



# 2017

## OPERATION REPORT





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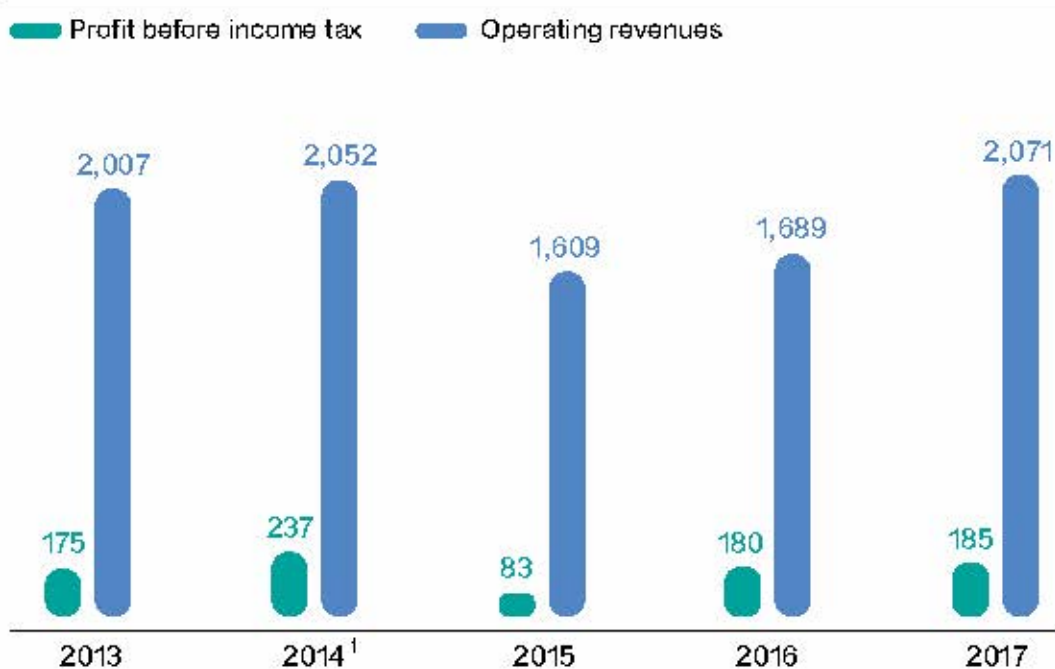
**OPERATION REPORT 2017**  
January 1 through December 31, 2017

\* This English version is a translation of the Operation Report 2017 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)



<sup>1</sup> Starting from 2015, CSC applied the amendments to the Regulations Governing the Preparation of Financial Reports by Securities Issuers and the 2013 version of the IFRSs. The 2014 financial statements were recompiled retroactively.



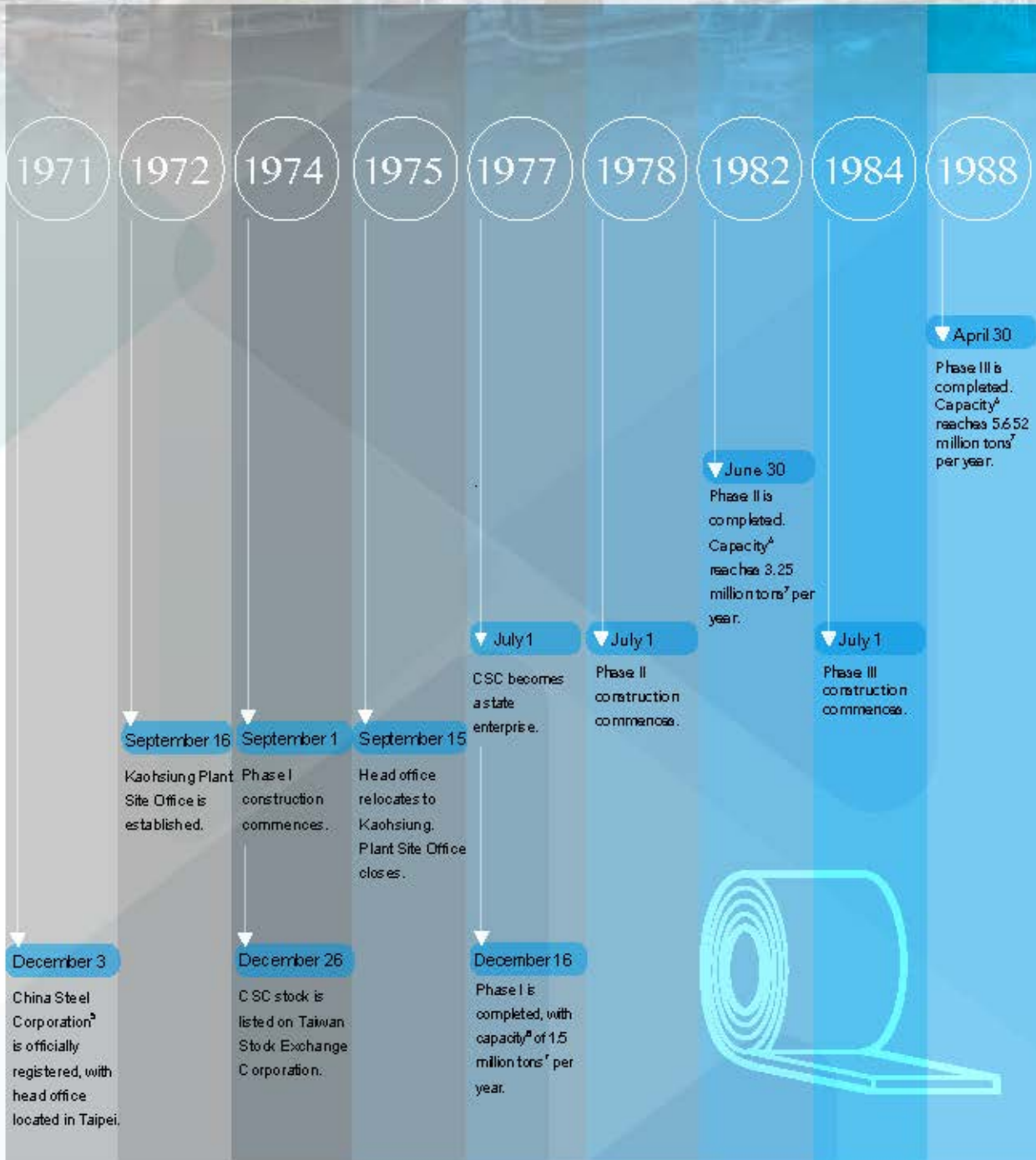




		2017	2016
Operating revenues	(Millions of New Taiwan Dollars)	207,099	168,927
Operating costs and expenses		195,671	155,461
Profit from operations		11,575	13,081
Profit before income tax		18,521	18,033
Employment costs <sup>2</sup>		19,406	19,341
Depreciation		17,395	18,410
Interest expenses net <sup>2</sup>		1,772	1,866
Total assets		472,428	470,275
Capital expenditures		11,818	10,607
Equity		304,010	302,560
Output of steel products	(Thousands of metric tons)	8,832	9,153
Sales volume of steel products		10,846	11,135
Number of employees <sup>3</sup>		10,222	10,280
Return on sales	(%)	8.94	10.68
Return on equity <sup>4</sup>		5.57	5.37

<sup>2</sup>Excluding capital expenditures    <sup>3</sup>As of the end of the calendar year    <sup>4</sup>Based on net income

# Chronology of Major Events



<sup>5</sup> Hereinafter also referred to as "the Corporation", "the Company" or "CSC".

<sup>6</sup> In terms of crude steel.

<sup>7</sup> All references to "tons" mean metric tons of 1,000 kilograms.

<sup>8</sup> Hereinafter also referred to as "The group".

<sup>9</sup> Hereinafter also referred to as "DSC".

1993

▼ July 15

Phase IV construction commences.

1995

▼ April 12

CSC is privatized.

1997

▼ May 31

Phase IV is completed. Capacity<sup>6</sup> reaches 8.054 million tons<sup>7</sup> per year.

1998

▼ June 2

CSC Group's<sup>8</sup> corporate identity system is formally introduced to the public.

2006

▼ April 15

Annual production capacity<sup>6</sup> is officially raised to 9.86 million tons<sup>7</sup> owing to success in equipment renovations and improvements carried out over the year.

2008

▼ October 6

Dragon Steel Corporation<sup>9</sup> becomes a wholly owned subsidiary of CSC.

▼ November 22

Groundbreaking for the China Steel Building takes place.

2010

▼ June 30

DSC's stage II phase 1 expansion project is completed. CSC Group's<sup>8</sup> capacity<sup>6</sup> reaches 13.36 million tons<sup>7</sup> per year.

2013

▼ March 5

DSC's stage II phase 2 expansion project is completed. CSC Group's<sup>8</sup> capacity<sup>6</sup> reaches 15.86 million tons<sup>7</sup> per year.

▼ October 22

China Steel Building is inaugurated.

2017

▼ December 20

The Board of Directors approved the initiation of the revamp of the coke ovens (phases I and II).





## An Overview of the Business Situation



Chairman

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Chao-Tung Wong

*Chao-Tung Wong*



President

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Jih-Gang Liu

*J. G. Liu*



## The major issues that the international steel industry faced in 2017 were:

- (1) The global economy continued to expand. On April 17, 2018, the International Monetary Fund (IMF) published the 2017 global economic growth rate to be 3.8%, which was increased by 0.6% in comparison with that of 2016 (3.2%).
- (2) The global steel demand was on the increase in a steady manner. On April 17, 2018, World Steel Association (worldsteel) published the statistics that the global apparent use of finished steel in 2017 was 1.587 billion metric tons, which was increased by 4.7% in comparison with that in 2016.
- (3) Global crude steel production continued to grow. World Steel Association also published on January 24, 2018 that the global crude steel production in 2017 was 1.691 billion metric tons, which was increased by 5.3% in comparison with that in 2016.

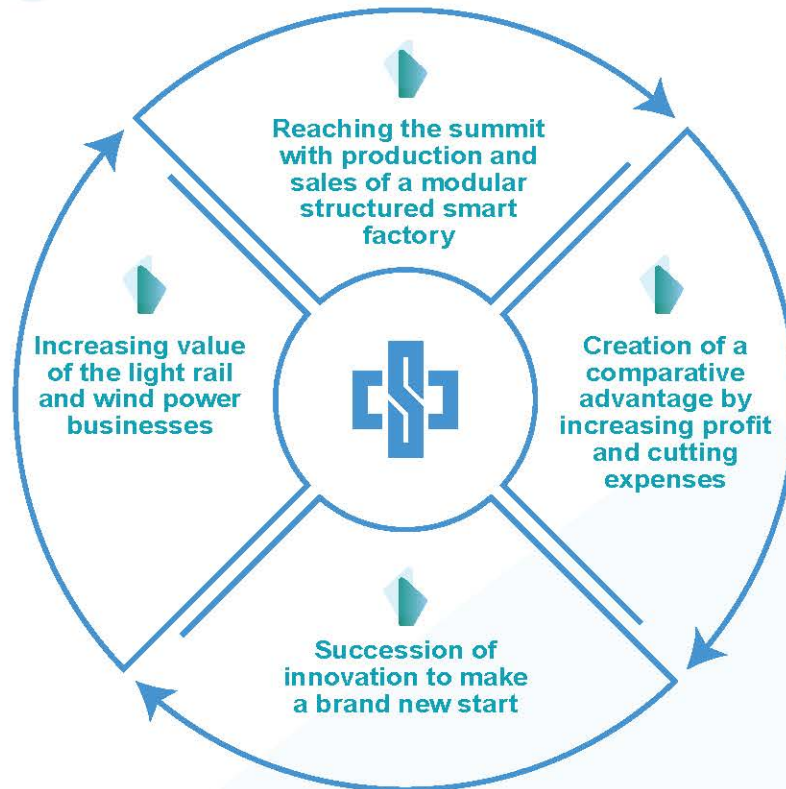
## The main factors which influenced the operations of the steel industry in Taiwan included:

- (1) The demand of steel was weak. According to the statistics published by worldsteel, there was a 3.4% decrease of the apparent use of finished steel in Taiwan in 2017 in comparison with that in 2016, the main causes of which were the facts that there were not as many released domestic public construction projects as expected, and that the launch of new construction projects and domestic vehicle sales fell by 3.75%.
- (2) Export sales outperformed domestic sales. According to the statistics on imports and exports published by the Ministry of Finance in 2017, the accumulated export value of base metals and articles of base metals reached US\$29.05 billion, which was increased by 18.4% in comparison with that of 2016, indicating that overall sales had increased steadily.

CSC's 2017 operating revenue amounted to NT\$207.099 billion, which was 22.60% more than that in 2016 mainly due to the increase of the unit prices of steel products in sales. Gross profit in 2017 was NT\$19.530 billion, which was 10.22% less than that in 2016 mainly owing to the fact that the increase of the unit costs of steel products was more than that of the unit prices. The non-operating income in 2017 was NT\$6.946 billion, which was 40.26% more than that in 2016 and mainly attributable to the increase of the share of profit of subsidiaries and associates recognized under the equity method. Net profit in 2017 amounted to NT\$16.906 billion, which was 5.41% more than that in 2016.

## CSC's 2017 operating directives included the following key points:

- (1) Reaching the summit with production and sales of a modular structured smart factory:**  
There were five themes regarding CSC's modular structured smart factory, namely, sales, production, smart services, smart quality control, and integration of export sales. The aim was to enhance punctual delivery and customer satisfaction. Delivery of steel products reached 10.846 million metric tons in 2017, which was 118% of the targeted amount.



- (2) Creation of a comparative advantage by increasing profit and cutting expenses:** The campaign for the reduction of costs was continuously promoted in a systematic and scientific manner. All of the employees enhanced their awareness of costs. Reduction of costs reached NT\$3.96 billion in 2017, which was 122% of the targeted amount. The expansion of the light rail engineering business was cautiously evaluated. Revenue from external engineering businesses was NT\$2.044 billion in 2017, which was 85.9% of the targeted amount mainly due to the changes of the contracts and project extension for the Danhai Light Rail Transit.
- (3) Succession of innovation to make a brand new start:** According to the operational development strategies and industrial trends, planning for five R&D themes, namely, core technology for the electric vehicle industry, smart production technology, technologies for environmental protection and reduction of carbon emissions, development of key industrial materials, and development of key materials for the government's "5+2" Innovative Industrial Plan, was completed to solidify CSC's technical foundation for its sustainable development. Orders for high-grade products reached 5.348 million metric tons, which was 46.98% of the total orders in 2017.
- (4) Increasing value of the light rail and wind power businesses:** CSC participated in the development of Offshore Wind Farm #29 at Changhua and established an underwater jacket foundation production line in Sinda Port, Kaohsiung. Furthermore, it continued to promote the three ongoing engineering projects, namely, the Danhai Light Rail Transit (LRT) System, the EPC Project (Phase II) of the Circular Line (KMRT), and the Ankeng Light Rail Transit System.



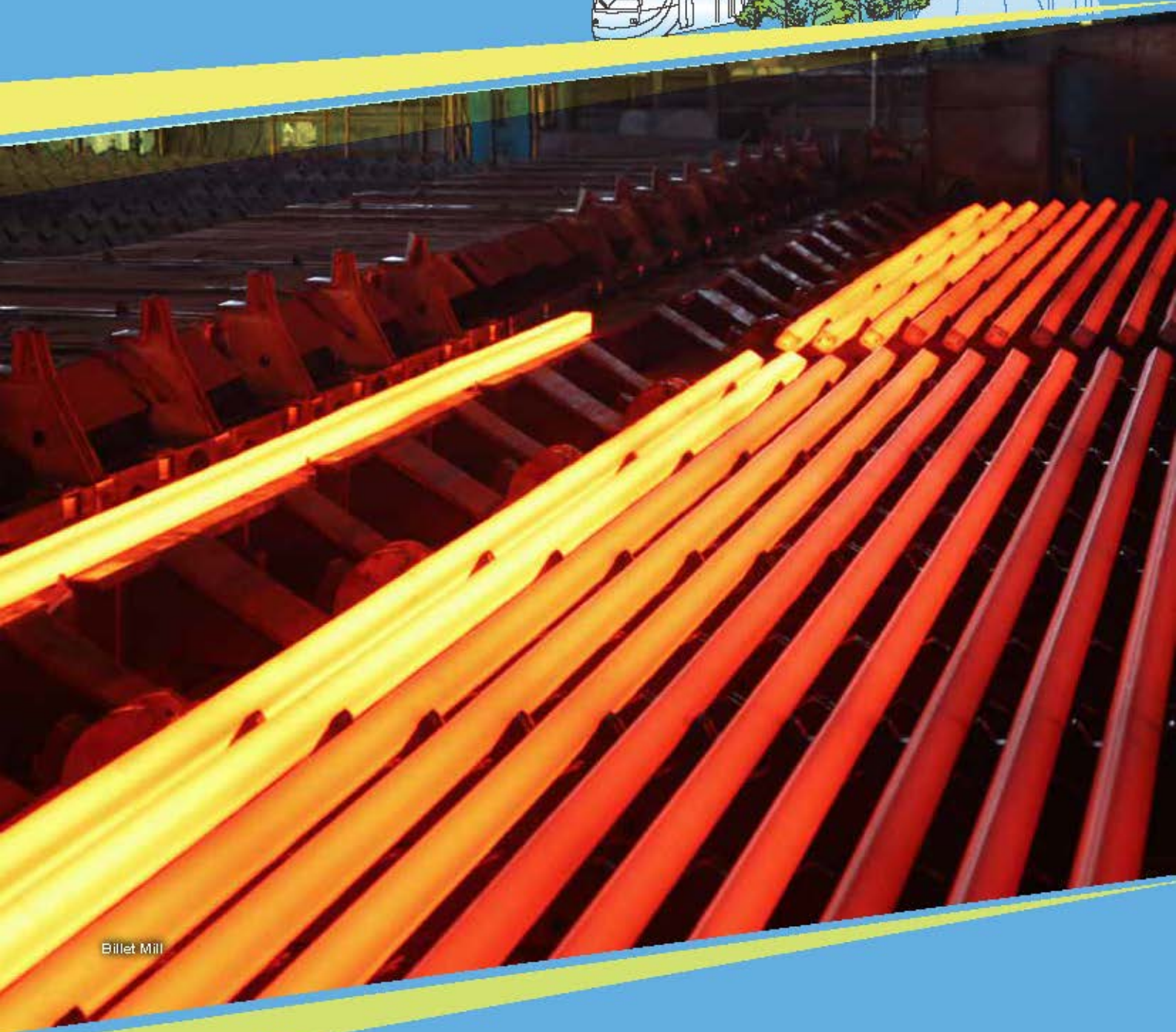
The International Monetary Fund (IMF) published the 2018 global economic growth rate to be 3.9%; global economic activities will be more robust in the next two years. The Directorate General of Budget, Accounting and Statistics (DGBAS) published the 2018 economic growth rate in Taiwan to be 2.60%. In terms of steel demand, worldsteel predicted that the global steel demand in 2018 would increase by 1.8% in comparison with that in 2017, with the global apparent use of finished steel reaching 1.616 billion metric tons. In terms of steel supply, World Steel Dynamics (WSD) published on May 25, 2018 that global crude steel production in 2018 would be 2.17% more than that in 2017. As observed, the development of infrastructure projects in Europe, North America, Japan, and Southeast Asia is flourishing, and domestic public projects are expected to be launched in 2018, both of which will drive the increase in steel demand. Nonetheless, interest rate policies of central banks, Brexit, geopolitical tensions, and extreme climate change will become uncertain factors affecting the stability of international steel prices. President Trump signed proclamations imposing a 25 percent tariff on imported steel pursuant to Section 232 of Trade Expansion Act of 1962 on March 8, 2018. The impact of this move on the global steel industry remains to be observed as the countries or steel imports may be exempted through negotiation. To sum up, the steel market remains cautiously optimistic in 2018.

To enhance long-term competitiveness, CSC has mapped out its 2018-2022 operation and development strategies (5-year operating strategies) for the steel business as follows: (1) succession of the corporate culture, promotion of career development, establishment of the LOHAS environment, and promotion of the Group's image, (2) enhancement of lean customer services, strengthening of strategic partnership, consolidation of the sales position in the domestic market, and expansion of the export distribution channels, (3) integration of the deployment of Group resources, uniting related industries, and promotion of the Group's operational synergy, (4) research and development of advanced products as well as materials for national defense use and their application technology, promotion of innovative and smart production, and increasing the value of the steel industry chain (5) enhancement of the Group's engineering autonomy and cautious development of the wind power and light rail businesses, and (6) continuous reduction of costs, improvement of energy conservation and environmental protection, enhancement of safety and health, and increasing the value and quantity of the Group's products.

Based on the 5-year operating strategies, directives for 2018 include: (1) Enhancement of effectiveness by smart production and marketing, (2) reduction of energy consumption and dedication to circular economy, (3) promotion of the grades and quality of products with innovative technology, and (4) succession of heritage and advancement of core values. Targets for 2018 include: (1) reduction of costs equals to or exceeds NT\$3.8 billion, (2) delivery of steel products equals to or exceeds 9.41 million metric tons, (3) orders for high-grade products, including hot-rolled products produced by DSC, equal to or exceed 5.20 million metric tons, (4) revenue from external engineering businesses equals to or exceeds NT\$1.9 billion, and (5) no cases of major occupational accidents.



# Production & Sales



Billet Mill



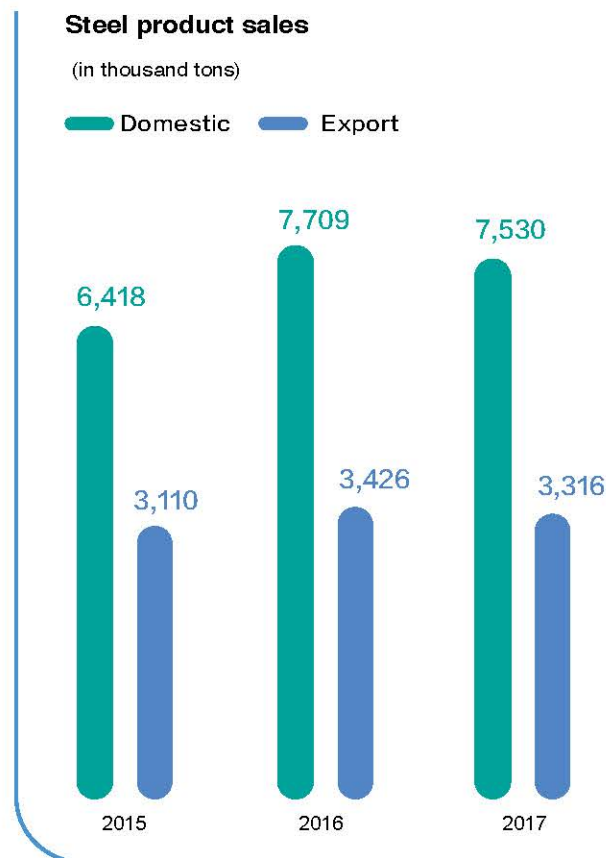
There were dramatic changes in the spot prices of coal in 2017 due to the impact of the cyclones in Australia's coal-producing regions, winter production cuts by steel mills in mainland China, and serious congestion in Australia's major export ports for premium coking coal. Moreover, also because of the impact of the cyclones in Australia, the agreed benchmark pricing mechanism for premium coking coal, which had been practiced in the past six years, came to an end. Pricing for the majority of premium coking coal was based on index pricing, meaning the prices were closer to those in the spot market. In 2017, the price of premium coking coal fluctuated between US\$140 and US\$300 per metric ton FOB.

Due to soaring prices of coking coal and coke at the beginning of the year, together with the Chinese government's efforts to reduce steel production capacity, steel prices in mainland China and spot prices of iron ore were increased. With the implementation of the policy of restricting production and reducing carbon emissions by the Chinese government, the demand for iron ore was decreased, which resulted in the decrease of the spot prices of iron ore. However, Chinese steel mills pursued high production due to profitability and increased the consumption of high-quality iron ore, which prompted the spot prices of iron ore to rise slowly. In 2017, the price of iron ore fluctuated between US\$55 and US\$95 per metric ton CFR North China.

In terms of production and sales, due to the major campaign of the No. 3 Blast Furnace initiated in October, 2017, the production of molten iron, liquid steel, and steel was 9.298 million metric tons, 9.612 million metric tons, and 8.832 million metric tons, respectively, which were less than those of 2016. Sales volume of CSC's steel products was 10.846 million metric tons, 69% of which was domestic sales and 31% of which was overseas sales.

CSC generated 55.1% of the electricity it required in 2017; it was 1.3% more than the amount in 2016 due to the increased power generation by the power plant in coordination with Taipower's demand bidding. Energy consumption per ton of crude steel (slabs and blooms) was 5,692 million calories, which was 62 million calories more than that in 2016 largely because there were fewer slabs and blooms produced in 2017 than in 2016, resulting from the major campaign of the No. 3 Blast Furnace and higher fuel rates consumed in the Nos. 3 and 4 Blast Furnaces.

In order to upgrade the efficiency of regional resource utilization, CSC continued to promote regional integration of energy resources within the Lin Hai Industrial Park by selling excess quantities of self-produced gases such as steam, oxygen, nitrogen, and argon, which amounted to NT\$1.83 billion, a 14.4% increase compared with those of 2016, which was due to the increase of the amount and unit price of steam. The quantity of sales of



steam in 2017 was 1.683 million metric tons, which was 129,000 kiloliters of oil equivalents in terms of energy conservation. 386,000 tons of CO<sub>2</sub>, 1,230 tons of SO<sub>x</sub>, 853 tons of NO<sub>x</sub>, and 121 tons of particulate matters were reduced if converted to benefits in reduction of air pollution and greenhouse gas emissions annually.

### ◆ Key tasks and results of the management platform of Production and Marketing of Intelligent development Committee in 2017 were listed as follows:

- (1) **Development of the Group's Raw Material Shipping System:** The coal shipping system was completed and initiated officially.
- (2) **Precise control of the rolling temperature of steel plates to enhance their quality and rolling efficiency:** With the applications of the rolling profile measurement system for steel plates, the direct online detection rate was about 70%.
- (3) **The smart mechanical control system:** Cross-process data collection was completed, and big data modeling technology was developed.
- (4) **Scheduling operations for producing products with the lowest production costs:** Scheduling operations for producing hot-dip galvanized products and electrical steel with the lowest production costs was completed, in which the default for the scheduling proportion of producing electrical steel would be increased quarter by quarter by utilizing the lowest-cost production line combination index. The economic benefits created by the conversion of schedules for the whole year were NT\$55.34 million.

### ◆ Key tasks and results of quality management in 2017 were listed as follows:

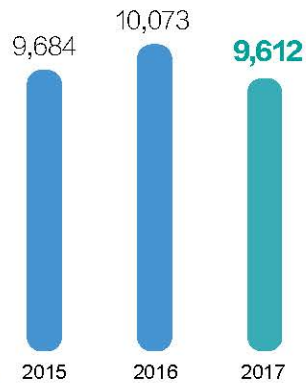
#### 1. New Product Development

40 new products were developed in 2017, the highlights of which included:

- (1) **Steel plates:** The development of shipbuilding structural steel plates was completed and also verified by the CR Classification Society. These products were developed in coordination with the government's strategy to build national ships domestically to enhance national defense.
- (2) **Bars and wire rods:** The development of EH12KM for automotive engine spray-welding with thin composition was completed and applied to make bonding wires for automotive-engine cylinder walls. Their drawability was good, and their quality was confirmed by customers.
- (3) **Hot rolled products:** The development of CSC ACR-TEN 550Y, high strength weathering steel sheets, was completed. The purposes of environmental protection and energy saving can be achieved because of their weather resistance and thinness, and customers can reduce costs effectively by applying them.
- (4) **Cold rolled products:** The development of SAE J2340 490XF, high strength low-alloyed steel, was completed to meet the demand for high-strength steel in the automobile components market.
- (5) **Hot-dip galvanized products:** The development of SGC540, high strength low-alloyed hot dip galvanized (GI) steel, was completed. It is load bearing and fatigue-resistant; it also has good formability. It has been applied to make products by IKEA.

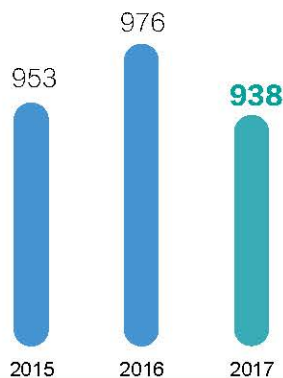
### Crude steel production

(in thousand tons)



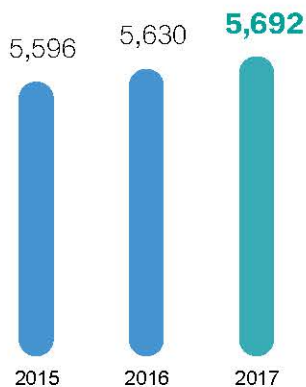
### Output per employee in terms of crude steel

(in tons)



### Energy consumption per ton of crude steel

(in million calories)



**(6) Electrical steel:** The development of 25CS1250HF, electrical steel with thin specs and low iron loss, was completed in response to the demand for drive-motors applied in fast-growing new energy vehicles.

**(7) Special alloys:** The development of JIS SUS 316LS, in-line solution-treated stainless steel, and ASTM B424 UNS N8825 (825 nickel-alloyed), medium thick steel plates, were completed. They can be processed to manufacture corrosion-resistant containers and supports by customers.

## 2. Technological Advancement of Production Processes

**(1) Steelmaking:** Ladle refining technologies, such as slag control, high-carbon deoxidation, and thin composition control, were enhanced. Welding rods with low aluminum and low silicon contents were successfully developed. Transverse cracks on slabs and edge seams of steel coils were effectively improved with the introduction of the chamfer mold technology during continuous casting.

**(2) Production of steel plates:** Production costs of NT\$ 13.3 million in 2017 were saved by replacing stress relief annealing with cold leveling. The production processes of SM570M, ultra-high strength structural steel, were optimized; as a result, 752.5 metric tons of scrap steel were reduced, and production costs of NT\$10.66 million were saved.

**(3) Production of bars and wire rods:** A management system for corrosion inspection in wire rods was developed; a dynamic corrosion inspection plan was made with linked information of the Central Weather Bureau to take timely measures to deal with aging. The total weight of rejected wire rods due to corrosion was reduced from 1,617 metric tons in 2016 to 45 metric tons in 2017, which was a significant improvement.

**(4) Hot rolling:** Smart control of the rolling deflection in the centers of slabs was developed. The rolling mills were automatically controlled with data to reduce deflection of the coiling strips. The reject rate was reduced from 0.24% to 0.07%, saving NT\$45.46 million in production costs.

**(5) Cold rolling:** The pass rate of S50CM, cold-rolled (full-hard) products with 1/3 thickness tolerance, was improved. The metallurgical design of CSC SL330Y, steel for slide rail production, was optimized. Process control capability was improved to reduce customer complaints and reject losses.

**(6) Hot-dip galvanized products:** Separate management was applied in slag modification in steelmaking and grades of slabs. The quality



of slabs applied in making computer cases was optimized in the Continuous Galvanizing Line (CGL) to reduce surface defects in steelmaking and improve the pass rate.

**(7) Electrical steel sheets:** The advancement of the cross-process technique of the specifications of high flux cores was achieved, including hot rolling resumes, annealing conditions, annealing conditions in cold rolling, etc., which effectively improved the magnetic properties of the products.

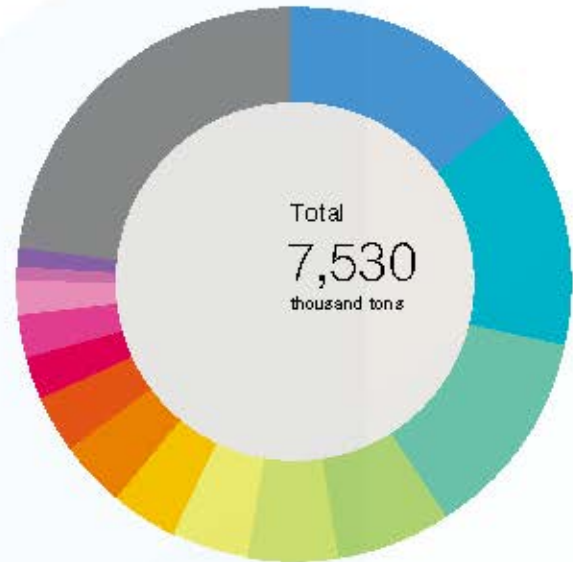
### 3. Certification of Management Systems

The verification of the four revised quality management systems (ISO 9001, IATF 16949, ISO 13485, and AS 9100) for steel products and special alloys was completed. CSC had also passed the certification of TISI from Thailand, Vietnam's import control, Malaysia's SIRIM, EU CE Mark, SNI from Indonesia, etc. In order to comply with the requirements of Malaysian building regulations, CSC conducted the verification of the first CIDB and was granted the certificate, which expanded its distribution channels for the five major products, including steel plates, bars and wire rods as well as hot rolled, cold rolled, and galvanized products.



Repackaging equipment for spheroidized wire rods

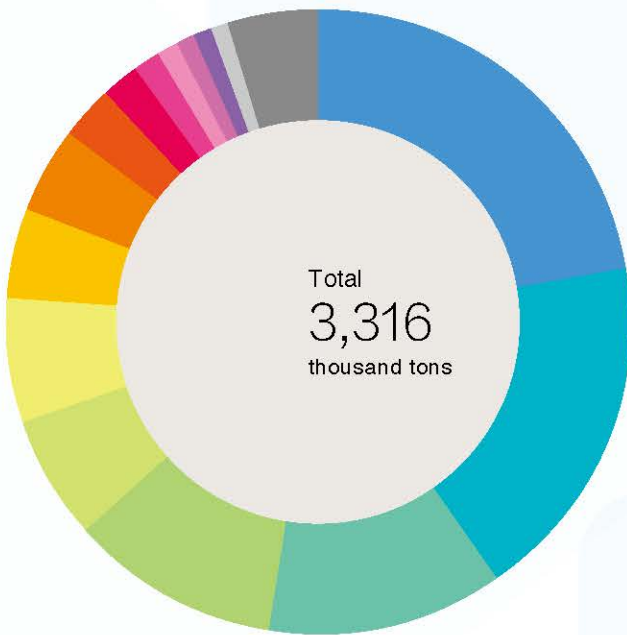
Percentage of domestic sales by industry, 2017



Steel Service Center	14.59 %
Screw and Nuts	14.07 %
Re-roller	12.38 %
Drawing and Cold Finished Steel Bar	6.59 %
Steel piping	5.37 %
Traders	4.33 %
Automotive	3.87 %
Steel Shearing and Cutting	3.85 %
Steel Structures	3.37 %
Direct Users	2.64 %
Motors	2.47 %
Building Material and Pre-painted Galvanized Steel	1.79 %
Hand tools	1.00 %
Shipbuilding	0.96 %
Others	22.72 %

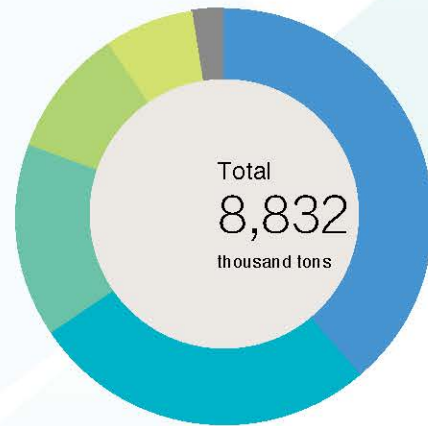


**Percentage of export by region, 2017**



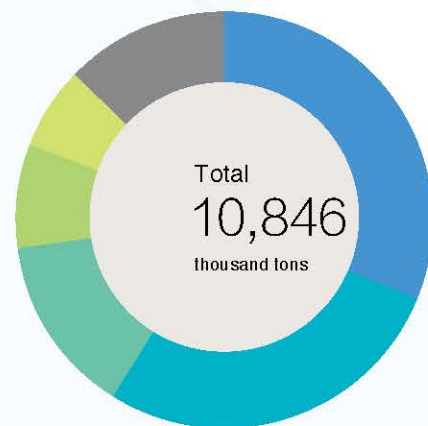
Mainland China (Including Hong Kong)...	22.44 %
Japan .....	18.11 %
Vietnam .....	12.17 %
Thailand .....	10.67 %
India .....	6.54 %
Mexico .....	6.38 %
Indonesia .....	4.74 %
Malaysia .....	4.49 %
Italy .....	2.60 %
Pakistan .....	1.94 %
Spain .....	1.39 %
Philippines .....	1.27 %
Singapore .....	0.87 %
Australia .....	0.87 %
Korea .....	0.87 %
Others .....	4.65 %

**Percentage of steel production volume by product, 2017**



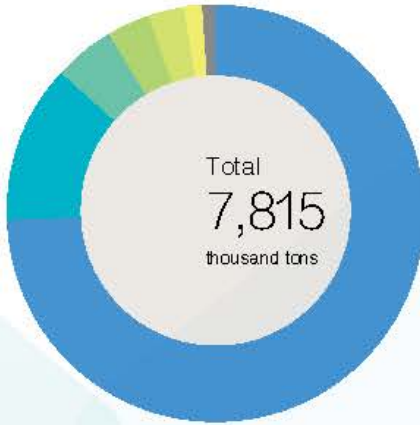
Cold rolled products .....	38.72 %
Hot rolled products .....	27.05 %
Wire rods .....	14.93 %
Plates .....	9.86 %
Bars .....	6.98 %
Others .....	2.46 %

**Percentage of steel sales volume by product, 2017**



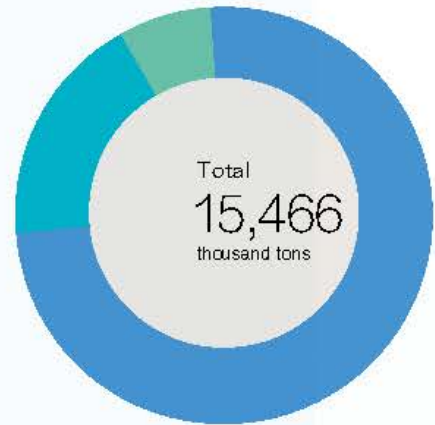
Cold rolled products .....	31.30 %
Hot rolled products .....	27.68 %
Wire rods .....	13.81 %
Plates .....	8.14 %
Bars .....	6.49 %
Others .....	12.59 %

**Sources of coking coal, 2017**



Australia	74.47 %
Canada	12.37 %
Indonesia	4.74 %
Mainland China	3.25 %
Russia	2.83 %
Mozambique	1.40 %
Others	0.94 %

**Sources of iron ore, 2017**



Australia	74.56 %
Brazil	18.14 %
Canada	7.30 %

**Sources of flux materials, 2017**



Japan	37.65 %
Domestic	26.08 %
Philippines	16.92 %
Vietnam	8.31 %
Thailand	5.53 %
Mainland China	5.51 %



Deslagging inside a torpedero car



# Research & Development (R&D)



Opening of the CSC Metal Laboratory at NCKU

## R&D Strategies

Abundant R&D results had been accomplished in 2017. 40 new products were developed in 2017. Sales for high-grade steel products<sup>10</sup> accounted for 46.98% of the total sales, which propelled CSC to continue to strengthen its competitive advantage in promoting product differentiation.

Regarding patent applications and certificates, CSC filed applications for 203 patent cases and ranked the 9th, and was granted patent certification for 223 cases, which ranked the 6th among the top 100 patent recipients in 2017 according to the Intellectual Property Office, MOEA. CSC, the only corporation in the traditional industry, was on the list of the top 10 patent recipients. It is always dedicated to promoting its patent authorization in order to gain added value of patents.

In terms of the upgrade of the steel industry, four significant results are listed as follows: (1) CSC successfully introduced its top-notch thin electrical steel to an international electric vehicle plant and obtained orders for new models of the plant. Moreover, it also obtained opportunities to supply materials for trials from other automobile manufacturers. (2) CSC entered the supply chain system of Japanese robot manufacturers and began to supply materials. To meet the demand of industrial development, it continued to develop environmentally friendly electrical steel with chromium-free coatings. (3) Hot stamping steel with anti-oxidative coatings was successfully developed and introduced to domestic autonomous automobile manufacturers. A complete hot stamping supply chain system was established in Taiwan, and CSC secured orders for 13 new components. (4) CSC assisted the leading car seat manufacturer to develop 980MPa for the production of high-strength modular seats and high-strength slides; furthermore, it also helped the manufacturer with lightweighting and cost reduction and strengthened its industrial competitiveness.

In order to continue the boosting of R&D energy, CSC had displayed outstanding results in products, production processes, and energy and environmental protection technology in 2017. The more significant ones are listed as follows:

<sup>10</sup> Based on the reviews of the customers according to their differentiated competitive advantages in 2017, stricter standard specifications for high-grade steel products were set.



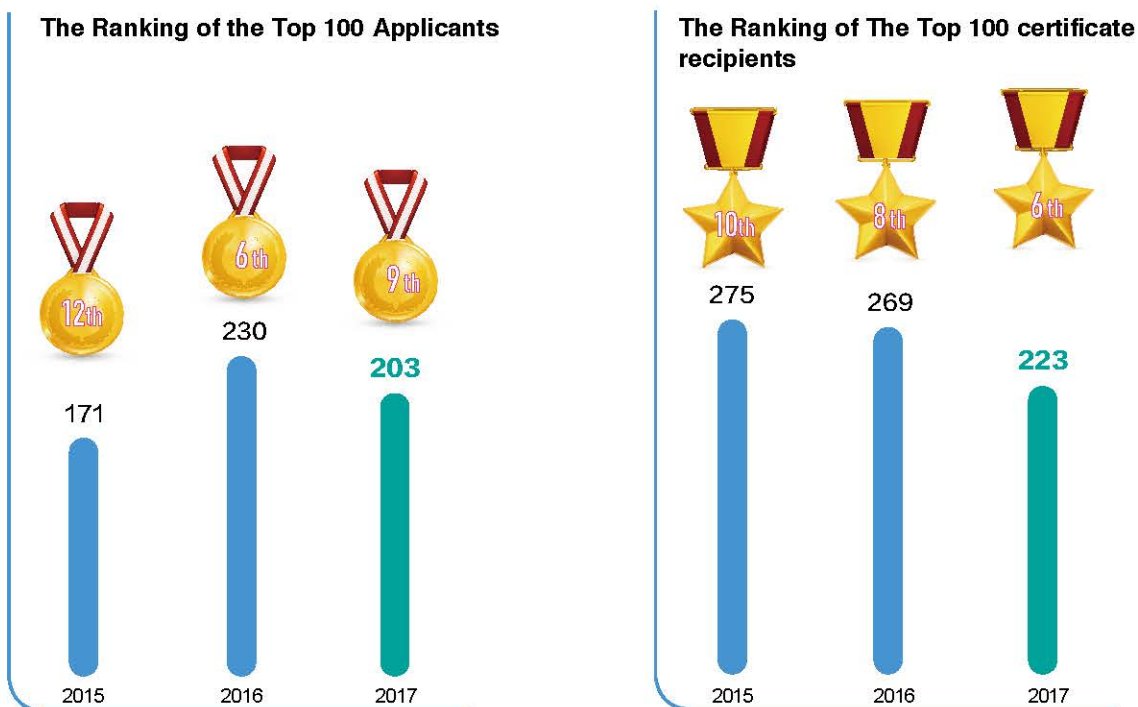
Ceremony for the Awards of R&D Results and Patent Promotion by Excellent Departments



The ceremony for granting the certification of ISO13485 and AS9100 to CSC and CSC's supply of special alloys to the medical and aerospace industries



## The Trends of The Patent Applications And Certification



### 1. Development and improvement of products

- **Development of in-line direct quenching production processes for steel plates:** The cooling capacity of the new and old equipment was integrated. Hybrid cooling control technology was developed. The research results were applied to manufacture new products, such as PA500H, wear-resistant steel plates, S690Q marine structural steel plates, CRHS56, steel plates for shipbuilding, and PZ780, high-strength structural steel plates.
- **Promotion of high-strength automotive steel for customer applications:** Materials with AO coatings were introduced to domestic automobile manufacturers with the assistance of the joint laboratory for automotive steel. CSC assisted Honley Auto Parts Co., Ltd. to obtain orders for hot stamping automotive parts. In addition, with the assistance of the joint laboratory on auto applications by CSC, the GSK Group, and Fine Blanking & Tool Co., Ltd., C60E and 980YH were applied by the GSK Group to make car seats, and CSC was granted a Special Contribution Award.

## 2. Development and improvement of production processes

- **The installation of the mist cooling equipment for wire rods:** The nozzle parameters and the design of cooling water flow were optimized with the mist cooling equipment, and the existing air cooling process was adjusted to establish an integrated cooling operation mode to effectively enhance the strength of wire rods and reduce the variations of their inner strength.
- **The establishment of the low-temperature rolling process for blooms:** Numerical simulations were applied to analyze the effect of temperature reduction in blooms on the rolling force of the rolling mill, and the statistical analysis of fuel consumption was carried out to confirm the benefits low temperature rolling had on the reduction of rolling costs.
- **The establishment of the calculation models regarding the thicknesses of the copper staves in the Nos. 1 and 2 Blast Furnaces:** The relationship between the temperature function and the thickness of a stove was searched with the analysis of a great deal of data to establish the calculation model of the thickness of the stove. It has been installed in the computer program control of the Nos. 1 and 2 Blast Furnaces so that the variations of the thicknesses of the copper staves can be comprehensively monitored, which serves as the basis for operation adjustments of the blast furnaces.
- **Development and applications of personnel emergency rescue and entrance control systems:** The development of the personnel emergency rescue system was completed and applied during the major campaign of the No. 3 Blast Furnace. The positions and statuses of the personnel were immediately learn of, and the alert report function for help and personnel who fell or lied down greatly improved the safety of personnel in operations.

## 3. Energy and environmental protection technology

- **The sinter plants' capabilities to desulfurize flue gas were enhanced:** Innovative research on the mechanisms for the removal of fumes and volatile organic compounds (VOCs) was carried out, and actual testing techniques were developed. 265 metric tons of fumes and 59 metric tons of VOCs were reduced in 2017, demonstrating the effect on air pollution control with wet flue gas desulfurization.

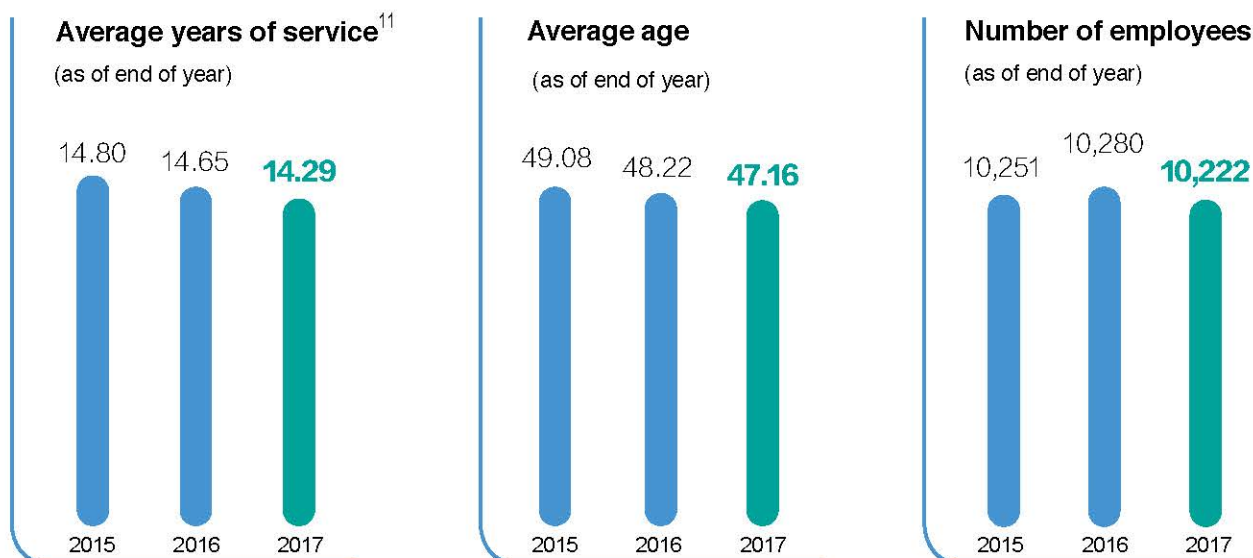


# Employee Relations & Human Resource Development



Management programs are held for middle- and high-ranking executives of the Group.





<sup>11</sup> Not counting years of employment prior to the privatization of the Corporation on April 12, 1995.

As of the end of 2017, there were 10,222 employees at CSC. Their average age was 47.16 years. Among the 10,222 employees, 10,130 (99.15%) of the employees were eligible for membership in the CSC Labor Union.

It is estimated that over 2,600 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 Vocational Senior High School to meet its manpower need. As of the end of 2017, 147 students had been hired officially to undertake the business of various departments.



CSC was granted a sustainable growth award in corporate education by NTU SPECS.



A farewell party held for retirees



Senior executives visited on-site staff on duty on the Chinese New Year's Eve.

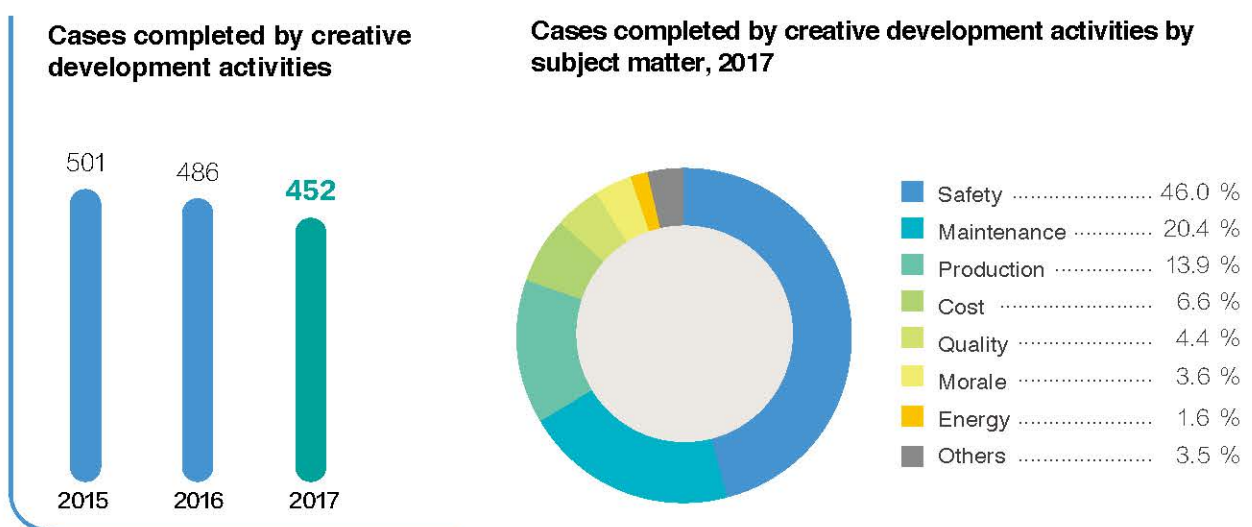
## Strengthening of talent training and education

The Development Roadmap of the CSC Group's Talent Training and Education was established to nurture manpower and carry out tasks related to talent training and education, including those for the Group's management talents, dispatched personnel, and new recruits as well as those regarding general education, e-Learning and knowledge management, and professional expertise and quality control. The details are listed as follows:

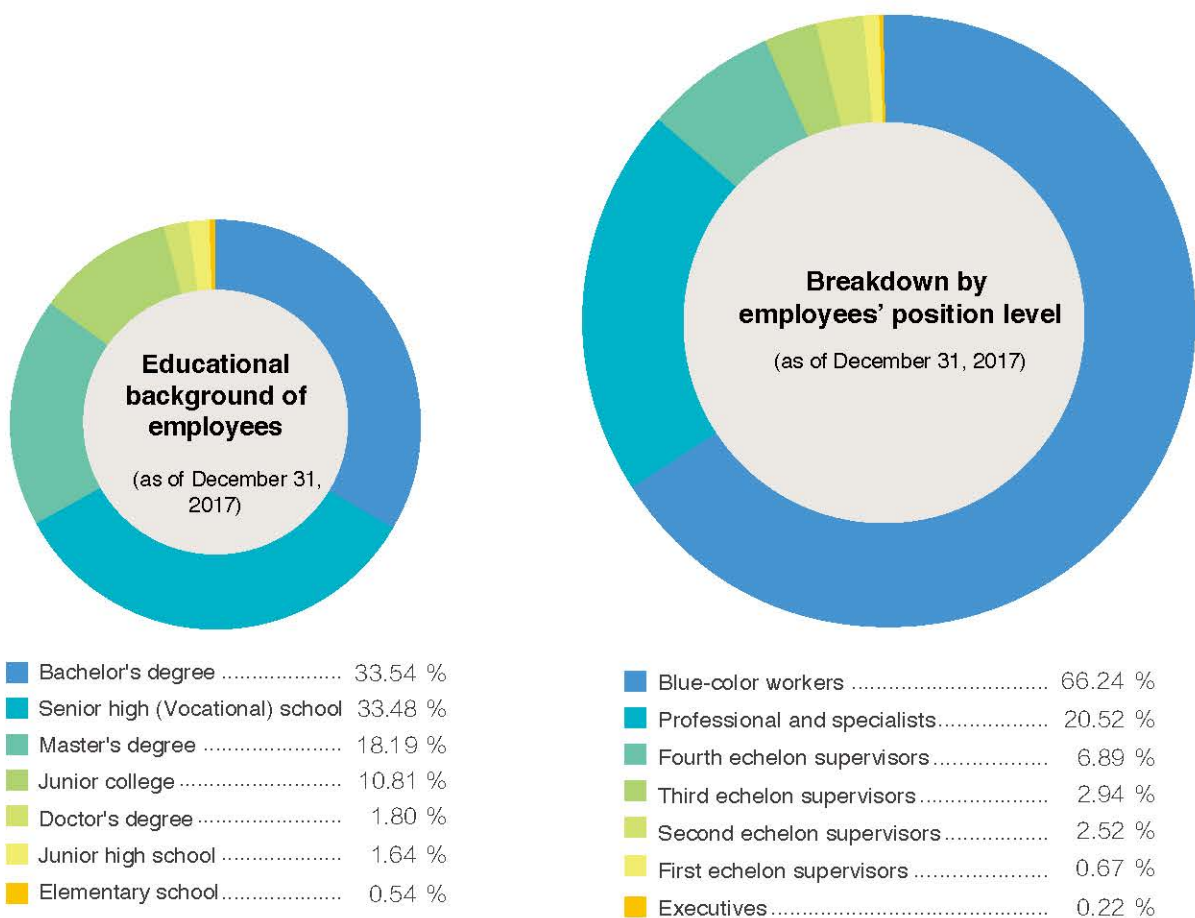
- 1. Training abroad:** High-ranking executives of the Group took part in short-term overseas management programs. Selected engineers were sent abroad to conduct special research projects on engineering. Selected technicians were sent to College of Industrial Technology in Japan to attend programs. 46 employees in total had been sent abroad for training between 2011 and 2017.
- 2. Talent training for middle- and high-ranking management executives of the Group:** Management programs have been held for these executives in renowned domestic universities since 2012, the themes of which include corporate culture and leadership, in the hope of enhancing their understanding of the corporate culture. As of 2017, 428 executives had taken part in these programs. Moreover, the "Management Training Program" and "Assessment Center" will be held continually. A total of 808 reserve executives had been trained in the past seven years, 409 of whom had qualified.
- 3. Training for Internal Instructors:** A total of 37 internal TWI instructors, 44 MTP instructors and 63 AC instructors had been trained between 2011 and 2017. 26 instructors on management skills and 23

instructors on performance management had been trained between 2016 and 2017 in preparation for conducting future training courses for second-, third-, and fourth-echelon executives.

- 4. Training for new recruits:** Training courses for new recruits include new entry basic training, new technology training, practical training on steel production, steel simulation contests, etc. 6,405 employees (person-times) have been trained in the past six years.
- 5. Strengthening the culture and management of industrial safety:** In order to enhance fourth-echelon executives' and engineers' understanding of industrial safety management, perspectives regarding how to strengthen the establishment of disaster prevention measures, and willingness to take active industrial safety measures, industrial safety training programs in the form of seminars were developed and held. Different sessions with teaching, mutual discussions of industrial safety cases, and hands-on practice had been conducted to demonstrate the effectiveness of implementing industrial safety training. 240 employees (person-times) in total had been trained between 2016 and 2017.
- 6. Professional expertise and quality control:** Programs regarding autonomous management, statistical quality control, and advanced mechanical and electrical engineering were conducted. Moreover, in response to the Group's new businesses, special programs about quality management of public works and offshore wind power generation were also conducted. 132 sessions with 4,855 participants (person-times) took part in these programs in 2017.
- 7. General education:** 22 sessions of corporate culture classes were held for executives and new recruits in 2017. 11 sessions of CSC Lectures related to arts, technology, and new management knowledge were held in the hope of establishing the concept of empathic thinking, which would help the establishment of consensus as well as enhance the executives' management and innovative capabilities. Moreover, knowledge management forums and sharing of training knowledge were held to strengthen the culture of knowledge sharing as well as the professional expertise of employees at CSC.
- 8.** In 2017, each employee averaged 28.9 hours of classroom work and 4.9 hours of e-Learning.







In 2017, CSC reaped approximately NT\$56 million in benefits from its Creative Development Activities (CDA) and NT\$50 million in estimated tangible benefits from its Employee Suggestion System. These time-honored activities aim at encouraging employees to discover problems at their workplaces and to make suggestions and offer concrete solutions created by group endeavors. In 2017, CDA involved 596 "quality circles" with 5,302 participants (83.0% of the blue-collar personnel of the departments concerned and 452 completed themes). They made 23,026 suggestions, 22,935 (99.6%) of which were adopted.

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 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 taken care 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, dormitories for singles, gyms, 22 shuttle

bus lines, self-service laundry centers, and reading rooms have been established for employees. Among them, employee canteens, restaurants, gyms, and reading rooms are also open to contractors and their employees and neighboring residents. The Employee Benefits Section is responsible for all the matters related to employee welfare, including 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 and gathering subsidies, 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 2017, 492 activities/group events with 18,900 participants (person-times) were sponsored by 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 group weddings for them regularly. In addition, CSC holds large-scale outings and anniversary celebration annually and commissions each department/unit to hold activities for good neighborliness purposes and year-end dinner parties to enhance a sense of unity.

As of the end of 2017, there are about 3,300 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 Retirees Service Section to serve them. Two sessions of LOHAS seminars, five farewell tea parties, and four health related lectures were held for them in 2017. Retirees are always invited to take part in CSC's annual anniversary celebration.

### CSC's 46th anniversary celebration and group weddings



Joint drum-beating by senior executives and new recruits, symbolizing succession of a new generation



The Dragon Boat Racing Tournament



Group weddings for 129 pairs of grooms-to-be and brides-to-be



A charitable fair



Opening of the Historical Museum



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



Summer eco-education camps were organized for elementary school students in Kaohsiung.



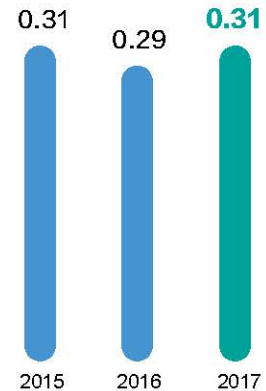
## Key tasks and results of energy conservation and environmental protection in 2017 were listed as follows:

1. Energy conservation services: The CSC Energy Conservation Service Corps was established in 2007 to offer energy conservation services outside CSC. In 2017, it collaborated with the Kaohsiung Municipal Energy Conservation and Carbon Reduction Technology Counseling Corps to offer counseling services to Taiwan Fu Hsing Industrial Co., Ltd., the Lin Yuan plant of LCY Chemical Corp., Ursine Steel Co., Ltd., Tongtai Machine & Tool Co., Ltd., Green Environment Engineering Incorporation, Hanlin Environmental Technology Co., Ltd., Lee Tah Farm Industries Co., Ltd., and Howard Plaza Hotel Kaohsiung about energy conservation and reduction of carbon emissions.
2. Continuous promotion of the Energy Conservation Action Plan 2020, the third five-year plan: CSC has aimed at saving 100,000 kiloliters of oil equivalents between 2016 and 2020. 122 projects were completed in 2017; 40,000 kiloliters of oil equivalents were saved.
3. In response to MOEA's campaign to save electricity consumption by 1% annually between 2015 and 2019, CSC has actively implemented several electricity conservation projects, including improvement of electricity consumption in fans, pumps, cooling towers, air conditioners, lighting fixtures as well as adoption of natural lighting in factories, etc.
4. Water consumption had been decreased from 10.33m<sup>3</sup>/ton of crude steel at the establishment of CSC to 4.91 m<sup>3</sup>/ton of crude steel in 2017; the recycling rate was 98.3%. CSC's saving of water consumption in 2017 was exceptional and had been granted awards of excellence by the Water Resources Agency, MOEA for 15 consecutive years.
5. CSC continued the GHG Inventory and management of internal auditing and external certification. CSC completed its organizational GHG Inventory in 2017 and was verified by a third party certification agency. In addition, CSC also conducted an inventory of GHG emissions produced by employee business travel and waste disposal (Scope 3 Emission Sources), which was also verified by a third party certification agency.
6. Measures taken to improve dust emissions from raw material stock yards: In order to make up for the gap on the dust wall on the south of the raw material stock yard, dust-proof nets were placed on the fence on the south side of CSC's main stock yard.

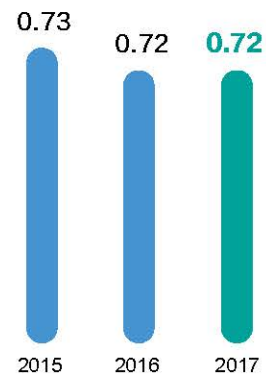
### Air quality

Kg/mt of crude steel

#### Particulate emission



#### SOx emission



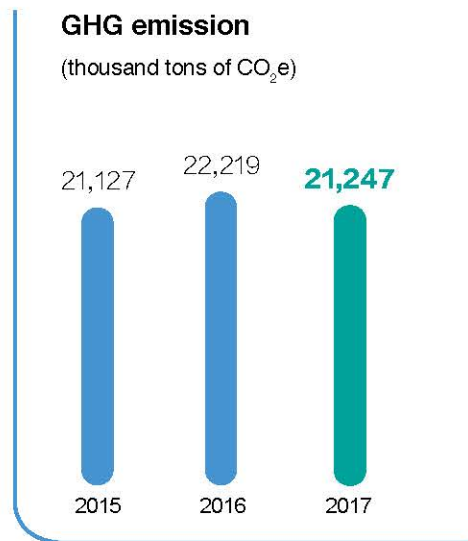
#### NOx emission



7. 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.

8. 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 tar sludge from China Steel Chemical Corporation, oily waste from China Steel 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, Chung Hung Steel Corporation, and Hung Li Steel Corporation.

9. The tests and reports for particulates, SOx, and NOx were completed. The total emission amounts matched the requirements of the environmental impact assessment in 2017. CSC will continue to promote greening inside the plants. The total area of greening has reached 440,670 m<sup>2</sup>; the greening rate is 8.36%.



## Industrial Safety

The target of zero major occupational disasters of CSC's employees and those of the contractors was reached in 2017, and the frequency of disability injuries among the employees of the contractors had been at a new low since 2013. It was also the first time in five years that the annual target control value was achieved, indicating the effect of continuous development of safety and health management.

**Major tasks and results of industrial safety programs for 2017 were listed as follows:**

1. CSC was granted the certification of the OHSAS 18001, TOSHMS, ISO 14001, and ISO 50001 systems verified by BSI.
2. CSC has planned to transfer its environmental management systems in 2018. The preliminary assessment reports were completed. The revisions of 14 general documents of the environmental protection and health and safety management systems and computerized systems in terms of the environmental aspect were made. Fourteen sessions of internal auditor training and analysis training between the new and old versions were held. Operations for the transfer to the revised version of the environmental management systems regarding internal audits were carried out.
3. In collaboration with the authorized institutions, implementation of (1) the regular inspections of 1,071 pieces of hazardous machinery and equipment and (2) the reassessment of the safety of the production processes in six type-C hazardous workplaces was carried out. So far, thorough inspections of 36 pieces of hazardous machinery and equipment have been completed.

4. Educational training: (1) CSC held 12 training classes with 66 sessions of various safety licenses for 1,645 licensees on its own. (2) Seven physical simulated training classes with 111 sessions were held for 1,165 participants. (3) Four sessions of educational training on traffic safety were held for 453 participants.
5. Plans for the 2017 operational environment testing were completed. Items for the testing included dust, noise, integrated WBGT (Wet Bulb Globe Temperature) indices, carbon dioxide, and chemical substances.

### Employee Health and Hygiene

Complied with the laws and regulations, CSC continues 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 has held a series of programs, such as management of health examinations, weight loss, health columns, psychological counseling, quarterly lectures on health, special health campaigns for female employees, and implementation of the Maternal Health Protection Plan, with approximately 5,849 participants in 2017. Among them, 203 employees who took part in the weight loss program lost a total of 458.7 kg; the average lost weight was about 2.26 kg per person.

### Social Responsibilities

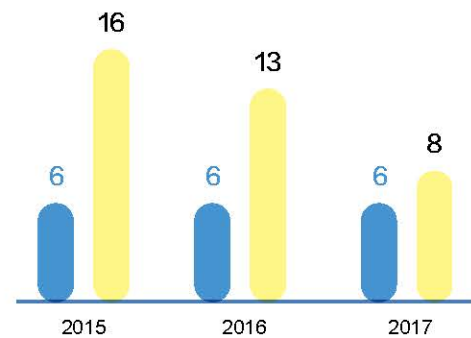
To fulfill its corporate social responsibility, CSC has continued to take action to provide assistance to the nearby communities for their development and sponsor charitable activities in Hsiao Kang District for a long period of time.

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

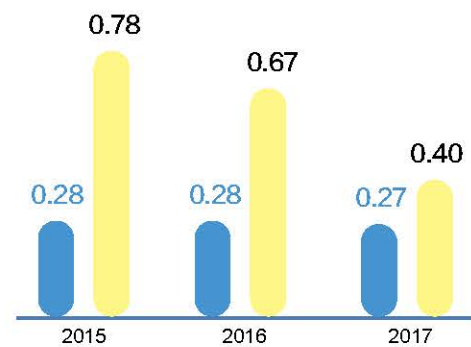
### Occupational accident record of CSC

— CSC — Contractors

#### Number of cases with disabling injuries



#### Frequency ratio<sup>12</sup>



<sup>12</sup> FR = Number of cases with disabling injuries × 10<sup>6</sup> ÷ Total number of working hours of the entire company



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 energy conservation, reduction of carbon emissions, and environmental protection. (7) Elementary school students in Hsiao Kang District, especially those from disadvantaged families, are invited to participate in summer camps.

CSC actively assisted local cultural and artistic activities, some of which included the Grassland Concert held in collaboration with the Kaohsiung Philharmonic Cultural & Arts Foundation, the 2017 Kaohsiung Spring Arts Festival, the 2017 Kaohsiung Lantern Festival, a charitable concert for wheelchair users, and another charitable concert held in the Kaohsiung Prison. All of the aforementioned activities injected an impetus into quality arts and culture in Kaohsiung.

Domestic and international honors and awards granted to CSC in 2017 included: (1) the industry leader by the Dow Jones Sustainability World Index (DJSI World) and the DJSI-Emerging Markets, (2) a constituent of the FTSE4Good Index, showing recognition of CSC's efforts and contribution to corporate social responsibility by the FTSE Group, (3) a winner of the CDP's Climate A- List companies of the Climate Change Leaders Index and water program, in which CSC was granted the highest score among all Taiwanese enterprises by the CDP, (4) an "Excellent Enterprise Award in Industrial GHG Voluntary Reduction by the Industrial Development Bureau, MOEA, (5) an award of excellence in water saving by Water Resources Agency, MOEA, (6) a gold award in energy conservation, which was granted to Rolling Mill Department III by the Bureau of Energy, MOEA, and (7) the Ten Most Sustainable Corporate Award for the fourth time by TAISE, which was the highest honor. Furthermore, CSC was also granted the Top 50 Corporate Sustainability Report Award, Talent Development Award, Sustainable Water Management Award, Supply Chain Management Award, Climate Leadership Award, Growth through Innovation Award in the manufacturing category, 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 2017 consisted of:

- (1) Six general lectures for citizens in Kaohsiung, four seminars on campus jointly organized with United Daily, and four lectures on spiritual growth organized by Teacher-Chang Foundation.
- (2) The Environment Education Touring Bus had been out to conduct lectures on environmental education in elementary schools in Kaohsiung, rural schools in Pingtung, such as those in Sandimen Township and Majia Township, and those in Sin Hua District, Tainan.



The "Steel Journey" Activity held by CSC in 2017



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



The 2017 King of Wisdom Summer Camp held by CSC

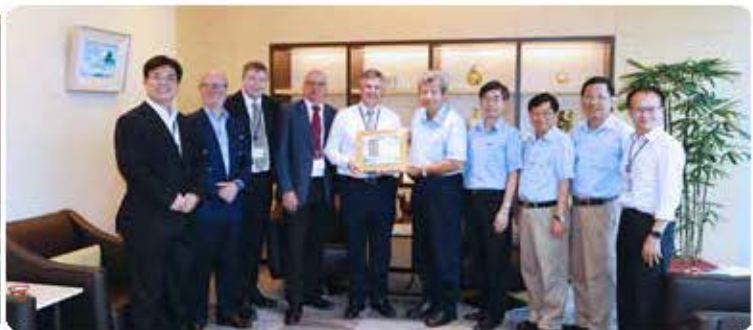


- (3) Eco-education camps were organized for elementary school students. On-site ecological observations were arranged so that the students could rethink the positioning of intelligence and nature.
- (4) "Engineer E-week, Kaohsiung" was held to enhance high school students' abilities to solve problems and teamwork.
- (5) CSC Camps were held, and college students were invited to visit the upstream and downstream sectors of the steel industry to attract them to engage in metal-related industries.
- (6) In collaboration with National Taiwan University, National Tsinghua University National Cheng Kung University, and National Sun Yat-sen University, CSC has continued to offer related courses about steelmaking in those universities. National Chung Hsing University was added to the list of schools in 2017.
- (7) CSC has continued to sponsor the Chemical Materials Department, Kaohsiung University to implement the Entrepreneurship Concentrate-Spin off-Operation- Start up (EC-SOS) Project by offering courses such as "Surface Treatment and Anticorrosion Technology" and "Introduction to Steel and Heat Treatment".

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.



Cellist Chen-Chieh Chang' s Concert in the Da-liao Opera House (the Kaohsiung Prison)



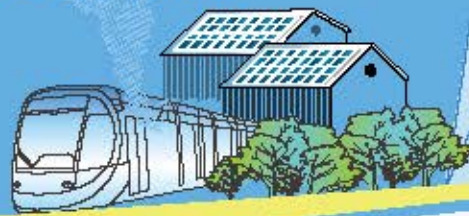
CSC hosted a meeting of the Environment Committee, the World Steel Association (worldsteel).



"Engineer E-week, Kaohsiung" was held by CSC in collaboration with IBM



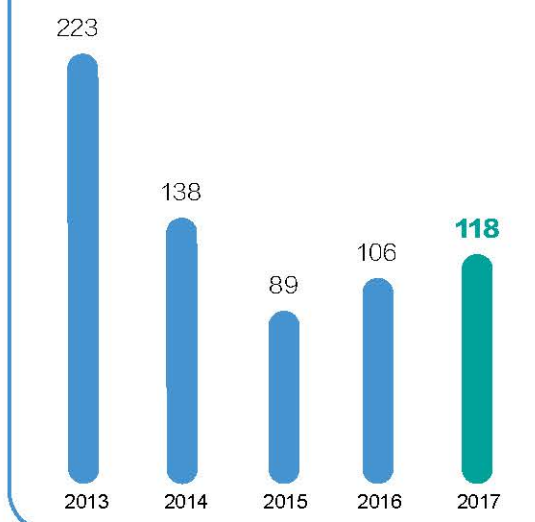
# Capital Expenditures & Engineering Business



The waste gas desulfurization and denitrication project of the No. 2 Sinter Plant was completed.

## Capital expenditures

(in hundred million of New Taiwan Dollars)



The investment of capital expenditure projects amounted to NT\$11.818 billion in 2017. The projects were listed as follows:

### ● 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 Nos. 1 & 2 heat furnaces of the No. 1 Hot Strip Mill
3. Revamp of the gas tanks of the blast furnaces
4. Revamp of the second major campaign of the No. 3 Blast Furnace
5. Revamp of the main motors, electrical control system, and welders of the No.1 Pickling and Cold Rolling Mill of Rolling Mill Dept. III
6. Revamp of the shells and linings of the Nos. 34 hot stoves in the No. 3 Blast Furnaces
7. Revamp of the LDG holder in BOF Plant I

### ● Projects related to upgrades of production capacity or quality:

8. Addition of the No.3 ladle refining furnace in the No.1 Steelmaking Plant

### ● Projects related to resource recycling or environmental protection equipment:

9. The Waste Gas Desulfurization and Denitrification Project of the No.2 Sinter Plant
10. Equipment revamp for reduction of effluent ammonia nitrogen ( $\text{NH}_3\text{-N}$ )





The Wind-Team, an international cooperative alliance, was established.

Among the aforementioned projects, Projects 3 and 9 were completed in 2017; the rest have been carried out on schedule. Major projects, which were expected to increase production capacity or effectiveness, with the investment amount of over NT\$2 billion were listed as follows:

<p><b>1. Revamp of the program control and electronic control systems of the No. 2 Hot Strip Mill of Rolling Mill Dept. II</b></p>	<p>The estimated reduction of CO<sub>2</sub> 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.</p>
<p><b>4. Revamp of the second major campaign of the No. 3 Blast Furnace</b></p>	<p>The introduction of the best available technology (BAT) and the adoption of innovative campaign practices will not only prolong the expiration date of the campaign, but also enhance and stabilize production, which will reduce CSC's operational costs and enable CSC to become more competitive.</p>
<p><b>9. The Waste Gas Desulfurization and Denitrification of the No.2 Sinter Plant</b></p>	<p>The implementation of this project is to ensure that the concentration of the emissions of the sulfur oxides and nitrogen oxides from the chimneys of the No.2 Sinter Plant is below 100ppm, which is in line with the new emission regulations and standards so as to effectively improve the environment quality of the perimeter.</p>
<p><b>12. Equipment revamp for reduction of effluent ammonia nitrogen (NH<sub>3</sub>-N)</b></p>	<p>After the revamp is completed, the discharged concentration of effluent ammonia nitrogen will be reduced to 20 ppm, which will meet IPA's discharge standards for chemical effluents. CSC's daily ammonia nitrogen discharge will be reduced by 1,328 kg, which will effectively improve the quality of the environment and fulfill its corporate social responsibility.</p>



The beam raising ceremony of the Green Mountain Line of the Danhai Light Rail Transit System



The groundbreaking ceremony of the EPC Project (Phase II) of the Circular Line (KMRT)

## Engineering Businesses

Revenue generated from engineering businesses from outside parties amounted to NT\$2.044 billion in 2017, which was 15.68% more than that in 2016 (NT\$1.767 billion). Key tasks and results in 2017 were listed as follows:

### Light Rail Engineering

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, 2017, the overall project was 71.57% on schedule.
2. The EPC Project (Phase II) of the Circular Line (KMRT): The construction was initiated on October 11, 2016. As of December 31, 2017, the overall project was 21.51% 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, 2017, the overall project was 1.99% on schedule.
4. 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 from customers.

### Wind Power Engineering

#### 1. The Wind-Team:

In order to demonstrate the determination to implement the localization of producing components, CSC assisted the Metal Industries Research & Development Center by inviting four international wind turbine manufacturers and 21 local manufacturers to hold the kick-off of the Wind-Team, an international cooperative alliance, on August 30, 2017.

#### 2. The Offshore Wind Power Generation Development Project:

In order to promote the localization of the offshore wind power industry, CSC signed a trilateral cooperation memorandum with Copenhagen Infrastructure III K/S, a subsidiary of Copenhagen Infrastructure Partners (CIP), and Diamond Generating Asia, a subsidiary of Mitsubishi Corporation in Hong Kong, on October 6, 2017. The focus of the memorandum was on the development of Offshore Wind Farm #29 in Changhua, which was considered to be a training ground for localization and the establishment of a localized supply chain for the offshore wind power industry.



# Investments & Other Equity Interests



The storage yard for finished products at CSC I



As of the end of 2017, CSC has invested in holdings of 60 companies. A newly added company was CSC Solar Corporation, which is a solar photovoltaic project system developer. In addition, CSC disposed all of its holdings of Taiwan Semiconductor Manufacturing Company, Limited (TSMC).

## Operating Performance

Because the steel market was stable in 2017, CSC's recognized reinvestment gains in 2017 amounted to NT\$7.747 billion, which demonstrated an increase compared with those in 2016. The operating performance of the subsidiaries was listed as follows:

- Steel Business:** As the steel market was booming, the profit before income tax of Dragon Steel Corporation in 2017 was increased to NT\$2.903 billion compared with that in 2016 due to increased sales. The profit before income tax of Chung Hung Steel Corporation in 2017 was considerably increased to NT\$2.606 billion compared with that in 2016 (NT\$1.913 billion) due to the support of steel prices and increased sales. In regard to CSC's overseas operations, the profit before income tax of CSC Steel Sdn. Bhd. in 2017 was RM\$71.53 million, which was at about the same level as that in 2016. The profit before income tax of China Steel Sumikin Vietnam Joint Stock Company in 2017 was US\$1.92 million, which was 82.2% more than that in 2016 due to the increase in sales and average sales prices of steel. The profit before income tax of China Steel Corporation India Pvt. Ltd. in 2017 was INR\$136 million, which turned positive for the first time since its operations.
- Engineering Business:** The profit before income tax of China Steel Machinery Corporation in 2017 was NT\$102 million, which was better than that in 2016. With the recognized engineering losses in 2017, the profit before income tax of China Ecotek Corporation was decreased by 36.1% (NT\$121 million). The profit before income tax of China Steel Structure Co., Ltd. in 2017 was NT\$65 million, which was decreased by 19.8% due to the shrinking of projects in construction and public works. InfoChamp System Corporation's operating gross profit in 2017 was less than that in 2016. Its profit before income tax was NT\$274 million, which was decreased by 11.6%.
- Industrial Material Business:** CSAC's sales in 2017 were increased compared with those in 2016. The increase of the unit sales prices of aluminum products was more than that of average costs of goods sold, which resulted in the increase in profit margin. Nonetheless, due to the inclusion of the depreciation of the new equipment for its expansion and the increase in recognized reinvestment losses, it still suffered loss of NT\$235 million before income tax in 2017. The profit before income tax of China Steel Chemical Corporation in 2017 was NT\$1.316 billion, which was 10.2% more than that in 2016 due to increased crude oil prices and geographical relations. As the sales of CHC Resources Corporation's pulverized blast-furnace slag increased in 2017, its profit before income tax was NT\$900 million, which was 23.3% more than that in 2016. The profit before income tax of HIMAG Magnetic Corporation in 2017 was NT\$48 million, which was 10.7% less than that in 2016 due to the decrease of profit margin and sales of its environmentally friendly products. The profit before

### CSC recognized income from invested companies in the past three years

(in hundred million of New Taiwan Dollars)







The installation of the 30MW solar photovoltaic system (phase I) was completed by CSCSC.

income tax of Changzhou China Steel Precision Materials Corporation in 2017 was RMB\$12.94 million, which was a noticeable increase in comparison with its loss in 2016 (RMB\$20.58 million) due to the considerable increase in sales of its main titanium products, operations, and profit margin. The profit before income tax of China Steel Resources Corporation in 2017 was NT\$13.98 million. The construction of CSC Precision Metal Industrial Corporation's plant was completed in 2016 and is in the commissioning phase. Its loss before income tax reached NT\$18.09 million in 2017 as it was still in the initial period of its establishment.

- Trading and Logistics Business:** Although China Steel Express Corporation's operations in 2017 benefited from increased freight and recognized gains from disposal of old vessels, which were less than those in 2016, its profit before income tax was NT\$1.942 billion, which was 19.5% less than that in 2016. China Steel Global Trading Corporation is the trading agent for CSC, Chung Hung Steel Corporation, CSAC, and Formosa Ha Tinh Steel Corporation. Its profit before income tax was NT\$625 million, which was 24.4% more than that in 2016 due to the increase in sales and recognized reinvestment gains. As the steel market was booming, the profit margin of Qingdao China Steel Precision Metals Co., Ltd. was considerably increased, and its profit before income tax was increased to RMB\$12.84 million compared with that in 2016. Sales of China Steel Precision Metals Kunshan Co., Ltd. (CSMK), formerly United Steel Engineering & Construction Corp, reached 45,000 metric tons in 2017, a 37.9% increase compared with those in 2016. Its profit before income tax was RMB\$2.48 million.
- Service and Investment Business:** Due to the increase in recognized reinvestment gains, the profit before income tax of Gains Investment Corporation in 2017 was NT\$482 million, which was 24.3% more than that in 2016. The profit before income tax of China Steel Security Corporation in 2017 was NT\$120 million, which was decreased by 2.1% compared with that in 2016. The profit before income tax of China Prosperity Development Corporation in 2017 was NT\$248 million, which was slightly increased by 4.6% compared with that in 2016. The profit before income tax of China Steel Management Consulting Corporation was NT\$4 million, which was roughly the same as that in 2016. The CSC Group established CSC Solar Corporation (CSCSC) in October, 2016. Although there was profit margin in CSC Solar Corporation in 2017, its initial operating expenses were relatively high. Its loss before income tax in 2017 was NT\$2 million.



Completion of Sakura Ferroalloys Sdn. Bhd.'s plant in Malaysia

## Business Development

In terms of the investment in raw material sources, CSC seeks prudent investment in valuable raw material sources to increase its self-sufficiency rates to reach the target of 30% by taking the advantage of the market dynamics. As of the end of 2017, 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 stakes 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 and existing and potential overseas customers, the CSC Group actively expands its sales bases and sets up coil centers 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 basis 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



The seminar on metallographic analyses and applications of steel (hot/cold rolling)



56 new enterprises became CSC's customers in 2017. New customers accounted for 5.24% of the total customers while the old ones accounted for 99.00% 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 2017, 39 confabs regarding domestic sales and four confabs regarding export 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 2017 included: (1) 168 cases of technical assistance to customers in improving their manufacturing processes and solving problems related to application of raw materials and processing techniques were completed. 45 surveys of market quality feedback were obtained to effectively promote quality improvement. (2) 12 surveys of material application and quality trends according to industries as well as 15 surveys of new products and quality functions were completed. Certification of 24 items of automobile use materials was granted. (3) 12 domestic and international technical symposia and seminars were held. (4) Representatives from CSC paid 103 visits to key customers. Moreover, professional staff (515 persons/days) were sent abroad to conduct technical interaction and promote CSC's products in mainland China, Japan, the Middle East, India, Southeast Asia, Europe, and the United States.



The seminar on advancement to Industry 4.0



The seminar on weld-brazing of aluminum alloy to steel in 2017



The 2017 Steel Engineering Technology Seminar



Senior executives visited CSC's overseas customers and invested companies



## 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.

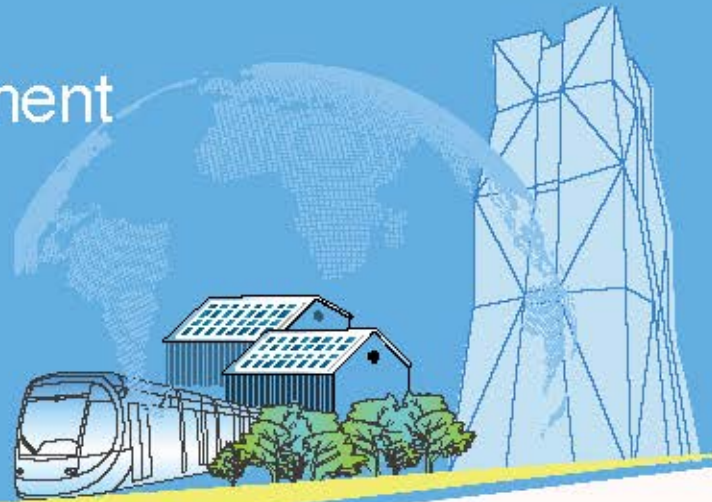
Operation flexibility and efficiency have markedly increased by the constant optimization and improvement of CSC's Supply Chain System regarding production and sales. Customers can get instant answers in regard to the delivery dates, quantities, and prices of their orders by linking up with CSC's Supply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

- 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.
- 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.
- 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.
- CSC's customer service cloud mobilizes the 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.
- CSC has raised its on-time delivery rates by improving order preparations, rationalizing delivery, tracking overdue delivery, coordinating production, sales, and shipping of export products, etc.
- 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 2017 survey were satisfaction indices of 81.4 points, which was an increase of 7.9 points compared with those of 2016, from domestic customers and 73.8 points, which was an increase of 1.4 points compared with those of 2016, from overseas customers. The top three items of the domestic satisfaction index were the salespeople's expertise, the service attitudes of the technical staff, and the technical staff's expertise in products. The top three items of the overseas satisfaction index were the service attitudes of the salespeople, the interaction between the salespeople and customers, and the speed of the technical staff's responses to customers' inquiries.

# Risk Management



**50** worldsteel  
ASSOCIATION  
1967 - 2017



CSC was granted the Climate Action Recognition by worldsteel



## Market Risk Control

To disperse liable risks of concentrated sales in the steel market and take into account the strategy for global deployment, CSC has managed its risk control in two areas. In terms of sales, CSC has adopted the 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. New product development has been significantly enhanced to create new value at CSC. Moreover, CSC has a full grasp of the dynamics of related industries, expands the range of its supplies, and seeks investment opportunities in the downstream steel industry or industries which consume steel products. Overseas coil centers have been established to satisfy the demands of the customers in potential markets so that long-term steady strategic partnerships can be established. So far, 15 coil centers have been established in mainland China, Southeast Asia, India, and Italy to disperse liable risks due to declining economic factors in individual regions. In terms of production, on the basis of the amount of estimated orders, sales and production plans are simulated to avoid the risks of economic fluctuations. Concrete measures include coordination of the allocation of slab purchase quotas among the subsidiaries in the CSC Group, reduction of production in the furnaces and campaign adjustments, adjustments of the schedules of seasonal/annual maintenance of the production lines, scheduling of raw material transportation, and planning of commissioned rolling. In a nutshell, production plans can be adjusted by various means whenever necessary.

## 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.
- 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.

#### ✚ An emergency response drill of a leakage in a gas storage tank of a coke oven



Cooling of the temperature by spraying water from fire engines



The injured were taken to the hospital for treatment with the assistance of the medical staff.



## 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:

- Replacement of the old equipment used for power generation will be continued, and professional inspections will also be arranged to promote the reliability of power supply.
- Replacement of the old gas pipelines will be carried out to reduce risks.
- In order to avoid the hazards of leak detection in underground gas pipelines, the engineering project of removing them to the ground level was carried out.

### 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; therefore, it actively takes part in the municipal project of recycling waste water from the Fongshan Creek Sewage Treatment Plant, which could serve as the second source of water supply, to reduce the risk of water supply. It is estimated that 24,000 m<sup>3</sup>/day of recycled water can be generated by 2018, and it will be gradually increased to 44,000 m<sup>3</sup>/day year by year. Moreover, CSC took part in using the reclaimed water coming out of the Linhai Sewage Treatment Plant in 2017. It is estimated that 20,000 m<sup>3</sup>/day of reclaimed water can be generated by 2022.



An emergency response drill on a fire



Physical simulated training: Being hung with a safety belt



CSC took part in purchasing the reclaimed water coming out of the Linhai Sewage Treatment Plant.

## Risk Control of Information Systems

To avoid adverse effects on CSC's business operations due to computer software, hardware, and network irregularities, it 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, including implementation of (1) multiple backup mechanisms of computer software, hardware, and networks; when activated, the time difference of the taking over of the backup mechanisms can be shortened, (2) backup and restoring mechanisms of files with multi-version support, (3) online control of application systems and version changer mechanisms, (4) prevention of virus and network intrusions, (5) uninterrupted power supply systems and automatic fire suppressing systems, and (6) entrance control with closed circuit televisions. In addition, drills are held periodically.

## Risk Control of Facility Maintenance

### 1. Machinery:

- Maintenance spares: Proper inventory levels are maintained according to past maintenance experience and the amounts of spare consumption. Information systems will be enhanced to control the manufacture of spare parts. Large pieces of replaced machinery can serve as reusable machinery, which will be promoted to be preferentially utilized first, after being maintained and qualified in tests to reduce the procurement of new machinery. Overseas purchases can be reduced by the development of domestically manufactured machinery; therefore, delivery of machinery can be controlled. Arrangements of regional storehouses will be promoted in order to have good spare part management.
- Maintenance résumés: Problems in mechanical and electrical equipment and facilities are looked for through downtime management; the periods of downtime are reduced to enhance equipment availability in combination with the records of the equipment résumés. The résumés and costs of equipment repairs and maintenance are collected to conduct analyses and applications of all kinds of production lines in the hope of reaching the goal of zero malfunction/failure.
- Maintaining of manpower and succession: Retiring employees with technical backgrounds are assigned tasks in advance so that their expertise and experience can be passed down to others through apprenticeship. Information exchange of all units is strengthened on the project management platform, and the implementation résumés of key maintenance are recorded. Knowledge management is enhanced to keep the integrity of maintenance techniques and experience.

### 2. Electrical Control Facilities:

- Risk management of the IATF-16949, ISO-9001, ISO-13485, and AS-9100 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.

## Risk Control of Construction Management

CSC has optimized the Capital Expenditure Management Information System and a Contract Management System for all its project-type capital expenditure projects to exercise strict control over industrial safety, quality, progress, and budgets.

The systematization of document management is promoted to ensure that a written record of each process is kept. In terms of external engineering contracts, contracting parties' requests not covered in the original contracts must be reported and documented accordingly as changes to the contracts (for increase of the project costs and extensions of work periods).

In order to have a full grasp of the contractors' financial statuses, CSC commissions domestic credit reporting agencies to conduct credit checks on registered contractors/subcontractors on a regular basis. If the checks of the persons in charge (contractors/subcontractors) bounce, or when they are classified as dishonored account holders by banks, they will be considered as suspended and/or disqualified contractors/subcontractors and prohibited from bidding, or their maximum bidding amounts will be limited.

## 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

With the effect of global warming caused by climate change and the frequent disasters resulted from extreme weather patterns, the mitigation and adaptation of climate change have become important issues that cannot be ignored by humans and corporations. To reduce the operational risks caused by climate change, CSC has adopted the following strategies:

- 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. 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 to lock in medium- and long-term capital costs when the capital market is loose to avoid the risks of the increases of interest rates in the future.

CSC assists its customers to increase their credit lines in banks to utilize the operation of AR (accounts receivable) factoring. 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.

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 value of CSC's financial assets is monitored in real time; recommendations of investment or reduction of investment are proposed. Moreover, capital allocation among the companies within the CSC Group will be strengthened to increase the efficiency 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.



# Corporate Governance

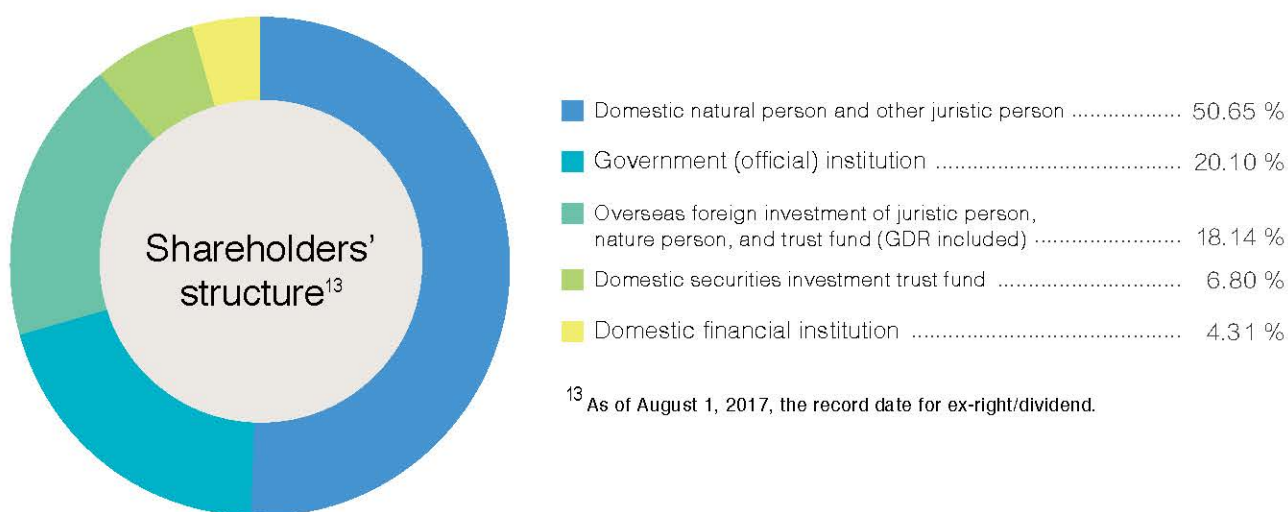


Earnings conferences/conference calls are held.

## 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. 2017 was the sixth year when electronic voting was adopted. Approximately 54.20% 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 17.20% of the total number of shareholders' voting rights. On the Book Closure date, 18.13% 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.



<sup>13</sup> As of August 1, 2017, the record date for ex-right/dividend.





CSC's 2017 shareholders' meeting

## 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 2017, eight board meetings were held.

Under the Board of Directors are two functional committees, the Audit Committee and the Remuneration Committee, 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. Six meetings were held in 2017, 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 2017, 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.

To implement vigorous energy conservation and reduction of carbon emissions, CSC established the paperless meeting management system in June 2013. Notices, agendas, information, and proceedings of

## COMMON STOCK DIVIDEND PAYOUT

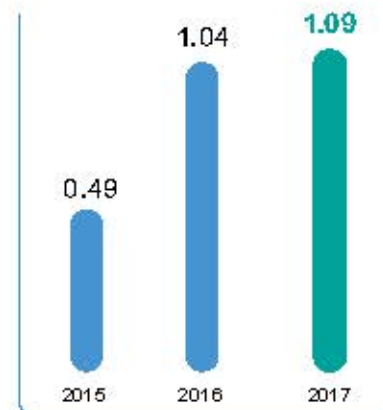
### Cash dividend

NT\$/share



### Earnings per share

NT\$/share



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**

- If there is a gap in implementing a project by using an out-of-date approach, the Internal Auditor will recommend that the department/unit in charge should review and revise the relevant approaches.
- The Internal Auditor sends the audit report and results of the follow-up report to the independent directors for their perusal regularly.
- Principle of management and elaborations on lobbying and audited cases.
- Elaborations of risk control related to accounts receivable of overseas subsidiaries.

### **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 2017 were to test and assess whether the operational procedures in the eight operational cycles, which included business of: (1) sales and receipts, (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) compliance with regulations, (2) management of the use of seals, (3) management of the receipt and use of negotiable instruments, (4) management of budget, (5) acquisitions and disposal of assets, (6) management of asset, (7) management of endorsements and guarantees, (8) derivative financial products, (9) management of liabilities, commitments, and contingencies, (10) implementation of authorization and deputy systems, (11) management of loans to others, (12) management of financial and non-financial information, (13) management of related parties transactions,





CSC was granted the 2017 Taiwan Corporate Sustainability Award.

(14) Management of the procedures for preparation of financial statements, (15) supervision and management of subsidiaries, (16) management of the operation of board meetings, (17) management of the operation of the audit committee meetings, (18) management of shareholder services, (19) management of the protection of personal information, (20) control of information flow security inspection, (21) management of the prevention of insider trading, and (22) IFRS management. Furthermore, the Internal Auditor also assessed the internal control systems of CSC's 21 subsidiaries with due diligence.

In 2017, 52 audit reports and 468 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, is sent by letter to the Independent Directors for examination and perusal according to regulations.

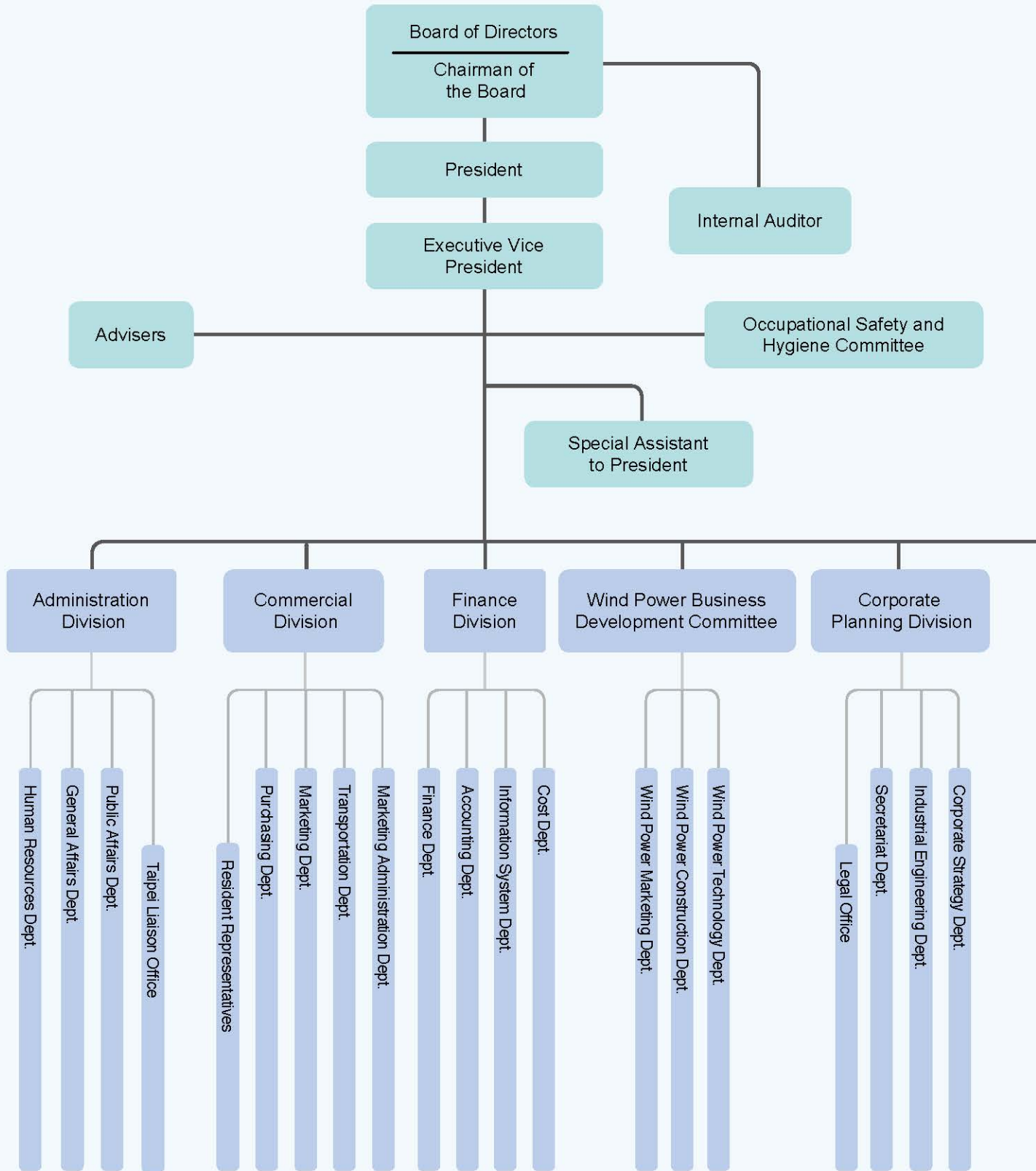
## Performance of Corporate Governance

The Financial Supervisory Commission has published the "Corporate Governance Roadmap 2013," which will 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. CSC's ranking has always been among the top 20% of the exchange-listed or OTC-listed companies. Furthermore, the Taiwan Stock Exchange (TWSE) released the results of the second corporate governance evaluation, and CSC was among the top 5% listed companies and belonged to the TWSE Corporate Governance 100 Index.

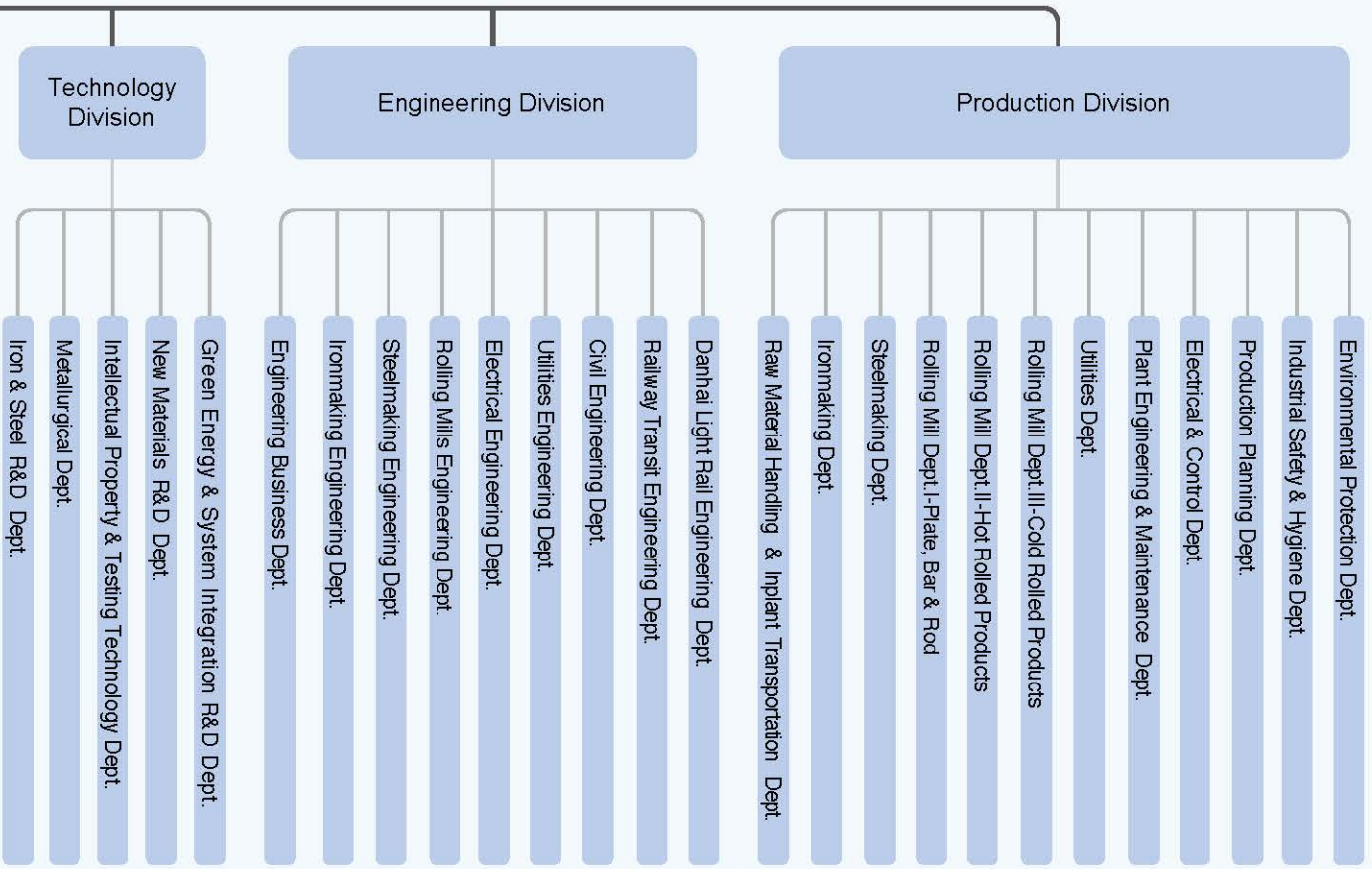
In terms of CSC's performance in the environmental, social, and corporate governance aspects, it has been listed as a constituent of the FTSE4Good Index, showing recognition of CSC's efforts in corporate governance and corporate social responsibility by the FTSE Group and FTSE Russell.



# Organization Chart







# Board of Directors

(as of December 31, 2017)



Chairman of the Board

**Chao-Tung Wong**

Representing Ministry of Economic Affairs, R. O. C.



Director

**Feng-Sheng Wu**

Representing Ministry of Economic Affairs, R. O. C.



Director

**Jih-Gang Liu**

Representing Gau Ruei Investment Corporation



Director

**Horng-Nan Lin**

Representing Chiun Yu Investment Corporation



Director

**Shyi-Chin Wang**

Representing Ever Wealthy International Corporation



Director

**Cheng-I Weng**

Representing Hung Kao Investment Corporation



Director

**Chao-Chin Wei**

Representing Labor Union of China Steel Corporation



Independent Director

**Min-Hsiung Hon**



Independent Director

**Shyue-Bin Chang**



Independent Director

**Lan-Feng Kao**





## Senior Management

(as of December 31, 2017)



President

Jih-Gang Liu



Executive Vice President  
(Concurrently Spokesman  
for the Corporation)

Shyi-Chin Wang



Assistant Vice President  
- Administration  
(Acting Vice President-Administration)

Chiu-Po Chang



Vice President -  
Commercial

Shin-Min Lee



Vice President  
- Finance

Ming-Hsien Wu



Vice President -  
Corporate Planning

Yi-Lang Lin



Assistant Vice President  
- Technology  
(Acting Vice President-Technology)

Song-Jau Tsai



Vice President -  
Engineering

Chung-Te Chen



Vice President  
- Production

Hsin-Chin Kuo



# Five-Year Summary of Selected Financial Data and Operating Results

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

	2017	2016	2015	2014 (Restated)	2013
Operating revenues	207,098,630	168,927,075	160,909,464	205,159,602	200,726,268
Operating costs	187,568,805	147,174,784	148,511,291	183,377,897	184,156,015
Gross profit	19,529,825	21,752,291	12,398,173	21,781,705	16,570,253
Realized(Unrealized) gain on the transactions with subsidiaries and associates	147,162	(384,546)	225,679	(293,861)	394,126
Operating expenses	8,101,943	8,286,601	7,469,515	8,263,257	7,345,870
Profit from operations	11,575,044	13,081,144	5,154,337	13,224,587	9,618,509
Non-operating income and expenses	6,945,620	4,952,067	3,161,977	10,431,496	7,888,875
Profit before income tax	18,520,664	18,033,211	8,316,314	23,656,083	17,507,384
Net profit for the year	16,905,588	16,038,369	7,604,721	22,132,134	15,981,540
Other comprehensive income(loss) for the year, net of income tax	(2,475,273)	(87,519)	(2,531,685)	3,561,821	3,524,589
Total comprehensive income for the year	14,430,315	15,950,850	5,073,036	25,693,955	19,506,129
Current assets	73,703,417	65,458,991	63,791,939	65,977,147	67,922,345
Property, plant and equipment	162,042,223	167,632,162	175,420,761	185,285,861	192,022,654
Other assets	236,681,872	237,184,216	225,187,698	212,986,584	197,335,519
Total assets	472,427,512	470,275,369	464,400,398	464,249,592	457,280,518
Current liabilities	65,066,190	45,556,399	57,914,294	51,998,443	54,361,542
Noncurrent liabilities	103,351,259	122,159,084	112,165,285	107,576,551	113,231,922
Total liabilities	168,417,449	167,715,483	170,079,579	159,574,994	167,593,464
Share capital	157,731,290	157,731,290	157,731,290	157,731,290	154,638,520
Capital surplus	38,211,082	37,807,466	37,612,027	37,217,876	36,960,818
Retained earnings	109,227,145	106,917,266	99,630,738	108,150,878	98,628,837
Other equity	7,372,935	8,680,706	7,924,408	10,162,015	7,955,853
Treasury shares	(8,532,389)	(8,576,842)	(8,577,644)	(8,587,461)	(8,496,974)
Total equity	304,010,063	302,559,886	294,320,819	304,674,598	289,687,054
Total liabilities and equity	472,427,512	470,275,369	464,400,398	464,249,592	457,280,518
Equity per common share (NT\$)	19.67	19.58	19.04	19.72	19.11
Earnings per common share (NT\$)	1.09	1.04	0.49	1.43	1.05
Earnings per common share (NT\$) <sup>14</sup>	-	1.04	0.49	1.43	1.03

<sup>14</sup> Recalculated using retroactively adjusted earnings and common shares after taking compensation paid to employees by shares and stock dividends into account.





## Five-Year Summary of Selected Financial Ratios and Percentages

		2017	2016	2015	2014	2013
Current ratio	(%)	113	144	110	127	125
Ratio of long-term liabilities and equity to property, plant and equipment	(%)	241	244	223	214	201
Total liabilities to total assets	(%)	36	36	37	34	37
Net profit ratio	(%)	8	10	5	11	8
Return on total assets	(%)	4	4	2	5	4
Return on equity	(%)	6	5	3	7	6
Revenue growth rate, year to year	(%)	22.60	4.98	(21.57)	2.21	(3.12)
Equity growth rate, year to year	(%)	0.48	2.80	(3.40)	5.18	5.00



# Analysis of Financial Status and Operating Results

## 1. Two-year analysis of flow ratios

		2017	2016	Increase (Decrease)(%)
Cash flow ratio	(%)	36	69	(48)
Cash flow adequacy ratio <sup>15</sup>	(%)	117	122	(4)
Cash reinvestment ratio	(%)	1.28	3.10	(59)

<sup>15</sup> Based on the data over the past five years.

### Analysis of the increase (decrease) of percentages:

1. The cash flow ratio: The 48% decrease in the cash flow ratio over the previous year was mainly attributable to the decrease in the net cash flow from the operation activities.
2. The appropriate cash flow ratio: The 4% decrease in the appropriate cash flow ratio over the previous year was mainly attributable to the decrease in the net cash flow from the operation activities.
3. The cash reinvestment ratio: The 59% decrease in the cash reinvestment ratio over the previous year was mainly attributable to the decrease in the net cash flow from the operation activities and the increase in the appropriation of cash dividends.

## 2. Analysis of operating results

1. The NT\$38,171,555 thousand increase in the operating revenue was mainly attributable to the increase of the unit sales prices of steel products.
2. The NT\$ 40,394,021 thousand increase in the operating costs was mainly attributable to the increase in the unit costs of steel products.
3. The NT\$2,222,466 thousand decrease in the gross profit was mainly attributable to the fact that the increase of the unit costs of steel products was more than that of the unit sales prices.
4. The NT\$531,708 thousand increase in the realized gain on transactions with subsidiaries and associates was mainly attributable to the fact that there were no engineering projects obtained from the subsidiaries, and that there was more increase in the unrealized profit margin of steel products sold to the subsidiaries in the previous year than that this year.
5. The NT\$184,658 thousand decrease in the operating expenses was mainly attributable to the decrease of professional service fees and other similar fees.
6. The NT\$1,506,100 thousand decrease in the operating income was mainly attributable to the causes in (1) ~ (5).
7. The NT\$1,993,553 thousand increase in the net non-operating income was mainly attributable to the increase of the share of profit from the subsidiaries and associates recognized under the equity method.
8. The NT\$487,453 thousand increase in the profit before income tax was mainly attributable to the causes in (1) ~ (7).
9. The NT\$867,219 thousand increase in the net income was mainly attributable to the increase in the profit before income tax, the causes of which were listed in (1) ~ (7), and the NT\$379,766 thousand decrease in income tax expenses.





## Terms and Conditions of Corporate Bonds

Issue	1st Unsecured Corporate Bonds-B Issue in 2011	1st Unsecured Corporate Bonds-A Issue in 2012	1st Unsecured Corporate Bonds-B Issue in 2012	1st Unsecured Corporate Bonds-A Issue in 2013	1st Unsecured Corporate Bonds-B Issue in 2013
Issue Date	From October 19, 2011 to October 19, 2018	From August 10, 2012 to August 10, 2019	From August 3, 2012 to August 3, 2022	From July 12, 2013 to July 12, 2020	From July 12, 2013 to July 12, 2023
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\$5,200 million	NT\$5,000 million	NT\$15,000 million	NT\$6,300 million	NT\$9,700 million
Coupon	1.57%	1.37%	1.50%	1.44%	1.60%
Maturity	Seven years	Seven years	Ten years	Seven years	Ten years
Trustee	Taipei Fubon Bank, Trust Department	Taipei Fubon Bank, Trust Department	Taipei Fubon Bank, Trust Department	Mega International Commercial Bank, Head Office-Trust Department	Mega International Commercial Bank, Head Office-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 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 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 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-C Issue in 2013	1st Unsecured Corporate Bonds-A Issue in 2014	1st Unsecured Corporate Bonds-B Issue in 2014	1st Unsecured Corporate Bonds-C Issue in 2014
Issue Date	From July 12, 2013 to July 12, 2028	From January 23, 2014 to January 23, 2021	From January 23, 2014 to January 23, 2024	From January 23, 2013 to January 23, 2029
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\$3,600 million	NT\$6,900 million	NT\$7,000 million	NT\$9,000 million
Coupon	1.88%	1.75%	1.95%	2.15%
Maturity	Fifteen years	Seven years	Ten years	Fifteen years
Trustee	Mega International Commercial Bank, Head Office-Trust Department	Taipei Fubon Bank,Trust Department	Taipei Fubon Bank,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
Auditor of the Issuer	Deloitte & Touche	Deloitte & Touche	Deloitte & Touche	Deloitte & Touche
Repayment	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.	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.





# Preferred Stocks

Items	Issuance date	Nov. 18, 1974	Jan. 31, 1980	Nov. 30, 1980	Dec. 31, 1981
	Face value (NT\$)		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 or supervisors			
	Others	Other rights and obligations are the same as those of the common shareholders.			
Preferred stock in circulation	Retrieved / converted shares	0 shares (2017 and the first three months of 2018)			
	Unretrieved / unconverted shares	38,267,999 shares (as of March 31, 2018)			
	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\$)	2014	High	43.80		
		Low	39.40		
		Average(closing)	41.35		
	2015	High	42.30		
		Low	36.70		
		Average(closing)	40.33		
	2016	High	41.85		
		Low	38.60		
		Average(closing)	40.50		
	2017	High	44.00		
		Low	41.55		
		Average(closing)	42.44		



# Issuance of Global Depository 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 Depository Agreement.			
Trustee		Not Applicable	Not Applicable	Not Applicable	Not Applicable
Depository 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		26,431,130shares (as of March 31, 2018)			
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 Depository Agreement & Custody Agreement		Omitted	Omitted	Omitted	Omitted
Closing price Per GDS(US\$)	2017	High	US\$ 17.12		
		Low	US\$ 15.16		
		Average	US\$ 16.38		





## Market Price of Stock over Past Three Years













(in NT\$ / share)

Stock	Price	2017	2016	2015
Common	Highest	26.40	25.90	26.75
	Lowest	23.65	17.05	16.75
	Average(closing)	24.92	21.80	22.77

Source of Information: Taiwan Stock Exchange Corporation



## Principal Products and Uses

Steel Product	Major Uses
 <b>Plates</b>	Shipbuilding, bridges, steel structures, oil country tubular goods (OCTGs), storage tanks, boilers, pressure vessels, die, truck chassis, general construction, etc.
 <b>Bars</b>	Nuts and bolts, hand tools, loudspeaker parts, automobile and motorcycle parts, suspension spring, bearing, machinery parts, free cutting rod, gear, polished bar, etc.
 <b>Wire rods</b>	Nuts and bolts, steel wire and rope, P. C. wire and strand, hand tools, welding electrodes, tire cord, bearing, free cutting rod, umbrella parts, polished bar, etc.
 <b>Hot rolled coils, plates and sheets</b>	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.
 <b>Cold rolled coils</b>	Steel pipes and tubes, steel furniture, kitchenware, home appliances, oil barrels, automobile panels and parts, enamelware, substrate for galvanized and coated steel sheets, hardware, etc.
 <b>Electro-galvanized coils</b>	Computer cases/parts and accessories, home appliance panels/parts and accessories, LCD TV back plates/parts, motor cases, construction materials, furniture hardware and components, motorcycle fuel tanks, etc.
 <b>Hot-dip galvanized coils</b>	Automobile panels and parts, home appliance panels/parts and accessories, computer cases/parts and accessories, PPGI substrate, construction materials, furniture hardware and components, etc.
 <b>Electrical steel coils</b>	EV Motors, compressors, home appliance motors, servomotors, industrial motors, machinery motors, generators, transformers, reactors, traditional ballast, etc.
Special Alloy Product	Major Uses
 <b>Ti-Ni Plates</b>	Storage tanks, pressure vessels, flanges, target material, high temperature furnace lined material, electronic equipment parts, bone plates, missile parts, aircraft, chemical resistant hooks, electrode plates, etc.
 <b>Ti-Ni Bars and Wire rods</b>	Nuts and bolts, glasses frame, valve, welding consumables, bone screw, guide template, transfer abutment, artificial root, spring, coke furnace rack, turbo fastener, etc.
 <b>Hot rolled Ti-Ni coils, plates and sheets</b>	Pressure vessels, electrode plates, high temperature furnace lined material, chemical tanks, flanges, electroplated Baskets, etc.
 <b>Cold rolled Ti-Ni coils and sheets</b>	Construction material, furniture and home appliances, heat exchangers, thermal reactors, flue pipes, kitchenware (cups, bowls, tableware), filters, etc.



## Three-Year Summary of Production and Sales Volumes

(in tons)

Product	Volume	2017	2016	2015
<b>Plates</b>	Production	870,478	953,060	920,472
	Sales	882,917	939,831	919,637
<b>Bars</b>	Production	616,330	572,621	552,941
	Sales	703,774	627,911	633,732
<b>Wire rods</b>	Production	1,318,994	1,294,015	1,184,045
	Sales	1,497,478	1,422,983	1,350,458
<b>Hot rolled steel products</b>	Production	2,389,443	2,301,603	2,024,285
	Sales	3,001,523	2,754,220	2,457,216
<b>Cold rolled steel products<sup>16</sup></b>	Production	3,419,413	3,291,372	3,105,005
	Sales	3,394,432	3,346,243	3,235,267
<b>Commercial slabs</b>	Production	103,690	637,410	265,863
	Sales	1,358,146	2,017,343	926,631
<b>Pig iron</b>	Production	10,909	9,875	6,816
	Sales	1,132	1,314	947
<b>Others<sup>17</sup></b>	Production	102,413	92,864	82,375
	Sales	6,155	25,266	4,456
<b>Total</b>	Production	8,831,670	9,152,820	8,141,802
	Sales	10,845,557	11,135,111	9,528,344

<sup>16</sup> Including electrogalvanized, hot-dip galvanized products and electrical steel coils

<sup>17</sup> Including alloy products, stainless steels, blooms, and billets



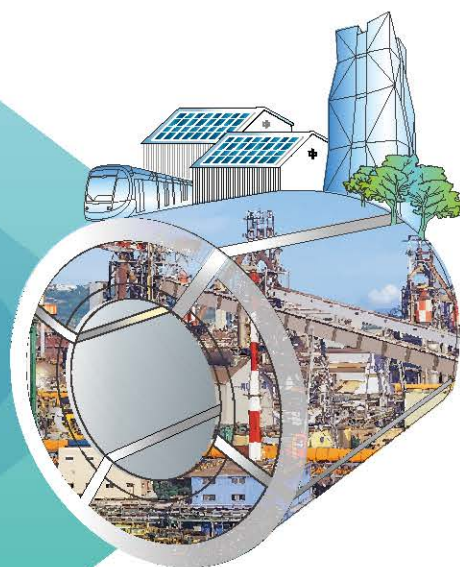
CHINA STEEL CORPORATION

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# STANDALONE FINANCIAL STATEMENTS

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for the Years Ended December 31, 2017 and 2016 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, 2017 and 2016, 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.

In our opinion, based on our audits and the report of other independent auditors (refer to other matter paragraph below), the accompanying standalone financial statements present fairly, in all material respects, the standalone financial position of the Corporation as of December 31, 2017 and 2016, 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. Based on our audits and the report of other independent auditors, 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, 2017. 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, 2017 are stated as follows:

#### Inventory Valuation

As of December 31, 2017, inventories of the Corporation amounted to NT\$48,024,231 thousand, representing 10% of the Corporation's total assets. Due to the drastic fluctuations in the prices of raw materials and finished goods in steel industry and inventory valuation involved critical accounting estimates, inventory valuation is deemed to be a key audit matter. Refer to Notes 4 and 10 to the Corporation's financial statements for the related accounting policies and disclosures of inventory valuation.



We focused on inventory valuation and the audit procedures we performed included:

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.

#### Valuation of Available-For-Sale Financial Assets - Formosa Ha Tinh (Cayman) Limited

As of December 31, 2017, through its subsidiary, China Steel Asia Pacific Holdings Pte Ltd., the Corporation invested in Formosa Ha Tinh (Cayman) Limited the amount of NT\$31,471,200 thousand, representing 7% of the Corporation's total assets. Such investment is unlisted investment. The Corporation hired an appraiser who composed the valuation report used as the basis for determining the fair value of the investment. The appraiser adopted income approach, and used as basis the income data of Formosa Ha Tinh Steel Corporation, a wholly - owned subsidiary of Formosa Ha Tinh (Cayman) Limited. The valuation model involved various assumptions and unobservable inputs, including the future profitability, the estimation of future cash flows, revenue growth rate, and rate of return to Formosa Ha Tinh Steel Corporation. As a result, the fair value of the investment in Formosa Ha Tinh (Cayman) Limited is deemed to be a key audit matter. Refer to Note 4 to the Corporation's financial statements for the related accounting policies on valuation of financial assets.

The audit procedures we performed included:

1. We assessed the professional qualifications, competence, objectivity and independence of the appraiser hired by the Corporation.
2. We discussed with the management the scope of work performed by the independent appraiser, reviewed the contract terms and conditions signed by the Corporation and the appraiser, and we identified no concerns over the appraiser's objectivity or any restriction imposed on the scope of the work.
3. We confirmed the valuation method the independent appraiser adopted is complied with IFRSs.
4. We reviewed the reasonableness of financial forecasts the independent appraiser adopted.

We also consulted our internal valuation experts in the assessment of the appropriateness of the appraisal and in verifying the key assumptions and the reasonableness of key inputs, including weighted average cost of capital and discount rate.

#### **Other Matter**

Certain investments accounted for using the equity method in the Corporation's financial statements as of December 31, 2016 and for the years ended December 31, 2017 and 2016 were based on financial statements audited by other independent auditors. Such investments accounted for using the equity method amounted to NT\$34,874,658 thousand, representing 7% of the Corporation's total assets, as of December 31, 2016, and the share of comprehensive income amounted to loss NT\$875,298 thousand and NT\$969,122 thousand, representing both 6% of the Corporation's total comprehensive income, for the years ended December 31, 2017 and 2016.

#### **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, 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, 2017 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 audit resulting in this independent auditors' report are Lee-Yuan Kuo and Cheng-Hung Kuo.

Deloitte & Touche  
Taipei, Taiwan  
Republic of China

March 28, 2018

#### 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. Also, as stated in Note 4 to the financial statements, the additional footnote disclosures that are not required under generally accepted accounting principles were not translated into English.*



# Standalone Balance Sheets

ASSETS	December 31, 2017		December 31, 2016	
	Amount	%	Amount	%
<b>CURRENT ASSETS</b>				
Cash and cash equivalents	\$ 2,923,910	1	\$ 2,477,746	1
Available-for-sale financial assets - current	111,603	-	780,716	-
Derivative financial assets for hedging - current	44,469	-	32,094	-
Notes receivable	681,901	-	472,193	-
Notes receivable - related parties	223,073	-	324,457	-
Accounts receivable, net	2,246,631	1	1,257,657	-
Accounts receivable - related parties	2,526,127	1	1,815,399	-
Other receivables	805,299	-	1,139,592	-
Other receivables - loans to related parties	7,356,950	2	7,211,809	2
Inventories	48,024,231	10	42,506,461	9
Other financial assets - current	6,869,408	1	6,622,457	2
Other current assets	1,889,815	-	818,410	-
<b>Total current assets</b>	<b>73,703,417</b>	<b>16</b>	<b>65,458,991</b>	<b>14</b>
<b>NONCURRENT ASSETS</b>				
Available-for-sale financial assets - noncurrent	16,418,690	3	15,551,376	3
Derivative financial assets for hedging - noncurrent	12,583	-	2,142	-
Debt investments with no active market - noncurrent	1,761,421	-	1,837,425	-
Investments accounted for using equity method	207,523,641	44	208,545,541	44
Property, plant and equipment	162,042,223	34	167,632,162	36
Investment properties	7,129,792	2	7,127,220	2
Intangible assets	44,810	-	54,785	-
Deferred tax assets	3,371,609	1	2,936,474	1
Refundable deposits	100,092	-	55,688	-
Other financial assets - noncurrent	319,234	-	1,073,565	-
<b>Total noncurrent assets</b>	<b>398,724,095</b>	<b>84</b>	<b>404,816,378</b>	<b>86</b>
<b>TOTAL</b>	<b>\$ 472,427,512</b>	<b>100</b>	<b>\$ 470,275,369</b>	<b>100</b>



(In Thousands of New Taiwan Dollars)

LIABILITIES AND EQUITY	December 31, 2017		December 31, 2016	
	Amount	%	Amount	%
<b>CURRENT LIABILITIES</b>				
Short-term borrowings and bank overdraft	\$ 10,722,766	2	\$ 8,851,509	2
Short-term bills payable	6,296,753	1	-	-
Derivative financial liabilities for hedging - current	20,674	-	8,965	-
Accounts payable	4,145,456	1	4,142,060	1
Accounts payable - related parties	1,813,858	-	969,388	-
Other payables	16,253,268	3	14,929,164	3
Current tax liabilities	2,103,954	1	1,529,584	-
Provisions - current	2,239,559	1	2,404,802	1
Current portion of bonds payable	7,698,974	2	5,199,253	1
Current portion of long-term bank borrowings	9,860,615	2	4,195,825	1
Other current liabilities	3,910,313	1	3,325,849	1
Total current liabilities	<u>65,066,190</u>	<u>14</u>	<u>45,556,399</u>	<u>10</u>
<b>NONCURRENT LIABILITIES</b>				
Derivative financial liabilities for hedging - noncurrent	8,112	-	6,904	-
Bonds payable	59,967,190	13	67,657,491	15
Long-term bank borrowings	20,653,020	5	32,950,349	7
Long-term bills payable	5,899,102	1	5,899,355	1
Deferred tax liabilities	10,715,281	2	10,799,579	2
Net defined benefit liabilities	6,048,974	1	4,785,826	1
Other noncurrent liabilities	59,580	-	59,580	-
Total noncurrent liabilities	<u>103,351,259</u>	<u>22</u>	<u>122,159,084</u>	<u>26</u>
Total liabilities	<u>168,417,449</u>	<u>36</u>	<u>167,715,483</u>	<u>36</u>
<b>EQUITY</b>				
Share capital				
Ordinary shares	157,348,610	33	157,348,610	33
Preference shares	382,680	-	382,680	-
Total share capital	<u>157,731,290</u>	<u>33</u>	<u>157,731,290</u>	<u>33</u>
Capital surplus	<u>38,211,082</u>	<u>8</u>	<u>37,807,466</u>	<u>8</u>
Retained earnings				
Legal reserve	61,538,216	13	59,934,379	13
Special reserve	27,655,869	6	29,786,846	6
Unappropriated earnings	20,033,060	4	17,196,041	4
Total retained earnings	<u>109,227,145</u>	<u>23</u>	<u>106,917,266</u>	<u>23</u>
Other equity	<u>7,372,935</u>	<u>2</u>	<u>8,680,706</u>	<u>2</u>
Treasury shares	( 8,532,389)	( 2)	( 8,576,842)	( 2)
Total equity	<u>304,010,063</u>	<u>64</u>	<u>302,559,886</u>	<u>64</u>
<b>TOTAL</b>	<u>\$ 472,427,512</u>	<u>100</u>	<u>\$ 470,275,369</u>	<u>100</u>



## Standalone Statements of Comprehensive Income

	For the Year Ended December 31			
	2017		2016	
	Amount	%	Amount	%
OPERATING REVENUES	\$ 207,098,630	100	\$ 168,927,075	100
OPERATING COSTS	<u>187,568,805</u>	<u>90</u>	<u>147,174,784</u>	<u>87</u>
GROSS PROFIT	19,529,825	10	21,752,291	13
REALIZED (UNREALIZED) GAIN ON TRANSACTIONS WITH SUBSIDIARIES AND ASSOCIATES	<u>147,162</u>	<u>-</u>	<u>( 384,546)</u>	<u>( 1)</u>
REALIZED GROSS PROFIT	<u>19,676,987</u>	<u>10</u>	<u>21,367,745</u>	<u>12</u>
OPERATING EXPENSES				
Selling and marketing expenses	2,836,946	1	2,725,816	2
General and administrative expenses	3,544,812	2	3,716,730	2
Research and development expenses	<u>1,720,185</u>	<u>1</u>	<u>1,844,055</u>	<u>1</u>
Total operating expenses	<u>8,101,943</u>	<u>4</u>	<u>8,286,601</u>	<u>5</u>
PROFIT FROM OPERATIONS	<u>11,575,044</u>	<u>6</u>	<u>13,081,144</u>	<u>7</u>
NON-OPERATING INCOME AND EXPENSES				
Other income	1,383,476	1	1,322,937	1
Other gains and losses	268,918	-	( 34,229)	-
Finance costs	( 1,919,054)	( 1)	( 1,990,052)	( 1)
Share of the profit of subsidiaries and associates	<u>7,212,280</u>	<u>3</u>	<u>5,653,411</u>	<u>3</u>
Total non-operating income and expenses	<u>6,945,620</u>	<u>3</u>	<u>4,952,067</u>	<u>3</u>
PROFIT BEFORE INCOME TAX	18,520,664	9	18,033,211	10
INCOME TAX EXPENSE	<u>1,615,076</u>	<u>1</u>	<u>1,994,842</u>	<u>1</u>
NET PROFIT FOR THE YEAR	<u>16,905,588</u>	<u>8</u>	<u>16,038,369</u>	<u>9</u>



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

	For the Year Ended December 31			
	2017		2016	
	Amount	%	Amount	%
OTHER COMPREHENSIVE INCOME (LOSS)				
Items that will not be reclassified subsequently to profit or loss				
Remeasurement of defined benefit plans	(\$ 1,179,124)	-	(\$ 657,109)	-
Share of the other comprehensive income of subsidiaries and associates	( 188,829)	-	( 298,416)	-
Income tax benefit relating to items that will not be reclassified subsequently to profit or loss	200,451	-	111,708	-
Items that may be reclassified subsequently to profit or loss				
Exchange differences on translating foreign operations	( 1,726,614)	( 1)	( 867,506)	( 1)
Unrealized gain and losses on available-for-sale financial assets	895,527	-	2,933,162	2
The effective portion of gains and losses on hedging instruments in a cash flow hedge	( 30,552)	-	( 69,360)	-
Share of the other comprehensive income of subsidiaries and associates	( 451,326)	-	( 1,251,789)	( 1)
Income tax benefit relating to items that may be reclassified subsequently to profit or loss	<u>5,194</u>	-	<u>11,791</u>	-
Other comprehensive loss for the year, net of income tax	( 2,475,273)	( 1)	( 87,519)	-
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	<u>\$ 14,430,315</u>	<u>7</u>	<u>\$ 15,950,850</u>	<u>9</u>
EARNINGS PER SHARE				
Basic	<u>\$ 1.09</u>		<u>\$ 1.04</u>	
Diluted	<u>\$ 1.09</u>		<u>\$ 1.03</u>	



# Standalone Statements of Changes in Equity

	Share Capital			Retained Earnings		
	Ordinary Shares	Preference Shares	Capital Surplus	Legal Reserve	Special Reserve	Unappropriated Earnings
BALANCE AT JANUARY 1, 2016	\$ 157,348,610	\$ 382,680	\$ 37,612,027	\$ 59,173,907	\$ 27,132,983	\$ 13,323,848
Appropriation of 2015 earnings						
Legal reserve	-	-	-	760,472	-	( 760,472)
Special reserve	-	-	-	-	2,654,116	( 2,654,116)
Cash dividends to ordinary shareholders - NT\$0.5 per share	-	-	-	-	-	( 7,867,430)
Cash dividends to preference shareholders - NT\$1.4 per share	-	-	-	-	-	( 53,575)
Reversal of special reserve	-	-	-	-	( 253)	253
Net profit for the year ended December 31, 2016	-	-	-	-	-	16,038,369
Other comprehensive income (loss) for the year ended December 31, 2016, net of income tax	-	-	-	-	-	( 843,817)
Total comprehensive income (loss) for the year ended December 31, 2016	-	-	-	-	-	15,194,552
Adjustment to capital surplus arising from dividends paid to subsidiaries	-	-	159,065	-	-	-
Adjustment from changes in equity of subsidiaries and associates	-	-	36,374	-	-	12,981
BALANCE AT DECEMBER 31, 2016	157,348,610	382,680	37,807,466	59,934,379	29,786,846	17,196,041
Appropriation of 2016 earnings						
Legal reserve	-	-	-	1,603,837	-	( 1,603,837)
Reversal of special reserve	-	-	-	-	( 2,130,614)	2,130,614
Cash dividends to ordinary shareholders - NT\$0.85 per share	-	-	-	-	-	( 13,374,632)
Cash dividends to preference shareholders - NT\$1.4 per share	-	-	-	-	-	( 53,575)
Reversal of special reserve	-	-	-	-	( 363)	363
Net profit for the year ended December 31, 2017	-	-	-	-	-	16,905,588
Other comprehensive income (loss) for the year ended December 31, 2017, net of income tax	-	-	-	-	-	( 1,167,502)
Total comprehensive income (loss) for the year ended December 31, 2017	-	-	-	-	-	15,738,086
Purchase of the Corporation's shares by subsidiaries	-	-	-	-	-	-
Disposal of the Corporation's shares held by subsidiaries	-	-	28,066	-	-	-
Adjustment to capital surplus arising from dividends paid to subsidiaries	-	-	267,245	-	-	-
Adjustment from changes in equity of subsidiaries and associates	-	-	108,305	-	-	-
BALANCE AT DECEMBER 31, 2017	\$ 157,348,610	\$ 382,680	\$ 38,211,082	\$ 61,538,216	\$ 27,655,869	\$ 20,033,060



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

**Other Equity**

Exchange Differences on Translating Foreign Operations	Unrealized Gains and Losses on Available-for-sale Financial Assets	The Effective Portion of Gains and Losses on Hedging Instruments in a Cash Flow Hedge	Total Other Equity	Treasury Shares	Total Equity
\$ 1,198,796	\$ 6,573,348	\$ 152,264	\$ 7,924,408	(\$ 8,577,644)	\$ 294,320,819
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	( 7,867,430)
-	-	-	-	-	( 53,575)
-	-	-	-	-	-
-	-	-	-	-	16,038,369
( 1,230,844)	2,077,225	( 90,083)	756,298	-	( 87,519)
( 1,230,844)	2,077,225	( 90,083)	756,298	-	15,950,850
-	-	-	-	-	159,065
-	-	-	-	802	50,157
( 32,048)	8,650,573	62,181	8,680,706	( 8,576,842)	302,559,886
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	( 13,374,632)
-	-	-	-	-	( 53,575)
-	-	-	-	-	-
-	-	-	-	-	16,905,588
( 2,078,545)	964,290	( 193,516)	( 1,307,771)	-	( 2,475,273)
( 2,078,545)	964,290	( 193,516)	( 1,307,771)	-	14,430,315
-	-	-	-	( 19,595)	( 19,595)
-	-	-	-	64,048	92,114
-	-	-	-	-	267,245
-	-	-	-	-	108,305
<u>(\$ 2,110,593)</u>	<u>\$ 9,614,863</u>	<u>(\$ 131,335)</u>	<u>\$ 7,372,935</u>	<u>(\$ 8,532,389)</u>	<u>\$ 304,010,063</u>



## Standalone Statements of Cash Flows

	<b>For the Year Ended December 31</b>	
	<b>2017</b>	<b>2016</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Profit before income tax	\$ 18,520,664	\$ 18,033,211
Adjustments for:		
Depreciation	17,394,877	18,409,717
Amortization	9,975	10,951
Finance costs	1,919,054	1,990,052
Interest income	( 146,636)	( 124,145)
Dividend income	( 335,909)	( 350,156)
Share of profit of subsidiaries and associates	( 7,212,280)	( 5,653,411)
Loss on disposal of property, plant and equipment	9,721	21,862
Gain on disposal of investments	( 771,464)	( 603,519)
Impairment loss recognized on financial assets	532,792	488,299
Impairment loss recognized on nonfinancial assets	40,311	-
Reversal of loss on inventories	( 551,871)	( 2,919,280)
Unrealized (realized) gain on the transactions with subsidiaries and associates	( 147,162)	384,546
Recognition of provisions	7,190,968	7,252,605
Others	49,800	4,461
Changes in operating assets and liabilities		
Notes receivable	( 209,708)	( 28,817)
Notes receivable - related parties	101,384	( 126,058)
Accounts receivable	( 988,974)	( 354,531)
Accounts receivable - related parties	( 710,728)	( 1,128,653)
Other receivables	321,472	( 516,076)
Inventories	( 4,988,766)	( 1,913,314)
Other current assets	( 1,071,405)	170,378
Accounts payable	3,396	2,084,866
Accounts payable - related parties	844,470	611,935
Other payables	1,377,976	2,647,544
Provisions	( 7,356,211)	( 6,547,481)
Other current liabilities	584,464	382,509
Net defined benefit liabilities	84,024	71,415
Other noncurrent liabilities	-	340
Cash generated from operations	<u>24,494,234</u>	<u>32,299,250</u>
Income taxes paid	( 1,355,517)	( 821,131)
Net cash generated from operating activities	<u>23,138,717</u>	<u>31,478,119</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Acquisition of available-for-sale financial assets	-	( 193,268)
Proceeds from disposal of available-for-sale financial assets	841,250	649,443
Proceeds from the capital reduction on available-for-sale financial assets	1,284	2,267
Proceeds from the capital reduction on investment accounted for using equity method	-	999,968



(In Thousands of New Taiwan Dollars)

	<b>For the Year Ended December 31</b>	
	<b>2017</b>	<b>2016</b>
Acquisition of investments accounted for using equity method	( \$ 779,498)	( \$ 11,426,350)
Acquisition of property, plant and equipment	( 11,701,039)	( 10,152,877)
Proceeds from disposal of property, plant and equipment	419	-
Increase in refundable deposits	( 44,404)	( 11,605)
Increase in other receivables - loans to related parties	( 145,141)	( 1,321,809)
Decrease (increase) in other financial assets	466,929	( 941,687)
Interest received	144,903	124,587
Dividends received from subsidiaries and associates	4,963,105	4,993,852
Other dividends received	350,463	335,602
Net cash used in investing activities	<u>( 5,901,729)</u>	<u>( 16,941,877)</u>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>		
Proceeds from short-term borrowings	17,971,900	15,500,000
Repayments of short-term borrowings	( 16,590,000)	( 16,725,401)
Increase in share-term bills payable	122,646,753	142,052,986
Decrease in short-term bills payable	( 116,350,000)	( 154,900,000)
Proceeds from long-term bills payable	-	5,899,355
Repayments of bonds payable	( 5,200,000)	( 4,650,000)
Proceeds from long-term borrowings	-	14,817,064
Repayments of long-term borrowings	( 4,242,113)	( 10,139,862)
Dividends paid	( 13,428,207)	( 7,911,996)
Interest paid	( 2,088,514)	( 2,129,360)
Net cash used in financing activities	<u>( 17,280,181)</u>	<u>( 18,187,214)</u>
<b>NET DECREASE IN CASH AND CASH EQUIVALENTS</b>	<b>( 43,193)</b>	<b>( 3,650,972)</b>
<b>CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE YEAR</b>	<b><u>872,415</u></b>	<b><u>4,523,387</u></b>
<b>CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR</b>	<b><u>\$ 829,222</u></b>	<b><u>\$ 872,415</u></b>
<b>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, 2017 and 2016:</b>		
Cash and cash equivalents in the standalone balance sheets	\$ 2,923,910	\$ 2,477,746
Bank overdraft	( 2,094,688)	( 1,605,331)
Cash and cash equivalents in the standalone statements of cash flows	<u>\$ 829,222</u>	<u>\$ 872,415</u>



# Ownership of Subsidiaries and Other Equity Interests

(December 31, 2017)

Companies	Amount (NT\$,1,000)	Ownership (%)
<b>Investments Accounted for using Equity Method</b>		
<b>Investments in Subsidiaries</b>		
<b>Listed companies</b>		
Chung Hung Steel Corporation	4,886,391	41
China Steel Chemical Corporation	1,955,790	29
China Steel Structure Corporation	1,358,447	33
China Ecotek Corporation	1,201,380	45
CHC Resources Corporation	776,888	20
Less : Shares held by subsidiaries accounted for as treasury stock	2,036,818	
<b>Subtotal</b>	<b>8,142,078</b>	
<b>Unlisted companies</b>		
Dragon Steel Corporation	101,500,932	100
China Steel Asia Pacific Holdings Pte Ltd.	36,127,072	100
China Steel Australia Holdings Pty Ltd.	15,753,650	100
China Steel Express Corporation	11,129,193	100
C. S. Aluminum Corporation	8,696,161	100
Gains Investment Corporation	7,040,641	100
China Steel Sumikin Vietnam Joint Stock Company	6,896,002	56
China Prosperity Development Corporation	3,695,653	100
China Steel Corporation India Pvt Ltd.	2,228,405	100
China Steel Global Trading Corporation	2,111,723	100
Kaohsiung Rapid Transit Corporation <sup>18</sup>	1,312,936	43
China Steel Resources Corporation	994,103	100
China Steel Machinery Corporation	956,927	74
CSC Precision Metal Industrial Corporation	842,328	100
InfoChamp Systems Corporation	756,401	100
White Biotech Corporation	722,626	87
CSC Solar Corporation	657,994	55
China Steel Security Corporation	529,945	100
Hi-mag Magnetic Corporation	390,505	69
China Steel Management Consulting Corporation	16,606	100
Less : Shares held by subsidiaries accounted for as treasury stock	6,495,571	
<b>Subtotal</b>	<b>195,864,232</b>	
<b>Investments in Associates</b>		
<b>Unlisted companies</b>		
Taiwan Rolling Stock Co., Ltd.	1,194,880	48
Honley Auto Parts Co., Ltd.	655,653	38
Kaohsiung Arena Development Corporation <sup>19</sup>	500,091	18
Eminent II Venture Capital Corporation	435,370	46
Hsin Hsin Cement Enterprise Corp.	361,293	31
Dyna Rechi Co., Ltd.	305,297	25
Overseas Investment & Development Corp.	50,326	6
TaiAn Technologies Corporation <sup>20</sup>	14,421	17



Companies	Amount (NT\$1,000)	Ownership (%)
Subtotal	3,517,331	
Total	207,523,641	
<b>Available-For-Sale Financial Assets-Noncurrent</b>		
<b>Domestic investments</b>		
<b>Listed shares</b>		
Taiwan High Speed Rail Corporation	5,690,478	4
Tang Eng Iron Works Co., Ltd.	1,403,453	9
Reichi Precision Co., Ltd.	659,008	5
CSBC Corporation Taiwan	208,085	2
O-Bank Co., Ltd.	925,283	4
Subtotal	8,886,307	
<b>Emerging market shares and unlisted equity securities</b>		
CDIB Partners Investment Holding Corporation	805,210	5
CDIB BioScience Ventures I, Inc.	11,154	5
Mega I Venture Capital Co., Ltd.	2,006	3
Phalanx Biotech Group	3,224	2
Subtotal	821,594	
<b>Foreign investments</b>		
<b>Listed shares</b>		
Maruichi Steel Tube Ltd.	1,743,720	2
Yodogawa Steel Works, Ltd.	368,823	1
Subtotal	2,112,543	
<b>Unlisted equity securities</b>		
CSN Mineracao S.A.	2,616,509	0
Dongbu Metal Co., Ltd.	0	4
Sakura Ferroalloys Sdn Bhd	1,583,085	19
Sakura Ferroalloys Sdn Bhd – Preferred	398,652	19
Subtotal	4,994,765	
Total	15,551,376	
<b>Bond Investments with no Active Market</b>		
<b>Unlisted preference shares – overseas</b>		
East Asia United Steel Corp.- Preferred A	1,761,421	19
Total	1,761,421	
Total	224,836,438	

<sup>18</sup> The Corporation's total equity in Kaohsiung Rapid Transit Corporation is 50%, including 43% directly owned and 7% indirectly owned through United Steel Engineering and Construction Corporation and China Prosperity Development Corporation and InfoChamp Systems Corporation and China Steel Security Corporation.

<sup>19</sup> 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.

<sup>20</sup> The Corporation's total equity in TaiAn Technologies Corporation is 22%, including 17% directly owned and 5% indirectly owned through China Steel Chemical Corporation.



# Businesses and Addresses of Main Subsidiaries

(as of March 31, 2018)

## SUBSIDIARIES



### C. S. Aluminium Corporation

Chairman: L. C. Pan  
President: S. M. Lan  
Main business: aluminum products  
Address: 17 Tong Lin Road, Hsiao Kang District, Kaohsiung City 81260, Taiwan, R.O.C.  
Tel: 886-7-871-8666  
Fax: 886-7-872-1852  
CSC Ownership: 99.98%



### CHC Resources Corporation

Chairman: C. T. Charng  
President: P. H. Tsai  
Main businesses: pulverized blast furnace slag and slag cement  
Address: 22F. No.88, Chenggong 2nd Rd., Qianzhen District, Kaohsiung City 80661, Taiwan, R.O.C.  
Tel: 886-7-336-8377  
Fax: 886-7-336-8433  
CSC Ownership: 19.83%



### China Steel Express Corporation

Chairman: C. L. Wu  
President: Y. J. Lai  
Main businesses: marine cargo transportation; chartering of vessels; and shipping agency  
Address: 24F. No.88, Chenggong 2nd Rd., Qianzhen District, Kaohsiung City 80661, 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: R. Q. Chen  
Main businesses: engineering, design and construction of environmental protection installations  
Address: 8F. No.88, Chenggong 2nd Rd., Qianzhen District, Kaohsiung City 80661, Taiwan, R.O.C.  
Tel: 886-7-330-6138  
Fax: 886-7-339-4016  
CSC Ownership: 44.76%



### China Steel Chemical Corporation

Chairman: H. N. Lin  
President: C. M. Lee  
Main business: coal tar chemicals  
Address: 25F. No.88, Chenggong 2nd Rd., Qianzhen District, Kaohsiung City 80661, 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. P. Chen  
President: J. M. Lin  
Main businesses: steel structures, construction  
Address: No.500, Zhongxing Rd., Yanchao District, Kaohsiung City 824, Taiwan, R.O.C.  
Tel: 886-7-616-8688  
Fax: 886-7-616-8680  
CSC Ownership: 33.24%



### China Steel Global Trading Corporation

Chairman: S. M. Lee  
President: Y. K. Lin  
Main businesses: import / export  
Address: 10F. No.88, Chenggong 2nd Rd., Qianzhen District, Kaohsiung City 80661, Taiwan, R.O.C.  
Tel: 886-7-332-2168  
Fax: 886-7-335-6411  
CSC Ownership: 100%



### Chung Hung Steel Corporation

Chairman: Y. C. Han  
President: T. C. Lee  
Main business: hot rolled and cold rolled steel products, steel pipes  
Address: 317 Yu-Liao Road, Chiao Tou District, Kaohsiung City 82544, Taiwan, R.O.C.  
Tel: 886-7-611-7171  
Fax: 886-7-611-0594  
CSC Ownership: 40.59%





## China Steel Machinery Corporation

Chairman: C. C. Cheng  
 President: K. C. Wu  
 Main businesses: machinery manufacturing  
 Address: 3 Taichi Road, Hsiao Kang District, Kaohsiung City 81246, Taiwan, R.O.C.  
 Tel: 886-7-802-0111  
 Fax: 886-7-806-3833  
 CSC Ownership: 73.97%



## InfoChamp Systems Corporation

Chairman: C. H. Liang  
 President: E. L. Keo  
 Main business: information system planning (ERP) and automatic control systems  
 Address: 19F. No.88, Chenggong 2nd Rd., Qianzhen District, Kaohsiung City 80661, Taiwan, R.O.C.  
 Tel: 886-7-535-0101  
 Fax: 886-7-535-0110  
 CSC Ownership: 100%



## Gains Investment Corporation

Chairman: M. H. Wu  
 President: P. C. Huang  
 Main business: hi-tech investments  
 Address: 26F. No.88, Chenggong 2nd Rd., Qianzhen District, Kaohsiung City 80661, Taiwan, R.O.C.  
 Tel: 886-7-338-2288  
 Fax: 886-7-338-7110  
 CSC Ownership: 100%



## China Steel Management Consulting Corporation

Chairman: Y. T. Liang  
 President: H. J. Tseng  
 Main business: management consulting  
 Address: 1 Chung Kang Road, Hsiao Kang District, Kaohsiung City 81233, Taiwan, R.O.C.  
 Tel: 886-7-805-1088  
 Fax: 886-7-803-7819  
 CSC Ownership: 100%



## China Steel Security Corporation

Chairman: J. S. Yeh  
 President: K. Y. Wu  
 Main businesses: security services and systems  
 Address: 17F, 247 Ming Sheng 1st Road, Hsin Hsing District, Kaohsiung City 80046, Taiwan, R.O.C.  
 Tel: 886-7-229-9678  
 Fax: 886-7-226-4078  
 CSC Ownership: 99.96%



## HIMAG Magnetic Corporation

Chairman: C. M. Hsu  
 President: C. T. Chen  
 Main business: magnetic materials and specific chemicals  
 Address: 24-1 Chien Kuo Road, Nei Pu Industrial Park, Pingtung County 91252, 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: Y. G. Hsu  
 Main businesses: real estate development and investments  
 Address: 23F. No.88, Chenggong 2nd Rd., Qianzhen District, Kaohsiung City 80661, Taiwan, R.O.C.  
 Tel: 886-7-536-2500  
 Fax: 886-7-536-2413  
 CSC Ownership: 100%



## Dragon Steel Corporation

Chairman: S. C. Wang  
 President: D. S. Chen  
 Main business: hot-rolled steel products  
 Address: No.100, Longchang Road, Longjing District, Taichung City 43445, Taiwan, R.O.C.  
 Tel: 886-4-2630-6088  
 Fax: 886-4-2630-6066  
 CSC Ownership: 100%



## Businesses and Addresses of Main Subsidiaries

(as of March 31, 2018)



### China Steel Resources Corporation

Chairman: C. T. Chang  
 Main business: desulfurization slag recycling.  
 Address: No.38, Yanhai 3rd Rd., Hsiao Kang District,  
 Kaohsiung City 81264, Taiwan, R.O.C.  
 Tel: 886-7-802-1111#6262  
 Fax: 886-7-805-1529  
 CSC Ownership: 100%



### CSC Precision Metal Industrial Corporation

Chairman: J. Y. Lee  
 Main business: steel rolling, extrusion, post-processing.  
 Address: 28F, No.88, Chenggong 2nd Rd., Qianzhen  
 District, Kaohsiung City 80661, Taiwan, R.O.C.  
 Tel: 886-7-802-1111#2766  
 Fax: 886-7-805-1296  
 CSC Ownership: 100%



### CSC Steel Sdn. Bhd.<sup>21</sup>

Managing Director: I. H. Lee  
 Main business: cold rolled 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 Sumikin Vietnam Joint Stock Co.

Chairman & President: C. S. Chen  
 Main business: cold rolled steel products  
 Address: MY XUAN A2 INDUSTRIAL ZONE, MY XUAN  
 COMMUNE, TAN THANH DISTRICT, BA RIA-  
 VUNG TAU PROVINCE, VIETNAM  
 Tel: 84-64-3931168  
 Fax: 84-64-3932188  
 CSC Ownership: 56%



### Changzhou China Steel Precision Materials Corporation<sup>21</sup>

Chairman: J. L. Lee  
 President: T. L. Chang  
 Main business: pure titanium, titanium alloy, nickel alloy,  
 mold steel  
 Address: No.18, Changyang Road, Wujin Economic  
 Development Zone, Changzhou, Jiangsu  
 Province, China  
 Tel: 86-519-89610128  
 Fax: 86-519-89616098  
 CSC Ownership: 70%



### China Steel Corporation India Pvt. Ltd.

Chairman: C. C. Hwang  
 President: K. S. Tseng  
 Main business: electrical steel coils  
 Address: Office No. 204, 2nd Floor, Iscon Atria, Tower-2,  
 Gotri Road, Vadodara, Gujarat- 390021, India  
 Tel: 91-922-7989880  
 CSC Ownership: 100%



### Qingdao China Steel Precision Metals Co., Ltd.<sup>21</sup>

Chairman: Y. K. Lin  
 President: P. C. Chang  
 Main business: Metal materials and products, car  
 accessories, customized metal processing.  
 Address: 3F, No.500, Fenjin Road, Economic &  
 Technological District, Qingdao City, Shandong,  
 CHINA  
 Tel: 86-532-58718558  
 CSC Ownership: 60%



### China Steel Precision Metals Kunshan Co., Ltd.<sup>21</sup>

Chairman: Y. K. Lin  
 President: S. H. Liou  
 Main business: Metal materials and products, car  
 accessories, customized metal processing  
 Address: No.168, Shuanghua Road, Huaqiao Economic  
 Development Area, Jiangsu, CHINA  
 Tel: 86-512-57601373  
 CSC Ownership: 80%





## CSC Solar Coporation

Chairman: R.Q.Chen

President: S. T. Lin

Main business: Solar power generation

Address: 9F. No.88, Chenggong 2nd Rd., Qianzhen  
District, Kaohsiung City 80661, Taiwan, R.O.C.

Tel: 886-7- 333-6138

Fax: 886-7-536-2955

CSC Ownership: 60%

<sup>21</sup> China Steel Corporation's investment is through  
China Steel Asia Pacific Holdings Pte. Ltd.



#### Head Office

1, Chung Kang Rd., Hsiao Kang, Kaohsiung 81233, Taiwan, Republic of China

Tel: 886-7-802-1111

Fax: 886-7-537-3570

Web-site: <http://www.csc.com.tw>

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Fax: 886-7-537-3570

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1F, Osaka U2 Bldg., 4-7 Uchihonmachi 2-Chome, Chuoku, Osaka 540-0026, Japan

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