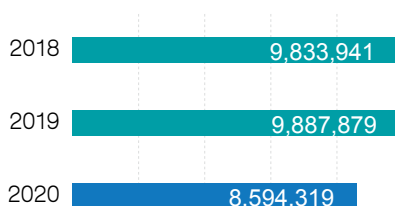
(in thousand tons)



The stacker-reclaimer

Crude steel production

(in thousand tons)



Output per employee in terms of crude steel

(in tons)



Energy consumption per ton of crude steel

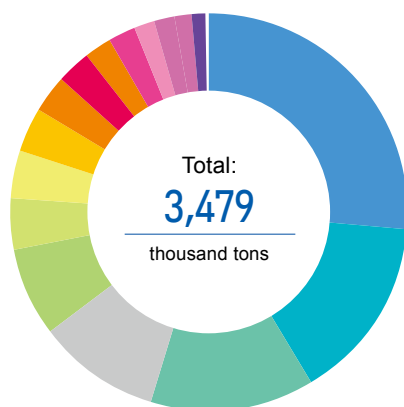
(in million calories)



Regarding iron ore, the price fell to US\$79.8/MT CIF Mainland China on February 3, 2020. The supply of both Brazilian and Australian suppliers was reduced due to heavy rain and the severe attack of Cyclone Damien, respectively, resulting in the fluctuations of the prices of iron ore fines, which were in the range between US \$82 and US\$90/MT CIF Mainland China at the end of April, 2020. Since the COVID-19 pandemic had been brought under control in Mainland China, the Chinese government made some economic stimulus policies. The output of molten iron of Chinese steel mills had reached a new high; moreover, the demand for iron ore remained strong, and the price of iron ore had been rising. As of the end of the third quarter of 2020, economic activities in various countries had gradually recovered, and the price of iron ore was kept at around US\$120/MT CIF Mainland China. At the beginning of the fourth quarter of 2020, Vale, a Brazilian iron mining company, revised its production for the year, and also due to the approaching cyclone season in Australia, the price of iron ore reached a seven-year high at US\$176.9/MT CIF Mainland China on December 21, 2020. Although the Chinese government imposed winter restrictions on iron ore production, the price of iron ore still fluctuated between US\$159 and US\$170/MT CIF Mainland China.

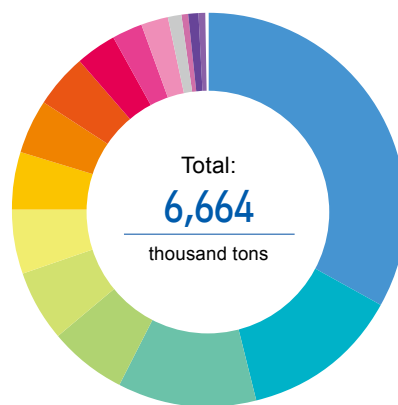
In terms of production and sales in 2020, production of molten iron was 8.444 million metric tons and liquid steel 8.594 million metric tons. The total release of finished steel products was 8.709 million metric tons. Sales volume of CSC's steel products was 10.14 million metric tons, 66% of which was domestic sales, and 34% of which was overseas sales.

**Percentage of export
by region, 2020**



China (including Hong Kong)	26.4%
Japan	15.1%
Vietnam	13.3%
Thailand	7.4%
India	4.1%
Malaysia	3.9%
Spain	3.6%
Mexico	3.1%
Italy	2.6%
Kenya	2.3%
Indonesia	2.1%
Saudi Arabia	1.8%
Germany	1.6%
Pakistan	1.4%
Philippines	1.3%
Others	10.0%

**Percentage of domestic sales
by industry, 2020**



Re-roller	33.2%
Screw and Nuts	13.1%
Steel Service Center	11.5%
Drawing and Cold Finished Steel Bar	6.2%
Direct Users	5.8%
Steel Structures	5.4%
Traders	4.8%
Steel piping	4.5%
Steel Shearing and Cutting	4.4%
Automotive	3.4%
Motors	2.4%
Building Material and Pre-painted Galvanized Steel	2.1%
Drum maker	0.8%
Hand tools	0.7%
Shipbuilding	0.7%
Others	1.1%



Sprinkling special lubricants to reduce the friction coefficients among coils



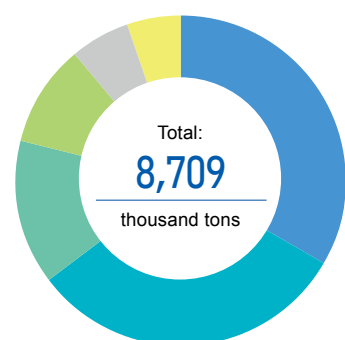
The reheating furnace of No.1 Hot Strip Mill.

CSC generated 49% of the electricity it required in 2020; it was 6.5% less than the amount in 2019. The main reason was that there was less gas due to the adjustment of the blast furnaces and output of coking, which resulted in lower self-generated electricity. Energy consumption per ton of crude steel (slabs and blooms) was 5,549 million calories, which was 166 million calories more than that in 2019. The main reason was the major campaign of the No. 2 Blast Furnace. In order to improve the utilization efficiency of CSC's energy resources, regional energy integration of the Linhai Industrial Park was promoted continuously. The sales of steam, oxygen, nitrogen, argon, etc. in 2020 were NT\$1.35 billion, which were 31.1% less than those in 2019 due to the simultaneous reduction of CSC's steam prices in conjunction with CPC Corporation's fuel oil prices in response to the pandemic relief plan. The quantity of sales of steam in 2020 was 1.562 million tons, which was 120,000 kiloliters of oil equivalents in terms of energy conservation, thus reducing 375,000 tons of CO₂, 1,141 tons of SO_x, 792 tons of NO_x, and 113 tons of particulate matters if converted to benefits in reduction of air pollution and greenhouse gas emissions annually.



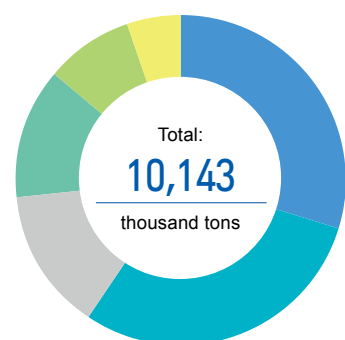
Tapping of iron at a blast furnace

Percentage of steel production volume by product, 2020



Cold rolled products	33.61%
Hot rolled products	31.28%
Wire rods	14.17%
Plates	9.94%
Bars	5.25%
Others	5.75%

Percentage of steel sales volume by product, 2020



Cold rolled products	29.81 %
Hot rolled products	29.65 %
Wire rods	12.78 %
Plates	8.59 %
Bars	5.11 %
Others	14.06 %

❖ Key tasks and results of the management platform of the Production and Marketing of Intelligent development Committee (PMIC) in 2020 were listed as follows:

This committee promotes intelligentization by applying new digital technology tools, such as cloud computing, big data, and artificial intelligence to establish smart systems in manufacturing, equipment maintenance, production scheduling, logistics and warehousing, quality management, sales of products, customer services, financial accounting, human resource management, industrial safety and environmental protection, etc. It also carries out the reform of the systems, processes, organizations, and operating models to achieve the digitization and intelligentization of the overall business operations in order to enhance CSC's operating efficiency.

1. Planning of a premium steel mill

The committee plans Core 3 of a premium steel mill by introducing "AIoT," which is divided into three action plans, including "Development of Smart Equipment," "Introduction of Smart Production," and "Establishment of Smart Operations." The plan has been carried out jointly by the Technology, Production, and Commercial Divisions. Eighteen important KPI-related tasks will be proposed and implemented by the committee successively.

2. Establishment of a smart hybrid cloud platform (Technology)

- (1) Purchase and launch of AIoT: CSC had set up three AIoT platforms in 2020. Among them, the smart ironmaking center of the Ironmaking Plant had incorporated the blast furnace, coking, and sintering plants. At present, the number of collected test points has been more than 24,000 points. Twenty-two smart modules have been developed at present.
- (2) The official launch of the big data platform: The big data platform has been officially launched. Its structure is a NAS File and Object Storage system for simultaneous computing of multiple nodes, which can increase the computing speed and ensure data security.

3. Planning and assistance of group personnel training (Talents)

Talents for smart manufacturing projects can be divided into three categories; namely, domain experts, AI technical talents, and business executives. The planning priorities, courses, and status of training of CSC's AI learning courses required by the Group are listed in the following table.

Targeted people for training	Goals	Training resources and planning	Numbers of people in training
Domain experts	To understand the role of AI and get ideas from the demonstration cases	National Center for High-Performance Computing (50 people/class, 3 classes/year)	134
AI technical talents	To establish basic programming skills, understand algorithms, and develop project implementation capabilities	AI programs for Technical Professionals, AI Research and Promotion Center in NSYSU (40 people/class, 2 classes/year)	76
Business executives	To understand the areas of AI applications and how to build a management team	National Center for High-Performance Computing (65 people/class, 1 class/year)	65

4. Promotion of smart projects (Teams)

Twelve smart projects had been completed in 2020. The results of promoting AI projects were demonstrated in the form of the selection of the AI Achievement Awards to achieve the effect of motivation and promotion. Regarding the AI Achievement Awards, the judges from the academia also agreed that CSC has the ability to customize and optimize AI algorithms at the data scientist level and has established its core technology. The winners of the 2020 AI Achievement Awards were listed as follows:

Departments	Projects selected	Awards
Iron & Steel R&D Dept.	Smart BA annealing techniques	The High Distinction Award
Green Energy & System Integration R&D Dept.	Development of multi-purpose object detection techniques based on deep learning	The Excellence Award
Metallurgical Dept.	Hot and cold rolling inquiry and design support system (hot rolling/hot dip galvanizing)	The Excellence Award
Rolling Mill Dept.III-Cold Rolled Products	The coating thickness control system in 2CGL	The Excellence Award
Green Energy & System Integration R&D Dept.	The development of AI application technology in metallurgical design and quality control	The Judges' List Award
Electrical & Control Dept.	Reduction of the off-gauge ratio of the galvanized 3PLCM high-strength steel	The Judges' List Award
Ironmaking Dept.	Establishment of the system for monitoring the scale thickness of furnace walls and brick temperature	The Judges' List Award

Key tasks and results of quality management in 2020

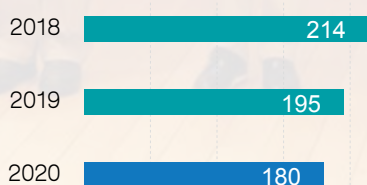
In terms of the audits of quality management systems, CSC was externally audited by BSI regarding the integration of the IATF 16949, ISO 9001, and QC 080000 and granted the certificates. In terms of international certification, CSC was granted certificates of the JIS MARK (Japan), CE Marking (EU), SIRIM (Malaysia), SNI (Indonesia), BIS (India), TISI (Thailand), VN (Vietnam) and CNS marks, etc., which demonstrated that CSC not only offered its customers products that complied with laws and regulations and allowed them to have smooth import customs clearance, but also enhanced its competitiveness. In addition, in response to the implementation of mandatory certification for steel products in Saudi Arabia, the SASO certification for hot-rolled and cold-rolled products had been added to expand CSC's sales markets.

Research and Development



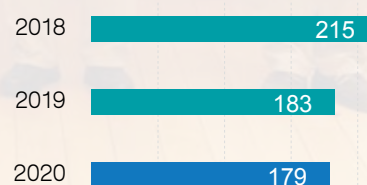
THE TRENDS OF THE PATENT APPLICATIONS AND CERTIFICATION

The ranking of the top 100 applicants



7th
8th
11th

The ranking of the top 100 certificate recipients



7th
7th
9th

A photo of the winners of the Chairman's awards for R&D Achievements



Abundant R&D results had been accomplished in 2020. Thirty-four new products were developed in 2020. All these new products propelled CSC to continue to strengthen its competitive advantage in promoting product differentiation.

Regarding patent applications and certificates, CSC filed applications for 180 patent cases and ranked the eleventh, and was granted patent certification for 179 cases, which ranked the ninth among the patent recipients in 2020. CSC, the only corporation in the traditional industry, was on the list of the top ten patent recipients and had made it to the top ten for seven consecutive years. In addition, CSC was granted a silver medal in the 2020 National Invention and Creation Awards with the research result of “The Fabrication of Gyromagnetic Media.”

CSC's current R&D strategy is based on two core operational development plans of “a high-value premium steel mill” and “development of the green energy industries,” including the development of premium steel products, the establishment of high-quality manufacturing capabilities, the introduction of AIoT, enhancement of productivity, and strengthening the upgrade of the steel industry, etc. R&D resources were focused on various key research projects, which would in turn strengthen CSC's techniques and sustainable development. R&D results were outstanding in 2020. The more important items were elaborated as follows:

Core Technology of the Electric Vehicle Industry

1. Development of electrical steel:

With the establishment of key technology, CSC had developed thin electrical steel sheets with lower iron loss, higher magnetic flux, and higher strength, such as 30CS2000P, 20CS1200FY, and many others with ultra-specifications, which had been applied to manufacture drive-motors in electric vehicles. CSC had become an important supplier of electrical steel to a well-known international electric vehicle plant.

2. Advanced high strength steel:

In order to meet the requirements of lightweighting and safety, advanced high strength steel has become a development trend in manufacturing automotive structural parts. In addition to a series of dual phase steel and high hole expansion steel products, CSC has been developing steel products with higher strength and ductility, which would fill up the gap in the industrial chain and supply to domestic as well as international automobile manufacturers.

3. Self-bonding coating steel coil and its processing techniques:

CSC had successfully developed self-bonding coating steel coils and their processing techniques to reduce iron loss of electric vehicles, improve efficiency, and increase endurance. The core techniques and demonstration equipment had been simultaneously developed for the production of self-bonding molds and fixtures, which would facilitate domestic manufacturers to complete their process equipment and mass production capabilities.

Smart Technological Advancement of Production Processes

1. Development of smart metallurgical design techniques:

Artificial intelligence had been applied to construct a prediction model of the production parameters of the cross-processes corresponding to the mechanical properties so as to facilitate the design and simulation of the most suitable metallurgical parameters, which would not only effectively shorten the time between product development and responses to customers regarding whether their orders could be accepted, but also achieve the effect of simplification of steel grades and improvement of continuous casting rates.

2. Development of the multi-purpose object detection technology based on deep learning:

In accordance with the characteristics of the observed images, the multi-purpose object detection technology exclusive to the steel manufacturing processes had been constructed.

❖ Energy and Environmental Protection Technology

- 1. Development and applications of a number of energy-saving techniques:** The ladle pure oxygen preheating stations were utilized to reduce the use of purchased natural gas; system design and component production were completed. The furnace temperature control for low production was developed to effectively reduce the fuel consumption of the annealing furnaces. The smart models of hot stoves were incorporated into the smart modules of blast furnaces.
- 2. Development and smart applications of the techniques to improve the stability of nitrogen removal in the biochemical wastewater plant:** The novel ATP monitoring technique was applied to analyze the changes of the biological activities quickly, which served as a basis for system operation improvement. The changes in the water quality of coking wastewater were monitored simultaneously by the biochemical wastewater plant and coal chemical plant to improve the water quality of coking wastewater and the stability of the nitrogen removal system.
- 3. Quantification of the external carbon reduction benefits of high-strength shipbuilding steel:** After CSC cooperated with the Industrial Technology Research Institute to establish an evaluation method to define high-strength shipbuilding steel in order to reduce external carbon emissions, the sales of high-strength shipbuilding steel plates were 64,342 metric tons in 2019, and the carbon reduction benefits of the overall lifespan of high-strength shipbuilding steel were 96,410 metric tons of CO₂, using China Steel Realist, China Steel Liberty, and China Steel Growth as examples.
- 4. Development of the traceability and contribution quantification technique of PM2.5:** The traceability and contribution quantification technique of PM2.5 were completely developed; they have been applied to analyze the degree of the

environmental impact of the main production processes and will also be applied to assess the environmental benefits of the reduction of carbon emissions in the future.

❖ New Product Development

Thirty-four new products were developed in 2020, the highlights of which included:

- 1. Steel plates:**
The development of (S) A514 GR.B high-strength high-temperature welding structural steel with YS \geq 690 MPa was completed. It can be applied to manufacture boiler air blowing equipment with good weldability, which can replace imported materials and enhance the market competitiveness of domestic customers.
- 2. Steel bar products:**
The development of 8620H, narrow-composition steel for differential gears, with a 1/2~2/3 narrow-hardening level was completed. This product improves heat treatment stability, and orders from car factories were obtained.
- 3. Wire rods:**
The development of next generation steel, with increased carbon and silicon contents, for screwdriver bits was completed. With the composite cooling technique in rolling, this steel improves the torsion force and fatigue lifespans of finished products. Certification from major international hand tool manufacturers was obtained, and so were their orders.
- 4. Hot rolled products:**
Compliant with the VDA standard, the development of 80kg-class complex phase steel for automobiles, with high strength and special processing and forming capabilities, was completed. This product successfully improved the fractures in processing for the customers and replaced the steel materials with old designs.
- 5. Hot-rolled, high-carbon, and alloyed steel for products requiring precision forming:**

After the temperature control of the heating conditions was optimized in the hot rolling and annealing processes, the S45C/SCM435 PAS materials met the customers' strict forming precision requirements. As the textures were soft and easy to form, which also extended the lifespans of molds, these products enabled the customers to reduce production costs and enhance the competitiveness of the industry.

6. Cold rolled products:

The development of EN 10268 HC460LA, structural steel with high-strength, was completed. The categories of the cold-rolled HSLA products were expanded. The development of CSC CE360Y, with high-temperature softening resistance and high-strength, was also completed; this product, enriching the types of cold-rolled enamel steel, is suitable for applications in making inner tanks of single-sided enamel water heaters.

7. Hot-dip galvanized products:

The development of SGC400, hot-dip galvanized pure zinc (GI) products, was completed for applications in server chassis. The development of CR4 products, fulfilling the demand of eco-friendly automotive steel, was also completed for applications in GM's 2-wet monocoat outer panels. Zinc electroplated products were developed for applications in R coating, which would expand orders in new areas.

8. Electrical steel sheets:

The development of 25CS1200FY, ultra-thin electrical steel sheets with lower iron loss and high strength, was completed. These electrical steel sheets were applied to manufacture motor core materials used in electric vehicles. The performance of the finished products had been approved and certified by customers. In addition to replacing external purchases of coating materials, self-bonding coating products were developed to meet the requirements for the subsequent different processing purposes and offer better motor efficiency to meet the demand of the rapidly growing electric vehicle market.

9. Development of the eco-friendly and functional anti-fingerprint coating for galvanized steel products:

In order to meet the requirements of environmental protection regulations and applications, the coated B4 anti-fingerprint hot-dip galvanized steel coils were successfully developed. With the chromium-free key technique and the design of an NMP-free water-based resin, CSC independently developed the non-toxic and harmless anti-fingerprint coating, which was in accordance with the global environmental protection trend.

10. Quality improvement of iron oxide powders:

The quality of iron oxide powders was improved to provide customers with high-quality magnetic materials and achieve the goal of upgrading the industry, which increased revenue and created profits for the Group.

Technological Advancement of Production Processes

1. Steelmaking:

Production techniques for economic products were developed to reduce the steelmaking costs of general grade products. The technique for precise control of the composition of anti-grain-coarsening steel was also developed to meet the requirements for downstream grain refinement and greatly increase the pass rates. Scarfing management of slabs was improved; management for low-carbon steel, IF steel, slabs for thin plate production, etc. was optimized.

2. Production of steel plates:

The composite accelerated cooling technique for steel plates was developed by applying intensive high-pressure cooling water from the direct quenching equipment and controllable cooling control technique for heads and tails of plates, both of which effectively improved the mechanical uniformity and flatness quality of high-strength structural steel to meet the tough processing requirements in building structures.

3. Production of bars and wire rods:

The precise rolling technique was developed by rolling management, optimized rust removal, and enlargement of the R angles of slabs to reduce shallow rolling defects, paving the way to upgrade the products to a seam-free level. The control technique of titanium precipitation was also developed to reduce the precipitation strengthening effect, which effectively controlled the tensile strength of the titanium-added CO₂ solid wire YGW 11M to match the customers' specifications.

4. Hot rolling:

The thinning technique for top-grade thin ES sheets was developed to effectively reduce cold-rolling production processes. The thinning and widening techniques in hot-rolling of hot stamping materials were explored to achieve the benefits of replacing coldness with heat. With short cast-rolling, the VR slab scheduling technique was developed to effectively increase the temperature and rates of the heating furnaces to achieve direct production by hot-rolling first and then followed by cold-rolling so that energy consumption could be reduced. With the automatic orientation of finishing rolling and the adjustments of the seam gauges in the coiling area, the coil shapes of crude coils were smoothly optimized, which effectively increased the non-recoiling ratio for export crude coil orders and eliminated the need for finishing and recoiling production processes.

5. Cold rolling:

The improvement of the reaming of JSC980YH was completed by optimizing the internal structures in annealing, which successfully enhanced the reaming quality of products; in addition, the original pickling cold-rolled trimming was transferred to that of the finished product line to increase the yield and improve the edge quality.

6. Hot-dip galvanized products:

The improvement of the uneven galvanized defects of the computer case materials was completed, which improved the surface quality of the products and increased the product pass rates. The improvement of the uneven R coating of the galvanized plates was completed to meet the customers' quality requirements.

7. Electrical steel sheets:

The technical advancement of the rolling process for high-alloy steel products was completed, which expanded the ranges of specifications that could be produced by reversing cold rolling. The continuous pickling cold rolling process could be used for some products to replace the original reversing cold rolling, which effectively increased the yield, pass rates, and shift output to meet the growing demand for materials used in electric vehicles.

8. Trough materials:

The techniques to produce trough materials were independently developed. To stabilize the supply and quality of the refractory materials in the Group, eight types of products, including main troughs, tilting runners, splash cover castable materials, and dry gunning/wet shotcrete materials, etc., had been developed and applied on site.

9. The independent development of the steam aging technique:

The steam aging technique is one of the methods applied to stabilize BOF slag. Verified in a 200-metric-ton level pilot plant, the operating technique was successfully developed by simultaneously moisturizing BOF slag and controlling the flow of steam when spreading materials. The follow-up resource utilization was planned to be applied as graded aggregate materials used in bases or subbases.



A photo of the winners of the President's Awards for R&D Achievements



A seminar of the Group's Production Information Forum



Independent development of checker brick support bases for hot-blast stoves

Results of the Development of Smart Technology

1. Establishment of an automatic operation system for smart hot rolling scheduling:

The original hot-rolling scheduling system was old; the scheduling regulations were difficult to maintain, and the scheduling operations were mainly manual. Therefore, the research team independently developed a smart hot-rolling scheduling system in order to conduct an overall inspection of the hot-rolling scheduling regulations and restrictions. With the goal of improving the punctual stocking rates in hot-rolling mills and reducing hot-rolling sub-grade products, the system was developed with a three-phase structure by adopting parameterization, automation, and intelligentization. The program development regarding the assembly of main materials, template design, expansion of rough scheduling, schedule optimization, schedule checks, operation interfaces, etc., had been completed. The feedback from the schedulers' tests was up to 80% automation. The clearance rates of current orders on demand and scheduling rates of thin steel sheets had reached the levels similar to those of manual scheduling.

2. Smart product inquiry and design auxiliary system:

In the past, when the customers inquired about whether their orders could be accepted, they relied mostly on the engineers' metallurgical knowledge and experience to design production parameters, which was time-consuming, and it was also difficult for the engineers to impart their experience to their successors. The research team used artificial intelligence technology to build models from big data

to explain the production parameters and mechanical properties to simulate and propose the most suitable combinations of production parameters by using the existing steel types and only achieving quality goals by the adjustment of the process parameters at later stages, which could effectively reduce the inquiry and design timelines, increase the opportunity to secure orders, and facilitate the simplification of steel types. The system had been successively applied in producing ES steel sheets, hot-rolled products, and hot-dip galvanized products. The addition of new steel types would slow down; the continuous casting rates would increase, and the production costs had been reduced with an annual benefit of NT\$5.17 million.

3. The VR training system for tapping control of converters:

Tapping of a BOF converter is a dangerous job that requires proficient techniques. In the past, new recruits were told to observe their predecessors' operations several times and then implemented what they had been trained online. Without sufficient offline practice, it often took a month for the new recruits to gain enough experience, and it was often the case that the first time they encountered an abnormal situation was during online operations; as a result, they could not respond immediately. With the virtual reality technology, a virtual tapping environment of a converter is established, real tapping controllers are integrated, and the scenario scripts for normal tapping and historical abnormal events are developed so that the new recruits can be trained repeatedly in a safe and secure environment to improve their responsiveness, which can save 75% of their time in gaining sufficient experience.

Promotion of the CSC Group Industrial Service Corps

With the rapid changes in the global industry and the trend of energy saving and reduction of carbon emissions, CSC shoulders the dual mission of transforming the domestic steel industry and solving the customers' pain points. In 2020, the CSC Group Industrial Service Corps offered multi-stage pre-sale, sale, and after-sale services as well as multi-level "front-factory, back-shop" technical services to the fastener, electric vehicle motor, automotive component and wind power industries in addition to offering operational strategies. Lean management, smart manufacturing, and reducing operating costs with cloud technology were introduced. The self-bonding ferrite core production technique was also introduced to improve the energy efficiency of electric vehicles and develop high-functional automotive products, meeting the requirements for lightweighting and high formability of the car bodies. CSC assisted the establishment of the welding procedures and verification of wind power steel plates. Literally from a single point to the whole, a complete domestic supply chain for the fastener, automotive, and green energy industries was gradually built with initial results. In the future, CSC will continue to promote the development of premium steel products, forward-looking techniques in steel processing, AI intelligentization, and talent nurturing and assist its customers to obtain orders from major car manufacturers and international verification, etc., so as to facilitate downstream companies to cross the technical thresholds, lead the domestic industry to upgrade, and strength the manufacturing capabilities of the steel-consuming industries in Taiwan.

Employee Relations and Human Resource Development



A carnival held at the CPDC Qianzhen Residential Building



Number of employee

(as of end of year)

**Average age**

(as of end of year)

**Average years of service⁹**

(as of end of year)



⁹ Not counting years of employment prior to the privatization of the Corporation on April 12, 1995.



Preschoolers at the CSC Kindergarten



Managing team visited on-site staff on duty on the Chinese New Year's Eve.

As of the end of 2020, there were 9,961 employees at CSC. Their average age was 44.38 years. Among the 9,841 employees, 98.5% of whom were eligible for membership in the CSC Labor Union.

It is estimated that over 1,733 senior employees will retire in the next five years. By upholding CSC's excellent corporate culture, future manpower development will be focused on succession of manpower, strengthening of talent training and education, employee relations, etc.

Succession of Manpower

- 1. Succession in advance:** CSC has mapped out appropriate employment plans according to its corporate development strategies and investment plans, which are supplemented by the retirement and resignation forecasts as well as the periodic manpower requirement reviews by each of the departments. Employees are hired as reserve personnel in advance to facilitate the succession of manpower.
- 2. Implementation of mentor-apprenticeship and knowledge management:** Senior employees are appointed to act as mentors for new recruits and impart their experiences for effective succession in conjunction with knowledge communities, knowledge management systems, e-Learning, knowledge sharing, etc.
- 3. Promotion of cooperative education programs:** To reduce the gap between schooling and applications, CSC has formed cooperative education programs with National Cheng Kung University, Kaohsiung Municipal Chung-Cheng Industrial High School, Municipal Kaohsiung Industrial High School, and National Hualien Industrial



An outing of the members of the Bird Watching Club



Participation in the National Mountaineering Association Assembly by members of the Mountaineering Club



Exhibition matches held by the members of the LOHAS Table Tennis Club



The year-end lucky draw held by the CSC Employee Welfare Committee in 2020



A farewell party held for retirees

Vocational Senior High School to meet its manpower need. As of the end of 2020, 360 students had been hired officially to undertake the business of various departments.

Strengthening of Talent Training and Education

The continuous growth and advancement of employees are important cornerstones to promote the growth of CSC. The principles of CSC's talent nurturing and development are listed as follows:

1. According to the Structures of CSC's Talent Nurturing and Development, CSC centrally carries out common training for all levels of personnel and provides diversified training channels, including internal training, commissioned training, KM, and e-Learning, etc.
2. All departments and divisions established and assessed the key professional capabilities and their corresponding training courses for the preparation of systematic technological succession.
3. Shaping of an organic learning organization:
 - (1) The Knowledge Management Committee was established in 2003 to continue to promote knowledge management, flow files, and self-made e-Learning teaching materials to allow employees to share knowledge and acquire techniques for succession. In 2020, 3,736 knowledge files, 1,487 flow-type knowledge files, and 115 e-Learning files had been uploaded. Between 2003 and 2020, a total of 80,286 knowledge files, 4,570 flow-type knowledge files, and 2,891 e-Learning files had been uploaded.
 - (2) Online management magazine platforms were purchased for executives and supervisors to learn independently and improve their management competence.
 - (3) Online English and Japanese courses were purchased for employees to study languages.

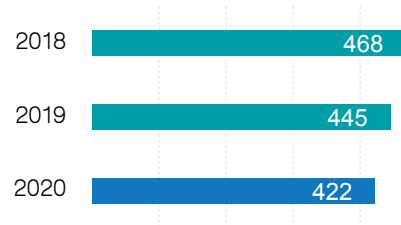
4. Results of Education and training in 2020 included:

- (1) Management training and programs were held for 1,474 executives at all levels (person-times).
- (2) Management training was held for 1,098 professional staff (person-times).
- (3) Electrical and mechanical maintenance training was held for 2,434 engineering personnel (person-times).
- (4) Training and education were held for 415 AI talents (person-times).
- (5) Online language learning was held for 34,518 employees (person-times) with a total of 34,772 hours of classes.
- (6) In 2020, the total training hours amounted to 35,632 hours and 139,830 person-times. Each employee averaged 35.2 hours of training courses.

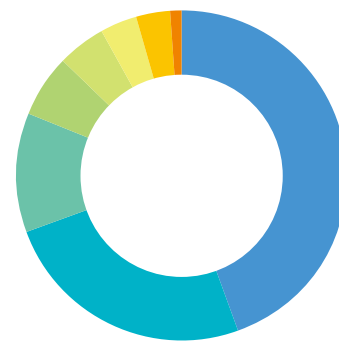
In order to spell out fair and reasonable labor conditions for both the Management and Labor to observe, CSC has maintained a collective agreement with the Labor Union. Moreover, multiple communication channels have been provided, including (1) regular communication meetings, which are held in each department/unit for opinion exchanges so that problems can be explored, and reasonable solutions can be found jointly, (2) the Staff Grievance Committee, in which employees can voice their complaints if those complaints aren't reasonably handled through the administrative channels when their rights are violated or mismanaged, and (3) the Sexual Harassment Grievance Committee, which deals with complaints so that an environment free of such annoyances could be provided to CSC employees and job applicants.

To offer good working conditions to satisfy CSC employees' welfare needs, the management of CSC and its employees jointly formed the CSC Employee Welfare Committee, which consists of 27 representatives chosen from both sides. Facilities such as employee canteens, restaurants, including Ming-bang Restaurant, the recreation center of the CSC Group, dormitories for singles, gyms, 22 shuttle bus lines, self-service laundry centers, and reading rooms have been established for employees. Among them,

Cases completed by creative development activities



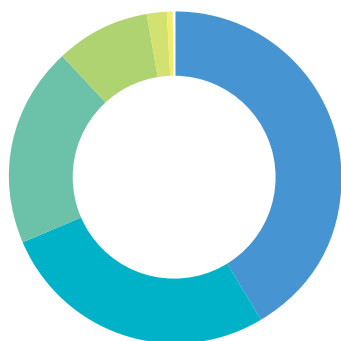
Cases completed by creative development activities by subject matter, 2020



Safety	44.5%
Maintenance	24.9%
Production	11.8%
Cost	6.2%
Quality	4.5%
Others	3.8%
Morale	3.3%
Energy	0.9%

Educational background of employees

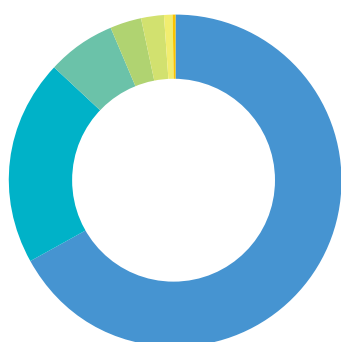
(as of December 31, 2020)



Bachelor's degree	41.67%
Senior high (Vocational) school	26.95%
Master's degree	19.56%
Junior college	9.24%
Doctor's degree	1.85%
Junior high school	0.71%
Elementary school	0.03%

Breakdown by employees' position level

(as of December 31, 2020)



Blue-collar workers	66.99%
Professional and specialists	20.12%
Fourth echelon supervisors	6.77%
Third echelon supervisors	3.04%
Second echelon supervisors	2.24%
First echelon supervisors	0.61%
Executives	0.23%

employee canteens, restaurants, gyms, and reading rooms, are also open to contractors and their employees and neighboring residents. The Welfare Section is responsible for all the matters related to employee welfare, including large-scale outings, clubs and recreational activities, applications of fiduciary loans for employees, allocations of bonuses on the Chinese New Year, Dragon Boat Festival, Mid-Autumn Festival, and Labor Day, birthday cash gifts, marriage subsidies, cash gifts for employees' newborns, scholarships for employees' children, emergency care and subsidies, year-end lucky draws, subsidies of flexible welfare points, purchases at franchised stores, etc.

CSC has encouraged its employees to take part in club activities which will help them relax physically and mentally. As of the end of 2020, there were 43 clubs. Based on the concept of investing in employees, taking care of them, and facilitating them to live in a healthy manner, CSC has set up a recreation center for leisure and sports activities. In response to the addition of new recruits, CSC holds large-scale anniversary celebration activities annually to enhance a sense of unity. Due to the concern of the COVID-19 pandemic, only year-end lucky draws were held in 2020.

To let employees and their family members better understand CSC to enhance a sense of unity and to strengthen the interaction among them, CSC has set up the regulations to promote good familyhood. Activities are subsidized by each department or unit, some of which included mountain climbing, hiking, and leisure outings. Employees are always encouraged to bring their family members to participate in these activities. A total of 9,820 participants, 97.23% of all CSC employees, took part in activities held by various departments and divisions in 2020.

As of the end of 2020, there are about 4,997 CSC retirees. To assist them to adapt to their new life after their retirement, keep them identified with CSC, and enhance their cohesiveness, it set up a retiree service department to serve them. LOHAS seminars and farewell tea parties were held for them in 2020.

Environmental Protection, Industrial Safety and Hygiene, and Fulfillment of Social Responsibilities



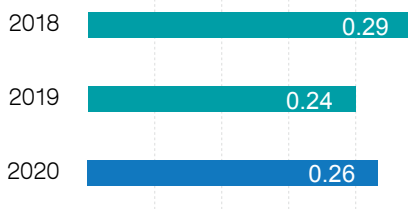
The Donation Ceremony of a quarantine observation area to the Kaohsiung Municipal Siaogang Hospital by CSC



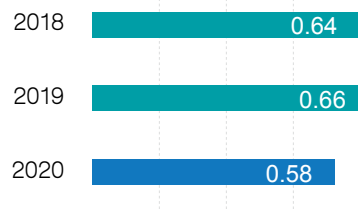
Air quality

Kg/mt of crude steel

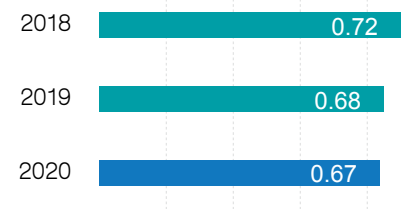
Particulate emission



SOx emission



NOx emission



A winner of the 2020 Energy Saving Leadership Award granted by the Bureau of Energy, MOEA



The waste heat recovery equipment at the No. 1 Blast Furnace



Road paving with BOFS asphalt concrete

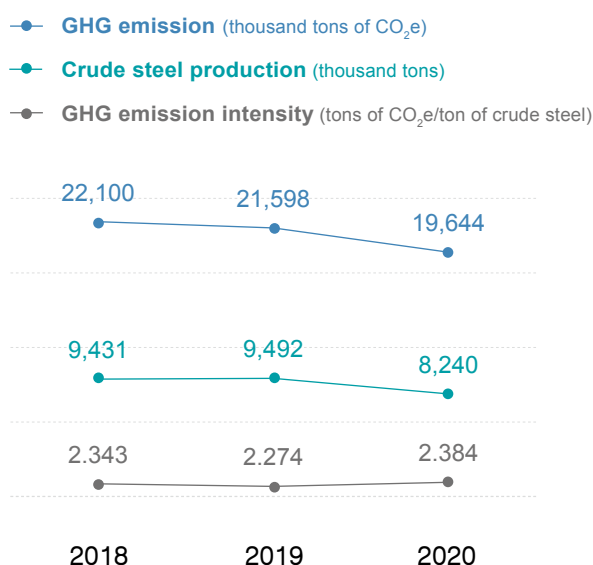
Key tasks and results of energy conservation and environmental protection in 2020 were listed as follows:

1. Energy conservation services: In 2020, CSC continued to dispatch consultants to collaborate with the Kaohsiung Municipal Energy Conservation and Carbon Reduction Technology Counseling Corps to offer counseling services. On behalf of CSC, Steel Rolling Mill Department I took part in the selection of the Energy Saving Benchmark Awards held by the Ministry of Economic Affairs (MOEA) and was granted the Gold Award as well as an Excellent Enterprise Award in the 2020 Voluntary GHG Reduction Awards by the Industrial Development Bureau, MOEA. The ISO 50001 Energy Management System was promoted continuously, and the external certification of BSI (ISO 50001:2018 Edition) was granted to CSC.
2. Continuous promotion of the Energy Conservation Action Plan 2020, the third five-year plan: CSC had aimed at saving 100,000 kiloliters of oil equivalents between 2016 and 2020. One hundred fifty-four projects were completed in 2020; 26,000 kiloliters of oil equivalents were saved. A total of 166,000 kiloliters of oil equivalents had been saved in the past five years.
3. In response to MOEA's campaign to save electricity consumption by 1% annually between 2015 and 2024,

CSC has actively implemented several electricity conservation projects, including improvement of electricity consumption in heating furnaces, fans, pumps, cooling towers, air conditioners, lighting fixtures as well as adoption of natural lighting in factories, etc.

4. In 2020, CSC used an average of 33,500 m³ of reclaimed water per day, and the supply of new water was decreased to roughly 87,000 m³ per day. Water consumption had been decreased from 10.33 m³/ton of crude steel at the establishment of CSC to 3.58 m³/ton of crude steel in 2020; the recycling rate was 98.4%.
5. CSC continued the GHG Inventory and management of internal auditing and external certification. CSC completed its organizational GHG Inventory in 2019 and was verified by a third party certification agency.
6. The energy-saving GHG offsetting project of the reheating furnaces for bloom production was registered and approved by the Environmental Protection Agency and was in the first commitment period of the GHG emission reduction credits.
7. CSC was granted an Excellent Enterprise Award in the selection of the 2020 Voluntary GHG Reduction Awards held by the Industrial Development Bureau, MOEA.
8. CSC was a winner of the CDP's Climate B-List companies of the Climate Change Leaders Index, which was better than those of the global average (C), the Asian average (D), and the steel industry average (C), respectively.
9. In coordination with the Environmental Protection Agency and the Industrial Development Bureau, CSC, as the core, had formed a network of the eco-industrial link regarding the industrial waste generated inside and outside the Linhai Industrial Park.

GHG emission trend



10. The environmental assessment review of the Third Environmental Impact Difference Analysis Report (Sources of New Land Reclamation) of the Logistics Warehouse Area Reclamation Plan for the Taipei Commercial Port was granted to CSC by the Environmental Protection Agency.
11. Continuous reutilization of CSC's waste resources by water quenching: The operation of reutilization of the waste resources, including BF/BOF sludge, sludge from hot rolling, sludge from cold rolling, used refractories, waste acid liquids, EP dusts, BF/BOF dusts, IWI fly ash and bottom ash, zinc sludge, chromium sludge, and waste grinding wheels, was carried out.
12. Continuous assistance to the reutilization of the bi-products of the Group: Assistance had been provided to CSC's subsidiaries in reutilizing their bi-products and/or wastes, including oily waste from C. S. Aluminium Corporation, waste vessel oil from China Steel Express Corporation, sludge from hot rolling in Chung Hung Steel

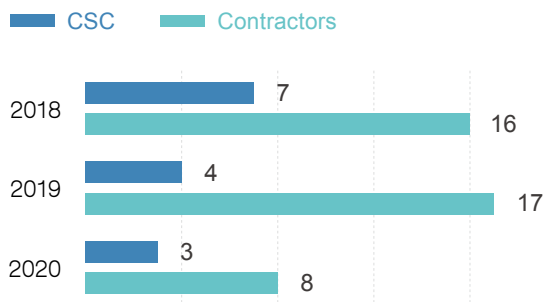
Corporation, crystallized calcium carbonate from China Ecotek Corporation, and waste acid liquids from China Steel Machinery Corporation and Chung Hung Steel Corporation.

13. The tests and reports for particulates, SO_x, and NO_x were completed. The total emission amounts matched the requirements of the environmental impact assessment in 2020. CSC will continue to promote greening inside the plants. The total area of greening has reached 444,915 m²; the greening rate is 8.44%.

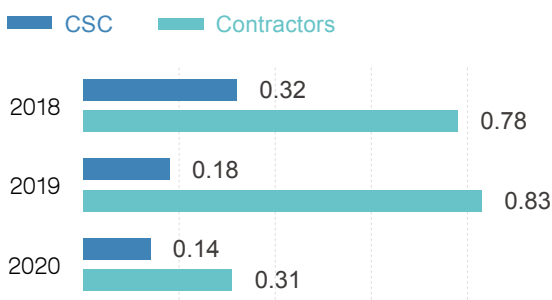
Industrial Safety

OCCUPATIONAL ACCIDENT RECORD OF CSC

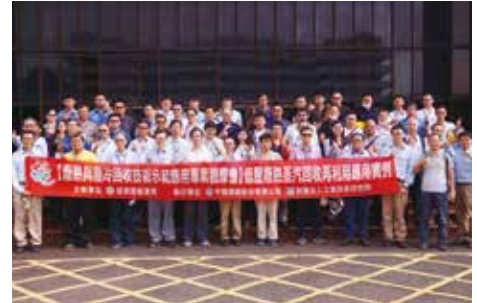
Number of cases with disabling injuries



Frequency ratio¹⁰



¹⁰ FR = Number of cases with disabling injuries × 10⁶ ÷ Total number of working hours of the entire company



An observation and learning activity of a demonstration and application project of waste heat and waste cold energy recovery techniques



Charitable activities in remote rural areas held by the CSC Group Education Foundation



Recognition of filial piety and granting of meritorious scholarships in Hsiao Kang District



Q&A of the Steel Journey Activity

Major tasks and results of industrial safety programs for 2020 were listed as follows:

1. CSC was granted the follow-up certification of the ISO 45001, TOSHMS, ISO 14001, and ISO 50001 systems, which had been verified by BSI between June 1 and June 5, 2020.
2. The verification of conversion of ISO 45001 was completed in 2020, and CSC was granted the new version certificate.
3. In collaboration with the authorized institutions, implementation of (1) the regular inspections of 1,047 pieces of hazardous machinery and equipment and (2) thorough inspections and modifications of 23 pieces of hazardous machinery and equipment have been completed.
4. Educational training: (1) CSC held 11 training classes with 61 sessions of various safety licenses for 2,099 licensees on its own. (2) Four physical simulated training classes with 63 sessions were held for 629 participants. (3) The propagation on industrial safety, including briefings on basic training on explosion-proof electrical safety management practices, introduction to the TS Certification System and explosion-proof safety management education and training, basic production process safety management training, new work permit issuance seminars, etc., had been held. (4) Six sessions of educational training on traffic safety were held for 468 participants.

Employee Health and Hygiene

Having always complied with the laws and regulations, CSC has continued to hold physical check-ups for its employees, including special physical check-ups for those who work in special operating sites. Health management was conducted to those with abnormal

physical check-up results. To promote the health of the employees, CSC had held a series of programs, such as management of health examinations, health columns, psychological counseling, quarterly lectures on health, special health campaigns for female employees, nutrition consultation, exercise guidance, body fat tests, oral cancer screening, flu injections, self-funded high-level health checks, etc., with approximately 4,629 participants in 2020

Social Responsibilities

To fulfill its corporate social responsibility, CSC has continued to take action to provide assistance and care to the nearby communities for their development and sponsor charitable activities in Hsiao Kang District for a long period of time. CSC upholds the concept that what is taken from the society must be returned to it, and sincerely takes action to care about and contribute to the society, communities, and disadvantaged groups from the aspects of environment protection, community care, and charity.

CSC, a corporation engaged in environmental protection, community care, and charity, has continued to make its contributions to the society, communities, and disadvantaged groups. Its contributions are as follows: (1) It sponsors equipment and facility upgrades to enhance the students' learning efficiency and greening of the elementary schools in Hsiao Kang District to slow down global warming. (2) It provides scholarships for meritorious students and tuition assistance to students from disadvantaged families in Hsiao Kang District. (3) It also sponsors various social activities for the communities and associations in Hsiao Kang District. (4) It offers funds for social relief of emergencies and gifts of money during the Chinese New Year, Dragon Boat Festival, and Mid-Autumn Festival to assist low-income families in Hsiao Kang District. (5) The ceremony for recognition and promotion of filial piety is held to celebrate Mother's Day in Hsiao Kang District. (6) Graduating elementary

school students in Hsiao Kang District are invited to participate in the Steel Journey Activity to get a sense of how steel is produced and the measures taken by CSC in environmental protection. (7) Elementary school students in Hsiao Kang District, especially those from disadvantaged families, are invited to participate in summer camps. (8) Agricultural products were purchased in a timely manner to provide assistance to the local disadvantaged groups. In response to the impact of the COVID-19 pandemic, some of the aforementioned large-scale indoor activities, etc., were suspended or held by schools or replaced with online learning in coordination with the government's pandemic prevention measures to reduce the risk of group infections and fulfill CSC's corporate social responsibility.

In addition, to ensure the safety of medical personnel involved in the collections and inspections in regional hospitals as well as the people undergoing inspections and medical treatment, CSC and United Steel Engineering & Construction Corporation jointly assisted the Kaohsiung Municipal Siaogang Hospital to build modular houses acting as a quarantine observation area, which had a first-aid station, a collection and inspection area, a waiting area, and a storage area. The area was equipped with independent air-conditioning systems, sensor-type hand wash stations, and other facilities. The people under inspections followed the signs to walk on a single path in a diverged manner to avoid cross-infection and prevent people with suspected infections from entering the hospital. They could complete their screening and reduce the risk of hospital-acquired infections. Although it was a little effort for pandemic prevention, CSC cared for the community with practical actions, which fulfilled its corporate social responsibility. In the future, it will continue to care for the community and exert a positive influence on the society based its proactive responsibility, diversified devotion, local focus, and commitment.

Domestic and international honors and awards granted to CSC in 2020 included: (1) a constituent of the DJSI-Emerging Markets, (2) the Sustainability Champions award by the World Steel Association, (3) the Best Innovative Technology Award category of the Taiwan Circular Economy Awards 2020, (4) excellent certification for Green Procurement Enterprises by the Environmental Protection Administrations, Executive Yuan, (5) the 2020 Corporate Citizenship Award in the TOP 50 enterprise category from the Commonwealth Magazine, and (6) the Ten Most Sustainable Corporate Award by TAISE. Furthermore, CSC was also granted the Platinum Award in Corporate Sustainability Report, English Reportage Award, Growth through Innovation Award, Supply Chain Management Award, Talent Development Award, Climate Leadership Award, Sustainable Water Management Award, and Circular Economy Leadership Award.

To be involved in social activities in a broader and more diversified manner, CSC established the CSC Group Education Foundation. Activities conducted by the foundation in 2020 consisted of:

1. Expansion of the scope of steel applications and related promotional and educational activities and grants for steel and steel-related technology research.
2. Promotion of charitable activities, including ecological conservation and the sustainable development of the environment.
3. Promotion of educational, cultural, and artistic activities.
4. Other charitable educational activities in line with the purposes for the establishment of the CSC Group Education Foundation.

Affected by the COVID-19 pandemic, activities conducted by the foundation in 2020 included:

1. CSC organized/co-organized the King of Wisdom

Summer Camps, the Steel Journey Activities, CSC Camps, teacher training courses on blast furnace slag, circular economy, and eco-friendly steel. With the lecturers' briefings and hands-on experience, the importance and applications of steel in life were emphasized; actual visits to the upstream and downstream enterprises of the steel industry were arranged to further narrow the distance between steel and people and attracted people to learn more about issues like the steel industry, circular economy, etc., in an entertaining manner.

2. In collaboration with National Taiwan University, National Tsinghua University, National Cheng Kung University, National Sun Yat-sen University, and National Chung Hsing University, CSC has continued to offer related courses about steelmaking in those universities. Scholarships have been offered to nurture excellent steel talents. In addition, CSC assisted in holding technical seminars related to steel and environmental protection to enhance the technical quality and knowledge advancement of related domestic industries.
3. CSC adopted parks in Kaohsiung, set up environmental classrooms, promoted environmental education tours, and organized ecological camps, etc., to enhance people's knowledge and competence on ecology and environmental protection.



An activity held by the CSC Environmental Education Touring Bus

4. CSC assisted in the promotion of shadow puppetry, ensemble performances by string (silk) and wind (bamboo) instruments in Chinese orchestras, the preservation of Taiwanese local music and artistic performances of the Kaohsiung Symphony Orchestra and the Chinese Orchestra. Moreover, it has held many charitable concerts for wheelchair users, prisoners, the visually-impaired, etc.
5. Micro movie workshops were conducted in remote rural elementary and junior high schools, and CSC collaborated with the Kaohsiung Film Festival to give students and the public the opportunity to become aware of various social viewpoints by appreciating the works of others.
6. CSC invited renowned speakers with expertise from different fields to deliver campus lectures, literary lectures in Kaohsiung, etc. to share their life stories.
7. "Engineers Week, Kaohsiung" was held to enhance high school students' abilities to solve problems and teamwork.

In the future, CSC will uphold the concept that what is taken from the society must be returned to it, and sincerely take action to care about and contribute to the society, communities, and disadvantaged groups from the aspects of environment protection, community care, and charity.



CSC and KRTC collaborated to hold a concert for wheelchair users

Capital Expenditures and Engineering Business

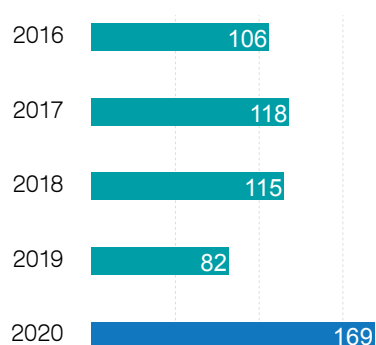


Revamp of the third campaign of the No. 2 Blast Furnace



Capital expenditures

(in hundred million of New Taiwan Dollars)



The investment of capital expenditure projects amounted to NT\$16.914 billion in 2020. The projects were listed as follows:

I. Projects related to equipment revamp:

1. Revamp of the program control and electronic control systems of the No. 2 Hot Strip Mill of Rolling Mill Dept. II
2. Revamp of the third campaign of the No. 2 Blast Furnace
3. Advancement of the coal and iron ore transportation processes and relocation of the conveyor equipment
4. Revamp of the Nos. 3 and 4 ship unloaders
5. Revamp of the turbine air blowers in the No. 1 Power Plant
6. Phase I of the revamp of the steam turbine generators in the No. 1 Power Plant

II. Projects related to resource recycling or environmental protection equipment:

7. Stage 2 of construction of the new closed building for coal
8. Stage 1 of construction of the coke ovens and CDQ

Major projects, which were expected to increase production capacity or effectiveness, with the investment amount of over NT\$2 billion were listed as follows:

1. Revamp of the program control and electronic control systems of the No. 2 Hot Strip Mill of Rolling Mill Dept. II

The estimated reduction of CO₂ emissions is 2,989 tons per annum because of the saved electricity consumption and low-temperature rolling, which is due to the reduction of delay rates and enhancement of equipment performance.

2. Revamp of the third campaign of the No. 2 Blast Furnace

Since the blow-in of the No. 2 Blast Furnace in January, 1996, the third campaign has been in operation for many years, and it will complete its production task after evaluation. It is necessary to carry out the shutdown and the revamp to enhance and stabilize production so that the operating costs can be reduced to make CSC become more competitive.

3. Advancement of the coal and iron ore transportation processes and relocation of the conveyor equipment

This is Phase 1 of the replacements of the coke ovens in the Phases 1 and 2 expansion projects. This project is a forerunner for relocating the main material yards indoors. The goal of replacing the coke ovens will eventually be achieved.

4. Revamp of the Nos. 3 and 4 ship unloaders

The Nos. 3 and 4 ship unloaders, located in the No. 97 Dock, Kaohsiung Port and dedicated to the transport of CSC's imported raw materials, have been in operation for more than 30 years. In order to ensure the smooth unloading of the raw materials and stabilize the production of the blast furnaces, the equipment must be revamped.

5. Revamp of the turbine air blowers in the No. 1 Power Plant

In order to supply the cold air blast required in the blast furnaces stably, enhance the efficiency of energy consumption, and meet the strict regulation requirements in the future, the equipment must be revamped.

6. Phase I of the revamp of the steam turbine generators in the No. 1 Power Plant

The steam turbine generators in the No. 1 Power Plant have been in operation for 42 years. The revamp must be carried out to improve the efficiency of power generation, reduce air pollution emissions and environmental pressure, and reduce the risk of the interruptions of power and medium pressure steam supply due to the failures of the steam turbine generator set in the future.

7. Stage 2 of construction of the new closed building for coal storage

This project is one of the replacements of the coke ovens in the Phases I & II expansion projects. The new closed building for coal storage was built in CSC's open coal storage yard. The purpose of the renovation was to improve environmental protection and increase the amount per unit area of the main material storage yard to make up for the loss of amount for storage due to the building of new coke ovens.

8. Stage 1 of construction of the coke ovens and CDQ

This project is one of the replacements of the coke ovens in the Phases I & II expansion projects, the purpose of which is to upgrade the equipment and improve environmental protection to accelerate the reduction of carbon dioxide and particulate emissions. After the gradual completion of the various stages of the project in the future, CSC will be able to reduce 73 MT (approximately 63%) of volatile organic compound emissions (in proportion), 41 MT (approximately 56%) of particulate emissions, and 214 million calories/MT of coke (approximately 10%) of the unit energy consumption. In addition, CSC can increase power generation by 273 million kWh each year and reduce 146,000 MT of carbon dioxide emissions.



Operations of the South Section of Phase II of the Circular Line (KMRT)

Engineering Businesses

Revenue generated from engineering businesses from outside parties amounted to NT\$2.34 billion in 2020, which was 11.96% more than that in 2019 (NT\$2.09 billion). CSC will continue to actively expand its engineering and technical services businesses. Key tasks and results in 2020 were listed as follows:

1. The EPC construction project (Phase 1) of the Danhai Light Rail Transit System: The construction was initiated on November 23, 2014. As of December 31, 2020, the overall project was 100% on schedule. The electromechanical system has been at the stage of being verified, and the project is expected to be completed in December, 2021.
2. The EPC Project (Phase II) of the Circular Line (KMRT): The construction was initiated on October 11, 2016. As of December 31, 2020, the overall project was 74.21% on schedule.
3. The EPC project of the electromechanical systems of the Ankeng Light Rail Transit System: The construction was initiated on May 1, 2017. As of December 31, 2020, the overall project was 39.27% on schedule.
4. The manufacturing and supply project of maintenance vehicles for Taiwan High Speed Rail Corporation (THSRC) was initiated on September 27, 2018. As of December 31, 2020, the overall project progress was 49.2%.
5. With respect to the other engineering businesses from outside parties, the revenue exceeded the annual target value, which was mainly due to the increase on demand for (long-term) resident and short-term consultancy services, technical assistance agreements, establishment of production lines, and maintenance services from customers.



The revamp of the No. 2 dust collector in the BOF Plant I



The sinter indoor facility



The solar photovoltaic installation project at the Rolling Mill Department III

Investments and Other Equity Interests

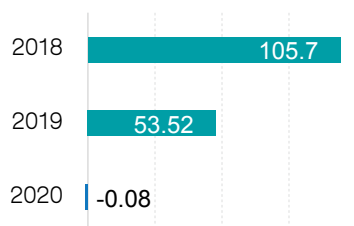


A bird's-eye view of the SDMS plant



CSC recognized income from invested companies in the past three years

(including the dividend income, in hundred million of New Taiwan Dollars)



A preferred supplier contract for wind turbines signed by China Steel Power Corporation and MVOW



Managing team visited Sing Da Marine Structure Corporation

Operating Performance

Due to the impact of the COVID-19 pandemic in 2020, the operating conditions of most reinvestment-related businesses declined compared with those in 2019. The loss of CSC's recognized reinvestment gains in 2020 was NT\$ 8 million.

The operating performance of each subsidiary is as follows:

- 1. Steel Business:** The loss before income tax of Dragon Steel Corporation in 2020 was NT\$2.583 billion, which was NT\$0.763 billion (-42%) more than that in 2019 mainly due to the increase of the unit costs of goods sold, resulting in the decrease of the operating gross profit. The profit before income tax of Chung Hung Steel Corporation in 2020 was NT\$528 million, which was NT\$517 million (4,753%) more than that in 2019 due to the increase in sales volume and sales prices of steel products in the second half of the year, resulting in the increase in the operating gross profit. Regarding CSC's overseas operations, the profit before income tax of CSC Steel Sdn. Bhd. in 2020 was RM48.32 million, which was RM8.72 million more than that in 2019 due to the increase in sales volume and improvement of product combinations, resulting in the increase in the operating gross profit. The loss before income tax of China Steel And Nippon Steel Joint Stock Company in 2020 was US\$5.92 million, which was US\$24.631million less than that in 2019 due to the increase in sales volume, resulting in the increase in the operating gross profit. The loss before income tax of China Steel Corporation India Pvt. Ltd. in 2020 was INR740 million, which was INR576 million less than that in 2019 due to the increase in sales volume and sales prices of steel products,

resulting in the increase in the operating gross profit, the appreciation of the Indian rupee against the U.S. dollar in the second half of the year, and exchange benefits.

2. Engineering Business: The profit before income tax of China Steel Machinery Corporation in 2020 was NT\$295 million, which was NT\$75 million more than that in 2019, which was mainly attributable to the fact that many large-scale projects were completed, the costs were lower than expected, and the settlement profitability was higher. With the decrease in the recognized engineering losses, resulting in the increase in the operating gross profit and increase in the recognized investment gains in 2020, the profit before income tax of China Ecotek Corporation was NT\$225 million, which was NT\$78 million more than that in 2019. The profit before income tax of China Steel Structure Corporation in 2020 was NT\$724 million, which was NT\$589 million more than that in 2019 due to the increased sales of steel products, which resulted in the increase in its operating gross profit, and the disposal of CSSC. Mainly due to the fierce competition of the industrial environment and decrease in the gross profit rates of projects, the profit before income tax of InfoChamp Systems Corporation in 2020 was NT\$187 million, which was NT\$14 million less than that in 2019. The loss before income tax of Sing Da Marine Structure Corporation was NT\$1.007 billion in 2020, which was NT\$0.877 billion more than that in 2019. As it was a new business, the learning curve to reduce costs was slow.

3. Industrial Material Business: The loss before income tax of C. S. Aluminium Corporation in

2020 was NT\$335 million, which was NT\$22 million more than that in 2019. The profit before income tax of China Steel Chemical Corporation in 2020 was NT\$858 million, which was NT\$732 million less than that in 2019, mainly attributable to the increase of oil prices and costs of related raw materials as well as decrease in the recognized investment gains. The profit before income tax of CHC Resources Corporation in 2020 was NT\$922 million, which was NT\$104 million less than that in 2019, mainly attributable to the decrease in the sales volume of GBFS powder and cement. The profit before income tax of HIMAG Magnetic Corporation in 2020 was NT\$33.01 million, which was NT\$12.03 million less than that in 2019, mainly attributable to the decrease in the operating income and the increase in the loss of recognized re-investment. The profit before income tax of Changzhou China Steel Precision Materials Corporation in 2020 was RMB\$3.04 million, which was RMB\$30.81 million less than that in 2019, mainly attributable to the impact of the COVID-19 pandemic and the overall environment of the raw material market as well as lower or negative gross profits of products. The profit before income tax of China Steel Resources Corporation in 2020 was NT\$12.11 million, which was NT\$210,000 less than that in 2019. The profit before income tax of CSC Precision Metal Industrial Corporation in 2020 was NT\$6.43 million, which was NT\$3.5 million less than that in 2019.

4. Trading and Logistics Business: The profit before income tax of China Steel Express Corporation in 2020 was NT\$2.031 billion, which was NT\$16 million less than that in 2019. The

profit before income tax of China Steel Global Trading Corporation in 2020 was NT\$437 million, which was NT\$90 million less than that in 2019, mainly attributable to the decrease in the income from agency trading and sales of steel products, resulting in the decrease of the operating gross profit. The profit before income tax of Qingdao China Steel Precision Metals Co., Ltd. was RMB\$4.03 million in 2020, which was RMB\$7.68 million less than that in 2019, mainly attributable to the adjustment of the sales prices of some products and increase in the costs of labor and raw materials, resulting in the decrease in the operating gross profit. The profit before income tax of China Steel Precision Metals Kunshan Co., Ltd. in 2020 was RMB\$10.07 million, which was RMB\$10.61 million more than that in 2019, mainly attributable to the increase in sales volume, resulting in the increase of the operating gross profit.

- 5. Service and Investment Business:** The profit before income tax of Gains Investment Corporation in 2020 was NT\$494 million, which was NT\$54 million less than that in 2019, mainly attributable to the impact of the COVID-19 pandemic in the second quarter of the year, which affected the effectiveness of investment operations and increase of volatility in the financial market. The profit before income tax of China Steel Security Corporation in 2020 was NT\$121 million, which was NT\$5 million more than that in 2019. The profit before income tax of China Prosperity Development Corporation in 2020 was NT\$572 million, which was NT\$2.395 billion less than that in 2019, mainly attributable to the fact that the higher net profit in 2019 was due to the recognized income from the CPDC

Qianzhen Residential Building project. The profit before income tax of China Steel Management Consulting Corporation was NT\$3.47 million in 2020, which was NT\$940,000 less than that in 2019. The profit before income tax of CSC Solar Corporation was NT\$191 million in 2020, which was NT\$63.73 million more than that in 2019, mainly due to the fact that the operating income of power generation continued to grow, resulting in the increase of the operating gross profit. The loss before income tax of China Steel Power Corporation was NT\$275 million in 2020, which was NT\$275 million more than that in 2019. As the company is still under construction, there are more expenses.

CSC reinvested in Canadian iron ore and Australian iron ore through the CSC Steel Australia Holdings, which is its Australian subsidiary. Benefited from the rising international iron ore prices, the recognized investment gains of the CSC Steel Australia Holdings for 2020 were NT\$822 million, which were NT\$178 million more than those in 2019.



Managing team cared about the well-being of the employees of overseas subsidiaries by video call

Business Development

In terms of the investment in raw material sources, CSC seeks prudent investment in valuable raw material sources to increase its long-term self-sufficiency rates (30%) to reach the target by taking the advantage of the market dynamics and conducting assessment. As of the end of 2020, the self-sufficiency rates of metallurgical coal and iron ore were 1.8% and 15%, respectively. CSC's average self-sufficiency rate of raw materials was 10.8%. In the future, CSC will form strategic alliances with other steel plants or steel trading companies to raise the bargaining chips for raw material investment. Moreover, CSC will adjust its raw material investment flexibly according to the pulse of the steel market.

In collaboration with the demand for expanded sales from overseas production bases, existing overseas coil centers, sales bases, and potential overseas customers, the CSC Group actively expands its sales bases and sets up coil centers, including processing and dispatching businesses, in its main and potential markets to provide services to local customers in real time to extend its supply service chain in order to consolidate its overseas sales distribution channels.

From the perspective of the CSC Group's overall deployment and cross-support capabilities among its production and sales bases as well as the specific steel demands in emerging Asian countries with relatively higher growth of steel demands and its products with comparative advantages in various markets, it will expand the operational territories of its overall steel business to achieve the goal of the sound development of the CSC Group by utilizing the advantage of the Group's operational synergy to promote the operational efficiency of its non-steel businesses.

Customer Services



A seminar on the results of reverse engineering
on hand tools





A seminar on the development technology of offshore wind power generation and high-functioning structural steel

A total of 40 new enterprises became CSC's customers in 2020. New customers accounted for 4.20% of the total customers while the old ones accounted for 98.63% of the total operating revenue. On the basis of technological services, CSC not only offers steel products with the appropriate quality, at the adequate amount, and at the appropriate time by providing multi-stage, multi-layer pre-sale, sale, and after-sale services, but it also assists customers to solve their problems in material utilization and processing techniques to promote the growth of the steel-consuming industries.

CSC obtains feedback, which serves as a reference for improvement or development of marketing policies, from its customers by holding regular production and sales confabs with trade associations (or professional groups) in the downstream steel industry, visiting its customers, and holding technological seminars.

❖ Sales Services

In 2020, 40 confabs regarding domestic sales had been held. Overall sales supporting services are provided through e-business and initiation to the supply chain. Moreover, executives and personnel in related businesses visit CSC's customers actively and take orders according to the scheduled production capacity to promote punctual delivery. To offer even better services, marketing resources from CSC's subsidiaries, e.g. DSC and Chung Hung Steel Corporation, are integrated to mutually support and extend the scope of CSC's services to its customers.

❖ Technical Services

Key activities of technical services in 2020 included: (1) Technical assistance to customers with a total of 225 cases in improving their manufacturing processes were completed, which boosted the customers' confidence in using CSC's products. Twenty-eight surveys of market quality feedback were obtained to effectively give impetus to quality improvement. Moreover, representatives from CSC paid 108 technical visits to key customers. (2) Certification of eight steel products for automobile use was granted. Moreover, CSC has been granted certification of a total of 256 items

so far by 27 automobile manufacturers, which is a necessary threshold for CSC's steel products to be used in automobile manufacturing. (3) Affected by the COVID-19 pandemic, three domestic and international technical symposia and seminars were held to strengthen the link with the customers and assist them in applying steel techniques, which was of great help in enhancing product competitiveness. (4) Professional staff (90 persons/days) were sent abroad to conduct technical interaction and promote CSC's products in Mainland China. (5) In line with domestic and foreign demands, new product development was completed, specific action plans for technical services was launched, and market expansion was actively assisted. Seventeen new products, having reached the standards, were developed; a total of 714,000 metric tons of orders had been obtained. (6) To have a full grasp of the customers' demands and explore the opportunities for new product development, eight surveys of material applications and trends according to industries as well as eight surveys of new products and quality functions were completed.

The Supply Chain System of Production & Sales

The purpose of CSC's Supply Chain System is to effectively match CSC's production and sales with its customers' order demands by bilateral coordination. With standard ordering procedures and allocation of its production capacity, CSC provides timely and flexible responses to the customers online regarding their orders, which closely meets the demand of the market and promotes the overall efficiency of the production and sales in the supply chain.

Operation flexibility and efficiency have markedly increased by the constant optimization and improvement of CSC's Supply Chain System regarding production and sales. Customers can get instant answers in regard to the delivery dates,

quantities, and prices of their orders by linking up with CSC's Supply Chain System, which keeps track of the planning of sales and production, quotations, order entries and revisions, production plans and schedules, follow-ups of existing orders, storage and transportation, and delivery in a smooth and fast manner. The results and benefits of the system are listed as follows:

1. The N+1 monthly pricing was implemented by CSC to get closer to the market conditions, shorten delivery, optimize production and sales, and upgrade services.
2. Assistance of the linking service of the ERP information systems between CSC and its customers has been offered. The operation of customers' purchases, receipt of their orders, inspection, and requests of reimbursement can be interacted with CSC's information on orders, production, delivery, and invoices. Efficiency and precision have been enhanced, and tasks have been simplified. Product value has been raised because there are no borders for accompanying experts, and CSC offers instantaneous information responses.
3. CSC has established the Metallurgical Technology Service Cloud to offer differentiated services to its customers. A mobile knowledge databank and the apps for handling customer complaints instantaneously have also been established to further service its customers.
4. In accordance with the government's policy on the cloud computing industry and the CSC Group's promotion of its private service cloud, CSC has applied cloud technology in the fastener industry to enhance the overall competitiveness, which will facilitate relevant fastener enterprises to enhance the effectiveness, sales, and succession of knowledge of the industry chain.
5. CSC's customer service cloud mobilizes the



A seminar on the applications of steel and aluminum in the automotive industry

daily services that customers need so that they can utilize their mobile devices to issue bills of lading, confirm quotations, and track the progress of their orders. Price spreadsheets are also offered so that salespeople at CSC can respond to customers' inquiries immediately.

6. CSC has raised its on-time delivery rates by improving order preparations, rationalizing delivery, tracking overdue delivery, coordinating production, sales, shipping of export products, etc.
7. Based on production at the lowest costs and the e-commerce information which meets customers' requirements, CSC will gradually establish its smart production and sales to further cut costs to meet the customers' demand.

Customer Satisfaction

CSC always commissions an academic institution to conduct a domestic and overseas customer satisfaction survey every year. Results of the 2020 survey were satisfaction indices of 78.9 points, which was an increase of 1.91 points compared with those of 2019, from domestic customers and 77.9 points, which was a decrease of 0.71 points compared with those of 2019, from overseas customers. The top three items of the domestic satisfaction index were the service attitudes of the salespeople, the speed of the salespeople's responses to customers' inquiries, and salespeople's interaction with customers. The top three items of the overseas satisfaction index were the salespeople's interaction with customers, precision of product specifications, and immediacy of providing products which met the requirements of the control of the hazardous substance contents. The customer service mailbox had processed 13 customer inquiries in 2020. It took 4.538 days on average to respond to the customers and solve the problems.

Risk Management



A Sustainability Champion Award granted to CSC by worldsteel



❖ Market Risk Control

To disperse liable risks of concentrated sales in the steel market, CSC has managed its risk control in two areas. In terms of sales, CSC has adopted the long-term and consistent distribution channel strategy of regarding the domestic market as its principal outlet and supplementing it with export sales and adjusted their ratios according to the changes in the market. In terms of export sales, the production and sales bases of overseas subsidiaries have been integrated to expand the export deployment and sales channels. Premium steel products will be continuously developed to enhance the development of new products. Furthermore, CSC will collaborate with downstream enterprises to explore the end product application market. In response to the trends of the international market, CSC will flexibly adjust production and sales plans to strengthen the domestic supply and demand structures and take advantage of the business opportunities for export sales. In response to the impact of the COVID-19 pandemic and the risk of business fluctuations, sales and production plans are simulated on the basis of the amount of estimated orders to avoid the risks of economic fluctuations. Concrete measures include coordination of the allocations of slab purchase quotas among the subsidiaries in the CSC Group, reduction of production in the furnaces and campaign adjustments according to the downstream demand, adjustments of the schedules of seasonal/annual

maintenance of the production lines, scheduling of raw material transportation, planning of commissioned rolling, and other countermeasures to respond to the rapidly changing economy and market conditions.

❖ Risk Control of Raw Material Supply

1. Procurement of Raw Materials

To avoid the disruptions of the supply of raw materials, such as coal, iron ore, and limestone, due to the weather or the conditions of the mines, railways, and loading ports, CSC has adopted the following countermeasures:

- The sources and suppliers are cautiously evaluated.
- Safe inventory levels are properly maintained.
- The sources of the raw material supply are diversified; short-term, medium-term, and long-term contracts, ranging from one to five years, are signed with various suppliers in different countries.
- Contracts are executed in good faith; relationships with mutual trust and assistance are maintained with the suppliers.
- Some of the retained amounts are retailed in the spot markets in response to the flexibility in production demand so that opportunities to reduce costs can be sought.

Emergency responses to gas leakage in a converter



Cooling of the temperature by spraying water from fire engines



Rescue operations performed by the personnel in a drill

- New sources of the raw material supply are actively developed to intensify competition and avoid domination by only a few suppliers.
- CSC has its own vessels for raw material transportation so that it can control and reduce its transportation costs when there is a price hike in freight; nonetheless, it will also charter vessels for timely transportation of some of its raw materials when necessary.

2. Development of Raw Material Sources

- Cooperative investment projects are carefully carried out only with prestigious miners with the experiences of coal and iron mining and exploration or joint venture partners, including steel plants and trading companies.
- Investigation on the spot is carried out with due diligence so that CSC can fully grasp the status of its raw material investment.
- Professional consultants in geology, finance, taxation, and law are commissioned to help carry out feasibility assessment.
- Overall assessment and reviews are conducted by related departments internally when necessary.
- Decision-making meetings of raw material joint ventures are attended to protect CSC's investment interests.
- The development and operations of raw material

joint ventures are closely monitored and fully controlled.

Transportation Risk Control

CSC's ultimate objective in the management of raw material transportation is the uninterrupted supply. Its weekly review of all material inventories serves as the basis for the determination of the optimal shipping plan. Depending upon the sizes of the needed vessels and their economic benefits, special vessels or provisional chartered ones are flexibly deployed, and their movements are continuously tracked until their discharge is completed. The risks of marine transportation are borne by overseas buyers. As for inland transportation, all of the trucking companies have to present both their signed letters of guarantee and bankers' irrevocable letters of guarantee on fixed amounts to CSC to ensure that products will be delivered to CSC's customers according to agreed-upon schedules and in perfect conditions. If the steel products in delivery are damaged, lost, or delayed, CSC maintains the right to deduct the loss from the freight or the guarantee deposits from the transportation companies to control transportation risks.

Emergency responses to leakages of liquid ammonia



Water sprinkling to reduce the concentration of ammonia in the air



Rescue operations performed by the personnel in a drill

In order to strengthen the risk control of accidents during transportation, truck drivers have had to fill out the forms in the autonomous safety and health management system before performing their operations regarding cargo loading since 2020. The drivers have been supervised to conduct independent physical and psychological checks before going to work, and they are truly aware of the hazards involved. Due to the aforementioned practice, CSC was selected as an outstanding example by Taiwan Corporate Sustainability Awards (TCSA), and granted the 2020 Supply Chain Management Award for Taiwanese enterprises.

❖ Risk Control of Utilities

Joint energy systems, including the water, electricity, oil, steam, and gas systems, are monitored and dispatched by the Utility Dispatching Center (UDC) at CSC. Besides the implementation of economic dispatching to control system safety by UDC, PDAs are also utilized to facilitate the examination of the facilities in periodic patrol checks. Revamp of pipelines and power distribution facilities has been conducted continuously to ensure the safety of all systems. Emergency drills in regard to facility failures are held every year to reduce the risks of energy supply. The measures in risk control of utilities taken by CSC include:

1. Electricity and gas:

- To promote the reliability of power supply, replacement of the old equipment used for power generation will be continued, and the revamp of the structural members of transmission towers will also be implemented. The replacement of the old power equipment before the 3.5 level and the switch panels above the voltage level of 11.5kV have been completed, and the 3.3kV and 480V switch panels are being updated.
- The revamp and painting project for rust removal of the 16 structural members of the 161kV overhead transmission towers in the existing power supply area were carried out to improve the reliability of power supply.
- Replacement of the old gas pipelines will be carried out to reduce risks.
- The noise of the natural gas station was improved from 110 decibels to 89 decibels.

2. Water:

- Emergency limited water usage administrative regulations were established to avoid the damage in the furnaces and coke ovens caused by the tightening of water supply by Taiwan Water Corporation in dry seasons. CSC hopes to reduce the damage in production or facilities caused by the lack of water supply. To respond to the possible lack of water supply, the following

Emergency responses to leakages of gas pipelines in a blast furnace



Cooling of the temperature by spraying water from fire engines



Repairs carried out by technical personnel

measures were taken:

- (1) Consumption of non-production water, such as plant greening water, tap water for road sprinkling, and factory cleaning water, was stopped.
 - (2) The condensation ratio of the cooling water system was increased to reduce water supplementation.
 - (3) The water pressure was adjusted to reduce water consumption.
 - (4) The amount of recycled industrial wastewater was increased.
- CSC actively takes part in the municipal project of recycling waste water, which serves as the second source of water supply, to reduce the risk of water supply. 41,000 m³/day of recycled water had been generated. It is estimated that 20,000 m³/day of reclaimed water coming out of the Linhai Sewage Treatment Plant can be generated by 2022.

❖ Risk Control of Information Systems

Information security attacks on external hi-tech companies reached the peak in 2020. In order to effectively control and prevent similar incidents from occurring within CSC and avoid huge losses, information units actively apply information technology to prevent, detect, and respond to information security risks that may cause damage to business operations. The measures taken to respond are listed as follows:

- Strict prevention of ransomware threats: In addition to strengthening the protection of the “highest domain authority accounts” with the introduction of privileged account software, CSC monitors the accounts of the administrators in charge of terminal devices. The advanced persistent threat (APT) defense software to prevent hackers from potential malicious attacks was purchased to reduce the threat of ransomware.
- Enhancement of the security control of terminal equipment: In order to effectively control the use of legal software, the Information Asset Inventory Software was purchased in 2020. Only internally-listed legal software at CSC was allowed to be used to prevent the risk of green, Trojan, spy, and illegal software intrusion, which could prevent manual misuse and cause the risk of attacks on corporate information security.
- Protection of information security equipment, drills, and backups: In addition to (1) the establishment of multiple backup mechanisms for network equipment, (2) implementation of data backup and restoration mechanisms, (3) continuous security operations centers, (4) weak system and web scan services, (5) switching of network intrusion prevention systems, (6) endpoint protection systems, and (7) online control of application systems and version changer mechanisms, CSC has drawn up standard operating procedures and implemented education and training programs as well as instituted strict control measures to effectively reduce the risk of abnormalities and the losses in business operations caused by long downtime of important equipment.
- Regular meetings, education training, and promotion: Promotion of cyber security, education and training, social email drills, and regular work safety drills regarding access control of data centers have been implemented internally to enhance CSC employees' awareness of cyber security. To enhance the Group's cyber security protection capacity, joint cyber security meetings and investigatory meetings are held quarterly to gather and share new information about the Group's cyber security and reduce cyber security risks.

❖ Risk Control of Facility Maintenance

1. Machinery:

Spare management: Proper inventory levels are maintained according to past maintenance experience and the amounts of spare consumption. When the insured materials are lower than the safety stock, the material management system will immediately notify the material management unit to carry out procurement operations as soon as possible to avoid the risk of downtime in production lines caused by lack of materials.

- **Maintenance résumés:**

Abnormalities in mechanical and electrical equipment and facilities are looked for through downtime management; the records of the equipment résumés are kept. The tracking mechanisms for handling measures and improvement of maintenance strategies were strengthened to ensure that maintenance techniques and experience were fully kept and passed down to reduce the maintenance time at downtime.

- **Establishment of the online monitoring center:**

The operational data of equipment in important production lines was monitored through systematic mechanisms to deliver daily and weekly reports about abnormalities. Countermeasures to handle abnormalities were researched to give early warnings and prevent possible sudden downtime of the production equipment.

2. Electrical Control Facilities:

- Risk management of the IATF 16949 and ISO 9001 quality management systems is carried out.
- Preparation of the off-site backups of the process control systems and operations of backup and restoring mechanisms of files are implemented.
- Fault-tolerant master systems are installed in part of the important process control systems to reduce the frequencies of hardware downtime and increase the reliability of system operations.

- Uninterruptible power systems are applied in all process control systems. Entrance control is implemented, and so are fire and emergency evacuation response drills and preparation of the off-site backups of the process control systems.
- The computers for program control are equipped with anti-virus software, and the virus codes are updated regularly to ensure information security and normal operations of the computer systems. The Government Configuration Baseline has been introduced to ensure cyber security and the normal operations of the computer systems.

❖ Risk Control of Construction Management

- Standardization is carried out in accordance with the ISO 9001 quality management systems. Standard documents such as “Management regulations for the establishment of engineering projects,” “Management regulations for the workshop maintenance equipment of track work projects,” “Management regulations of engineering contracts of rail trucks,” “Management regulations of engineering contracts,” and “Management regulations for submitting project profit and loss statements” have been established to strengthen engineering organizations, contracts, and cost control of projects.
- In terms of the implementation of requirements beyond the scope of the contracts, all documents between CSC and related parties are completely preserved, and the professional advice of the engineering and legal consultants are sought as a basis for future contract changes, including claims for project costs and extensions of work periods.
- The construction costs of projects are strictly controlled. The utilization of the budget for each project is regularly reviewed, and the project

expenditure is also strictly controlled by each subsystem.

❖ Risk Control of Environmental Protection, Safety, and Hygiene

- Hazard identification and risk assessment are carried out to promote the culture of industrial safety. Measures are taken to reduce the risks in the high and major categories, and emergency drills are held periodically.
- CSC has been actively devoted to reducing the emissions of air pollutants and waste water; moreover, it has reinforced water conservation and recycling of waste water.
- CSC has taken proper action in response to the trend of environmental protection and reduction of carbon emissions and reduced the risk of climate change.

❖ Risk Control of Climate Change

- Based on the concept of sustainable development, the goal of the reduction of carbon emissions and promotional strategies are set. The performance of the reduction of carbon emissions is enhanced by best available technology, development and applications of low-carbon energy, the expansion of regional energy integration, etc.
- Steel products which conserve energy consumption and reduce carbon emissions will be developed and their life cycles will be assessed to expand the effectiveness of external reduction of carbon emissions.
- CSC will be actively involved in the new green businesses, domestic and overseas cooperative projects regarding reduction of carbon emissions, carbon capture and storage (CCS), and operations of carbon rights.
- Low carbon lifestyles and consumption will be

promoted within CSC in the hope of developing a low carbon society.

- In collaboration with the government's targets for the reduction of carbon emissions at different phases, CSC has formulated the corresponding roadmap for the reduction of carbon emissions and implemented related projects for energy conservation and reduction of carbon emissions.

❖ Financial Risk Control

- CSC keeps close watch on the daily balance of foreign currency transactions. In accordance with its demand for foreign exchange funds and the trends of the foreign exchange market, it adjusts its holdings of strong and weak foreign currencies flexibly to promote the effectiveness of foreign currency manipulation. For short-term foreign exchange funds, natural hedging is adopted by offsetting revenue and expenses. If there is a demand (mainly in international currencies) in a new foreign investment project or procurement of imported equipment, CSC will, in principle, hedge against exchange rate risks by taking out an equivalent long-term loan in foreign currencies or undertaking forward foreign exchange trading as the priority. Relevant practices can be adjusted at all times depending upon the costs of currency hedging and exchange rate trends. Occasionally, when there is a need for capital injection, the funds are raised in the New Taiwan Dollar if it is a strong currency in terms of its exchange rates.
- Clear interest rate risk tolerances are set to control floating interest rate debts. When interest rates in the financial markets turn around significantly, CSC will apply early repayments or interest rate swaps (IRS) to convert the interest rates to fixed rates. In regard to the medium- and long-term demand of NT dollars, corporate bonds will be issued according to the environment of the capital market. Regular assessment will be

conducted to decide the optimal timing to issue corporate bonds. Bank quotas will be utilized in a timely manner to reduce capital costs to mitigate the impact of future interest rate fluctuations.

- With the utilization of the outright sale of accounts receivable without recourse, CSC can obtain payment in advance and enhance the efficiency of fund utilization. Furthermore, by means of e-commerce and digital signature security systems, CSC simplifies the payment procedures for its customers to ensure them that their ordered products will be delivered according to normal delivery practice.
- CSC also keeps close watch to ensure the faultless operation of its electronic business and security mechanisms and the accuracy and timeliness of the information at all times; it raises the degree of customer satisfaction by offering services through the e-commerce financial operation.
- To reduce the impact of natural disasters and accidents, CSC reduces the risk factors of production and operations with continuous reviews and improvement, which reduces the frequencies of accidents and the scope of damage and curbs the increase of insurance premiums.
- Various indicators are regularly used to analyze CSC's and its subsidiaries' financial structures, solvency, operating capability, profitability, cash flow, and degrees of leverage. Early warning mechanisms are set to prevent the occurrence of any risk. The risk communication platform and feedback mechanisms have been established to respond immediately to various financial risk issues faced by the subsidiaries and provide timely solutions and necessary assistance. CSC has innovated and balanced the centralized

capital management mechanisms among the subsidiaries to enhance the synergy of capital utilization.

Authorized Economic Operator (AEO)

There are four themes in CSC's AEO risk management, namely, prevention of illegal entries, physical cargo security, risk management of business partners, and information security. In addition to the annual and regular external audits of business partners and the internal self-examination, CSC strongly recommends its subsidiaries and business partners in the supply chain to obtain their AEO certification so that the control of cargo security can be horizontally and vertically promoted from CSC alone to its partners in the upstream and downstream industries.

The Mutual Recognition Arrangement (MRA) on the AEO Program was officially implemented on December 8, 2020. CSC has been a pilot test enterprise since November, 2019 and had preferential treatments in customs clearance in advance.

It was invited by the CommonWealth Magazine to offer AEO advertorials, promoted by the Bureau of Foreign Trade, in November, 2020.

Corporate Governance

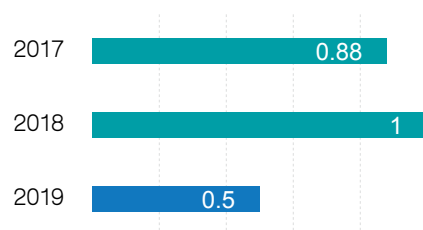


CSC was granted the 2020 Taiwan Corporate Sustainability Award



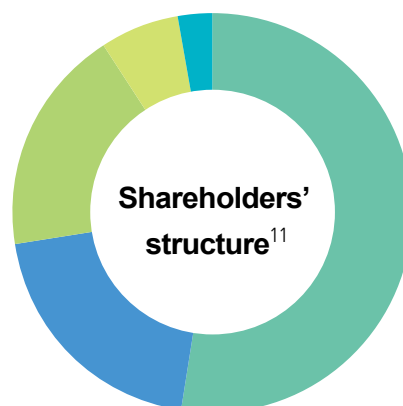
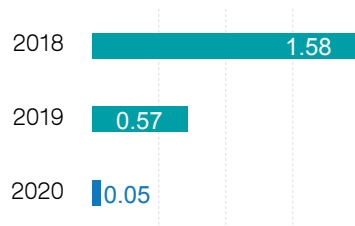
Common stock cash dividend payout

NT\$/share



Earnings per share

NT\$/share



Domestic natural person and other juristic person	52.61%
Government (official) institution	20.10%
Overseas foreign investment of juristic person, nature person, and trust fund (GDR included)	18.16%
Domestic securities investment trust fund	6.48%
Domestic financial institution	2.65%

¹¹ As of August 1, 2020, the record date for ex-right/dividend.

Annual Shareholders' Meeting

Starting from 2011, every motion was discussed and voted, and the results of all motions were announced at the regular annual shareholders' meeting first and openly posted on the Market Observation Post System and CSC Website afterwards as references for investors. 2020 was the ninth year when electronic voting was adopted. Approximately 56.63% of all the totaled issued shares were voted in such a manner by shareholders when exercising their rights. The foreign shareholders' voting rights were approximately 18.13% of the total number of shareholders' voting rights. On the Book Closure date, 18.82% of all the totaled issued shares were foreign-owned; in particular, over 95% of foreign shareholders also exercised their rights by voting electronically. The aforementioned facts helped to promote the public's assessment of CSC's corporate governance.

CSC has paid much attention to its shareholders' rights and interests. To ensure that investors and shareholders have smooth communication channels to voice their opinions and maintain their rights to be fully aware of and participate in decision-making regarding major events taking place at CSC, special personnel from the Finance Department have been designated to be responsible for relevant matters. The following measures have been adopted: (1) Shareholders' service channels, such as a toll-free telephone line and an e-mail address, have been established to answer their suggestions and doubts. (2) Significant and instant information regarding CSC's monthly consolidated operating revenue, consolidated operating income, and consolidated income before income tax as well as its sales volume and domestic price adjustments is e-mailed to analysts and investors. Furthermore, relevant data are always updated on CSC's corporate website with transparency and a high degree of

timeliness. (3) Designated staff will receive domestic and foreign investors, answer their questions, and make factory tours. The management will also take part in earnings conferences/conference calls actively to let domestic and foreign investors have a better understanding of CSC. (4) Financial, business, and corporate governance information is fully disclosed in the “Shareholders’ services” and “Corporate governance” sections on CSC’s corporate website; moreover, CSC’s CSR Report Section, which posts major issues related to energy and environment management and CSC’s annual CSR reports over the years and serves as a reference for investors, is also available on the same website.

❖ The Board of Directors

There are currently 11 directors in the Board of Directors, three of whom are independent directors. “Rules Governing the Election of Directors” have been established, and nominated candidates who are elected will be appointed as directors. In 2020, six board meetings were held.

Under the Board of Directors are three functional committees, namely, the Audit Committee, the Remuneration Committee, and the Corporate Governance and Sustainability Committee, all of which enhance the operations of the Board of Directors.

The Audit Committee consists of three independent directors, one of whom should have accounting and finance expertise. The functions of the Audit Committee include the supervision of the following items: (1) fair presentation of CSC’s financial reports, (2) the hiring (and dismissal), independence, and performance of CSC’s certified public accountants, (3) the effective implementation of CSC’s internal control systems, (4) compliance with relevant laws and regulations by CSC, and (5) management control of the existing or potential risks of CSC. Seven meetings were convened in 2020, and the minutes of the resolutions were presented to the Board of Directors.

The Remuneration Committee consists of three independent directors. Three meetings of the Remuneration Committee were convened in 2020, the key points of which were the discussion of the performance evaluation system for commissioned senior managers and their pay adjustments and the implementation of performance management, and the proposals drawn from the resolutions of the meetings were presented to the Board of Directors.



A winner of the Sustainable Resilience Leadership Award by BSI



A winner of the TCEA-Innovation Award by Chung-Hua Institution for Economic Research



Acceptance of the certificates of the BSI Circular Economy Standards

The Corporate Governance and Sustainability Committee consists of five directors, three of whom are independent directors. In order to implement corporate governance and sustainable management, CSC has set up four teams, namely, the corporate governance and ethical management team, sustainable environmental development team, employee care and social participation team, and corporate social responsibility (CSR) information disclosure team. These teams are responsible for the operations, promotion, and implementation of the resolutions of the committee. The committee regularly presents the results of implementation to the Board of Directors.

To implement vigorous energy conservation as well as reduction of carbon emissions and paper consumption, notices, agendas, information, and proceedings of the meetings of the Board were uploaded to the system; attendees were notified electronically to browse the aforementioned information by logging in the system.

Independent Directors

1. Communication with the Internal Auditor

- The Internal Auditor explains to the independent directors on the mechanisms of recruiting auditors.
- Based on confidentiality and sensitivity as well as the principle of protecting whistleblowers, the Internal Auditor office will report the accepted complaints or offence cases to the independent directors by making appointments when necessary.
- Following the instructions of the independent directors, the Internal Auditor will check the cases where the actual operations of each unit and subsidiary do not conform to the regulations or delay the immediate update of the operation regulations.

2. Communication with the Certified Public Accountants

- CSC's certified public accountants attend the quarterly audit committee meetings as well as board meetings to communicate matters related

to the financial statements. Based on their professional judgment, they may meet with the independent directors to conduct communication by means of the Audit Committee.

- Quarterly financial reports reviewed by the certified public accountants are submitted to the Audit Committee for communication and discussion. Annual financial statements will be presented to the Audit Committee after being audited by the certified public accountants, who will obtain the Audit Committee's issued consent for reporting.
- The certified public accountants communicate and discuss the key audit items of the audit report with the Audit Committee annually according to regulations.

Internal Auditing

To forestall irregularities and strengthen the effectiveness of corporate administration, key point activities of the Internal Auditor for 2020 were to test and assess whether the operational procedures in the eight operational cycles, which included business of: (1) sales and receipt, (2) purchase and payment, (3) production, (4) labor and wage, (5) finance, (6) property, plant, and equipment, (7) investment, and (8) research and development, were adequately comprehensive and precise. Moreover, issues such as whether there were risks involved and whether the systems were designed with a cross-checking function were also assessed.

The Internal Auditor conducted the audits required by the Regulations Governing Establishment of Internal Control Systems by Public Corporations promulgated by the Financial Supervisory Commission, Executive Yuan, on a number of controls, which included the following: (1) management of the use of seals, (2) management of the receipt and use of negotiable instruments, (3) management of budgets, (4) management of assets, (5) management of endorsements and guarantees, (6) management of liabilities, commitments, and

contingencies, (7) implementation of authorization and deputy systems, (8) management of loans to others, (9) management of financial and non-financial information, (10) management of related parties' transactions, (11) management of the procedures for preparation of financial statements, (12) supervision and management of subsidiaries, (13) management of the operation of board meetings, (14) management of shareholder services, (15) management of the protection of personal information, (16) management of the operation of the audit committee meetings, (17) management of the operation of the remuneration committee, (18) management of prevention of insider trading control of information flow security inspection, (19) management of prevention of insider trading, and (20) management of the computerized information systems. Furthermore, the Internal Auditor also assessed the internal control systems of CSC's 28 subsidiaries with due diligence.

In 2020, 47 audit reports and 540 items for improvement were presented by the Internal Auditor. The audited units/departments and subsidiaries were notified in regard to the items for improvement. The suggestions for improvement were then keyed into CSC's audit management system; the progress of improvement was followed up. Each audit, when completed, was sent by letter to the Independent Directors for examination and perusal according to regulations.

Performance of Corporate Governance

CSC approved the appointment of a chief governance officer, who would be responsible for supervising corporate governance related matters, at the 23rd meeting of the 16th board of directors on March 25, 2019. To improve the corporate governance mechanisms, the Corporate Governance and Sustainability Committee was established under the Board of Directors to be responsible for promoting corporate social responsibility and implementing the

concept of corporate sustainability. The Financial Supervisory Commission published the "Corporate Governance Roadmap 2014," which would be modified periodically on a rolling basis in the next five years. "Evaluation of corporate governance" has been implemented since 2015; the scope of evaluation has expanded from merely information disclosure to corporate governance. Furthermore, in 2020, the Taiwan Stock Exchange (TWSE) released the results of the sixth corporate governance evaluation, and CSC has been among the top 5% listed companies for three consecutive years and belonged to the TWSE Corporate Governance 100 Index.

In terms of CSC's performance in the environmental, social, and corporate governance aspects, it has been listed as a constituent of the Dow Jones Sustainability Index (DJSI) for nine consecutive years and the FTSE4Good Index, showing recognition of CSC's efforts in corporate governance and corporate social responsibility by the FTSE Group and FTSE Russell.

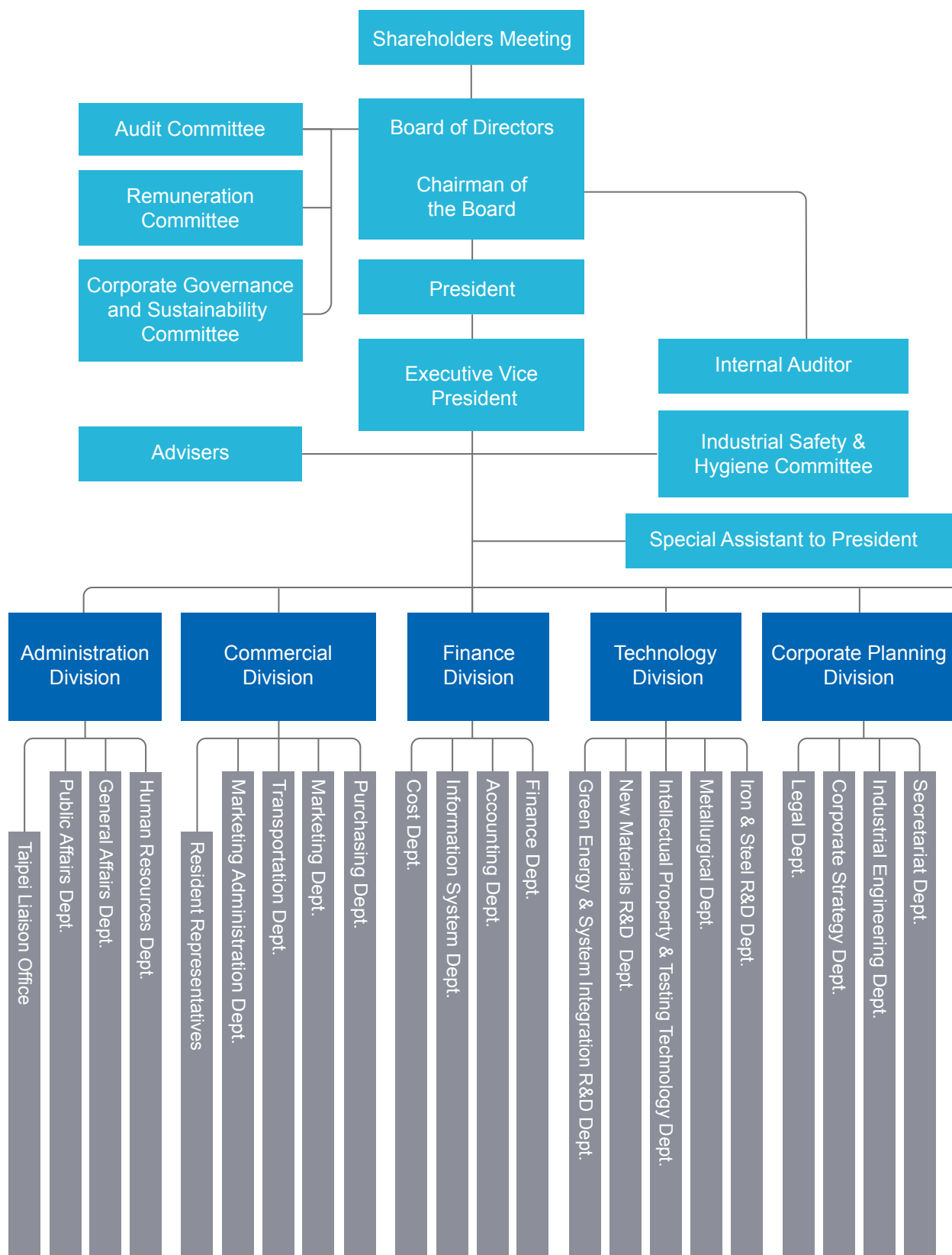


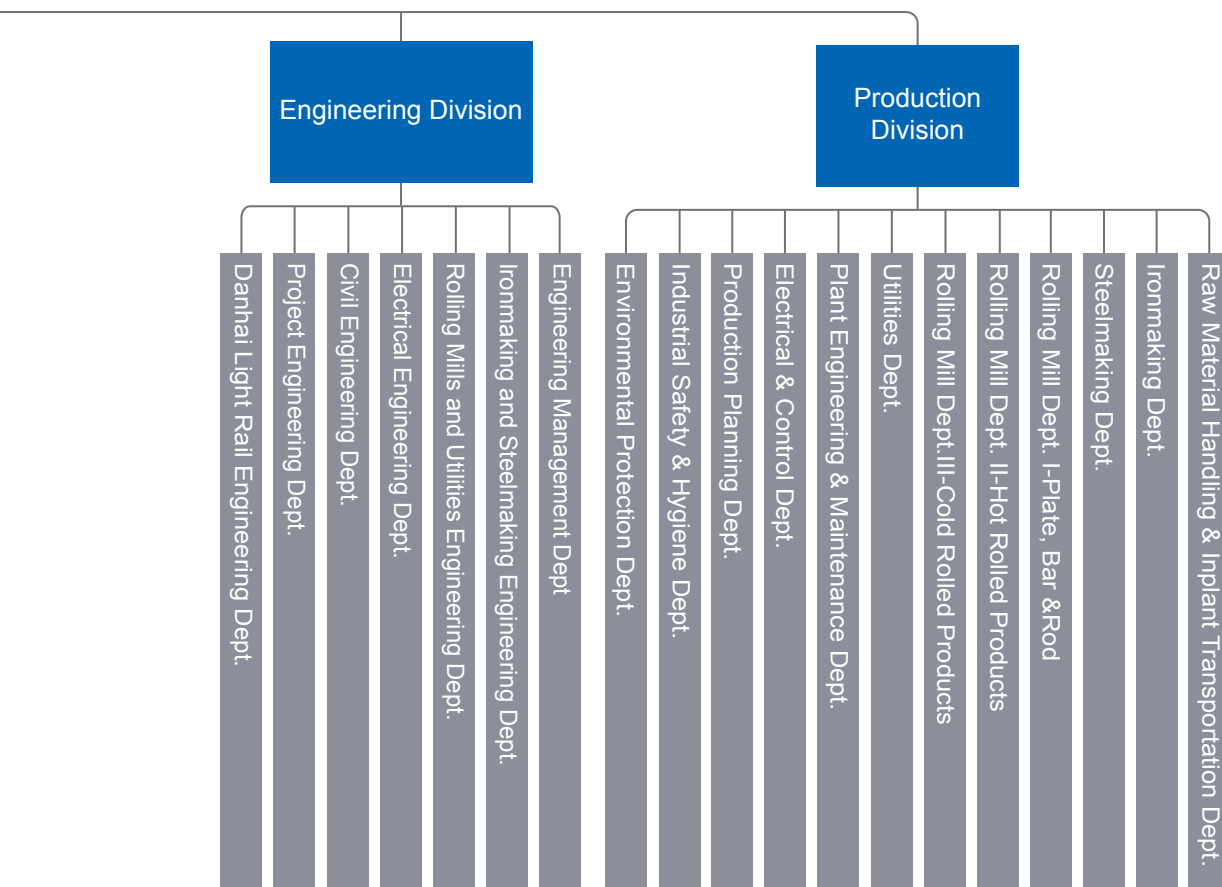
Earnings conferences/conference calls are held.



CSC's 2020 shareholder's meeting

Organization Chart





Board of Directors

(as of December 31, 2020)



Chairman of the Board
Chao-Tung Wong
Representing Ministry of
Economic Affairs, R. O. C.



Director
Wen-Sheng Tseng
Representing Ministry of
Economic Affairs, R. O. C.



Director
Ming-Jong Liou
Representing Ministry of
Economic Affairs, R. O. C.



Director
Shyi-Chin Wang
Representing Ever Wealthy
International Corporation



Director
Chien-Chih Hwang
Representing Chiun Yu
Investment Corporation



Director
Cheng-I Weng
Representing Hung Kao
Investment Corporation



Director
Yueh-Kun Yang
Representing Gau Ruei
Investment Corporation



Director
Chun-Sheng Chen
Representing Labor Union
of China Steel Corporation



Independent Director
Shyue-Bin Chang



Independent Director
Min-Hsiung Hon



Independent Director
Lan-Feng Kao

Senior Management

(as of December 31, 2020)



President

Shyi-Chin Wang



Executive Vice President
(Concurrently Spokesman
for the Corporation)

Chien-Chih Hwang



Vice President -
Administration

Chiu-Po Chang



Vice President -
Commercial

Min-Hsiung Liu



Vice President -
Finance

Yueh-Kun Yang



Vice President -
Corporate Planning
(Concurrently Company
Secretary)

Pai-Chien Huang



Assistant Vice President
- Technology
(Concurrent Vice President
- Technology)

Jih-Jau Jeng



Vice President -
Engineering

Chung-Te Chen



Vice President -
Production

Wen-Ge Lo

Five-Year Summary of Selected Financial Data and Operating Results

(In thousands of New Taiwan Dollars, unless stated otherwise)

	2020	2019	2018	2017	2016
Operating revenues	183,841,526	207,297,533	235,403,151	207,098,630	168,927,075
Operating costs	175,614,789	194,591,389	210,430,943	187,568,805	147,174,784
Gross profit	8,226,737	12,706,144	24,972,208	19,529,825	21,752,291
Realized (unrealized) gain on transactions with subsidiaries and affiliates	(139,358)	138,254	(63,751)	147,162	(384,546)
Operating expenses	7,490,152	8,257,497	8,591,826	8,101,943	8,286,601
Profit from operations	597,227	4,586,901	16,316,631	11,575,044	13,081,144
Non-operating income and expenses	410,149	5,448,207	10,080,759	6,945,620	4,952,067
Profit before income tax	1,007,376	10,035,108	26,397,390	18,520,664	18,033,211
Net profit for the year	885,865	8,809,555	24,454,152	16,905,588	16,038,369
Other comprehensive income (loss) for the year, net of income tax	(2,424,635)	(3,684,510)	(1,450,139)	(2,475,273)	(87,519)
Total comprehensive income for the year	(1,538,770)	5,125,045	23,004,013	14,430,315	15,950,850
Current assets	61,576,209	82,799,286	85,311,954	73,703,417	65,458,991
Property, plant and equipment	148,160,443	146,141,153	155,897,997	162,042,223	167,632,162
Other assets	233,181,755	237,138,749	239,872,226	236,681,872	237,184,216
Total liabilities	422,918,407	466,079,188	481,082,177	472,427,512	470,275,369
Current liabilities	56,431,956	68,415,109	68,011,905	65,066,190	45,556,399
Noncurrent liabilities	93,187,506	95,105,546	100,162,235	103,351,259	122,159,084
Total liabilities	149,619,462	163,520,655	168,174,140	168,417,449	167,715,483
Share capital	157,731,290	157,731,290	157,731,290	157,731,290	157,731,290
Capital surplus	39,077,456	38,877,269	38,545,884	38,211,082	37,807,466
Retained earnings	108,342,066	115,476,131	122,682,396	109,227,145	106,917,266
Other equity	(3,187,669)	(861,959)	2,595,167	7,372,935	8,680,706
Treasury shares	(8,664,198)	(8,664,198)	(8,646,700)	(8,532,389)	(8,576,842)
Total equity	293,298,945	302,558,533	312,908,037	304,010,063	302,559,886
Total liabilities and equity	442,918,407	466,079,188	481,082,177	472,427,512	470,275,369
Equity per common share (NT\$)	18.98	19.58	20.25	19.67	19.58
Earnings per common share (NT\$)	0.05	0.57	1.58	1.09	1.04
Earnings per common share (NT\$) ¹²	-	0.57	1.58	1.09	1.04

¹² Retrospective basic earnings per share is calculated based on retrospective adjustment of earnings, the number of common shares after capital increase transferred from employees' remuneration (bonus), and convertible preferred shares.

Five-Year Summary of Selected Financial Ratios and Percentages

		2020	2019	2018	2017	2016
Current ratio	(%)	109	121	125	113	144
Ratio of long-term liabilities and equity to property, plant and equipment	(%)	261	272	265	241	244
Total liabilities to total assets	(%)	34	35	35	36	36
Net profit ratio	(%)	0.5	4	11	8	10
Return on total assets	(%)	0.4	2	5	4	4
Return on equity	(%)	0.3	3	8	6	5
Revenue growth rate, year to year	(%)	(11.32)	(11.94)	13.67	22.60	4.98
Equity growth rate, year to year	(%)	(3.06)	(3.31)	2.93	0.48	2.80

Analysis of the Financial Status and Operating Results

1. Two-year analysis of flow ratios

		2020	2019	Increase (Decrease)(%)
Cash flow ratio (%)	(%)	57	10	470
Cash flow adequacy ratio (%) ¹³	(%)	100	93	8
Cash reinvestment ratio (%)	(%)	3.14	(1.18)	366

¹³ Based on the data over the past five years

Analysis of the increase (decrease) of percentages:

- (1) The cash flow ratio: The 470% increase in the cash flow ratio over the previous year was mainly attributable to the increase in the net cash flow from the operation activities.
- (2) The appropriate cash flow ratio: The 8% increase in the appropriate cash flow ratio over the previous year was mainly attributable to the increase in the net cash flow from the operation activities.
- (3) The cash reinvestment ratio: The 366% increase in the cash reinvestment ratio over the previous year was mainly attributable to the increase in the net cash flow from the operation activities.

2. Analysis of operating results

- (1) The NT\$23,456,007 thousand decrease in the operating revenue was mainly attributable to the decrease of the unit sales prices of steel products.
- (2) The NT\$18,976,600 thousand decrease in the operating costs was mainly attributable to the decrease of the unit costs of steel products sold.
- (3) The NT\$4,479,407 thousand decrease in the gross profit was mainly attributable to the fact that the decrease of the unit sales prices of steel products was more than that of the unit costs of steel products sold.
- (4) The NT\$277,612 thousand decrease in the realized (unrealized) gains on the transactions with the subsidiaries and affiliates was mainly attributable to the fact that the realized gross profit of the steel products sold to the subsidiaries and affiliates this year was decreased in comparison with that over the previous year.
- (5) The NT\$767,345 thousand decrease in the operating expenses was mainly attributable to the decrease of the personnel expenditure.
- (6) The NT\$3,989,674 thousand decrease in the operating income was mainly attributable to the causes in (1) ~ (5).
- (7) The NT\$5,038,058 thousand decrease in the non-operating net income was mainly attributable to the decrease of the share of profits from the subsidiaries and affiliates recognized under the equity method.
- (8) The NT\$9,027,732 thousand decrease in the profit before income tax was mainly attributable to the causes in (1) ~ (7).
- (9) The NT\$ 7,923,690 thousand decrease in the net income was mainly attributable to the decrease of the profit before income tax, the causes of which were listed in (1) ~ (7).

Terms and Conditions of Corporate Bonds

Issue	1st Unsecured Corporate Bonds-B Issue in 2012	1st Unsecured Corporate Bonds-A Issue in 2013	1st Unsecured Corporate Bonds-B Issue in 2013	1st Unsecured Corporate Bonds-C Issue in 2013	1st Unsecured Corporate Bonds-A Issue in 2014
IssueDate	From August 3, 2012 to August 3, 2022	From July 12, 2013 to July 12, 2020	From July 12, 2013 to July 12, 2023	From July 12, 2013 to July 12, 2028	From January 23, 2014 to January 23, 2021
Face Amount	NT\$1 million	NT\$1 million	NT\$1 million	NT\$1 million	NT\$1 million
Issue Price	At par value	At par value	At par value	At par value	At par value
Amount	NT\$15,000 million	NT\$6,300 million	NT\$9,700 million	NT\$3,600 million	NT\$6,900 million
Coupon	1.50%	1.44%	1.60%	1.88%	1.75%
Maturity	Ten years	Seven years	Ten years	Fifteen years	Seven years
Trustee	Taipei Fubon Bank, Trust Department	Mega International Commercial Bank, Head Office-Trust Department	Mega International Commercial Bank, Head Office-Trust Department	Mega International Commercial Bank, Head Office-Trust Department	Taipei Fubon Bank, Trust Department
Lead Manager	-	-	-	-	-
Legal Advisor to the Issuer	Chien Yeh Law Offices	Chien Yeh Law Offices	Chien Yeh Law Offices	Chien Yeh Law Offices	Chien Yeh Law Offices
Auditor of the Issuer	Deloitte & Touche	Deloitte & Touche	Deloitte & Touche	Deloitte & Touche	Deloitte & Touche
Repayment	Repay 50% of the principal at the end of the 9th and 10th year; interest shall be paid annually against interest coupon commencing from the issue date.	Repay 50% of the principal at the end of the 6th and 7th year; interest shall be paid annually against interest coupon commencing from the issue date.	Repay 50% of the principal at the end of the 9th and 10th year; interest shall be paid annually against interest coupon commencing from the issue date.	Repay 30% 、30% 、40% of the principal at the end of the 13th 、14th 、15th year; interest shall be paid annually against interest coupon commencing from the issue date.	Repay 50% of the principal at the end of the 6th and 7th year; interest shall be paid annually against interest coupon commencing from the issue date.

Terms and Conditions of Corporate Bonds

Issue	1st Unsecured Corporate Bonds-B Issue in 2014	1st Unsecured Corporate Bonds-C Issue in 2014	1st Unsecured Corporate Bonds Issue in 2018	2nd Unsecured Corporate Bonds Issue in 2018
IssueDate	From January 23, 2014 to January 23, 2024	From January 23, 2014 to January 23, 2029	From May 28, 2018 to May 28, 2025	From August 8, 2018 to August 8, 2028
Face Amount	NT\$1 million	NT\$1 million	NT\$1 million	NT\$1 million
Issue Price	At par value	At par value	At par value	At par value
Amount	NT\$7,000 million	NT\$9,000 million	NT\$6,000 million	NT\$5,600 million
Coupon	1.95%	2.15%	0.95%	1.10%
Maturity	Ten years	Fifteen years	Seven years	Ten years
Trustee	Taipei Fubon Bank, Trust Department	Taipei Fubon Bank, Trust Department	Hua Nan Commercial Bank	Taipei Fubon Bank, Trust Department
Lead Manager	-	-	8 underwriters including Capital Securities, etc.	12 underwriters including KGI Securities, etc.
Legal Advisor to the Issuer	Chien Yeh Law Offices	Chien Yeh Law Offices	Chien Yeh Law Offices	Chien Yeh Law Offices
Auditor of the Issuer	Deloitte & Touche	Deloitte & Touche	Deloitte & Touche	Deloitte & Touche
Repayment	Repay 50% of the principal at the end of the 9th and 10th year; interest shall be paid annually against interest coupon commencing from the issue date.	Repay 30%、30%、40% of the principal at the end of the 13th、14th、15th year; interest shall be paid annually against interest coupon commencing from the issue date.	Repay 50% of the principal at the end of the 6th and 7th year; interest shall be paid annually against interest coupon commencing from the issue date.	Repay 50% of the principal at the end of the 9th and 10th year; interest shall be paid annually against interest coupon commencing from the issue date.

Issue	1st Unsecured Corporate Bonds-A Issue in 2018	1st Unsecured Corporate Bonds-B Issue in 2018	1st Unsecured Corporate Bonds-A Issue in 2020	1st Unsecured Corporate Bonds-B Issue in 2020
IssueDate	From October 9, 2018 to October 9, 2025	From October 9, 2018 to October 9, 2028	From December 28, 2020 to December 28, 2025	From December 28, 2020 to December 28, 2027
Face Amount	NT\$1 million	NT\$1 million	NT\$1 million	NT\$1 million
Issue Price	At par value	At par value	At par value	At par value
Amount	NT\$4,150 million	NT\$2,250 million	NT\$1,600 million	NT\$4,200 million
Coupon	0.90%	1.05%	0.39%	0.43%
Maturity	Seven years	Ten years	Five years	Seven years
Trustee	Taipei Fubon Bank, Trust Department	Taipei Fubon Bank, Trust Department	Mega International Commercial Bank	Mega International Commercial Bank
Lead Manager	11 underwriters including Capital Securities, etc.	8 underwriters including Capital Securities, etc.	4 underwriters including Yuanta Securities, etc.	6 underwriters including Yuanta Securities, etc.
Legal Advisor to the Issuer	Chien Yeh Law Offices	Chien Yeh Law Offices	Chien Yeh Law Offices	Chien Yeh Law Offices
Auditor of the Issuer	Deloitte & Touche	Deloitte & Touche	Deloitte & Touche	Deloitte & Touche
Repayment	Repay 25% and 75% of the principal at the end of the 6th and 7th year; interest shall be paid annually against interest coupon commencing from the issue date.	Repay 50% of the principal at the end of the 9th and 10th year; interest shall be paid annually against interest coupon commencing from the issue date.	Repay 50% of the principal at the end of the 4th and 5th year; interest shall be paid annually against interest coupon commencing from the issue date.	Repay 70% and 30% of the principal at the end of the 6th and 7th year; interest shall be paid annually against interest coupon commencing from the issue date.

Preferred Stocks

Item \ Issuance date		Nov. 18, 1974	Jan. 31, 1980	Nov. 30, 1980	Dec. 31, 1981
Face value (NT\$)		10	10	10	10
Issuing price (NT\$)		10	10	10	10
Number of shares		50,000,000	21,887,000	797,000	4,006,000
Total amount (NT\$)		500,000,000	218,870,000	7,970,000	40,060,000
Rights and liabilities	Dividend policy	After all the accounts are settled, taxes paid, deficits offset, and the legal reserve appropriated, the remaining earnings will be distributed as follows: (1) Preferred stock dividends at 14% of the par value (2) Common stock dividends at no more than 14% of the par value (3) The rest of the remaining earnings will be appropriated proportionally to the preferred stockholders and common stockholders as bonuses.			
	Appropriation of residual property	Same as those of common shareholders			
	Voting rights	No right to vote in the elections of board directors			
	Others	Other rights and obligations are the same as those of the common shareholders.			
Preferred stock in circulation	Retrieved / converted shares	0 shares (2020 and the first three months of 2021)			
	Unretrieved / unconverted shares	38,267,999 shares (as of March 31, 2021)			
	Retrieving or converting clause	The Corporation may retrieve the preferred stock using earnings or the proceeds from share issuance. Preferred shareholders have the right to convert preferred shares into common shares.			
Market price(NT\$)	2017	High	44.00		
		Low	41.55		
		Average(closing)	42.44		
	2018	High	43.40		
		Low	40.20		
		Average(closing)	42.58		
	2019	High	55.40		
		Low	43.15		
		Average(closing)	48.27		
	2020	High	55.50		
		Low	47.35		
		Average(closing)	52.92		

Issuance of Global Depositary Shares

Item \ Issuance date	May 28, 1992	Feb. 10, 1997	Oct 22, 2003	Aug 1, 2011
Issuance and Listing	Asia, Europe, America	Asia, Europe, America	Asia, Europe, America	Asia, Europe, America
Total Amount (US\$)	US\$327,600,000	US\$186,607,572.50	US\$936,086,488	US\$751,067,478
Offering Price Per GDS	US\$18.2/1 unit	US\$18.35/1 unit	US\$15.56/1 unit	US\$19.67/1 unit
Units Issued	18,000,000 units	10,169,350 units	60,159,800 units	38,183,400 units
Underlying Securities	CSC Common Shares	CSC Common Shares	CSC Common Shares	CSC Common Shares
Common Shares Represented	360,000,000	203,387,000	1,203,196,000	763,668,000
Rights and Obligations of GDS Holders	Dividend appropriation is the same as CSC common shares. Other rights and obligation are regulated in Depositary Agreement.			
Trustee	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Depositary Bank	Citibank, N.A.- New York	Citibank, N.A.- New York	Citibank, N.A.- New York	Citibank, N.A.- New York
Custodian Bank	Citibank, N.A.- Taipei	Citibank, N.A.- Taipei	Citibank, N.A.- Taipei	Citibank, N.A.- Taipei
GDS Outstanding	12,597,670 shares			
Apportionment of Expenses for Issuance and Maintenance	Issuance-related expenses were borne by Ministry of Economic Affairs.	Issuance-related expenses were borne by Ministry of Economic Affairs.	Issuance-related expenses were borne by Ministry of Economic Affairs.	Issuance-related expenses were borne by the Company, CSC.
Terms and Conditions in the Depositary Agreement & Custody Agreement	Omitted	Omitted	Omitted	Omitted
Closing price Per GDS(US\$)	2020	High	17.79	
		Low	12.22	
		Average	14.43	









Market Price of Stock over Past Three Years

(in NT\$ / share)

Stock	Price	2020	2019	2018
Common	Highest	25.60	25.50	25.55
	Lowest	18.35	22.80	23.20
	Average(closing)	21.24	24.21	24.20

Source of Information: Taiwan Stock Exchange Corporation

Principal Products and Uses

Steel Product	Major Uses
 Plates	Shipbuilding, bridges, steel structures, oil country tubular goods (OCTGs), storage tanks, boilers, pressure vessels, die, truck chassis, and general construction, offshore wind power, etc.
 Bars	Nuts and bolts, hand tools, loudspeaker parts, automobile and motorcycle parts, suspension spring, bearing, machinery parts, free cutting rod, gear, and polished bar, etc.
 Wire rods	Nuts and bolts, steel wire and rope, P. C. wire and strand, hand tools, welding electrodes, tire cord, bearing, free cutting rod, umbrella parts, and polished bar, etc.
 Hot rolled coils, plates and sheets	Steel pipes and tubes, vehicle parts, containers, pressure vessels, building structures, hydraulic jacks, cold rolled and galvanized substrate, hand tools, light shapes and formed parts, etc.
 Cold rolled coils	Steel pipes and tubes, steel furniture, kitchenware, home appliances, oil barrels, automobile panels and parts, enamelware, substrate for galvanized and coated steel sheets, and hardware and components, etc.
 Electro-galvanized coils	Computer cases/parts and accessories, home appliance panels/parts and accessories, LED TV back plates/parts, motor cases, construction materials, furniture hardware and components, and motorcycle fuel tanks, etc.
 Hot-dip galvanized coils	Automobile panels and parts, home appliance panels/parts and accessories, computer cases/parts and accessories, PPGI substrate, construction materials, furniture hardware and components, etc.
 Electrical steel coils	Electric vehicles, electric boats, compressors, small household appliances, electric machine tools, generators, transformers, fluorescent lamp, ballasts, drones, spindle motors, servo motors and industrial motors, etc.

Three-Year Summary of Production and Sales Volumes

(in tons)

Product	Volume	2020	2019	2018
Plates	Production	865,483	840,934	959,739
	Sales	871,739	843,277	968,031
Bars	Production	457,629	541,234	683,745
	Sales	518,432	616,837	776,079
Wire rods	Production	1,233,863	1,124,925	1,288,107
	Sales	1,296,512	1,262,691	1,530,206
Hot rolled steel products	Production	2,724,713	2,814,129	2,689,845
	Sales	3,006,891	3,156,007	3,099,588
Cold rolled steel products ¹⁴	Production	2,927,398	2,991,574	3,317,014
	Sales	3,023,598	3,027,089	3,406,755
Commercial slabs	Production	370,491	342,738	184,655
	Sales	1,368,709	1,381,427	1,455,795
Pig iron	Production	12,721	16,844	10,439
	Sales	710	643	846
Others ¹⁵	Production	117,120	67,290	106,791
	Sales	56,393	2,970	4,828
Total	Production	8,709,418	8,739,668	9,240,335
	Sales	10,142,984	10,290,941	11,242,128

¹⁴ Including electrogalvanized, hot-dip galvanized products and electrical steel coils

¹⁵ Including alloy products, stainless steels, blooms, and billets





STANDALONE FINANCIAL STATEMENTS

for the Years Ended December 31, 2020 and 2019 and

Independent Auditors' Report

INDEPENDENT AUDITORS' REPORT

China Steel Corporation

Opinion

We have audited the accompanying standalone financial statements of China Steel Corporation (the Corporation), which comprise the standalone balance sheets as of December 31, 2020 and 2019, and the standalone statements of comprehensive income, changes in equity and cash flows for the years then ended, and the notes to the standalone financial statements, including a summary of significant accounting policies (collectively referred to as the standalone financial statements).

In our opinion, the accompanying standalone financial statements present fairly, in all material respects, the standalone financial position of the Corporation as of December 31, 2020 and 2019, and its standalone financial performance and its standalone cash flows for the years then ended in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers.

Basis for Opinion

We conducted our audits in accordance with the Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants and auditing standards generally accepted in the Republic of China. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Standalone Financial Statements section of our report. We are independent of the Corporation in accordance with The Norm of Professional Ethics for Certified Public Accountant of the Republic of China, 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.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the standalone financial statements for the year ended December 31, 2020. These matters were addressed in the context of our audit of the standalone financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters of the Corporation's standalone financial statements for the year ended December 31, 2020 are stated as follows:

Inventory Valuation

As of December 31, 2020, inventories of the Corporation amounted to NT\$39,537,983 thousand, representing 9% of the Corporation's total assets. Due to the drastic fluctuations in the prices of raw materials and finished goods in the steel industry, inventory valuation, which involved critical accounting estimates, is deemed to be a key audit matter. Refer to Notes 4, 5 and 11 to the Corporation's standalone financial statements for the related accounting policies and disclosures on inventory valuation.

The audit procedures we performed included the following:

1. We evaluated the appropriateness of the approach applied to the inventory valuation.
2. We verified the completeness of inventory included in inventory valuation.
3. We tested the net realizable value of inventory items on a sample basis and evaluated the underlying assumptions and supporting documents, re-performed and calculated the appropriateness of net realizable value and the value written-off.

Recognition of Revenue from Sale of Goods of Steel Department

The Corporation manufactures and sells steel products and engages in mechanical, communications, and electrical engineering. Revenue from sale of goods of steel department represented over 90% of the total operating revenue. Because revenue recognition is presumed to be significant risk, it subjects to fluctuation in terms of market demand, and it is also the financial factor that financial report users focused on, revenue recognition is deemed to be a key audit matter. Refer to Notes 4 and 23 to the Corporation's standalone financial statements for the related accounting policies and disclosures on sales revenue.

The audit procedures we performed included the following:

1. We understood the design and implementation regarding approval of sales order, shipping and cash collecting process of the Corporation's steel department.
2. We evaluated the appropriateness of sales amount and nature by analyzing sales quantities, unit price, sales to major customers and sales of major goods based on two-year comparative information.
3. We tested details on the above-mentioned specific goods and customers on a sample basis, including confirming customer information, testing shipping documents or bill of lading and cash collection to confirm the existence of sales revenue.
4. We obtained subsequent details of the above-mentioned specific customers and tested whether there is any unusual sales returns and allowances on a sample basis to confirm the appropriateness of accounting treatment and presentation.

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

Management is responsible for the preparation and fair presentation of the standalone financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers, and for such internal control as management determines is necessary to enable the preparation of the Corporation's financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the standalone financial statements, management is responsible for assessing the Corporation'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 Corporation or to cease operations, or has no realistic alternative but to do so.

Those charged with governance, including the audit committee or supervisors, are responsible for overseeing the Corporation's financial reporting process.

Auditors' Responsibilities for the Audit of the Standalone Financial Statements

Our objectives are to obtain reasonable assurance about whether the standalone 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 the auditing standards generally accepted in the Republic of China 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 standalone financial statements.

As part of an audit in accordance with the auditing standards generally accepted in the Republic of China, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

1. Identify and assess the risks of material misstatement of the standalone 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.
2. 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 Corporation's internal control.
3. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
4. 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 Corporation'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 standalone 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 Corporation to cease to continue as a going concern.
5. Evaluate the overall presentation, structure and content of the standalone financial statements, including the disclosures, and whether the standalone financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
6. Obtain sufficient and appropriate audit evidence regarding the financial information of entities or business activities within the Corporation to express an opinion on the standalone financial statements. We are responsible for the direction, supervision, and performance of the Corporation 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.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the standalone financial statements for the year ended December 31, 2020 and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would

reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partners on the audits resulting in this independent auditors' report are Jui-Hsuan Hsu and Cheng-Hung Kuo.

Deloitte & Touche
Taipei, Taiwan
Republic of China

February 26, 2021

Notice to Readers

The accompanying standalone financial statements are intended only to present the standalone financial position, financial performance and cash flows in accordance with accounting principles and practices generally accepted in the Republic of China and not those of any other jurisdictions. The standards, procedures and practices to audit such standalone financial statements are those generally applied in the Republic of China.

For the convenience of readers, the independent auditors' report and the accompanying standalone financial statements have been translated into English from the original Chinese version prepared and used in the Republic of China. If there is any conflict between the English version and the original Chinese version or any difference in the interpretation of the two versions, the Chinese-language independent auditors' report and standalone financial statements shall prevail.

Standalone Balance Sheets

(In Thousands of New Taiwan Dollars)

ASSETS	December 31, 2020		December 31, 2019	
	Amount	%	Amount	%
CURRENT ASSETS				
Cash and cash equivalents	\$ 1,769,860	-	\$ 4,659,190	1
Financial assets at fair value through profit or loss-current	-	-	826,071	-
Financial assets for hedging - current	514,119	-	686,940	-
Contract assets - current	475,313	-	37,687	-
Notes receivable	430,648	-	424,724	-
Notes receivable - related parties	111,592	-	187,424	-
Accounts receivable, net	2,688,128	1	2,017,984	1
Accounts receivable - related parties	2,054,455	1	1,010,906	-
Other receivables	1,203,455	-	1,032,050	-
Other receivables - loans to related parties	5,694,000	1	9,270,000	2
Current tax assets	305,386	-	-	-
Inventories	39,537,983	9	55,940,988	12
Other financial assets - current	6,027,185	2	5,950,006	2
Other current assets	764,085	-	755,316	-
Total current assets	61,576,209	14	82,799,286	18
NONCURRENT ASSETS				
Financial assets at fair value through profit or loss - noncurrent	843,818	-	825,824	-
Financial assets at fair value through other comprehensive income - noncurrent	38,226,656	9	40,960,721	9
Financial assets for hedging - noncurrent	1,852	-	145	-
Investments accounted for using the equity method	181,301,445	41	181,884,058	39
Property, plant and equipment	148,160,443	33	146,141,153	31
Right-of-use assets	1,269,862	-	1,409,621	-
Investment properties	7,431,253	2	7,441,922	2
Intangible assets	14,934	-	24,890	-
Deferred tax assets	3,836,367	1	4,485,947	1
Refundable deposits	245,565	-	105,619	-
Other financial assets - noncurrent	10,003	-	2	-
Total noncurrent assets	381,342,198	86	383,279,902	82
TOTAL	\$ 442,918,407	100	\$ 466,079,188	100

LIABILITIES AND EQUITY	December 31, 2020		December 31, 2019	
	Amount	%	Amount	%
CURRENT LIABILITIES				
Short-term borrowings and bank overdraft	\$ 10,685,874	2	\$ 20,143,975	4
Short-term bills payable	3,999,092	1	13,990,638	3
Financial liabilities for hedging - current	1,660,353	-	20,396	-
Contract liabilities - current	1,200,242	-	1,101,096	-
Accounts payable	4,141,140	1	4,966,533	1
Accounts payable - related parties	1,066,985	-	1,446,124	-
Other payables	15,730,689	4	13,963,546	3
Current tax liabilities	732	-	462,797	-
Provisions - current	4,287,992	1	2,511,033	1
Lease liabilities - current	286,135	-	328,823	-
Current portion of bonds payable	10,949,351	3	6,599,642	2
Refund liabilities - current	1,914,682	1	2,054,213	1
Other current liabilities	508,689	-	826,293	-
Total current liabilities	56,431,956	13	68,415,109	15
NONCURRENT LIABILITIES				
Financial liabilities for hedging - noncurrent	338,545	-	4,635,224	1
Bonds payable	60,569,113	13	65,713,769	14
Long-term bank borrowings	7,000,000	2	4,000,000	1
Long-term bills payable	6,897,508	2	1,998,687	-
Deferred tax liabilities	10,605,707	2	10,673,748	2
Lease liabilities - noncurrent	986,584	-	1,084,022	-
Net defined benefit liabilities	6,790,049	2	7,000,096	2
Total noncurrent liabilities	93,187,506	21	95,105,546	20
Total liabilities	149,619,462	34	163,520,655	35
EQUITY				
Share capital				
Ordinary shares	157,348,610	36	157,348,610	34
Preference shares	382,680	-	382,680	-
Total share capital	157,731,290	36	157,731,290	34
Capital surplus	39,077,456	9	38,877,269	8
Retained earnings				
Legal reserve	66,532,412	15	65,674,189	14
Special reserve	27,912,065	6	27,803,906	6
Unappropriated earnings	13,897,589	3	21,998,036	5
Total retained earnings	108,342,066	24	115,476,131	25
Other equity	(3,187,669)	(1)	(861,959)	-
Treasury shares	(8,664,198)	(2)	(8,664,198)	(2)
Total equity	293,298,945	66	302,558,533	65
TOTAL	\$ 442,918,407	100	\$ 466,079,188	100

Standalone Statements of Comprehensive Income

(In Thousands of New Taiwan Dollars, Except Earnings Earnings Per Share)

	For the Year Ended December 31			
	2020		2019	
	Amount	%	Amount	%
OPERATING REVENUE	\$ 183,841,526	100	\$ 207,297,533	100
OPERATING COSTS	175,614,789	96	194,591,389	94
GROSS PROFIT	8,226,737	4	12,706,144	6
REALIZED (UNREALIZED) GAIN ON TRANSACTIONS WITH SUBSIDIARIES AND ASSOCIATES	(139,358)	-	138,254	-
REALIZED GROSS PROFIT	8,087,379	4	12,844,398	6
OPERATING EXPENSES				
Selling and marketing expenses	2,613,343	1	2,904,573	1
General and administrative expenses	2,995,856	2	3,451,922	2
Research and development expenses	1,880,953	1	1,901,002	1
Total operating expenses	7,490,152	4	8,257,497	4
PROFIT FROM OPERATION	597,227	-	4,586,901	2
NON-OPERATING INCOME AND EXPENSES				
Interest income	102,760	-	194,172	-
Other income	1,907,955	1	1,787,129	1
Other gains and losses	(21,342)	-	(11,675)	-
Finance costs	(1,092,967)	(1)	(1,336,991)	-
Share of profit or loss of subsidiaries and associates	(486,257)	-	4,815,572	2
Total non-operating income and expenses	410,149	-	5,448,207	3
PROFIT BEFORE INCOME TAX	1,007,376	-	10,035,108	5
INCOME TAX EXPENSE	121,511	-	1,225,553	1
NET PROFIT FOR THE YEAR	885,865	-	8,809,555	4

For the Year Ended December 31				
	2020		2019	
	Amount	%	Amount	%
OTHER COMPREHENSIVE INCOME (LOSS)				
Items that will not be reclassified subsequently to profit or loss				
Remeasurement of defined benefit plans	(\$ 56,273)	-	(\$ 172,267)	-
Unrealized gains and losses on investments in equity instruments at fair value through other comprehensive income	(2,734,065)	(2)	(5,888,537)	(3)
Gains and losses on hedging instruments	33,837	-	(70,861)	-
Share of the other comprehensive income of subsidiaries and associates	1,022,991	1	3,319,480	2
Income tax benefit relating to items that will not be reclassified subsequently to profit or loss	4,258	-	50,304	-
Items that may be reclassified subsequently to profit or loss				
Exchange differences on translating foreign operations	(474,314)	-	(733,134)	(1)
Gains and losses on hedging instruments	(5,269)	-	(3,417)	-
Share of the other comprehensive income of subsidiaries and associates	(215,800)	-	(186,078)	-
Other comprehensive income (loss) for the year, net of income tax	(2,424,635)	(1)	(3,684,510)	(2)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	<u>(\$ 1,538,770)</u>	<u>(1)</u>	<u>\$ 5,125,045</u>	<u>2</u>
EARNINGS PER SHARE				
Basic	<u>\$ 0.05</u>		<u>\$ 0.57</u>	
Diluted	<u>\$ 0.05</u>		<u>\$ 0.57</u>	

Standalone Statements of Changes in Equity

(In Thousands of New Taiwan Dollars, Except Dividends Per Share)

	Share Capital			Retained Earnings	
	Ordinary Shares	Preference Shares	Capital Surplus	Legal Reserve	Special Reserve
BALANCE AT JANUARY 1, 2019	<u>\$ 157,348,610</u>	<u>\$ 382,680</u>	<u>\$ 38,545,884</u>	<u>\$ 63,228,774</u>	<u>\$ 27,649,488</u>
Appropriation of 2018 earnings					
Legal reserve	-	-	-	2,445,415	-
Special reserve	-	-	-	-	154,480
Cash dividends to ordinary shareholders - NT\$1.0 per share	-	-	-	-	-
Cash dividends to preference shareholders - NT\$1.4 per share	-	-	-	-	-
Reversal of special reserve	-	-	-	-	(62)
Net profit for the year ended December 31, 2019	-	-	-	-	-
Other comprehensive income (loss) for the year ended December 31, 2019, net of income tax	-	-	-	-	-
Total comprehensive income (loss) for the year ended December 31, 2019	-	-	-	-	-
Purchase of the Corporation's shares by subsidiaries	-	-	-	-	-
Adjustment to capital surplus arising from dividends paid to subsidiaries	-	-	320,031	-	-
Disposal of investments in equity instruments at fair value through other comprehensive income	-	-	-	-	-
Adjustment from changes in equity of subsidiaries and associates	-	-	11,354	-	-
BALANCE AT DECEMBER 31, 2019	<u>157,348,610</u>	<u>382,680</u>	<u>38,877,269</u>	<u>65,674,189</u>	<u>27,803,906</u>
Appropriation of 2019 earnings					
Legal reserve	-	-	-	858,223	-
Special reserve	-	-	-	-	110,524
Cash dividends to ordinary shareholders - NT\$0.5 per share	-	-	-	-	-
Cash dividends to preference shareholders - NT\$1.4 per share	-	-	-	-	-
Reversal of special reserve	-	-	-	-	(2,365)
Net profit for the year ended December 31, 2020	-	-	-	-	-
Other comprehensive income (loss) for the year ended December 31, 2020, net of income tax	-	-	-	-	-
Total comprehensive income (loss) for the year ended December 31, 2020	-	-	-	-	-
Purchase of the Corporation's shares by subsidiaries	-	-	-	-	-
Disposal of the Corporation's shares held by subsidiaries	-	-	271	-	-
Adjustment to capital surplus arising from dividends paid to subsidiaries	-	-	160,443	-	-
Disposal of investments in equity instruments at fair value through other comprehensive income	-	-	-	-	-
Adjustment from changes in equity of subsidiaries and associates	-	-	39,473	-	-
BALANCE AT DECEMBER 31, 2020	<u>\$ 157,348,610</u>	<u>\$ 382,680</u>	<u>\$ 39,077,456</u>	<u>\$ 66,532,412</u>	<u>\$ 27,912,065</u>

Retained Earnings	Other Equity					
Unappropriated Earnings	Exchange Differences on Translating Foreign Operations	Unrealized Gains and Losses on Financial Assets at Fair Value Through Other Comprehensive Income	Gains and Losses on Hedging Instruments	Total Other Equity	Treasury Shares	Total Equity
\$ 31,804,134	(\$ 5,919,624)	\$ 4,410,913	\$ 4,103,878	\$ 2,595,167	(\$ 8,646,700)	\$ 312,908,037
(2,445,415)	-	-	-	-	-	-
(154,480)	-	-	-	-	-	-
(15,734,861)	-	-	-	-	-	(15,734,861)
(53,575)	-	-	-	-	-	(53,575)
62	-	-	-	-	-	-
8,809,555	-	-	-	-	-	8,809,555
(242,632)	(919,212)	(2,271,323)	(251,343)	(3,441,878)	-	(3,684,510)
8,566,923	(919,212)	(2,271,323)	(251,343)	(3,441,878)	-	5,125,045
-	-	-	-	-	(17,498)	(17,498)
-	-	-	-	-	-	320,031
15,248	-	(15,248)	-	(15,248)	-	-
-	-	-	-	-	-	11,354
21,998,036	(6,838,836)	2,124,342	3,852,535	(861,959)	(8,664,198)	302,558,533
(858,223)	-	-	-	-	-	-
(110,524)	-	-	-	-	-	-
(7,867,430)	-	-	-	-	-	(7,867,430)
(53,575)	-	-	-	-	-	(53,575)
2,365	-	-	-	-	-	-
885,865	-	-	-	-	-	885,865
(134,429)	(690,114)	(1,545,421)	(54,671)	(2,290,206)	-	(2,424,635)
751,436	(690,114)	(1,545,421)	(54,671)	(2,290,206)	-	(1,538,770)
-	-	-	-	-	(1,780)	(1,780)
-	-	-	-	-	1,780	2,051
-	-	-	-	-	-	160,443
35,504	-	(35,504)	-	(35,504)	-	-
-	-	-	-	-	-	39,473
\$ 13,897,589	(\$ 7,528,950)	\$ 543,417	\$ 3,797,864	(\$ 3,187,669)	(\$ 8,664,198)	\$ 293,298,945

Standalone Statements of Cash Flows

(In Thousands of New Taiwan Dollars)

	For the Year Ended December 31	
	2020	2019
CASH FLOWS FROM OPERATING ACTIVITIES		
Profit before income tax	\$ 1,007,376	\$ 10,035,108
Adjustments for:		
Depreciation expense	15,249,956	17,429,485
Amortization expense	9,956	9,957
Net gain on financial assets at fair value through profit or loss	(117,861)	(14,534)
Finance costs	1,092,967	1,336,991
Interest income	(102,760)	(194,172)
Dividend income	(478,481)	(536,241)
Share of loss (profit) of subsidiaries and associates	486,257	(4,815,572)
Loss on disposal of property, plant and equipment	3,107	7,148
Write-down (reversal) of inventories	(2,394,332)	1,623,585
Unrealized (realized) gain on the transactions with subsidiaries and associates	139,358	(138,254)
Recognition (reversal) of provisions	1,776,959	(2,422,720)
Others	(120,851)	(168,035)
Changes in operating assets and liabilities		
Financial assets for hedging	208,759	63,422
Contract assets	(415,069)	189,967
Notes receivable	(5,924)	261,783
Notes receivable - related parties	75,832	241,344
Accounts receivable	(670,144)	854,471
Accounts receivable - related parties	(1,043,549)	883,083
Other receivables	(174,595)	318,714
Inventories	18,934,316	(6,646,390)
Other current assets	(8,769)	179,112
Contract liabilities	99,146	(627,061)
Accounts payable	(825,393)	(2,238,865)
Accounts payable - related parties	(379,139)	(831,076)
Other payables	579,074	(3,831,023)
Other current liabilities	(317,604)	325,729
Net defined benefit liabilities	(266,320)	(59,552)
Refund liabilities	(139,531)	(985,846)
Cash generated from operations	32,202,741	10,250,558
Income taxes paid	(38,307)	(3,604,422)
Net cash generated from operating activities	32,164,434	6,646,136
CASH FLOWS FROM INVESTING ACTIVITIES		
Proceeds from disposal of financial assets at fair value through other comprehensive income	-	131,399
Proceeds from disposal of financial assets at fair value through profit of loss	931,520	-
Acquisition of financial liabilities for hedging	-	349,389

	For the Year Ended December 31	
	2020	2019
Derecognition of financial liabilities for hedging	(\$ 2,682,577)	(\$ 4,239,103)
Proceeds from disposal of noncurrent assets held for sale	-	561,918
Acquisition of property, plant and equipment	(15,729,921)	(8,531,907)
Increase in refundable deposits	(139,946)	(45,100)
Decrease in other receivables - loans to related parties	3,576,000	1,524,160
Increase in other financial assets	(87,180)	-
Decrease in other financial assets	-	120,835
Interest received	105,950	199,643
Dividends received from subsidiaries and associates	1,308,122	8,947,369
Dividends received from others	478,481	536,241
Proceeds from liquidation of subsidiaries	-	18,665
Proceeds from the capital reduction of associates	200,000	-
Net cash used in investing activities	(12,039,551)	(426,491)
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceeds from short-term borrowings	17,954,753	68,199,596
Repayments of short-term borrowings	(25,756,665)	(65,017,674)
Proceeds from short-term bills payable	32,958,454	28,490,638
Repayments of short-term bills payable	(42,950,000)	(14,500,000)
Issuance of bonds payable	5,800,000	-
Repayments of bonds payable	(6,600,000)	(5,650,000)
Issuance of long-term bank borrowings	13,500,000	8,000,000
Repayments of long-term bank borrowings	(10,500,000)	(4,000,000)
Proceeds from long-term bills payable	11,298,821	1,998,687
Repayments of long-term bills payable	(6,400,000)	(5,897,729)
Repayments of principal of lease liabilities	(347,514)	(337,794)
Dividends paid	(7,915,869)	(15,779,153)
Acquisition of subsidiaries	(1,018,060)	(2,899,200)
Interest paid	(1,381,944)	(1,529,216)
Proceeds from the capital reduction of subsidiaries	-	108,328
Net cash used in financing activities	(21,358,024)	(8,813,517)
NET DECREASE IN CASH AND CASH EQUIVALENTS	(1,233,141)	(2,593,872)
CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE YEAR	(176,331)	2,417,541
CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR	<u>(\$ 1,409,472)</u>	<u>(\$ 176,331)</u>
Reconciliation of the amounts in the standalone statements of cash flows with the equivalent items reported in the standalone balance sheets as of December 31, 2020 and 2019:		
Cash and cash equivalents in the standalone balance sheets	\$ 1,769,860	\$ 4,659,190
Bank overdraft	(3,179,332)	(4,835,521)
Cash and cash equivalents in the standalone statements of cash flows	<u>(\$ 1,409,472)</u>	<u>(\$ 176,331)</u>

Ownership of Subsidiaries and Other Equity Interests

December 31, 2020

Companies

Amount (NT\$1,000) Ownership (%)

Investments Accounted for Using The Equity Method		
Investments in Subsidiaries		
Listed companies		
Chung Hung Steel Corporation	6,248,987	41
China Steel Chemical Corporation	1,963,954	29
China Steel Structure Co., Ltd.	1,330,501	33
China Ecotek Corporation	1,072,630	45
CHC Resources Corporation	991,270	20
Less : Shares held by subsidiaries accounted for as treasury stock	2,081,642	
Subtotal	9,525,700	
Unlisted companies		
Dragon Steel Corporation	96,066,355	100
CSC Steel Australia Holdings Pty Ltd.	20,842,831	100
China Steel Express Corporation	12,914,176	100
Gains Investment Corporation	8,013,031	100
C. S. Aluminium Corporation	7,573,118	100
China Prosperity Development Corporation	7,166,532	100
China Steel and Nippon Steel Vietnam Joint Stock Company	5,940,973	56
China Steel Asia Pacific Holdings Pte. Ltd.	4,412,474	100
China Steel Global Trading Corporation	2,341,310	100
Sing Da Marine Structure Corporation	2,052,107	100
Kaohsiung Rapid Transit Corporation	1,227,877	43
CSC Solar Corporation	1,053,611	55
China Steel Resources Corporation	997,036	100
China Steel Machinery Corporation	949,253	74
China Steel Power Holding Corporation	858,105	51
Infochamp Systems Corporation	791,557	100
China Steel Corporation India Pvt. Ltd.	690,435	100
China Steel Security Corporation	621,975	100
HIMAG Magnetic Corporation	382,766	69
CSC Precision Metal Industrial Corporation	305,700	100
United Steel International Co., Ltd.	292,395	80
China Steel Management Consulting Corporation	17,358	100
China Steel Power Corporation	-	-
Less : Shares held by subsidiaries accounted for as treasury stock	6,582,556	
Subtotal	168,928,419	
Investments in Associates		
Unlisted companies		
Taiwan Rolling Stock Co., Ltd.	976,757	48
Kaohsiung Arena Development Corporation ¹⁶	529,928	18
Honley Auto. Parts Co., Ltd.	406,411	35
Hsin Hsin Cement Enterprise Corporation	367,041	31
Dyna Rechi Co., Ltd.	273,915	23
Eminent II Venture Capital Corporation	213,703	46
Overseas Investment & Development Corporation ¹⁷	55,728	6
TaiAn Technologies Corporation ¹⁸	23,843	17
Subtotal	2,847,326	
Total	181,301,445	

Companies

Amount (NT\$1,000) Ownership (%)

Financial Assets at Fair Value Through Other Comprehensive Income - Noncurrent		
Domestic investments		
Listed shares		
Taiwan High Speed Rail Corporation	7,676,092	4
Tang Eng Iron Works Co., Ltd.	1,155,609	9
O-Bank Co., Ltd.	719,665	4
Rechi Precision Co., Ltd.	480,742	5
CSBC Corporation Taiwan	220,525	2
Subtotal	10,252,633	
Unlisted shares		
CDIB & Partners Investment Holding Corporation	827,982	5
Taiwan International Windpower Training Corporation	14,344	15
CDIB BioScience Ventures I, Inc.	7,666	5
Phalanx Biotech Group, Inc.	3,486	1
Subtotal	853,478	
Foreign investments		
Listed shares		
Maruichi Steel Tube Ltd.	1,262,138	2
Yodogawa Steel Works, Ltd.	232,866	1
Subtotal	1,495,004	
Unlisted shares		
Formosa Ha Tinh (Cayman) Limited	23,106,829	20
Sakura Ferroalloys Sdn. Bhd.	1,214,160	19
CSN Mineracao S.A.	973,945	-
Sakura Ferroalloys Sdn. Bhd. (Preferred Shares)	330,607	19
DB Metal Co., Ltd.	-	1
Subtotal	25,625,541	
Total	38,226,656	
Financial Assets at Fair Value Through Profit or Loss - Noncurrent		
Unlisted preference shares – overseas		
East Asia United Steel Corporation - preference A	843,818	10
Total	843,818	
Total	220,371,919	

¹⁶ The Corporation's total equity in Kaohsiung Arena Development Corporation is 29%, including 18% directly owned and 11% indirectly owned through United Steel Engineering and Construction Corporation and China Prosperity Development Corporation.

¹⁷ The Corporation's total equity in Overseas Investment & Development Corporation is 21%, including 6% directly owned and 15% indirectly owned through China Steel Machinery Corporation and Union Steel Development Corporation.

¹⁸ The Corporation's total equity in TaiAn Technologies Corporation is 22%, including 17% directly owned and 5% indirectly owned through China Steel Chemical Corporation.

Main Businesses and Addresses of Subsidiaries

(as of March 31, 2021)



C. S. Aluminium Corporation

Chairman: C.S.Chen

President: J. L. Lee

Main business: Production and sale of aluminum and non-ferrous metal products

Address: No. 17, Donglin Rd., Hsiao Kang Dist., Kaohsiung City 812050, Taiwan, R.O.C.

Tel: +886-7-871-8666

Fax: +886-7-872-1852

CSC Ownership: 99.98%



CHC Resources Corporation

Chairman: H. C. Chang

President: S. H. Shang Kuan

Main businesses: Manufacture and sale of GBFS powder, surveys and remediation of soil and groundwater, BOFS and air-cooled BFS, intermediate solidification, reutilization of resources

Address: 22F., No. 88, Chenggong 2nd Rd., Qianzhen Dist., Kaohsiung City 806698, Taiwan, R.O.C.

Tel: +886-7-336-8377

Fax: +886-7-336-8433

CSC Ownership: 19.83%



China Steel Express Corporation

Chairman: C. P. Chang

President: H. J. Chen

Main businesses: Shipping services for raw materials

Address: 24F., No. 88, Chenggong 2nd Rd., Qianzhen Dist., Kaohsiung City 806698, Taiwan, R.O.C.

Tel: +886-7-337-8888

Fax: +886-7-338-1296

CSC Ownership: 100%



China Ecotek Corporation

Chairman: C. T. Chen

President: C. F. Lee

Main businesses: Environmental engineering, M&E engineering, and O&M engineering

Address: 8F., No. 88, Chenggong 2nd Rd., Qianzhen Dist., Kaohsiung City 806698, Taiwan, R.O.C.

Tel: +886-7-330-6138

Fax: +886-7-339-4016

CSC Ownership: 44.76%



China Steel Chemical Corporation

Chairman: W. G. Lo

President: M. D. Fang

Main business: Manufacture of coal chemistry and speciality chemical

Address: 25F., No. 88, Chenggong 2nd Rd., Qianzhen Dist., Kaohsiung City 806698, Taiwan, R.O.C.

Tel: +886-7-338-3515

Fax: +886-7-338-3516

CSC Ownership: 29.04%



China Steel Structure Co., Ltd.

Chairman: H. K. Chen

President: J. T. Chen

Main businesses: Manufacture and sale of products of steel structure

Address: No. 500, Zhongxing Rd., Yanchao Dist., Kaohsiung City 824415, Taiwan, R.O.C.

Tel: +886-7-616-8688

Fax: +886-7-616-8680

CSC Ownership: 33.24%



China Steel Global Trading Corporation

Chairman: C. C. Hwang

President: Y. J. Kuo

Main businesses: Buy and sell, and act as an agency for steel products

Address: 10F., No. 88, Chenggong 2nd Rd., Qianzhen Dist., Kaohsiung City 806698, Taiwan, R.O.C.

Tel: +886-7-332-2168

Fax: +886-7-335-6411

CSC Ownership: 99.99%



Chung Hung Steel Corporation

Chairman: M. H. Liu

President: K. S. Tseng

Main business: Manufacture and sale of steel products

Address: No. 317, Yuliao Rd., Qiaotou Dist., Kaohsiung City 825403, Taiwan, R.O.C.

Tel: +886-7-611-7171

Fax: +886-7-611-0594

CSC Ownership: 40.59%



China Steel Machinery Corporation

President: C. C. Chang

Main businesses: Manufacture and sale of products for iron and steel equipment, vehicle transportation equipment, power generation and other mechanical equipment

Address: No. 3, Taiji Rd., Hsiao Kang Dist., Kaohsiung City 812006, Taiwan, R.O.C.

Tel: +886-7-802-0111

Fax: +886-7-806-3833

CSC Ownership: 73.97%



InfoChamp Systems Corporation

Chairman: J. J. Jeng

President: J. K. Kuo

Main business:

- Enterprise information system integration services
- Technology services of software and hardware platform
- Intelligent Automation control systems service

Address: 19F., No. 88, Chenggong 2nd Rd., Qianzhen Dist., Kaohsiung City 806698, Taiwan, R.O.C.

Tel: +886-7-535-0101

Fax: +886-7-535-0110

CSC Ownership: 99.99%



Gains Investment Corporation

Chairman: P. C. Huang

President: C. H. Wu

Main business: General investment

Address: 26F., No. 88, Chenggong 2nd Rd., Qianzhen Dist., Kaohsiung City 806698, Taiwan, R.O.C.

Tel: +886-7-338-2288

Fax: +886-7-338-7110

CSC Ownership: 99.99%



China Steel Management Consulting Corporation

Chairman: H. C. Chung

President: M. Y. Huang

Main business: Business management and management consulting services

Address: No. 88, Chenggong 2nd Rd., Qianzhen Dist., Kaohsiung City 806698, Taiwan, R.O.C.

Tel: +886-7-805-1088

Fax: +886-7-803-7819

CSC Ownership: 99.99%



China Steel Security Corporation

Chairman: Y. T. Liang

President: C. C. Yu

Main businesses: On-site security, systematic security

Address: No. 3-1, Taiji Rd., Hsiao Kang Dist., Kaohsiung City 812006, Taiwan, R.O.C.

Tel: +886-7-229-9678

Fax: +886-7-226-4078

CSC Ownership: 99.96%



HIMAG Magnetic Corporation

Chairman: C. F. Tu

President: F. F. Lin

Main business: Production and sale of industrial magnetic, chemical, and iron oxides

Address: No. 24-1, Jianguo Rd., Neipu Township, Pingtung County 912018, Taiwan, R.O.C.

Tel: +886-8-778-0222

Fax: +886-8-778-0227

CSC Ownership: 69.49%



China Prosperity Development Corporation

Chairman: C. T. Wong

President: W. C. Lu

Main businesses: Real estate development

Address: 23F., No. 88, Chenggong 2nd Rd., Qianzhen Dist., Kaohsiung City 806698, Taiwan, R.O.C.

Tel: +886-7-536-2500

Fax: +886-7-536-2413

CSC Ownership: 99.99%

Main Businesses and Addresses of Subsidiaries

(as of March 31, 2021)



Dragon Steel Corporation

Chairman: S. C. Wang

President: C. S. Lee

Main business: Hot-rolled products, H beams, billets, and flat steels

Address: No. 100, Longchang Rd., Longjing Dist., Taichung City 434205, Taiwan, R.O.C.

Tel: +886-4-2630-6088

Fax: +886-4-2630-6066

CSC Ownership: 100%



China Steel And Nippon Steel Joint Stock Company

(formerly known as China Steel Sumikin Vietnam Joint Stock Company)

Chairman & President: J. Y. Lee

Main business: Manufacture and sale of steel products

Address: My Xuan A2 Industrial Zone, My Xuan Ward, Phu My Town, Ba Ria-Vung Tau Prov., Vietnam

Tel: +84-64-3931168

Fax: +84-64-3932188

CSC Ownership: 56 %



China Steel Resources Corporation

Chairman: H. T. Lin

Main business: Other non metallic mineral products manufacturing

Address: No. 38, Yanhai 3rd Rd., Hsiao Kang Dist., Kaohsiung City 812050, Taiwan, R.O.C.

Tel: +886-7-802-1111#6262

Fax: +886-7-805-1529

CSC Ownership: 100%



Changzhou China Steel Precision Materials Corporation¹⁹

Chairman: S. T. Chen

President: F. A. Feng

Main business: Production and sale of titanium and titanium alloys, nickel and nickel alloys

Address: No.18, Changyang Rd., Wujin Economic Development Zone, Changzhou, Jiangsu Prov., China

Tel: +86-519-89616168

Fax: +86-519-89616098

CSC Ownership: 70%



CSC Precision Metal Industrial Corporation

Chairman: B. T. Hung

Main business: Other non-ferrous metal basic industries

Address: 28F., No. 88, Chenggong 2nd Rd., Qianzhen Dist., Kaohsiung City 806698, Taiwan, R.O.C.

Tel: +886-7-802-1111#2766

Fax: +886-7-805-1296

CSC Ownership: 100%



China Steel Corporation India Pvt. Ltd.

Chairman: K. S. Tseng

President: H. C. Lai

Main business: Electrical steel

Address: Office No.204, 2F., Iscon Atria, Tower-2, Gotri Road, Vadodara Gujarat, India

Tel: +91-922-7989880

Fax: +91-264-1277511

CSC Ownership: 100%



CSC Steel Sdn. Bhd.¹⁹

Managing Director: S. K. Yin

Main business: Manufacture and sale of steel products

Address: 180, Kawasan Industri Ayer Keroh, 75450 Melaka, Malaysia

Tel: +60-6-231-0169

Fax: +60-6-231-0167

CSC Ownership: 46.30%



China Steel Precision Metals Qingdao Co., Ltd.¹⁹

Chairman: Y. J. Kuo

President: H. C. Ou

Main business: Cutting and processing of steel products

Address: No.500, Fenjin Rd., Economic & Technological Dist. Qingdao, Shandong, China

Tel: +86-532-58718558

Fax: +86-532-58718576

CSC Ownership: 60%



China Steel Precision Metals Kunshan Co., Ltd.¹⁹

Chairman: Y. J. Kuo
 President: H. S. Wang
 Main business: Cutting and processing of steel products
 Address: No.168, ShuangHua Rd., HuaQiao Kunshan
 Jiangsu Prov., China
 Tel: +86-512-57601373
 Fax: +86-512-57603567
 CSC Ownership: 80%



Sing Da Marine Structure Corporation

Chairman: R. Y. Hsieh
 President: W. H. Lu
 Main business: Foundation of offshore wind power
 Address: No. 201, Sec. 1, Dongfang Rd., Qieding Dist.,
 Kaohsiung City 852005, Taiwan, R.O.C.
 Tel: +886-7- 608-0088
 CSC Ownership: 100%



CSC Solar Coporation

Chairman: C. T. Chen
 President: D. S. Tin
 Main business: Solar energy generation
 Address: 9F., No.88, Chenggong 2nd Rd., Qianzhen Dist.,
 Kaohsiung City 806698, Taiwan, R.O.C.
 Tel: +886-7- 333-6138
 Fax: +886-7-536-2955
 CSC Ownership: 55%



China Steel Power Corporation²⁰

Chairman: S. C. Wang
 Main business: Offshore wind power
 Address: Rm. 1, 10F., No. 369, Zhonghua W. Rd., Changhua
 City, Changhua County 500023, Taiwan, R.O.C.
 Tel: +886-2-2345-0128
 CSC Ownership: 51%
 Fax: +86-519-89616098
 CSC Ownership: 70%



Kaohsiung Rapid Transit Corporation

Chairman: Y. K. Yang
 President: H. C. Chang
 Main business: Mass Rapid Transit service
 Address: No.1, Jungan Rd., Qianzhen Dist., Kaohsiung City
 806604, Taiwan
 Tel: +886-7- 793-9666
 Fax: +886-7-793-9286
 CSC Ownership: 43%

¹⁹ China Steel Corporation's investment is through China Steel Asia Pacific Holdings Pte. Ltd.

²⁰ China Steel Corporation's investment is through China Steel Power Holding Corporation



Head Office

1, Chung Kang Rd., Hsiao Kang, Kaohsiung
812401, Taiwan, Republic of China
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Fax: 886-7-537-3570
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China Steel Building

88, Chenggong 2nd Rd., Qianzhen, Kaohsiung
806618, Taiwan, Republic of China
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