



# 2016

OPERATION  
REPORT



CHINA STEEL



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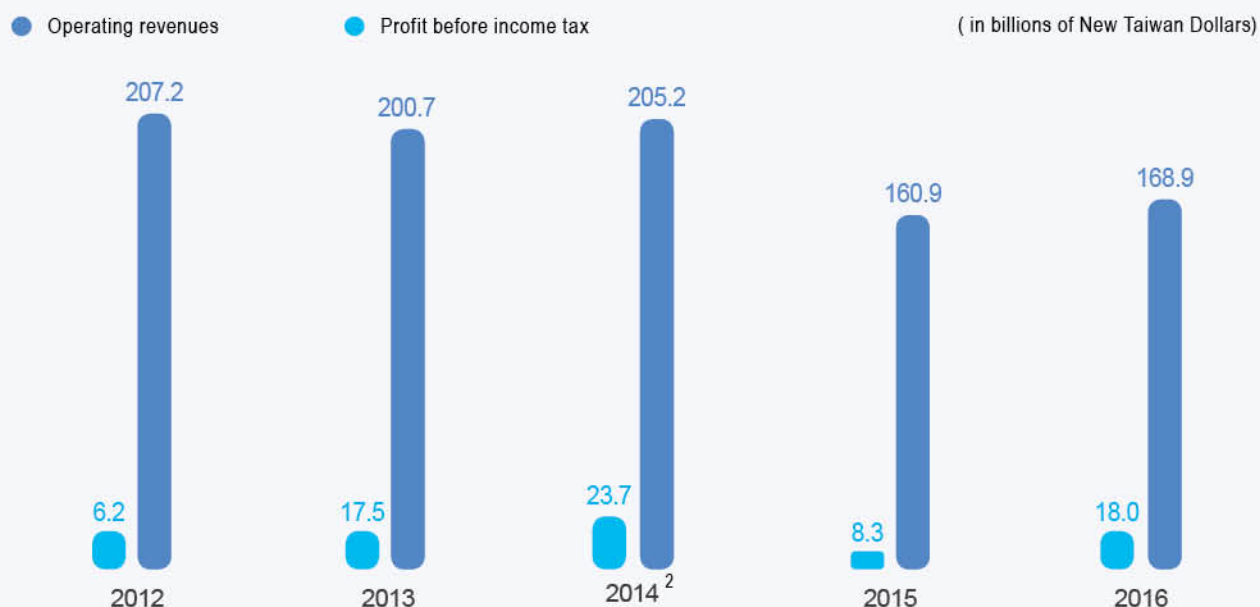
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# Highlights of Operating Results

## Operating Revenue and Profit before income tax<sup>1</sup>



<sup>1</sup> Starting from 2013, the financial statements were compiled according to the IFRSs (IFRS, IAS, IFRIC Interpretations, and SIC Interpretations). The 2012 financial statements were recompiled retroactively.

<sup>2</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.

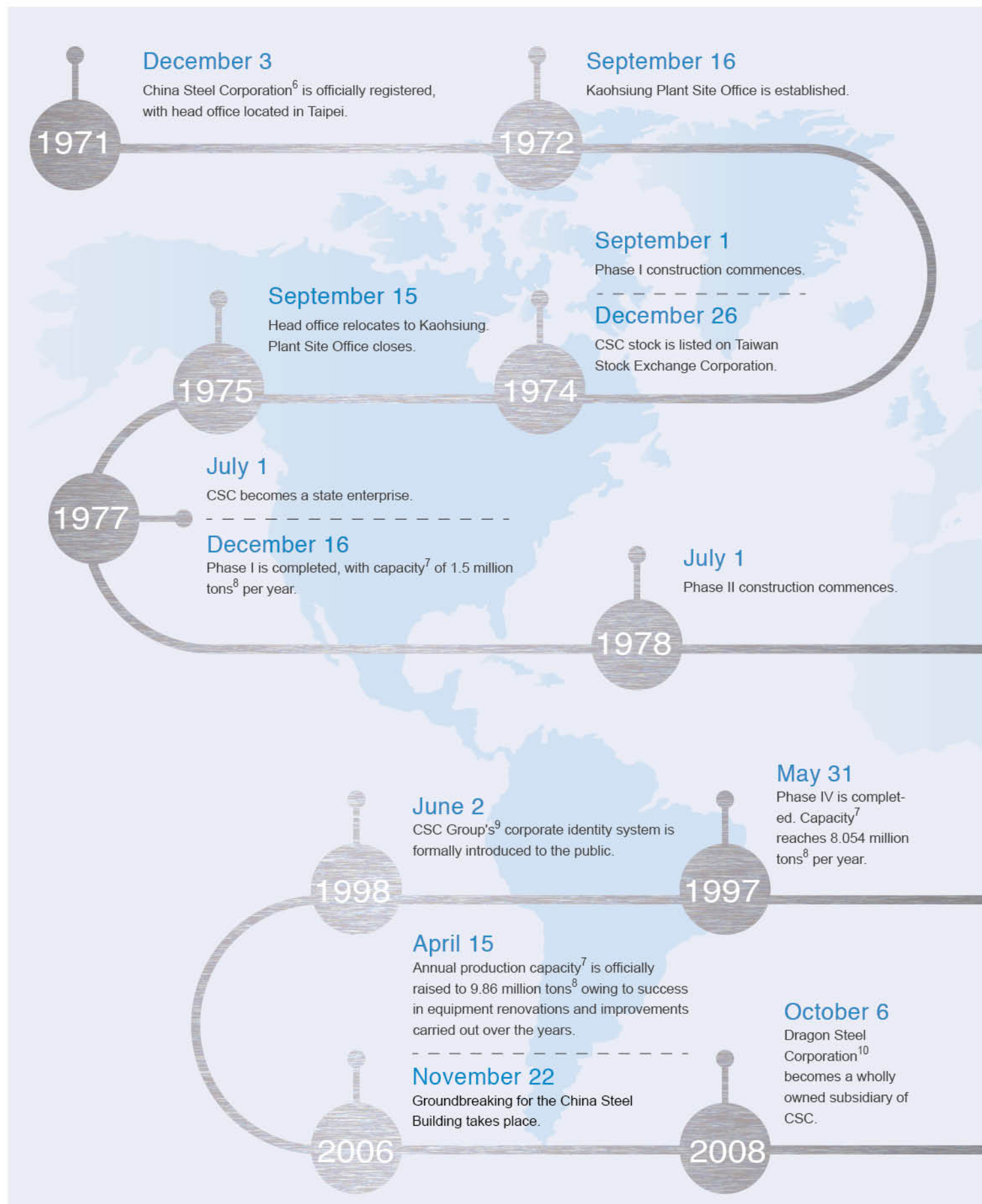
	2016	2015
Operating revenues (Millions of New Taiwan Dollars)	168,927	160,909
Operating costs and expenses	155,461	155,981
Profit from operations	13,081	5,154
Profit before income tax	18,033	8,316
Employment costs <sup>3</sup>	19,341	17,174
Depreciation	18,410	18,599
Interest expenses net <sup>3</sup>	1,866	1,720
Total assets	470,275	464,400
Capital expenditures	10,607	8,948
Equity	302,560	294,321
Output of steel products (Thousands of metric tons)	9,153	8,142
Sales volume of steel products	11,135	9,528
Number of employees <sup>4</sup>	10,280	10,251
Return on sales (%)	10.68	5.17
Return on equity <sup>5</sup>	5.37	2.54

<sup>3</sup> Excluding capital expenditures

<sup>4</sup> As of the end of the calendar year

<sup>5</sup> Based on net income

# Chronology of Major Events





<sup>6</sup> Hereinafter also referred to as "the Corporation", "the Company" or "CSC".

<sup>7</sup> In terms of crude steel.

<sup>8</sup> All references to "tons" mean metric tons of 1,000 kilograms.

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

<sup>10</sup> Hereinafter also referred to as "DSC".

1982

**June 30**

Phase II is completed. Capacity<sup>7</sup> reaches 3.25 million tons<sup>8</sup> per year.

1984

**July 1**

Phase III construction commences.

1988

**April 30**

Phase III is completed. Capacity<sup>7</sup> reaches 5.652 million tons<sup>8</sup> per year.

1995

**April 12**

CSC is privatized.

1993

**July 15**

Phase IV construction commences.

2010

**June 30**

DSC's stage II phase 1 expansion project is completed. CSC Group's<sup>9</sup> capacity<sup>7</sup> reaches 13.36 million tons<sup>8</sup> per year.

2013

**March 5**

DSC's stage II phase 2 expansion project is completed. CSC Group's<sup>9</sup> capacity<sup>7</sup> reaches 15.86 million tons<sup>8</sup> per year.

**October 22**

China Steel Building is inaugurated.



# 1 An Overview of the Business Situation

2016

**Net Profit  
Growth Rate**



**110.90%**

The major issues that the international steel industry faced in 2016 were:

- (1) The global economy was stable. On January 16, 2017, the International Monetary Fund (IMF) published the 2016 global economic growth rate to be 3.1%, which was decreased in comparison with that of 2015 (3.2%).
- (2) There was a recovery in the global steel demand. On April 21, 2017, World Steel Association (worldsteel) published the statistics that the global apparent use of finished steel in 2016 was 1.515 billion metric tons, which was increased by 1.0% in comparison with that of 2015.
- (3) Global steel production returned to a growing mode. worldsteel also published on January 24, 2017 that the global crude steel production for 2016 was 1.629 billion metric tons, which was increased by 0.8% in comparison with that of 2015.



Chairman

**Chao-Tung Wong**

*Chao-Tung Wong*

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

- (1) The economic prospect for the steel industry was booming. On February 15, 2017, the Directorate General of Budget, Accounting and Statistics (DGBAS) published the 2016 economic growth rate in Taiwan to be 1.5%, which was increased in comparison with that of 2015 (0.72%). As the economic condition of the steel industry simmered in the fourth quarter, there was a growth of 7.66 % in the manufacturing production index.
- (2) The demand of steel remained stable. According to the statistics published by worldsteel, there was a 4.4% increase of the apparent use of finished steel in Taiwan in 2016 in comparison with that of 2015.
- (3) Profits were subject to the fluctuations of international raw material prices. The bouncing back of the prices of iron ore, coking coal, etc. made it difficult for steel mills to keep their operating and production costs down.

CSC's 2016 operating revenue amounted to NT\$168.927 billion, which was 4.98% more than that of 2015 mainly owing to the increase of sales of steel products. Gross profit in 2016 was NT\$21.752 billion, which was 75.45% more than that of 2015 mainly owing to the fact that the decrease of the unit costs of steel products was more than that of the unit prices. The non-operating income in 2016 was NT\$4.952 billion, which was 56.61% more than that of 2015 and mainly attributable to the increase of the share of the profits from the subsidiaries and affiliates recognized under the equity method. Net profit in 2016 amounted to NT\$16.038 billion, which was 110.90% more than that of 2015.



President

Jih-Gang Liu

A handwritten signature in black ink, which appears to read "J. G. Liu".



### CSC's 2016 operating directives included the following key points:

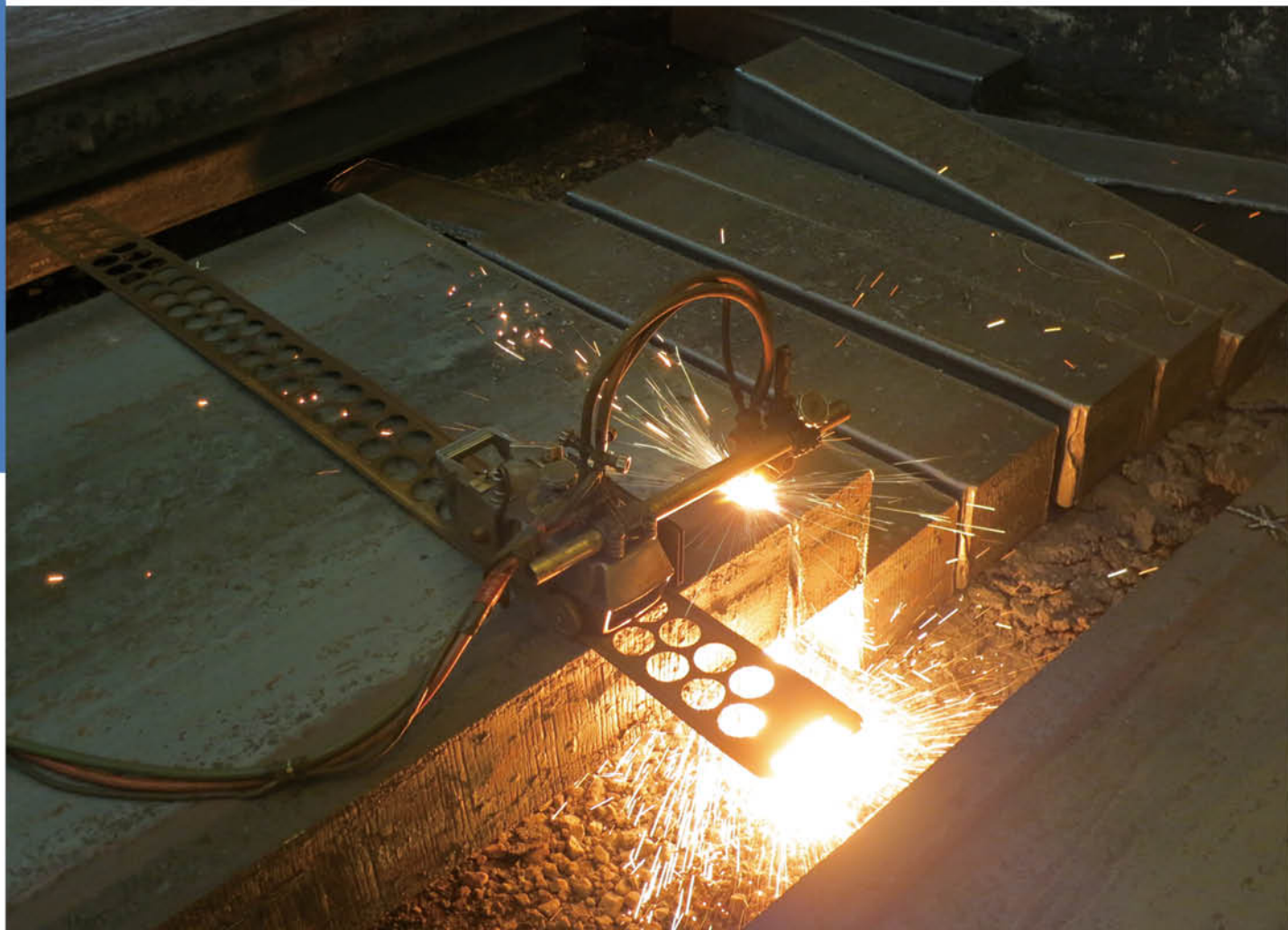
- (1) Diversified planning to boost profits: Distribution channels were explored proactively to secure customers and establish stable sales channels. The output of steel products in 2016 reached 11.13 million metric tons.
- (2) Advancement of the steel business by reducing costs: The development of high-grade and strategic steel products was continued. The orders for high-grade steel products amounted to 6.338 million metric tons, which translated to 56.04% of the total orders. Furthermore, various enhancement projects were carried out to control costs. The cost reduction campaign was a major measure in response to the current operating environment. A total of NT\$4.05 billion was saved in 2016, which reached the annual target rate of 107%.
- (3) Formation of industrial alliances to strengthen competitiveness: Technological R&D was focused to expedite the development of strategic steel products, enhance the comparative advantage of product differentiation, and strengthen CSC's capabilities in the special alloy industry and the overall competitiveness of the upstream and downstream steel industry chain.
- (4) Being dominant in the light rail and wind power industries by integrating CSC's engineering capabilities: The Project of the Danhai Light Rail Transit System, the Project of the Circular Line (KMRT), and the Ankeng Light Rail Project would be expanded. The formation of the alliance of domestically produced offshore turbine components was completed.

The IMF predicted the 2017 global economic growth rate to be 3.4%. The prospect of the advanced economies has improved; however, that of the emerging markets and developing economies has relatively worsened. The Directorate General of Budget, Accounting and Statistics (DGBAS) also predicted the 2017 economic growth rate in Taiwan to be 1.92%. In terms of steel demand, worldsteel predicted that the global steel demand in 2017 would increase by 0.8%. In terms of steel supply, World Steel Dynamics (WSD) predicted on February 28, 2017 that global crude steel production would reach 1.632 billion metric tons, which was 0.3% more than that of 2016. It revealed that some steel mills would increase their production due to the rise in steel prices, which had made up for the lagged output due to the elimination of steel mills in mainland China in recent years. Although the operational environment of the international steel industry remains optimistic on a cautious basis, it is likely that supply will surpass demand again, which will result in competition with price cuts, occurrences of vehement global trade protection measures, and risks in restraining the expansion of export markets.

To enhance long-term competitiveness, CSC has mapped out its 2017-2021 operation and development strategies for the steel business as follows: (1) To pass down corporate culture, implement career planning, create LOHAS environment, and promote image of CSC Group, (2) To improve customer lean service, strengthen strategic partnerships, solidify domestic market, and expand sales channels of export, (3) To integrate resources of CSC Group, map out green industries, investigate in deep-processing fields, and increase self-sufficiency ratio of raw materials, (4) To research and develop advanced products, materials for defensive, applied technology, and green processes for increasing chain value of steel industry, (5) To enhance engineering capabilities of CSC Group, develop green and rail businesses carefully, and expand engineering business proactively, (6) To expand supply of CSC Group's products, reduce cost continuously, elaborate on energy saving and environmental protection, strengthen occupational safety and health, and increase industry chain value with intelligent manufacturing and improving services of industry 4.0.

Based on the 5-year operating strategies, directives for 2017 include: (1) Reaching the summit with production and sales of a modular structured smart factory, (2) creation of a comparative advantage by increasing profits and cutting expenses, (3) succession of innovation to make a brand new start, and (4) increasing value of the light rail and wind power businesses. Targets for 2017 include: (1) reduction of costs equals to or exceeds NT\$3.25 billion, (2) delivery of steel products equals to or exceeds 9.20 million metric tons, (3) orders for high-grade products equal to or exceed 6.11 million metric tons, (4) revenue from external engineering businesses equals to or exceeds NT\$3.0 billion, and (5) no cases of major occupational accidents.

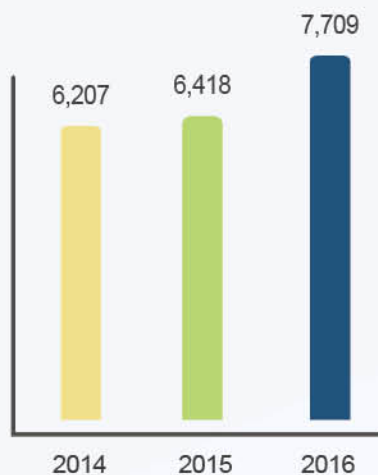
## 2 Production and Sales



Slab slitting in finishing

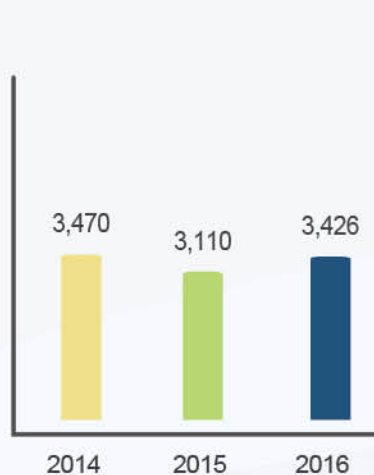
### Domestic sales of steel product

(in thousand tons)



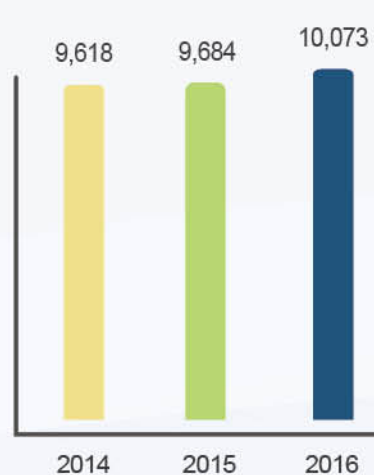
### Export sales of steel product

(in thousand tons)



### Crude steel production

(in thousand tons)





At the beginning of 2016, the economic condition was tough for the steel industry, and there were insufficient orders. Nonetheless, it improved quarter by quarter, and there were abundant orders in the steel market afterwards. To meet the market demand and to supply the needed blooms/slabs in response to the major campaign of the No. 3 Blast Furnace in 2017, CSC ramped up its production fully. In 2016, the production of molten iron, liquid steel, and steel were 9.912 million metric tons, 10.073 million metric tons, and 9.153 million metric tons, respectively, which were higher than those of 2015. Sales volume of CSC's steel products was 11.135 million metric tons, 69% of which was domestic sales and 31% of which was overseas sales.

In terms of raw materials, as the National Development and Reform Commission of the People's Republic of China (NDRC) limited the number of days for domestic coal mining and reduced it from 330 days to 276 days in 2016, and two major Australian coal mines, Illawarra and German Creek, suspended their production of premium coking coal consecutively, the benchmark price of (type 1) premium coking coal rose to US\$200/MT in the fourth quarter of 2016. In addition, in the end of 2016, the agreed benchmark price for the first quarter of 2017 was to be increased to US\$285/MT, which would be the highest price in the past five years. In terms of iron ore, steel prices in mainland China had been rising since February, 2016, which prompted the spot price of fine iron ore to bounce back from its bottom. As the elimination of steel mills with lagged production capacity and stringent regulations regarding emissions of pollutants owing to environmental protection were enforced in mainland China, the supply of steel would be decreased. As a result, steel prices would continue to rise. The spot price of fine iron ore started to go up drastically from the end of October, 2016; it was approximately US\$80/MT at the end of 2016.

CSC generated 53.8% of the electricity it required in 2016; it was 4.1% less than the amount in 2015 because the suspension time of the coal-fired boiler was longer due to the desulfurization engineering project. Energy consumption per ton of crude steel (slabs and blooms) was 5,630 million calories, which was 34 million calories more than that in 2015 largely because the amount of the addition of scrap steel in 2016 was less than that in 2015.

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\$1.6 billion, a 16.1% decrease compared with those of 2015, which was due to the drastic plunges of energy prices. The quantity of sales of steam in 2016 was 1.596 million tons, which was 123,000 kiloliters of oil equivalents in terms of energy conservation. 366,000 tons of CO<sub>2</sub>, 1,166 tons of SO<sub>x</sub>, 809 tons of NO<sub>x</sub>, and 115 tons of particulate matters were reduced if converted to benefits in reduction of air pollution and greenhouse gas emissions annually.



CSC was granted the Award for International Trade 2016 by MOEA

Key tasks and results of quality management in 2016 were listed as follows:

#### 1. New Product Development

**55 new products were developed in 2016, which set a new record. Some highlights included:**

- (1) Steel plates:** The development of EN10025 S460ML, 115mm structural steel for use in offshore wind turbine towers, was completed. The quality of these products meets the requirements for mono-type foundation construction in Taiwan.
- (2) Bars and wire rods:** An innovative production process was developed to slit slabs used to produce bars and wire rods. The development of permalloys and fasteners was completed to achieve the win-win goal of expanding new products and destocking slabs.



**(3) Hot rolled products:** The development of CH325S BCR (box column roll) steel was completed. Improvement of loose scale on extra thick coils and development techniques of earthquake resistant structural steel made a significant contribution to building the technical foundation of the BCR industrial chain.

**(4) Cold rolled products:** The development of DC04-C490, cold rolled work-hardening high strength steel, was completed to meet the demand in the hot stamping and automobile structure steel markets.

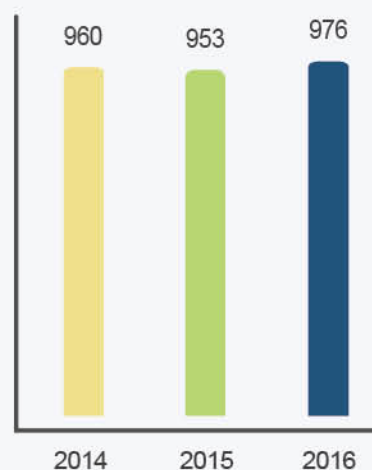
**(5) Hot-dip galvanized products:** The development of CR5, mild steel with the super extra deep drawing quality of the highest forming level used to make exposed panels of automobiles, was completed and certified by GM.

**(6) Electrical steel:** The development of 65CS470C was completed. This product, made with fewer production processes and low costs, was rolled in the No.3 Pickling and Cold Rolling Mill with the utilization of hot rolled thin steel coils so that the available reversing cold mill can be used in response to the increased production of top-notch products with thin gages.

**(7) Special alloys:** The development of ASTM F136 and AMS4911N, medium thick steel plates applied to make medical and aerospace materials, respectively, was completed. CSC was granted the certification of the ISO13485 and AS9100 systems. Gr. 4, a pure titanium product with high toughness, was successfully developed. It can be slit and welded to make titanium masks, which are protective gears. Alloy 825, a thin alloyed steel plate, was successfully developed. Embossed titanium plates were also successfully developed, and an order of 2,209 kg was placed for the Luoyang Sunrui Building Project and another order of 6,000 kg for the Art Museum of Taiwan Normal University.

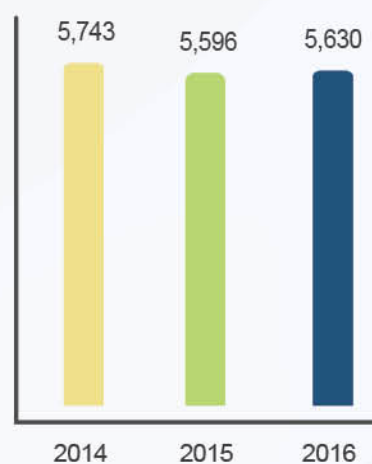
### Output per employee in terms of crude steel

(in tons)



### Energy consumption per ton of crude steel

(in million calories)

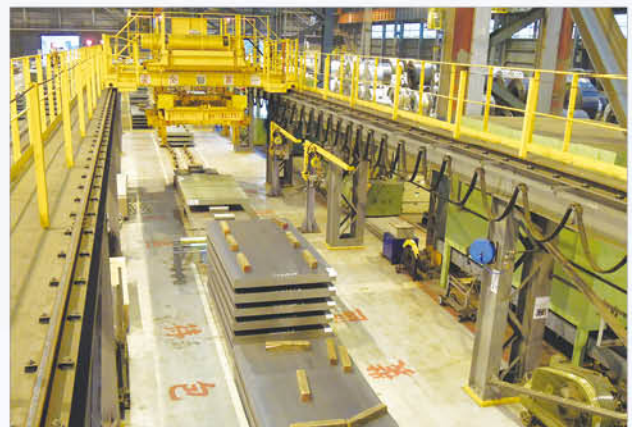


## 2. Technological Advancement of Production Processes

- (1) **Steelmaking:** The development of the sophisticated converter two-slag process smelting technique effectively reduced the amount of lime used in low phosphorus steel and the output of converter slag. The successful development of the technique to put heavy pressure on curved rolls on the strand while casting upgraded the core quality of slabs. The thickness of steel plates applied to make offshore turbines was increased to 95~120mm with even lower temperature (-50°C) toughness.
- (2) **Production of steel plates:** The uniformity of cooling was improved with online quenching equipment, and by redistributing internal stress with strong cold finishing, a substantial improvement was made in the slit cambers on SM570, which was complained about by customers. NT\$41.73 million/year was saved in terms of the production costs.
- (3) **Production of bars and wire rods:** The application of low-temperature rolling not only decreased the amount of energy consumption in heating but also brought the quality advantages of thinning decarburized layers and shortening the spheroidization time. The annual benefit amounted to NT\$23.53 million.
- (4) **Hot rolling:** The removal of stains on pickled and oiled coils was completed. CSC assisted Tang Eng Iron Works Co., Ltd. in rolling a new generation of stainless steel and destocked DSC's 271,200 metric tons of slabs, the results of which were fruitful. Moreover, innovative steelmaking and hot rolling techniques for top-notch electrical steel were developed, and the annual benefit amounted to NT\$456 million.
- (5) **Cold rolling:** The thin oiling technique in the production processes in the No.2 CAL (continuous annealing line) was developed. The temper color of dual phase steel was improved, control capabilities in the production processes were enhanced, and customer complaints and costs of reject losses were reduced.



The steel strip packaging line



The packaging line for hot-rolled steel plates



**(6) Hot-dip galvanized products:** The rolling technique with low roughness sandblast work rolls in the No.2 CGL (continuous galvanizing line) was developed. GI products which resembled the appearance of those produced in the No.1 CGL were also developed. Good surface quality and mechanical properties were maintained so that CSC's capabilities in supplying materials produced in the No.2 CGL to be applied to make computer cases could be promoted.

**(7) Electrical steel sheets:** The advancement of the cross-process technique of 35CS230 was achieved, which included optimization of the parameters of secondary cooling in continuous casting, establishment of the gradual increase of heat in the slab reheating process, establishment of the hot-rolled band gage technique, and decreasing the number of rolling passes in the No.3 RCM, all of which had effectively increased pass rates of products.

### 3. Certification of Management Systems

The certification of ISO13485 and AS9100 was granted to CSC, which indicated that the stage objective of entering the medical and aerospace industries was achieved. Moreover, CSC's steel plates were added to the items in the certification of the JIS Mark. In response to the demand in the European markets, CSC was also granted the CE marking regarding its hot rolled and steel plate products, which was an addition to the distribution channels of its five major products.



The jet pickling tank in the No. 3 Pickling & Cold Reduction Line

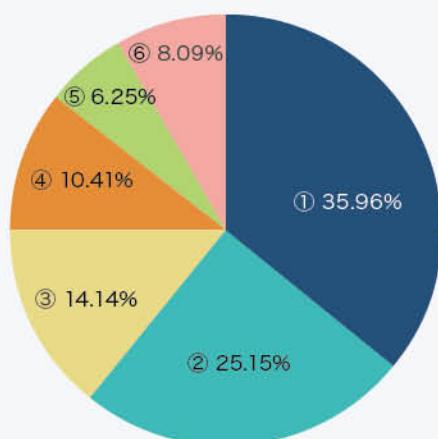


The indoor anthracite storage area

### Percentage of steel production volume by product, 2016

- ① Cold rolled products
- ② Hot rolled products
- ③ Wire rods
- ④ Plates
- ⑤ Bars
- ⑥ Others

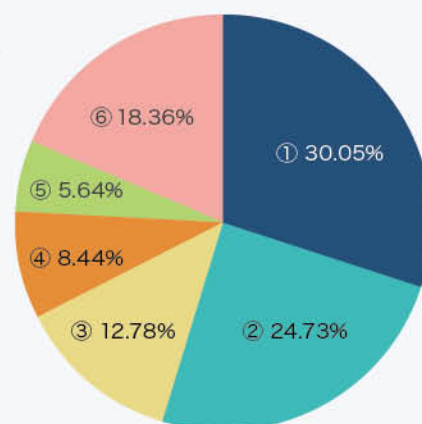
**Total**  
9,153 thousand tons



### Percentage of steel sales volume by product, 2016

- ① Cold rolled products
- ② Hot rolled products
- ③ Wire rods
- ④ Plates
- ⑤ Bars
- ⑥ Others

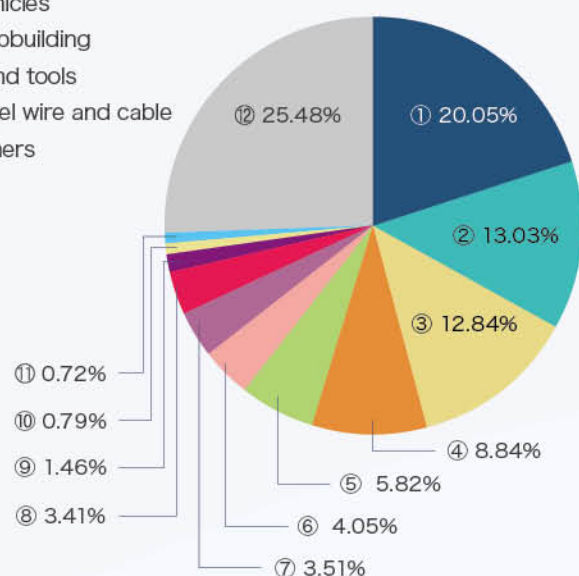
**Total**  
11,135 thousand tons



### Percentage of domestic sales by industry, 2016

- ① Direct users
- ② Nuts and bolts
- ③ Steel service centers
- ④ Rerollers
- ⑤ Steel structures
- ⑥ Steel piping
- ⑦ Traders
- ⑧ Vehicles
- ⑨ Shipbuilding
- ⑩ Hand tools
- ⑪ Steel wire and cable
- ⑫ Others

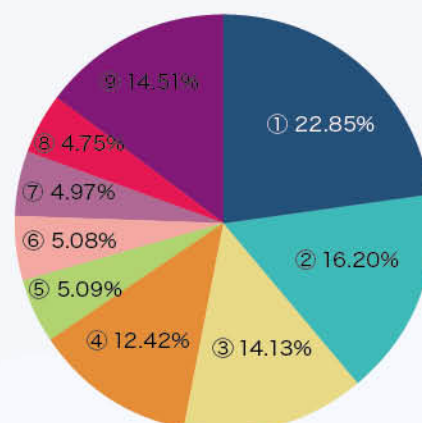
**Total**  
7,709 thousand tons



### Percentage of export by region, 2016

- ① Mainland China (including Hong Kong)
- ② Japan
- ③ Vietnam
- ④ Thailand
- ⑤ Mexico
- ⑥ Indonesia
- ⑦ Malaysia
- ⑧ India
- ⑨ Others

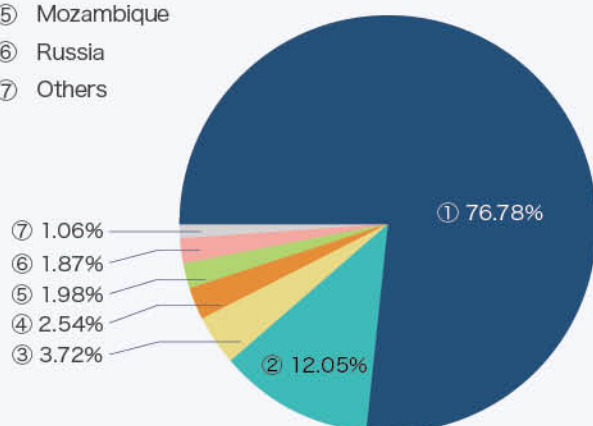
**Total**  
3,426 thousand tons



## Sources of coking coal, 2016

- ① Australia
- ② Canada
- ③ Indonesia
- ④ Mainland China
- ⑤ Mozambique
- ⑥ Russia
- ⑦ Others

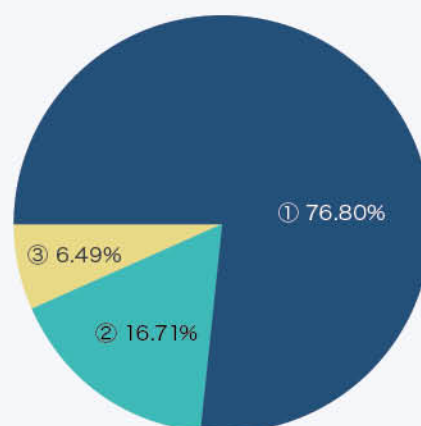
**Total**  
8,361 thousand tons



## Sources of iron ore, 2016

- ① Australia
- ② Brazil
- ③ Canada

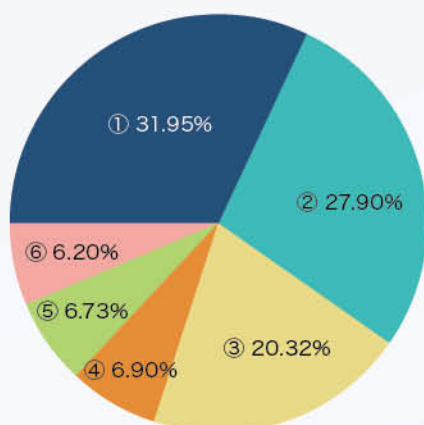
**Total**  
16,711 thousand tons



## Sources of flux materials, 2016

- ① Japan
- ② Domestic
- ③ Philippines
- ④ Vietnam
- ⑤ Mainland China
- ⑥ Thailand

**Total**  
2,983 thousand tons



Electrical steel coils



### 3 Research and Development (R&D)



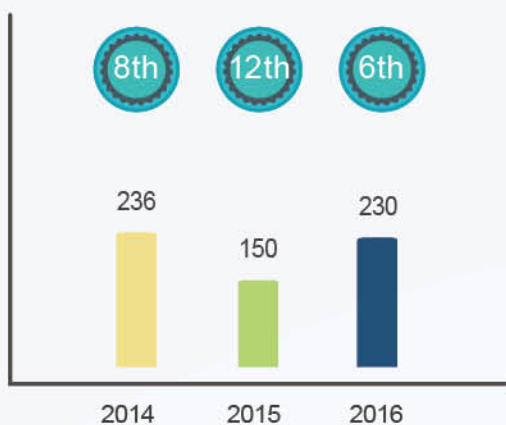
## Top 10 Patent Recipients

The only corporation in the conventional industries

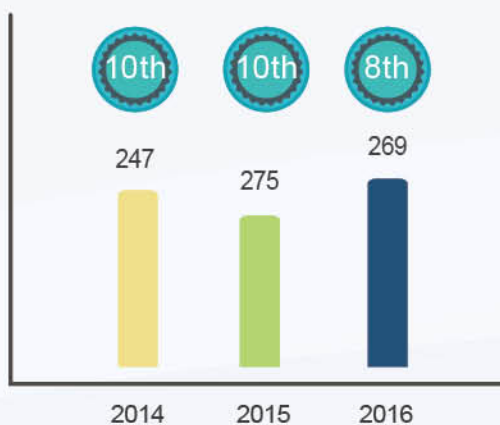
Participation in the 2016 Kaohsiung International Maritime & Defense Expo

#### The Trends of the Patent Applications and Certification

The ranking of the top 100 applicants



The ranking of the top 100 certificate recipients



## R&D Strategies

Abundant R&D results had been accomplished in 2016. 55 new products were developed in 2016. Sales for high-grade steel products accounted for 56.04% of the total sales, which was two years in a row and greatly enhanced CSC's competitive advantage in promoting product differentiation.

Regarding patent applications and certificates, CSC filed applications for 230 patent cases and ranked the 6th, and was granted patent certification for 269 cases, which ranked the 8th among the top 100 patent recipients in 2016 according to the Intellectual Property Office, MOEA. CSC, the only corporation in the conventional industries, was on the list of the top 10 patent recipients. CSC 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 cooperated with domestic autonomous automobile manufacturers in putting the newly developed hot stamping steel into trial production; three real vehicle collision and related tests had been completed. (2) CSC promoted sales of earthquake resistant BCR steel and completed the verification of the domestic large size BCR cross-industry supply chain. This structural steel was applied to build the Kaohsiung Maritime Cultural & Popular Music Center. (3) The result presentation of the Taiwan Fastener Service Cloud was held, the purpose of which was to assist the fastener industry, which is a traditional industry, to concentrate its resources to enhance its efficiency. (4) Reverse engineering of the targeted hand tool products was carried out. Taiwan Hand Tool Manufacturers' Association made concrete implementation plans to assist enterprises to make products better than the existing ones.



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



In order to continue the boosting of R&D activities, CSC had displayed outstanding results in products, production processes, and energy and environmental protection technology in 2016. The more significant ones are listed as follows:

### 1. Development and improvement of products

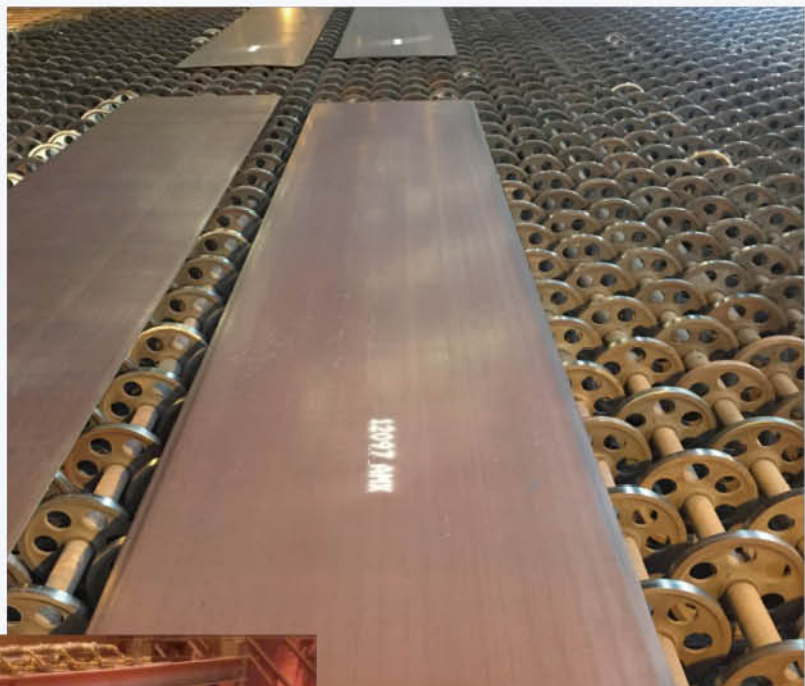
- (1) **Development of direct quenched products:** 13~32 mm HSLA-80 is produced in the Direct Quenching Line and is currently under assessment by China Corporation Register of Shipping. Its certification is expected to be granted to CSC in 2017. Furthermore, PA500H, an abrasion resistant steel plate, and 25~50mm S690Q, structural steel for offshore purposes, were developed. The mechanical properties of the aforementioned products have met all requirements.
- (2) **Expanded sales of top-notch electrical steel:** 25CS1250HF has been applied to make electric car motors for Tesla Model 3. Confirmation of the specifications of steel applied to make electric car motors has been under way between CSC and many automobile manufacturing plants as well as electrical machinery factories. Approximately 30,000 metric tons of added demand is expected in 2017.

### 2. Development and improvement of production processes

- (1) **Development of casting technology of high quality slabs for heavy plate products:** In response to the trend for larger and thicker high quality steel plates, CSC has developed relevant equipment and casting technology to upgrade the core quality of slabs, including (a) the development of electromagnetic stirring equipment on the strand to break the segregated segments in the centers of slabs, (b) applications of dynamic light press control to improve segregation at the terminal stage of solidification, and (c) the development of the technique to put heavy pressure on curved rolls on the strand while casting to effectively eliminate the porosity in the cores of slabs.
- (2) **Development of technology to produce H beams from slabs:** The technology of using continuously cast slabs to replace beam blanks in producing H beams, which could reduce production costs, was developed with numerical simulation and experimental rolling. The size, quality, and mechanical properties of the finished B305x305 steel are in line with specifications.

### 3. Energy and environmental protection technology

- (1) **Development of thermo-electric materials and applications of power generation:** Thermo-electric materials can be utilized to convert thermal energy into electrical energy directly, which is suitable for medium- and low-temperature waste heat recovery. Modules have been successfully developed and applied in the production sites. Currently, thermo-electric power generation systems have been designed and installed in the reheating furnace walls, boiler flue ducts, and slab continuous casting machines.
- (2) **Improvement of the fine material reduction plant:** CSC assisted DSC to transform its fine material reduction plant, which was run with low efficiency and high operational costs originally. The overall trial run was conducted, and DSC significantly destocked its revert materials and increased the value in resource recovery. The total operating costs were reduced by NT\$70 million after the transformation in 2016.



HSLA80, steel plates for building submarines



The continuous casting thermoelectric generation system

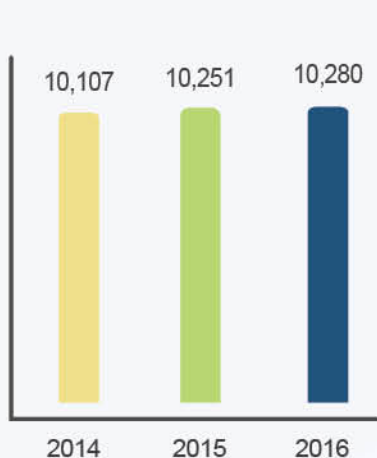


## 4 Employee Relations and Human Resource Development

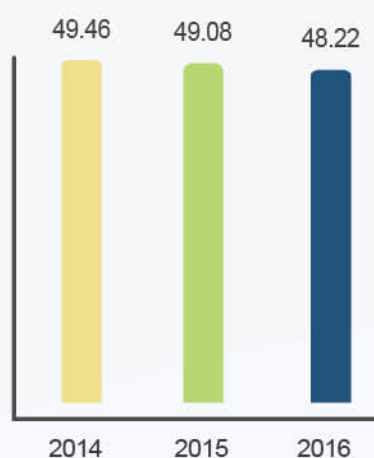


New recruits of CSC took part in the steelChallenge-10 held by worldsteel.

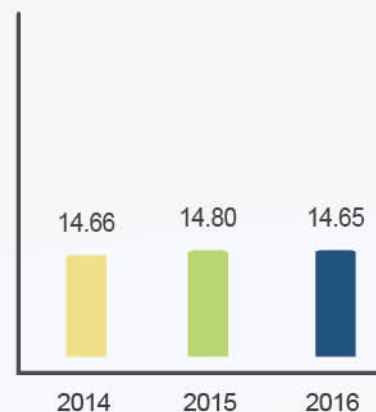
**Number of employees**  
(as of end of year)



**Average age of employees**  
(as of end of year)



**Average years of service of employees<sup>11</sup>**  
(as of end of year)



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



As of the end of 2016, there were 10,280 employees at CSC. Their average age was 48.22 years. Among the 10,280 employees, 10,193 (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. Thus, future manpower development will be focused on advancement of CSC's corporate culture, succession of manpower, and strengthening of talent training and education.

## — Advancement of the corporate culture

The CSC Corporate Culture Committee was established in October, 2010 to promote and implement tasks of succession and advancement related to corporate culture.

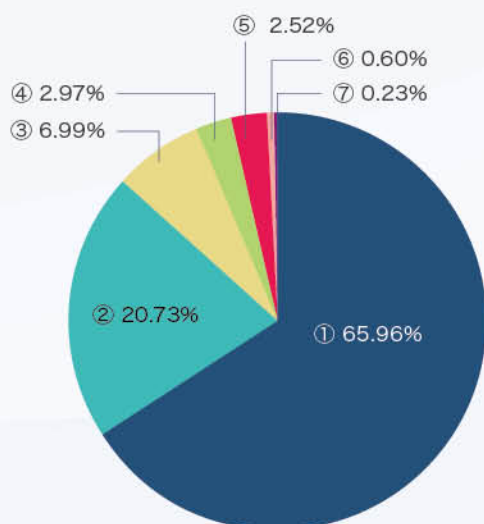
Key tasks and results in 2016 were listed as follows:

### 1. Enhancement of the industrial safety culture:

In order to enhance the awareness of the fourth-echelon foremen and engineers in regarding industrial safety management as a legal responsibility, consider how to intensify the establishment of disaster prevention measures, and then be willing to take positive action to enhance industrial safety measures, CSC has arranged a seminar type of industrial safety training program for them. Different sessions with teaching, discussions of industrial safety cases,

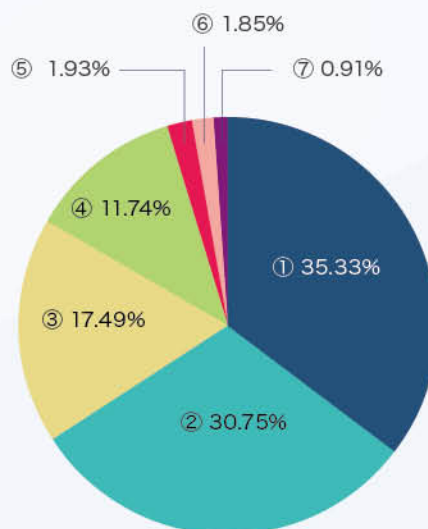
### Breakdown by employees' position level (as of December 31, 2016)

- ① Blue-collar workers
- ② Professional and specialists
- ③ Fourth echelon supervisors
- ④ Third echelon supervisors
- ⑤ Second echelon supervisors
- ⑥ First echelon supervisors
- ⑦ Executives



### Educational background of employees (as of December 31, 2016)

- ① Senior high (Vocational) school
- ② Bachelor's degree
- ③ Master's degree
- ④ Junior college
- ⑤ Junior high school
- ⑥ Doctor's degree
- ⑦ Elementary school





Harvesting organic corns on a leased farm

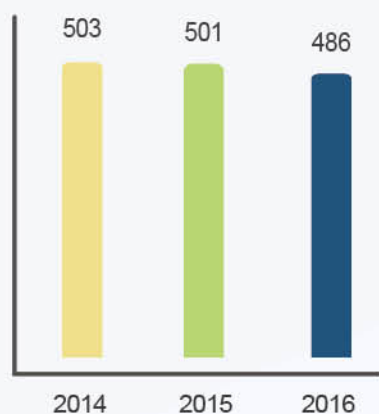


The management training program for middle-ranking executives in the CSC Group



Parents and their children took part in an outing in the Ciaotou Sugar Refinery(Kaohsiung) held by the CSC Labor Union.

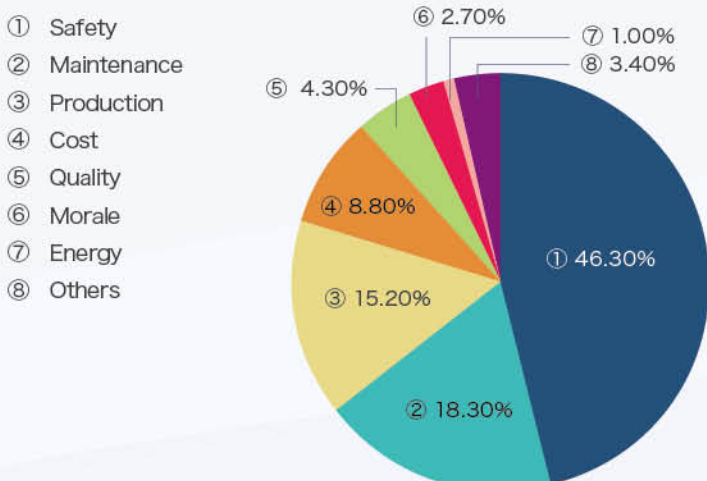
### Cases completed by creative development activities



and hands-on practice have been held to demonstrate the effectiveness of implementing industrial safety training.

2. CSC cooperated with National Taiwan University to hold management programs for middle-ranking executives. Topics regarding corporate culture and leadership were included in the program. Mr. Kin-Tsau Lee, ex-Executive Vice President, was invited to give a speech about corporate culture to the executives so that they could gain a better understanding about it.
3. 12 sessions of corporate culture classes were held for executives and new recruits.
4. Four sessions of seminars related to arts and three sessions of seminars on management were held for high-ranking executives of the CSC Group in the hope of establishing the concept of empathic thinking, which would help the establishment of consensus and strengthen their managerial and innovative capabilities.
5. The Sharing of Training Knowledge Activity was held in 2016. Chairman Chao-Tung Wong was invited to give a speech to elaborate on the four CSC values, the aim of which was to strengthen CSC's corporate culture and look back on Mr. Yao-dong Chao, the founder of CSC, and previous chairmen whose selfless dedication was truly admired.

### Cases completed by creative development activities by subject matter, 2016





6. To cultivate good corporate culture, employees are informed to obey the guidelines for accepting gifts, treats, entertainment and banquets, and lobbying.

## — Succession of manpower

1. Succession in advance: CSC has mapped out appropriate employment plans according to its corporate development strategies and investment plans, 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 e-Learning, knowledge sharing management, 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, National Hualien Industrial Vocational Senior High School, and National Kangshan Agricultural & Industrial Vocational Senior High School to meet its manpower need. As of the end of 2016, 72 students had been hired officially. Their job performance was good.

## — Strengthening of talent training and education

The Development Roadmap of the CSC Group's Talent Training and Education was established to nurture manpower



CSC Group wedding ceremony



A farewell party held for retirees



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 e-Learning and knowledge management, professional expertise and quality control, and general education. According to the Roadmap, high-ranking executives of the Group took part in short-term domestic and/or overseas management programs. Selected engineers were sent abroad to conduct a one-year special research project on engineering. Selected technicians were sent to College of Industrial Technology in Japan to attend two-year programs. Middle-ranking executives took part in the "Management Training Program" and "Assessment Center." Moreover, they were enrolled in management workshops. Third-echelon executives took part in team leading and encouragement. Performance management competence workshops were held for beginning executives ranking from the second echelon to the fourth echelon. "Training within the Industry" was held for entry level executives. Cultural orientation classes were held for dispatched personnel while educational training classes were held for new recruits. Moreover, knowledge management forums, sharing of training knowledge, practical operations of steel production, and professional training courses regarding free software, the laws, quality control, electrical and mechanical research, public construction, environmental protection, and safety and health were also held. CSC cooperated with National University of Kaohsiung to conduct statistics research; it collaborated with National Cheng Kung University in holding wind turbine technology training. In 2016, each employee averaged 26.6 hours of classroom work and 2.4 hours of e-Learning. To fulfill the manpower needs for CSC's diversification and globalization, CSC sent employees (78 person-times) to overseas steel plants, academic institutions, and business organizations to study related professional technology and management courses in 2016.

In 2016, CSC reaped approximately NT\$45 million in benefits from its Creative Development Activities (CDA) and NT\$60 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 2016, CDA involved 597 "quality circles" with 5,303 participants (83.0% of the blue-collar personnel of the departments concerned and 486 completed themes). They made 22,766 suggestions, 22,635 (99.4%) 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) the Chairman's Mail Box and face-to-face labor-management communication meetings between the Chairman/ President and CSC employees, (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 generous 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 from both sides. Facilities such as employee canteens, restaurants, dormitories for singles, gyms, 23 lines of shuttle buses, 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 Welfare 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 charities as well as club activities which will help them relax physically and mentally. As of the end of 2016, 488 activities/group events with 18,260 participants were sponsored by 43 clubs. In response to the addition of new recruits, CSC holds group weddings for them regularly. In addition, CSC holds its anniversary celebration annually to enhance a sense of unity.

As of the end of 2016, there were about 2,650 CSC retirees. To assist them to adapt to their new life after their retirement, keep them identified with CSC, and enhance their cohesiveness, it sets up a retiree service department to serve them. Two sessions of LOHAS seminars, four farewell tea parties, and two health related lectures were held for them in 2016. Retirees are always invited to take part in CSC's annual anniversary celebration.

#### Celebration of the 45th anniversary of CSC





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



CSC was granted an Excellent Water Conservation Organization Award by MOEA.

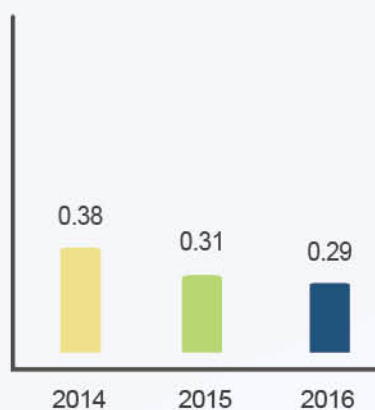


The establishment of the CSC Environmental Education Classroom in Hanmin Elementary School

### Air Quality

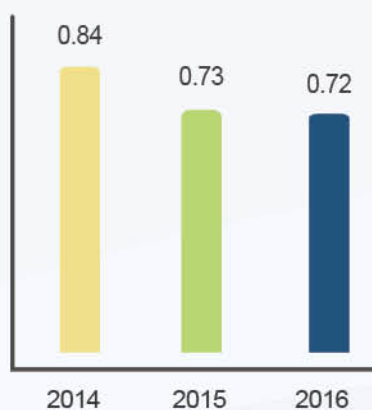
#### Particulate emission

(Kg/mt of crude steel)



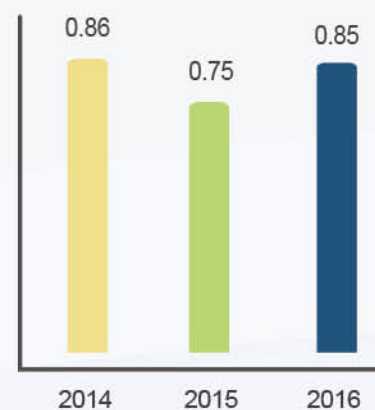
#### SO<sub>x</sub> emission

(Kg/mt of crude steel)



#### NO<sub>x</sub> emission

(Kg/mt of crude steel)





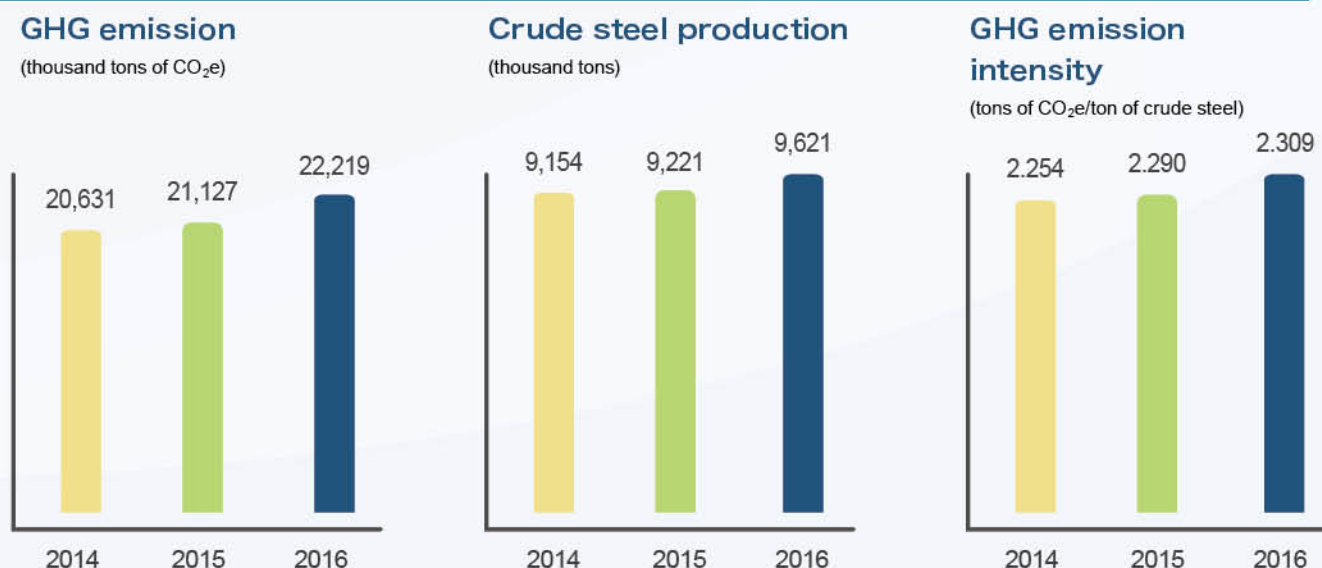
## Energy Conservation and Environmental Protection

To promote the concept of sustainable development, CSC aspires to be a trustworthy and green steel company that pursues environmental protection, energy saving, and value-innovation, which is also its energy and environment vision. It has set up the goal of “2 lows and 1 high-low carbon emissions, low pollution, and high value.”

### Key tasks and results of energy conservation and environmental protection in 2016 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 2016, it collaborated with the Kaohsiung Municipal Energy Conservation and Carbon Reduction Technology Counseling Corps to offer counseling services to Hung Li Steel Corporation, RESA Engineering Corporation's Da-fa Waste Disposal Plant, Taita Chemical Company, Limited, Sigma Brothers Inc., and Ming Dih Industry Co., Ltd. about energy conservation and reduction of carbon emissions.
2. Continuous promotion of “Energy Conservation Project 2020”: CSC aimed at saving 100,000 kiloliters of oil equivalents between 2016 and 2020. 109 projects were completed in 2016; 53,000 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.

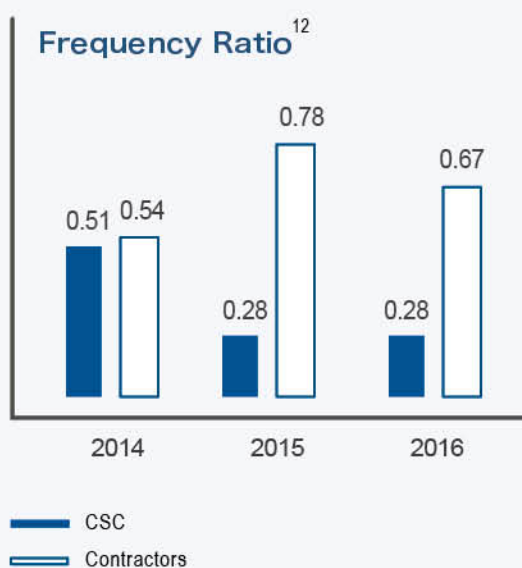
## GHG emission trend





CSC, the No. 1 buyer, undertook to purchase 1.5 million kWh of green electricity from Taipower, Fengshan District.

## Occupational Accident Record of CSC



<sup>12</sup> FR = Number of cases with disabling injuries  $\times 10^6 \div$  Total number of working hours of the entire company

- Water consumption had been decreased from 10.33m<sup>3</sup> / ton of crude steel at the establishment of CSC to 4.73 m<sup>3</sup> / ton in 2016; the recycling rate was 98.3%. CSC's saving of water consumption in 2016 was exceptional and had been granted awards of excellence by Water Resources Agency, MOEA for 14 consecutive years.
- CSC continued the GHG Inventory and management of internal auditing and external certification. CSC completed its organizational GHG Inventory in 2016 and was verified by a third party certification agency. It promoted the operations of the GHG Inventory at different levels of the production processes and compiled a GHG inventory report for each individual production process.
- 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.
- 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, waste vessel oil from China Steel Express Corporation, crystallized calcium carbonate from China Ecotek Corporation, sludge from hot rolling in Chung Hung Steel Corporation, waste acid liquids from China Steel Machinery Corporation, Chung Hung Steel Corporation, and Hung Li Steel Corporation, and oily waste from China Steel Aluminium Corporation, which was approved by the Industrial Development Bureau, MOEA this year.



8. The tests and reports for particulates, SO<sub>x</sub>, and NO<sub>x</sub> were completed. The total emission amounts matched the requirements of the environmental impact assessment in 2016. CSC will continue to promote greening inside the plants. The total area of greening has reached 443,928 m<sup>2</sup>; the greening rate is 8.42%.

## Industrial Safety

### Major tasks and results of industrial safety programs for 2016 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 revisions of 12 general documents of the environmental protection and health and safety management systems, computerized systems in terms of the environmental aspect are ongoing. Four sessions of internal auditor training and analysis training between the new and old versions have taken place. Related information has been disseminated to on-site supervisors and environmental management related personnel in two sessions.
3. In collaboration with the authorized institutions, implementation of (1) the regular inspections of 1,046 pieces of hazardous machinery and equipment, (2) the reassessment of the safety of the production processes in three type-C hazardous workplaces was carried out.
4. Educational training: (1) CSC held 13 training classes with 78 sessions of various safety licenses for 2,293 licensees on its own. (2) Eight physical simulated training classes with 151 sessions were held for 2,370 participants. (3) Four sessions of educational training on traffic safety were held for 305 participants.
5. Plans for the 2016 operational environment testing were completed. Items for the testing included 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



The CSC Group and its employees were granted a certificate of appreciation by the Tainan City Government for donating money to the earthquake relief effort.



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



The 2016 Summer Ecology Camps for elementary students



The 2016 King of Wisdom Summer Camp held by CSC



A concert performed by cellist Chen-Chieh Chang for wheelchair users



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, psychological counseling, quarterly lectures on health, special health campaigns for female employees, and implementation of the Maternal Health Protection Plan, with approximately 5,100 participants in 2016. Among them, 294 employees who took part in the weight loss program lost a total of 815.1 kg; the average lost weight was about 2.77 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 decades. Based on the spirit of genuine empathy for those who suffered from the strong earthquake in Meinong District, Kaohsiung on February 6, 2016, the CSC Group donated NT\$10 million to the Tainan Government for disaster relief. The employees of the CSC Group also initiated the campaign to raise donations, which amounted to NT\$11.19 million, and it was sent to a special account designated by the Tainan Government for the victims.

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 include: (1) Sponsoring 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) The establishment of scholarships for meritorious students and tuition assistance to students from disadvantaged families in Hsiao Kang District. (3) Sponsoring various social activities for the communities and associations in Hsiao Kang District. (4) The establishment of funds for social relief of emergencies and gifts of money during the Chinese New Year, Dragon Boat Festival, and Mid-Autumn Festival to assist low-income families in Hsiao Kang District. (5) The ceremony for recognition and promotion of filial piety was held to celebrate Mother's Day in Hsiao Kang District. (6) Graduating elementary school students in Hsiao Kang District were invited to participate in the Steel Journey Activity to get a sense of how steel was 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, were invited to participate in summer camps.

CSC actively assisted local cultural and artistic activities, some of which included the Grassland Concert, Titanic Live, 50 movie theme songs in the 1960s, Witness the Fortress, a Taiwan opera, etc. 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 2016 included:

(1) the Silver Class distinction from RobecoSAM's Corporate Sustainability Assessment (CSA) in terms of CSC's sustainable operations and transparency in corporate governance, (2) an Excellent Enterprise Group Award in electricity saving by saving over 100 million kWh of electricity, (3) the 2016 Exercise Enterprise Certification Mark by SAMOE, (4) the Sustainability Exemplary Enterprise Group Awards by BSI, and (5) the Ten Most Sustainable Corporate Award by TAISE, which was the third time that CSC was granted this award. In addition, CSC was also granted the Taiwan Top 50 Corporate Sustainability Report Award, Growth through Innovation Award, Transparency and Integrity Award, Climate Leadership Award, Supply Chain Management Award, People Development Award, and Sustainable Water Management Award; it was the only corporation granted both the integrated and individual performance awards.

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 2016 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 were held and attracted approximately 8,000 attendees and students.
- (2) The Environment Education Touring Bus had been out 55 times with the participation of approximately 7,000 city and rural school children.
- (3) "CSC Camps" with steel-related popular science activities were held for approximately 200 university students.
- (4) "Engineer E-week, Kaohsiung" was held for approximately 800 senior high school students in collaboration with IBM for five consecutive years.
- (5) A concert performed by cellist Chen-Chieh Chang and the 12 cellists of the Berlin Philharmonic was held with 3,500 attendees from Kaohsiung.
- (6) 20 Chinese music and symphony concerts were jointly held by CSC and the Kaohsiung Philharmonic Cultural and Arts Foundation.

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.



## 6 Capital Expenditures and Engineering Business



Cladding of railway tracks

A train of the Danhai Light Rail Transit

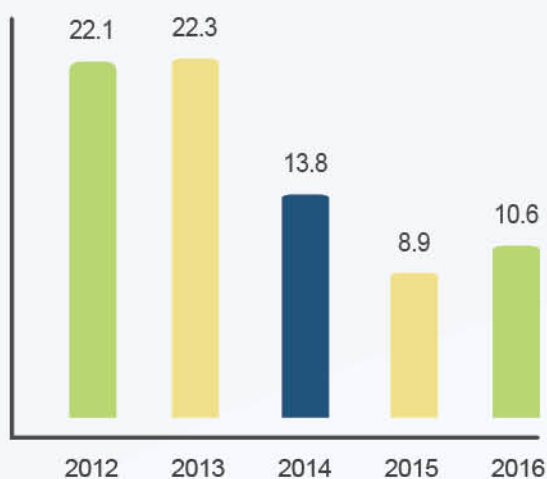
2016

**Engineering  
Businesses Revenue  
Growth Rate**

**91.03%**

### Capital expenditures

(in billions of New Taiwan Dollars)



### Capital Expenditures

The investment of capital expenditure projects amounted to NT\$10.6 billion in 2016. The projects were listed as follows:

#### I. Projects related to equipment revamp:

1. Revamp of the program control and electronic control systems of the No. 2 Hot Strip Mill of Rolling Mill Dept. II
2. Revamp of the Nos. 1 & 2 heat furnaces of the No. 1 Hot Strip Mill
3. Revamp for the extended service of Rod Mill I
4. Revamp of the gas tanks of the blast furnaces
5. Revamp of the second major campaign of the No. 3 Blast Furnace
6. Revamp of the main motors, electrical control system, and welders of the No.1 Pickling and Cold Rolling Mill of Rolling Mill Dept. III



## II. Projects related to upgrades of production capacity or quality:

7. Investment of the titanium- and nickel-alloyed finishing section
8. Investment of Mao Da Storage Yard for cold rolled products
9. Addition of the No.3 ladle refining furnace in the No.1 Steelmaking Plant
10. Design for additions of conveyor lines of raw material stock yards with phases I and II supporting phases III and IV

## III. Projects related to resource recycling or environmental protection equipment:

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



The Wind-Team, the domestic industry alliance for localized production of offshore wind turbine components



Contract signing of the EPC Project (Phase II) of the Circular Line (KMRT)



The construction of the Southern Weather Observation Tower, the Offshore Wind Power Energy Project of Taipower

**Among the aforementioned projects, Projects 3, 7, and 8 were completed in 2016; 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:**

1 Revamp of the program control and electronic control systems of the No. 2 Hot Strip Mill of Rolling Mill Dept. II	The estimated reduction of 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.
5 Revamp of the second major campaign of the No. 3 Blast Furnace	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 make CSC become more competitive.
11 The Waste Gas Desulfurization and Denitrification of the No.2 Sinter Plant	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.
12 Equipment revamp for reduction of effluent ammonia nitrogen (NH <sub>3</sub> -N)	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 promulgated on January 22, 2014. 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.

## Engineering Businesses

Revenue generated from engineering businesses from outside parties amounted to NT\$1.767 billion in 2016, which was 91.03% more than that in 2015. The engineering focal point was the EPC construction project of Phase 1 of the Danhai Light Rail Transit System; the cumulative total project schedule was 48.80% as of the end of December, 2016. Key tasks and results in 2016 were listed as follows:

### 1. Light Rail Engineering

The overall network of New Taipei City's light rail transit system includes the Ankeng Light Rail Transit, Phase II of the Danhai Light Rail Transit, Wugu-Taishan Light Rail Transit, Bali Light Rail Transit, and Sanzhi Light Rail Transit, all of which are the procurement projects of the subsequent expansion of Phase I of the Danhai Light Rail Transit,



with 69 light rail vehicles and their power supply systems. CSC negotiated the prices of (1) the vehicle systems and power supply systems and (2) the other electromechanical sub-systems with the Department of Rapid Transit Systems, New Taipei City on September 27, 2016. The contracts were signed on November 11, 2016, and CSC secured the EPC project of the electromechanical systems of the Ankeng Light Rail Transit. On the other hand, CSC was also granted the most favorable bidder status of the EPC Project (Phase II) of the Circular Line (KMRT) on August 10, 2016, and the contract was signed on September 9, 2016.

## 2. Wind Power Engineering

- (1) Development of the Wind Power Business Development Cloud and integration of the Group's resources to bring out its synergy: A platform was established to compile information related to each wind power project and needed expertise as well as integrate the core expertise of the engineering companies in the Group and exchange information. As of the end of 2016, 1,600 files had been shared in real time. Expediting systems were established for file management, and each unit was asked to update the information on a monthly basis. This practice could allow employees of the Group to have a full grasp of the dynamics of the wind power business so that they could access the information of each wind power project even when they were away on a business trip, the purpose of which was to boost their business execution efficiency.
- (2) The construction of the Southern Weather Observation Tower, the Offshore Wind Power Energy Project of Taiwan Power Company at Changhua was completed in June, 2016.
- (3) Promotion of the Wind-Team: In order to enable domestic manufacturers to supply wind turbine components, CSC adopted the strategy of implementing localization of the introduced technology with domestic wind farms. It was in charge of the establishment of the Wind-Team, the domestic industry alliance for localized production of offshore wind turbine components, on September 13, 2016. The survey of the technical statuses and possible ways of cooperation with 16 domestic electric and machinery manufacturers was completed. The next step will be to carry out the local manufacturers' technical energy inventory and gap identification and then fill the gap by TDP (technology development programs). It is hoped that they will become qualified global suppliers of wind turbine components under the condition that they are certified by meeting the quality (Q), cost (C), delivery (D), and service (S) requirements.
- (4) Securing the engineering business of domestic offshore wind farms: CSC will integrate the engineering energy of the Group and cooperate with wind turbine manufacturers and those in other areas of expertise to jointly undertake businesses or form offshore wind power engineering corps to actively secure construction engineering projects, businesses regarding the operations and maintenance of wind farms, and opportunities of supplying steel products and components on the premise that the technical and economic feasibility is confirmed for market development.



## 7 Investments and Other Equity Interests

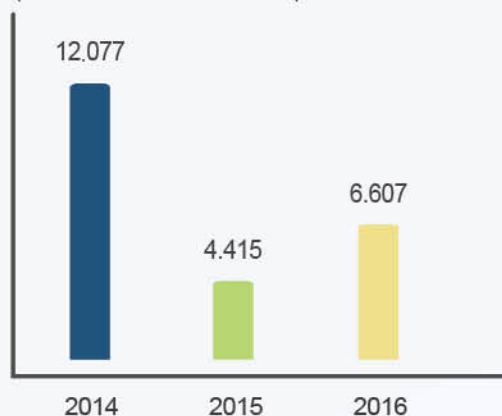


Photovoltaic settings on a rooftop installed by CSC Solar Corporation

As of the end of 2016, CSC has invested in holdings of 62 companies. Newly added companies were CSC Solar Corporation, which is a solar photovoltaic project system developer, and Chongqing HC&C Auto Parts Co., Ltd., which manufactures auto parts. In addition, CSC disposed all of its holdings of Asia Pacific Telecom Co., Ltd. and TaiGen Biopharmaceuticals Holdings Limited.

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

(in billions of New Taiwan Dollars)



### Operating Performance

Because of the bouncing-back of the steel market in 2016, CSC's recognized investment gains in 2016 amounted to NT\$6.607 billion, which demonstrated a considerable increase compared with those in 2015. The operating performance of the subsidiaries was listed as follows:

## 1. Steel Business:

As the steel market was booming, the profit before income tax of Dragon Steel Corporation and that of Chung Hung Steel Corporation in 2016 were increased to NT\$474 million and NT\$3.077 billion, respectively, compared with those in 2015. In regard to CSC's overseas operations, there were listed gains in CSC Steel Sdn. Bhd. owing to the reduction of raw material costs. Its profit before income tax in 2016 was increased to RM13.62 million compared with that in 2015. The output of China Steel Sumikin Vietnam Joint Stock Company had reached a record high since its establishment. Its profit before income tax in 2016 was increased to US\$84.91 million compared with that in 2015. The average monthly output of China Steel Corporation India Pvt. Ltd. in 2016 was 44% more than that in 2015. Although there is a deficit in its operations, noticeable improvements can be observed.

## 2. Trading and Logistics Business:

Because of the oversupply of vessels in the bulk shipping market and low freight, China Steel Express Corporation's operating revenue in 2016 was less than that in 2015. Due to the gains from disposal of bulk vessels, its profit before income tax in 2016 was increased to NT\$443 million compared with that in 2015. China Steel Global Trading Corporation's profit before income tax in 2016 was increased to NT\$145 million compared with that in 2015 owing to the increase of recognized reinvestment gains and business. As the steel market was booming, the profit margin of Qingdao China Steel Precision Metals Co., Ltd. was increased by 4.5%, and its profit before income tax was increased to RMB\$12.92 million compared with that in 2015. The operations of China Steel Precision Metals Kunshan Co., Ltd. were officially initiated in July, 2015. Its profit margin turned positive in 2016; however, owing to the increase of interest expenses, its loss before income tax was RMB\$1.418 million, which was about the same as that in 2015.



The arrival of the first shipment of iron ore from Roy Hill, a CSC-invested company



The finishing line for steel bars and wire rods in CSC Precision Metal Industrial Corporation



### 3. Industrial Material Business:

CSAC's profit margin turned positive in 2016 as the prices of aluminum and zinc went up as shown in the London Metal Exchange (LME). Nonetheless, owing to recognized reinvestment losses, CSAC's loss before income tax was NT\$41 million, which was an improvement in comparison with that in 2015. China Steel Chemical Corporation's operating revenue and net profit were decreased in 2016 because of plummeted oil prices. Its profit before income tax was NT\$1.194 billion, which was NT\$243 million less than that in 2015. Sales volume and prices of CHC Resources Corporation's pulverized blast-furnace slag in 2016 went down because of the downturn in the private investment sector and real estate development. Its profit before income tax was NT\$730 million, which was NT\$336 million less than that in 2015. Sales Revenue of HIMAG Magnetic Corporation's ferric oxide, special chemicals, and eco-products was increased in 2016; its profit before income tax was NT\$53.2 million, which was NT\$3.34 million more than that in 2015. Sales volume and prices of Changzhou China Steel Precision Materials Corporation's titanium products went down in 2016. Its profit margin was decreased, and there were exchange losses resulted from the devaluation of RMB. As a result, its loss before income tax reached RMB\$20.58 million. The construction of China Steel Resources Corporation's Yan-hai Plant and Da-fa Plant was completed in June and August, 2015, respectively. Its profit before income tax was NT\$10.55 million. The construction of CSC Precision Metal Industrial Corporation's plant is in the hot commissioning phase. Its loss before income tax was NT\$11.58 million in 2016.

### 4. Engineering Business:

Owing to the impact of the rush of the Taichung MRT Project, China Steel Structure Co., Ltd.'s profit before income tax was NT\$81 million in 2016, which was a significant decrease in comparison with that in 2015. Owing to the reduction of the energy and national defense businesses, China Steel Machinery Corporation's loss before income tax was NT\$711 million, which was a significant slump in comparison with that in 2015. With the recognized reinvestment losses in 2016, China Ecotek Corporation's profit before income tax was NT\$336 million, which was a significant decrease in comparison with that in 2015. InfoChamp Systems Corporation's operating revenue and gross profit in 2016 were less than those in 2015. Its profit before income tax was NT\$310 million, which was NT\$83 million less than that in 2015. CSC Solar Corporation was established in October, 2016. There has been no operating revenue so far; its loss before income tax was NT\$1.24 million in 2016.

### 5. Service and Investment Business:

Owing to the impairment loss on available-for-sale financial assets, Gains Investment Corporation's profit before income tax in 2016 was NT\$387 million, which was NT\$53 million less than that in 2015. China Steel Security Corporation's profit before income tax in 2016 was NT\$123 million, which was roughly the same as that in 2015. China Prosperity Development Corporation's profit before income tax in 2016 was NT\$237 million, which was a



significant decrease in comparison with that in 2015 (NT\$809 million) owing to the recognized gains from the disposal of the land of the CPDC Qianzhen Residential Building. Due to the reduction of commissioned training for external steel mills, China Steel Management Consulting Corporation's profit before income tax in 2016 was NT\$3.36 million, which was NT\$2.08 million less than that in 2015.

## 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 by taking the advantage of the timing of dropped raw material prices. As of the end of 2016, 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.

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.



CSEC's "China Steel Vision" set sail

## 8 Customer Services



A visit by the Director General of the Japan-Taiwan Exchange Association

55 enterprises became CSC's new customers in 2016. New customers accounted for 5.19% of the total customers while the old ones accounted for 98.30% 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 also assists customers to solve their problems in material utilization and processing techniques to promote the growth of the steel-consuming industries.

CSC obtains feedbacks, which serve as references 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 industries, visiting its customers, and holding technological seminars.



## Sales Services

In 2016, 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 2016 included: (1) 198 cases of assistance to customers in improving their manufacturing processes and solving problems related to application of raw materials and processing techniques were completed. 38 surveys of market quality feedbacks were obtained to effectively promote quality improvement. (2) 14 surveys of material application and quality trends according to industries as well as eight surveys of new products and quality functions were completed. Certification of 31 items of automobile use materials was granted. (3) 12 domestic and international technical symposia and seminars were held. (4) Representatives from CSC paid 111 visits to key customers. Moreover, professional staff (328 persons/days) were sent abroad to conduct technical interaction and promote CSC's products in Mainland China, Japan, South Korea, India, Southeast Asia, Europe, and the United States.



Technological exchanges between CSC and its steel bar and wire rod customers



## The Supply Chain System of Production & Sales

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

Operation flexibility and efficiency have markedly increased by the constant optimization and improvement of CSC's Supply Chain System regarding production and sales. Customers can get instant answers in regard to the delivery dates, quantities, and prices of their orders by linking up with CSC's Supply Chain System, which keeps track of the planning of sales and production, quotations, order entries and revisions, production plans and schedules, follow-ups of existing orders, storage and transportation, and delivery in a smooth and fast manner. The results and benefits of the system are listed as follows: (1) 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. (2) 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. (3) 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



The Seminar on the Applications and Processing Technology of Titanium and Nickel Alloys



The Non-oriented Electrical Steel Technological Seminar

of knowledge of the industry chain. (4) 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. (5) 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. (6) 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 2016 survey were satisfaction indices of 73.5 points, which was an increase of 0.5 points compared with those of 2015, from domestic customers and 72.4 points, which was an increase of 0.7 points compared with those of 2015, from overseas customers. The top three items of the domestic satisfaction index were the interaction between the salespeople and customers, the service attitudes of the salespeople, and the speed of the salespeople's responses to customers' inquiries. The top three items of the overseas satisfaction index were the salespeople's understanding of the dynamics of the industries the customers are in, the degree of clarity in settling accounts, and the interaction between the salespeople and customers.



The Roll Forming Technological Seminar



## 9 Risk Management



CSC was granted the Climate Action Recognition by worldsteel

### Market Risk Control

To disperse liable risks in the steel market due to declining economic factors, 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 and their trial production have been significantly enhanced at CSC. Moreover, CSC has a full grasp of the dynamics of related industries, expands the range of its supplies, seeks investment opportunities in the downstream steel industry or industries which consume steel products, establishes overseas coil centers, and has full control of its distribution channels. 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, owing to the weather or the conditions of the mines, railways, and loading ports, CSC has adopted the following countermeasures:

- (1) The sources and suppliers are cautiously evaluated.
- (2) Safe inventory levels are properly maintained.
- (3) 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.
- (4) Contracts are executed in good faith; relationships with mutual trust and assistance are maintained with the suppliers.
- (5) 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.
- (6) New sources of the raw material supply are actively developed to intensify competition and avoid domination by only a few suppliers.
- (7) 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.

An emergency response drill of the leakage in the ammonia storage tank





CSC was granted the AEO certification.



CSC took part in the cooperative project of effluent reclamation and reutilization of water resources.

## 2. Development of Raw Material Sources

- (1) 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.
- (2) Investigation on the spot is carried out with due diligence so that CSC can fully grasp the status of its raw material investment.
- (3) Professional consultants in geology, finance, taxation, and law are commissioned to help carry out feasibility assessment.
- (4) Overall assessment and reviews are conducted by related departments internally when necessary.
- (5) Decision-making meetings of raw material joint ventures are attended to protect CSC's investment interests.
- (6) 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.



## 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:

- (1) 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.
- (2) Replacement of the old gas pipelines will be carried out to reduce risks.
- (3) Revamp of the gas tanks of the blast furnaces is ongoing in order to reduce potential hazards related to industrial safety.

### 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, 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.

## Risk Control of Information Systems

To avoid adverse effects on CSC's business operations owing 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:

- (1) 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.
- (2) 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.
- (3) Maintaining of manpower and succession: Technical retiring employees 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:

- (1) Risk assessment and hazard identification of the OHSAS18000 management systems are carried out.
- (2) Fire and emergency evacuation response drills and preparation of the off-site backups of the process control system are implemented to effectively control the safety of the process control equipment.
- (3) 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.



## Risk Control of Construction Management

CSC has established a 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.

Document management is implemented 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 thoroughly 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 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 the utilization of recycled resources is enhanced.

## Risk Control of Climate Change

Global warming and extreme climate patterns have posed as global threats which have brought severe impact on human beings and business operations. One of the vital issues in the steel industry is how to conserve energy and reduce carbon emissions as well as the effect of climate change. CSC has developed the following strategies to reduce the risks caused by climate change in its operations:

- (1) 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.

- (2) 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.
- (3) 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.
- (4) Low carbon lifestyles and consumption will be promoted within CSC in the hope of developing a low carbon society.

CSC completed its Climate Change Adaptation Assessment Report and identified possible major climate impact items. In 2016, potential disaster simulation analysis and establishment of the database were carried out inside the plants and surrounding roads when floods, earthquakes, or tsunamis struck. Emergency response systems were established to cope with the occurrences of possible situations.

## 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 revenues and expenses. If there is a demand (mainly in international currencies) in a new foreign investment project or procurement of imported equipment, CSC will hedge against exchange rate risks with a forward foreign exchange or take out an equivalent long-term loan in foreign currencies.

CSC has a full grasp of its short-, medium-, and long-term credit lines to ensure adequate liquidity; priorities for the use of funds are planned. Depending upon the capital demands and market conditions, it will use different financing instruments in order to reduce its capital costs.

In terms of the short-term financing for NTD, commercial papers, short-term bank loans, and so on will be used to effectively reduce capital costs when interest rates are low in the money market. Depending upon the daily balance of NTD payments, short-term loans will be adjusted. To take into account the liquidity and adequate sources for funding, CSC is currently deliberating on finding other sources for medium- and long-term NTD loans in addition to the corporate bonds which are outstanding. It hopes to increase other channels for financing so that there will be abundant sources and flexibility. In addition, the issuance of revolving commercial papers (in NTD), which can be flexibly adjusted, is utilized to diversify the channels of financing.



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. As CSC has been dedicated to promoting AEO and encouraged enterprises in the supply chain to obtain the status as well, it was commended by the Customs Administration, Ministry of Finance. It was invited to share its experience of promoting AEO in a briefing with the participants at the commendation venue on May 10, 2016.

## 10 Corporate Governance

### TCSA 2016 第九屆 台灣企業永續獎 Taiwan Corporate Sustainability Awards 頒獎典禮 暨 高峰會 Ceremony & Summit

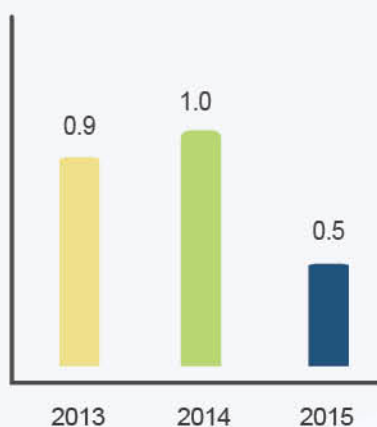


CSC was granted the 2016 Taiwan Corporate Sustainability Award.

### Common Stock Dividend Payout

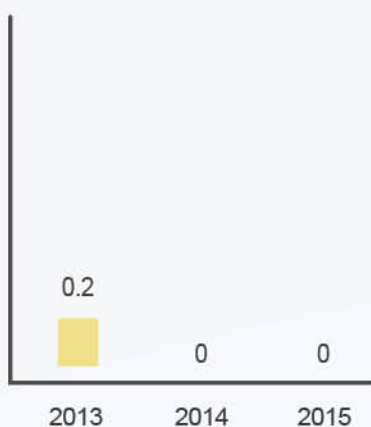
#### Cash dividend

NT\$/share



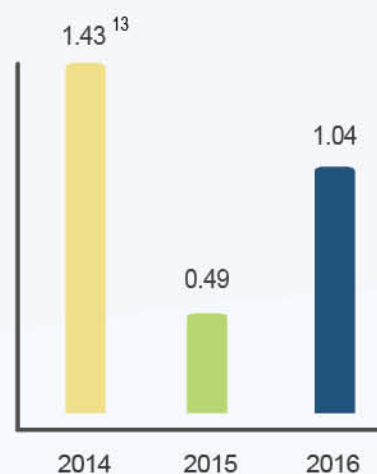
#### Stock dividend

NT\$/share



#### Earnings per share

NT\$/share



<sup>13</sup> After making retroactive adjustments to take into account stock dividends.



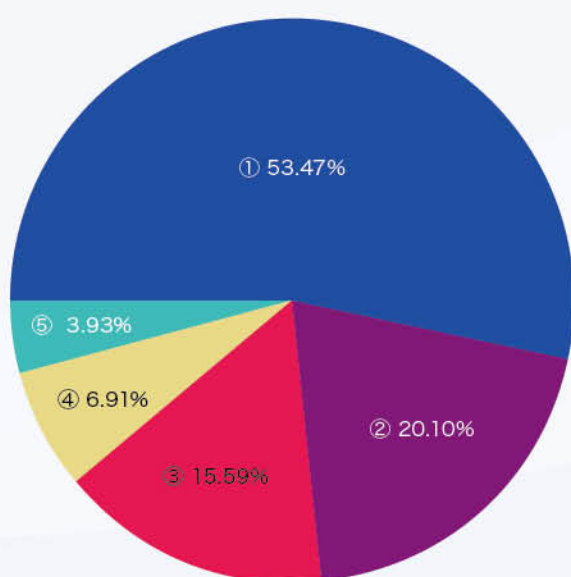
## Corporate Governance Evaluation

### Top 5% of listed companies

#### 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. 2016 was the fifth year when electronic voting was adopted. Approximately 20.65% 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 14.69% of the total number of shareholders' voting rights. On the Book Closure date, 15.53% of all the totaled issued shares were foreign-owned; in particular, over 94% 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 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



#### Shareholders' structure<sup>14</sup>

- ① Domestic natural person and other juristic person
- ② Government (official) institution
- ③ Overseas foreign investment of juristic person, nature person, and trust fund (GDR included)
- ④ Domestic securities investment trust fund
- ⑤ Domestic financial institution

<sup>14</sup> As of August 1, 2016, the record date for book closure



The CSC Group was granted the Sustainability Exemplary Enterprise Group Awards by BSI.

revenue, consolidated operating income, and consolidated income before income tax as well as its sales volume and domestic price adjustments is e-mailed to analysts and investors. Furthermore, relevant data are always updated on CSC's corporate website with transparency and a high degree of timeliness. (3) Designated staff will receive domestic and foreign investors, answer their questions, and make factory tours. The management will also take part in earnings conferences/conference calls actively to let domestic and foreign investors have a better understanding of CSC. (4) Financial, business, and corporate governance information is fully disclosed in the "Shareholders' services" and "Corporate governance" sections on CSC's corporate website; moreover, CSC's CSR Report Section, which posts major issues related to energy and environment management and CSC's annual CSR reports over the years and serves as a reference for investors, is also available on the same website.

## The Board of Directors

There are currently 11 directors in the Board of Directors, three of whom are independent directors. "Rules Governing the Election of Directors" have been established, and nominated candidates who are elected will be appointed as directors.

Under the Board of Directors are two functional committees, the Audit Committee<sup>15</sup> 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 or 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. Three meetings were held in 2016, and the minutes of the resolutions were presented to the Board of Directors.

The Remuneration Committee consists of three independent directors. Two meetings of the Remuneration Committee were convened in 2016, 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.

<sup>15</sup> The re-election of the 16th Board of Directors of CSC took place on June 23, 2016. The original supervisor system was replaced with the Audit Committee in the same year.

## Independent Directors

### 1. Communication with the Internal Auditor

- (1) The validity of the internal control systems of CSC shall be presented in the form of the Internal Control Declaration made by the Internal Auditor and shall be submitted to the Board of Directors for resolutions after being approved by the Audit Committee.
- (2) The Internal Auditor sends the audit report and results of the follow-up report to the independent directors for their perusal regularly. Internal audit executives shall attend the quarterly audit committee meetings to provide relevant information to the independent directors.

### 2. Communication with the Certified Public Accountants

- (1) CSC's certified public accountants attend the quarterly audit committee 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.
- (2) After the end of each fiscal year, the financial statements, proposal for allocation of earnings and operation report audited by certified public accountants will be presented to the Audit Committee for issuing the Audit Committee's Review Report.

## Internal Auditing

To forestall irregularities and strengthen the effectiveness of corporate administration, key activities of the Internal Auditor for 2016 were to test and assess whether the operational procedures in the eight operational cycles, which included: (1) sales and receipt, (2) purchase and payment, (3) production, (4) labor and wage, (5) finance, (6) property, plant, and equipment, (7) investment, and (8) research and development, were adequately comprehensive and precise. Moreover, issues such as whether there were risks involved and whether the systems were designed with a cross-checking function were also assessed.

The Internal Auditor conducted the audits required by the Regulations Governing Establishment of Internal Control Systems by Public Corporations promulgated by the Financial Supervisory Commission, Executive Yuan, on a number of controls, which included the following: (1) 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 party transactions, (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 20 subsidiaries with due diligence.

In 2016, 50 audit reports and 447 items for improvement were presented by the Internal Auditor. The audited 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 former Supervisors and Independent Directors for examination and perusal according to regulations.



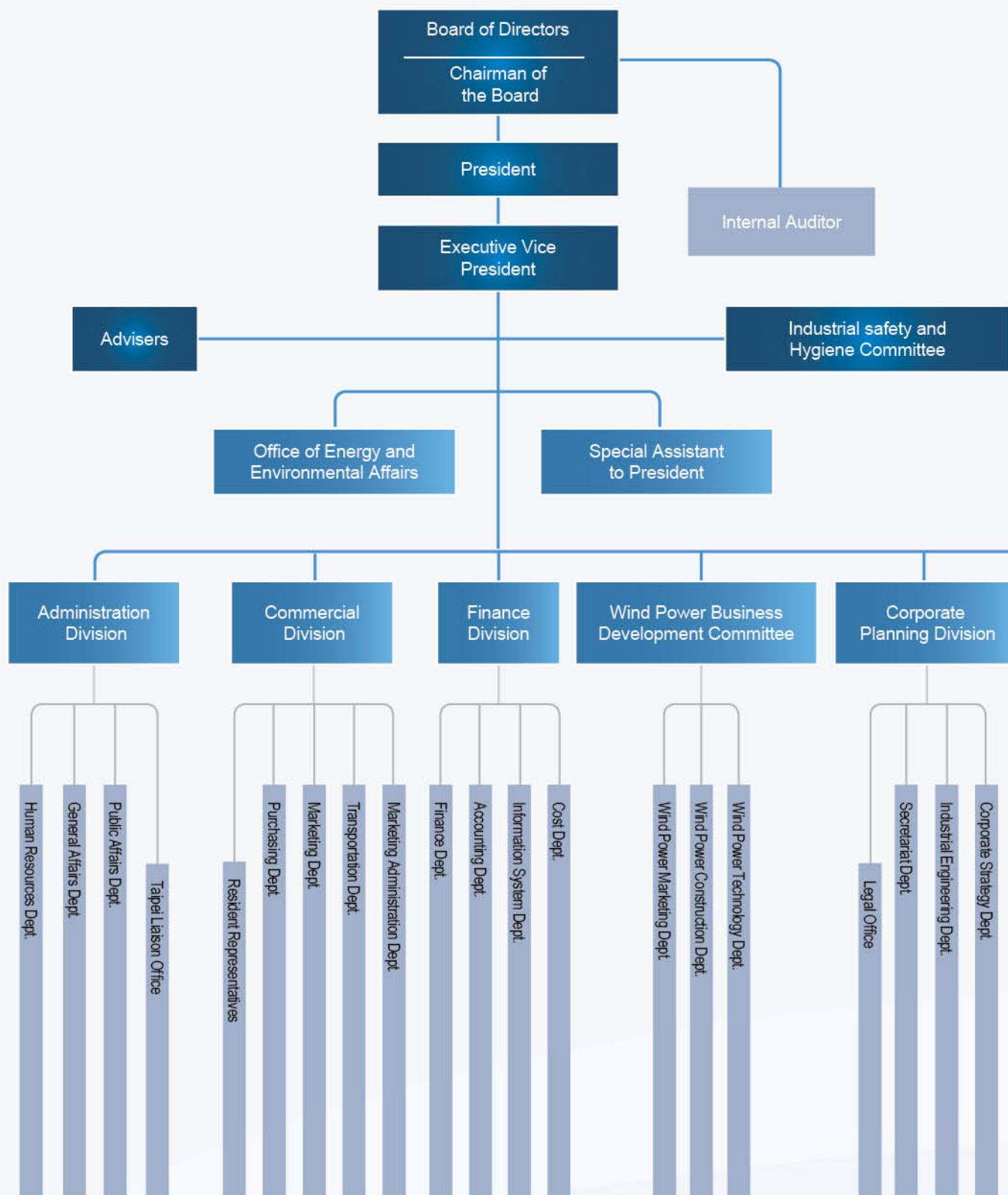
## Performance of Corporate Governance

To promote corporate governance and enhance regional competitiveness, 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 replaced "evaluation of information disclosure" since 2015; that is, the scope of evaluation has expanded from merely information disclosure to corporate governance. As the number of the exchange-listed or OTC-listed companies, which try to obtain better rankings and honors in the evaluation of corporate governance, is on the increase, CSC can only maintain its excellent performance by improving itself constantly. Furthermore, the Taiwan Stock Exchange (TWSE) released the results of the second corporate governance evaluation in 2016, and CSC was among the top 5% listed companies and belonged to the TWSE Corporate Governance 100 Index, which affirmed CSC's efforts in corporate governance.

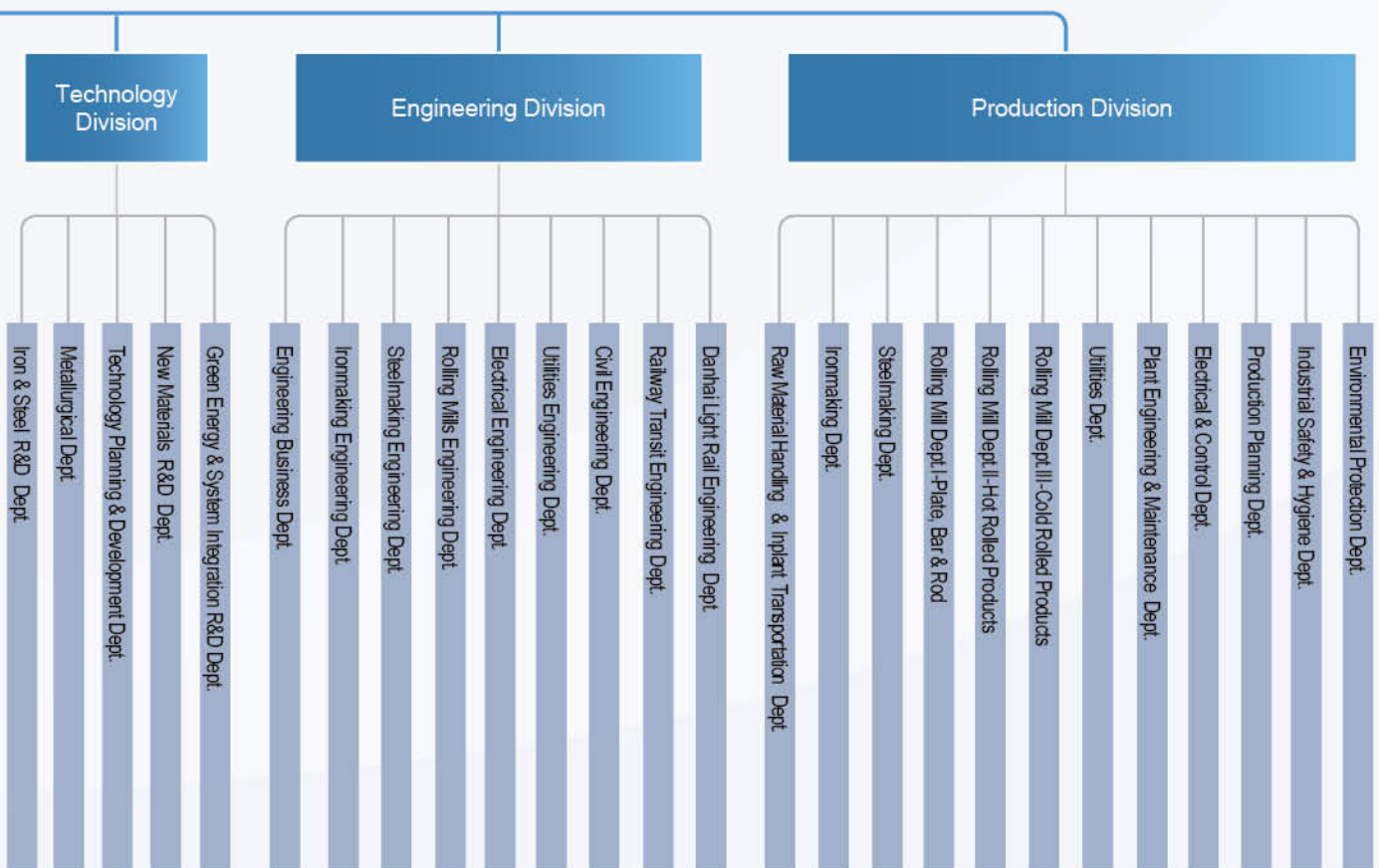


CSC's 2016 shareholders' meeting

# Organization Chart







# Board of Directors

(as of December 31, 2016)



Chairman of the Board

**Chao-Tung Wong**

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



Director

**Jong-Chin Shen**

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

**Shyi-Chin Wang**

Representing Ever Wealthy  
International Corporation



Director

**Horng-Nan Lin**

Representing Chiun Yu  
Investment 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, 2016)



President

**Jih-Gang Liu**



Executive Vice President (Concurrently  
Spokesman for the Corporation)

**Shyi-Chin Wang**



Vice President - Administration

**Chun-Lung Wu**



Vice President - Commercial

**Shin-Min Lee**



Vice President - Finance

**Ming-Hsien Wu**



Vice President - Corporate Planning

**Chung-Yi Lin**



Vice President - Technology

**Tsan-Ying Ho**



Vice President - Engineering

**Ching-Chung  
Cheng**



Vice President - Production

**Hsin-Chin Kuo**

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

IFRSs		(in thousands of New Taiwan Dollars unless otherwise noted )				
	2016	2015	2014 (Restated)	2013	2012	
Operating revenues	168,927,075	160,909,464	205,159,602	200,726,268	207,193,105	
Operating costs	147,174,784	148,511,291	183,377,897	184,156,015	198,229,265	
Gross profit	21,752,291	12,398,173	21,781,705	16,570,253	8,963,840	
Realized(Unrealized) gain on the transactions with subsidiaries and associates	(384,546)	225,679	(293,861)	394,126	(36,337)	
Operating expenses	8,286,601	7,469,515	8,263,257	7,345,870	6,184,405	
Profit from opearitions	13,081,144	5,154,337	13,224,587	9,618,509	2,743,098	
Non-operating income and expenses	4,952,067	3,161,977	10,431,496	7,888,875	3,478,191	
Profit before income tax	18,033,211	8,316,314	23,656,083	17,507,384	6,221,289	
Net income	16,038,369	7,604,721	22,132,134	15,981,540	5,894,806	
Total other comprehensive income, net of income tax	(87,519)	(2,531,685)	3,561,821	3,524,589	(1,130,537)	
Total comprehensive income for the period	15,950,850	5,073,036	25,693,955	19,506,129	4,764,269	
Current assets	65,458,991	63,791,939	65,977,147	67,922,345	66,717,348	
Property, plant and equipment	167,632,162	175,420,761	185,285,861	192,022,654	189,509,120	
Other assets	237,184,216	225,187,698	212,986,584	197,335,519	173,496,455	
Total assets	470,275,369	464,400,398	464,249,592	457,280,518	429,722,923	
Current liabilities	45,556,399	57,914,294	51,998,443	54,361,542	64,301,232	
Noncurrent liabilities	122,159,084	112,165,285	107,576,551	113,231,922	89,550,540	
Total liabilities	167,715,483	170,079,579	159,574,994	167,593,464	153,851,772	
Capital stock	157,731,290	157,731,290	157,731,290	154,638,520	153,107,445	
Capital surplus	37,807,466	37,612,027	37,217,876	36,960,818	36,575,997	
Retained earnings	106,917,266	99,630,738	108,150,878	98,628,837	90,184,289	
Other equity	8,680,706	7,924,408	10,162,015	7,955,853	4,585,717	
Treasury stock	(8,576,842)	(8,577,644)	(8,587,461)	(8,496,974)	(8,582,297)	
Total equity	302,559,886	294,320,819	304,674,598	289,687,054	275,871,151	
Total liabilities and equity	470,275,369	464,400,398	464,249,592	457,280,518	429,722,923	
Equity per common share (NT\$)	19.58	19.04	19.72	19.11	18.39	
Eearing per common share (NT\$)	1.04	0.49	1.43	1.05	0.39	
Eearing per common share (NT\$) <sup>16</sup>	-	0.49	1.43	1.03	0.38	

<sup>16</sup> After making retroactive adjustments to take into account stock dividends.



ROC GAAP

(in thousands of New Taiwan Dollars unless otherwise noted)

	2012
Operating revenues	207,193,105
Operating costs	198,229,265
Gross profit	8,963,840
Realized (Unrealized) gain from affiliates, net	(36,337)
Operating expenses	6,237,929
Operating income	2,689,574
Nonoperating income (expenses)	3,440,997
Income before income tax	6,130,571
Net income	5,811,490
Current assets	67,574,496
Investments	163,700,388
Property, plant and equipment	189,506,218
Other assets	6,484,671
Total assets	427,265,773
Current liabilities	64,448,686
Long-term liabilities	72,333,005
Reserve for land value increment tax	10,011,916
Other liabilities	2,120,099
Total liabilities	148,913,706
Capital stock	153,107,445
Capital surplus	36,673,528
Retained earnings	68,356,193
Unrealized revaluation increment	26,750,124
Unrealized gain on financial instruments	2,458,247
Cumulative translation adjustments	(393,229)
Net loss not recognized as pension cost	(184,893)
Treasury stock	(8,415,348)
Total stockholders' equity	278,352,067
Total liabilities and stockholders' equity	427,265,773
Stockholders' equity per common share (NT\$)	18.56
Earning per common share (NT\$)	0.38
Earning per common share (NT\$) <sup>16</sup>	0.37

<sup>16</sup> After making retroactive adjustments to take into account stock dividends.

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

		2016	2015	2014	2013	2012
Current ratio	(%)	144	110	127	125	104
Ratio of long-term liabilities and equity to property, plant and equipment	(%)	244	223	214	201	184
Total liabilities to total assets	(%)	36	37	34	37	36
Net profit rate	(%)	10	5	11	8	3
Return on total assets	(%)	4	2	5	4	2
Return on equity	(%)	5	3	7	6	2
Revenue growth rate, year to year	(%)	4.98	(21.57)	2.21	(3.12)	13.80
Equity growth rate, year to year	(%)	2.80	(3.40)	5.18	5.00	(3.62)



# Analysis of the Financial Status and Operating Results

## 1. Two-year analysis of flow ratios

Items		2016	2015	Increase (Decrease)
Cash flow ratio	(%)	69	44	57
Appropriate cash flow ratio <sup>17</sup>	(%)	122	78	56
Cash reinvestment ratio	(%)	3.10	1.36	128

<sup>17</sup>Based on the data over the past five years

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

- (1) The cash flow ratio: The 57% increase in the cash flow ratio over the previous year was mainly attributable to the increase in the net cash flow from the operating activities and the profit before income tax.
- (2) The appropriate cash flow ratio: The 56% increase in the appropriate cash flow ratio over the previous year was mainly attributable to the increase in the net cash flow from the operating activities, the appropriation of cash dividends, and decrease of inventories.
- (3) The cash reinvestment ratio: The 128% increase in the cash reinvestment ratio over the previous year was mainly attributable to the increase in the net cash flow from the operating activities.

## 2. Analysis of operating results

- (1) The NT\$8,017,611 thousand increase in the operating revenue was mainly attributable to the increase of the sales volume of steel products.
- (2) The NT\$1,336,507 thousand decrease in the operating costs was mainly attributable to the decrease in the prices of the raw materials (coal and iron ore).
- (3) The NT\$9,354,118 thousand increase in the gross profits was mainly attributable to the fact that the decrease of the unit costs of steel products was more than that of the unit sales prices.
- (4) The NT\$610,225 thousand increase in the unrealized gains on transactions with the subsidiaries and affiliates was mainly attributable to engineering projects obtained from the subsidiaries and the increase in the profit margin of steel products sold to the subsidiaries.
- (5) The NT\$817,086 thousand increase in the operating expenses was mainly attributable to the increase of employee salaries.
- (6) The NT\$7,926,807 thousand increase in the profit from operation was mainly attributable to the causes in (1)~(5).
- (7) The NT\$1,790,090 thousand increase in the net non-operating income was mainly attributable to the increase of the share of profits from the subsidiaries and affiliates recognized under the equity method.
- (8) The NT\$9,716,897 thousand increase in the profit before income tax was mainly attributable to the causes in (1)~(7).
- (9) The NT\$8,433,648 thousand increase in the net profit was mainly attributable to the increase of the profit before income tax, the causes of which were listed in (1)~(7), and the NT\$1,283,249 thousand increase 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\$10,400 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.



<b>Issue</b>	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
<b>Issue Date</b>	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
<b>Face Amount</b>	NT\$1 million	NT\$1 million	NT\$1 million	NT\$1 million
<b>Issue Price</b>	At par value	At par value	At par value	At par value
<b>Amount</b>	NT\$3,600 million	NT\$6,900 million	NT\$7,000 million	NT\$9,000 million
<b>Coupon</b>	1.88%	1.75%	1.95%	2.15%
<b>Maturity</b>	Fifteen years	Seven years	Ten years	Fifteen years
<b>Trustee</b>	Mega International Commercial Bank, Head Office-Trust Department	Taipei Fubon Bank, Trust Department	Taipei Fubon Bank, Trust Department	Taipei Fubon Bank, Trust Department
<b>Lead Manager</b>	—	—	—	—
<b>Legal Advisor to the Issuer</b>	Chien Yeh Law Offices	Chien Yeh Law Offices	Chien Yeh Law Offices	Chien Yeh Law Offices
<b>Auditor of the Issuer</b>	Deloitte & Touche	Deloitte & Touche	Deloitte & Touche	Deloitte & Touche
<b>Repayment</b>	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	10
Issuing price (NT\$)		10	10	10	10
Number of shares		50,000,000	21,887,000	797,000	4,006,000
Total amount (NT\$)		500,000,000	218,870,000	7,970,000	40,060,000
Rights and liabilities	Dividend policy	After all the accounts are settled, taxes paid, deficits offset, and the legal reserve appropriated, the remaining earnings will be distributed as follows: (1) Preferred stock dividends at 14% of the par value (2) Common stock dividends at no more than 14% of the par value (3) The rest of the remaining earnings will be appropriated proportionally to the preferred stockholders and common stockholders as bonuses.			
	Appropriation of residual property	Same as those of common shareholders			
	Voting rights	No right to vote in the elections of board directors			
	Others	Other rights and obligations are the same as those of the common shareholders.			
Preferred stock in circulation	Retrieved / converted shares	0 shares (2016 and the first three months of 2017)			
	Unretrieved / unconverted shares	38,267,999 shares (as of March 31, 2017)			
	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\$)	2013	High	42.80		
		Low	39.55		
		Average(closing)	40.55		
	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		

# Issuance of Global Depositary Shares

Issuance date		May 28, 1992	Feb. 10, 1997	Oct. 22, 2003	Aug. 1, 2011
Items					
Issuance and Listing		Asia, Europe, America	Asia, Europe, America	Asia, Europe, America	Asia, Europe, America
Total Amount (US\$)		US\$327,600,000	US\$186,607,572.50	US\$936,086,488	US\$751,067,478
Offering Price Per GDS		US\$18.2/1 unit	US\$18.35/1 unit	US\$15.56/1 unit	US\$19.67/1 unit
Units Issued		18,000,000 units	10,169,350 units	60,159,800 units	38,183,400 units
Underlying Securities		CSC Common Shares	CSC Common Shares	CSC Common Shares	CSC Common Shares
Common Shares Represented		360,000,000	203,387,000	1,203,196,000	763,668,000
Rights and Obligations of GDS Holders		Dividend appropriation is the same as CSC common shares. Other rights and obligation are regulated in Depositary Agreement.			
Trustee		Not Applicable	Not Applicable	Not Applicable	Not Applicable
Depositary Bank		Citibank, N.A. -New York	Citibank, N.A. -New York	Citibank, N.A. -New York	Citibank, N.A. -New York
Custodian Bank		Citibank, N.A. -Taipei	Citibank, N.A. -Taipei	Citibank, N.A.-Taipei	Citibank, N.A. -Taipei
GDS Outstanding		21,171,750 shares ( as of March 31, 2017 )			
Apportionment of Expenses for Issuance and Maintenance		Issuance-related expenses were borne by Ministry of Economic Affairs.	Issuance-related expenses were borne by Ministry of Economic Affairs.	Issuance-related expenses were borne by Ministry of Economic Affairs.	Issuance-related expenses were borne by the Company, CSC.
Terms and Conditions in the Depositary Agreement & Custody Agreement		Omitted	Omitted	Omitted	Omitted
Closing Price Per GDS(US\$)	2016	High	US\$ 15.94		
		Low	US\$ 9.99		
		Average	US\$ 13.29		















# Market Price of Stock over Past Three Years

(in NT\$ / share)

		2016	2015	2014
Common	Highest	25.70	26.75	27.00
	Lowest	17.10	16.75	24.60
	Average (closing)	21.72	22.77	25.71

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>	Motors, generators, transformers, reactors, compressor, traditional ballast, etc.
Special Alloy Product		Major Uses
	<b>Ti-Ni Plates</b>	Storage tanks, pressure vessels, flange, target material, high temperature furnace lined material, electronic equipment parts, etc.
	<b>Ti-Ni Bars and Wire rods</b>	Nuts and bolts, glasses frame, valve, welding consumables, etc.
	<b>Hot rolled Ti-Ni coils, plates and sheets</b>	Storage tanks, pressure vessels, electrode plate, high temperature furnace lined material, etc.
	<b>Cold rolled Ti-Ni coils and sheets</b>	Construction materials, furniture, kitchenware, home appliances, heat exchanger, thermal reactor, flue pipe.

## Three-Year Summary of Production and Sales Volumes

(in tons)

Steel Product	Volume	2016	2015	2014
Plates	Production	953,060	920,472	964,192
	Sales	939,831	919,637	963,408
Bars	Production	572,621	552,941	621,539
	Sales	627,911	633,732	692,721
Wire rods	Production	1,294,015	1,184,045	1,316,977
	Sales	1,422,983	1,350,458	1,438,408
Hot rolled steel products	Production	2,301,603	2,024,285	2,376,013
	Sales	2,754,220	2,457,216	2,787,596
Cold rolled steel products <sup>18</sup>	Production	3,291,372	3,105,005	3,658,877
	Sales	3,346,243	3,235,267	3,724,578
Commercial slabs	Production	637,410	265,863	10,427
	Sales	2,017,343	926,631	61,663
Pig iron	Production	9,875	6,816	5,378
	Sales	1,314	947	2,088
Others <sup>19</sup>	Production	92,864	82,375	87,494
	Sales	25,266	4,456	6,466
Total	Production	9,152,820	8,141,802	9,040,897
	Sales	11,135,111	9,528,344	9,676,928

<sup>18</sup> Including electrogalvanized, hot-dip galvanized products and electrical steel coils

<sup>19</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, 2016 and 2015 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, 2016 and 2015, 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 and the audit reports issued by other independent accountants (refer to other matter paragraph), the accompanying standalone financial statements present fairly, in all material respects, the standalone financial position of the Corporation as of December 31, 2016 and 2015, and its standalone financial performance and its standalone cash flows for the years then ended in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers.

### Basis for Opinion

We conducted our audits in accordance with the Regulations Governing Auditing and Attestation of Financial Statements by Certified Public Accountants and auditing standards generally accepted in the Republic of China. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the standalone Financial Statements section of our report. We are independent of the Corporation in accordance with The Norm of Professional Ethics for Certified Public Accountant of the Republic of China, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the standalone financial statements for the year ended December 31, 2016. 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, 2016 are stated as follows:

#### Acquisition of Material Associates

In January 2016, the Corporation increased investment in Formosa Ha Tinh (Cayman) Limited through its subsidiary, China Steel Asia Pacific Holdings Pte Ltd., with the total shareholding increased from 19% to 25%. Such investment accounted for using the equity method amounted to NT\$37,176,938 thousand. The related accounting approach is as disclosed in Note 4 to the standalone financial statements. According to IAS 28 - Investments in Associates and Joint Ventures, the acquired assets and liabilities of Formosa Ha Tinh (Cayman) Limited needed to be identified and to have their value appraised. As a result, the Corporation hired an appraiser who composed the purchase price allocation report and used the report as the basis for acquisition transactions.



While composing the purchase price allocation report, the appraiser conducted the tangible and intangible assets valuation which was based on the financial statements of Formosa Ha Tinh (Cayman) Limited on the acquisition date, the acquisition price, and internal and external environment factors in the industry. The valuation involved various key assumptions, including valuation models, key inputs, future expected cash flows and the discount rate used. As a result, the purchase price allocation is deemed to be the key audit matter.

We have assessed the professionalism, competence, and objectivity of the appraiser and verified the appraiser hired by the Corporation. Additionally, we have discussed with the management the scope of work performed by the appraiser, reviewed the contract terms and conditions signed by the Corporation and the appraiser, and identified no concerns over the appraiser's objectivity or any restrictions imposed on the scope of the work. We have confirmed the valuation method the appraiser adopted, which complies with IFRSs. The audit procedures we performed included:

1. Test the appropriateness and the compliance of acquisition balance sheet per requirements of IFRS 3 - Business Combination; and
2. Review the reasonableness of financial forecasts.

We also consulted our internal valuation experts to have them assess the appropriateness of the appraisal in determining the fair value of the acquired intangibles in the purchase price allocation report. The assessment in particular included:

1. Test the valuation models used and discuss the applicable models with the Corporation's management and the appraiser;
2. Verify the key assumptions and the reasonableness of key inputs, including weighted average cost of capital and internal rate of return etc.

Additionally, we have audited the purchase price allocated to the acquired assets, which depreciates over the assets' useful lives.

#### Impairment Assessment on Available-For-Sale Financial Assets

Starting from the 3rd quarter in 2015, the prices of raw material, including coal and iron price, fluctuated dramatically due to the economic downturn in the steel industry and the decrease in the steel price. As of December 31, 2016, the investment in mining and alloy steel companies, recognized as available-for-sale financial assets, amounted to NT\$4,994,765 thousand, representing 1% of the Corporation's total assets. The related accounting approach and impairment assessment as disclosed in Note 4 to the Corporation's financial statements.

We focused on the key assumptions involved in impairment assessment because the management's judgement and the assumptions were the most sensitive key inputs. We obtained the valuation models from the management and had our internal experts evaluate the appropriateness of the discount rate used. The audit procedures we performed included:

1. Test the key inputs, such as the estimated products prices of the investees (for example, the price of coal, iron and alloy steel), the budgeted operating revenues and costs, and the budgeted capital expenditure;
2. Test the accuracy of each valuation model; and
3. Evaluate the appropriateness of future expected cash flows and discuss thereof with the management.

We recalculated management's sensitivity analysis on key assumptions and replaced the key assumptions with alternative scenarios, such as future changes in discount and growth rate.



## **Other Matter**

Certain investments accounted for using the equity method, in the standalone financial statements as of December 31, 2016 and for the year then ended 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\$969,122 thousand, representing 6% of the Corporation's total comprehensive income, for the year ended December 31, 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, 2016 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 22, 2017

#### 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, 2016		December 31, 2015	
	Amount	%	Amount	%
<b>CURRENT ASSETS</b>				
Cash and cash equivalents	\$ 2,477,746	1	\$ 7,518,687	2
Available-for-sale financial assets - current	780,716	-	1,341,235	-
Derivative financial assets for hedging - current	32,094	-	79,125	-
Notes receivable	472,193	-	443,376	-
Notes receivable - related parties	324,457	-	198,399	-
Accounts receivable, net	1,257,657	-	903,126	-
Accounts receivable - related parties	1,815,399	-	686,746	-
Other receivables	1,139,592	-	1,496,979	1
Other receivables - loans to related parties	7,211,809	2	5,890,000	1
Inventories	42,506,461	9	37,640,539	8
Other financial assets - current	6,622,457	2	6,604,939	2
Other current assets	818,410	-	988,788	-
Total current assets	65,458,991	14	63,791,939	14
<b>NONCURRENT ASSETS</b>				
Available-for-sale financial assets - noncurrent	15,551,376	3	12,389,861	3
Derivative financial assets for hedging - noncurrent	2,142	-	36,205	-
Debt investments with no active market - noncurrent	1,837,425	-	1,818,091	-
Investments accounted for using equity method	208,545,541	44	200,381,399	43
Property, plant and equipment	167,632,162	36	175,420,761	38
Investment properties	7,127,220	2	7,163,037	1
Intangible assets	54,785	-	65,736	-
Deferred tax assets	2,936,474	1	3,140,979	1
Refundable deposits	55,688	-	44,083	-
Other financial assets - noncurrent	1,073,565	-	148,307	-
Total noncurrent assets	404,816,378	86	400,608,459	86
<b>TOTAL</b>	<b>\$ 470,275,369</b>	<b>100</b>	<b>\$ 464,400,398</b>	<b>100</b>



(In Thousands of New Taiwan Dollars)

LIABILITIES AND EQUITY	December 31, 2016		December 31, 2015	
	Amount	%	Amount	%
<b>CURRENT LIABILITIES</b>				
Short-term borrowings and bank overdraft	\$ 8,851,509	2	\$ 11,466,879	3
Short-term bills payable	-	-	12,847,014	3
Derivative financial liabilities for hedging - current	8,965	-	26,497	-
Accounts payable	4,142,060	1	2,057,194	-
Accounts payable - related parties	969,388	-	357,453	-
Other payables	14,929,164	3	11,956,612	3
Current tax liabilities	1,529,584	-	822,723	-
Provisions - current	2,404,802	1	1,699,678	-
Current portion of bonds payable	5,199,253	1	4,649,075	1
Current portion of long-term bank borrowings	4,195,825	1	9,087,829	2
Other current liabilities	3,325,849	1	2,943,340	1
Total current liabilities	<u>45,556,399</u>	<u>10</u>	<u>57,914,294</u>	<u>13</u>
<b>NONCURRENT LIABILITIES</b>				
Derivative financial liabilities for hedging - noncurrent	6,904	-	17	-
Bonds payable	67,657,491	15	72,847,061	16
Long-term bank borrowings	32,950,349	7	24,276,027	5
Long-term bills payable	5,899,355	1	-	-
Deferred tax liabilities	10,799,579	2	10,925,638	2
Net defined benefit liabilities	4,785,826	1	4,057,302	1
Other noncurrent liabilities	59,580	-	59,240	-
Total noncurrent liabilities	<u>122,159,084</u>	<u>26</u>	<u>112,165,285</u>	<u>24</u>
Total liabilities	<u>167,715,483</u>	<u>36</u>	<u>170,079,579</u>	<u>37</u>
<b>EQUITY</b>				
Share capital				
Ordinary shares	157,348,610	33	157,348,610	34
Preference shares	382,680	-	382,680	-
Total share capital	<u>157,731,290</u>	<u>33</u>	<u>157,731,290</u>	<u>34</u>
Capital surplus	<u>37,807,466</u>	<u>8</u>	<u>37,612,027</u>	<u>8</u>
Retained earnings				
Legal reserve	59,934,379	13	59,173,907	12
Special reserve	29,786,846	6	27,132,983	6
Unappropriated earnings	17,196,041	4	13,323,848	3
Total retained earnings	<u>106,917,266</u>	<u>23</u>	<u>99,630,738</u>	<u>21</u>
Other equity	8,680,706	2	7,924,408	2
Treasury shares	( 8,576,842)	( 2)	( 8,577,644)	( 2)
Total equity	<u>302,559,886</u>	<u>64</u>	<u>294,320,819</u>	<u>63</u>
TOTAL	<u>\$ 470,275,369</u>	<u>100</u>	<u>\$ 464,400,398</u>	<u>100</u>

# Standalone Statements of Comprehensive Income

	For the Year Ended December 31			
	2016		2015	
	Amount	%	Amount	%
OPERATING REVENUES	\$ 168,927,075	100	\$ 160,909,464	100
OPERATING COSTS	<u>147,174,784</u>	<u>87</u>	<u>148,511,291</u>	<u>92</u>
GROSS PROFIT	21,752,291	13	12,398,173	8
REALIZED (UNREALIZED) GAIN ON TRANSACTIONS WITH SUBSIDIARIES AND ASSOCIATES	( 384,546)	( 1)	225,679	-
REALIZED GROSS PROFIT	<u>21,367,745</u>	<u>12</u>	<u>12,623,852</u>	<u>8</u>
OPERATING EXPENSES				
Selling and marketing expenses	2,725,816	2	2,633,416	2
General and administrative expenses	3,716,730	2	3,217,154	2
Research and development expenses	<u>1,844,055</u>	<u>1</u>	<u>1,618,945</u>	<u>1</u>
Total operating expenses	<u>8,286,601</u>	<u>5</u>	<u>7,469,515</u>	<u>5</u>
PROFIT FROM OPERATIONS	<u>13,081,144</u>	<u>7</u>	<u>5,154,337</u>	<u>3</u>
NON-OPERATING INCOME AND EXPENSES				
Other income	1,322,937	1	1,068,481	1
Other gains and losses	( 34,229)	-	1,643,968	1
Finance costs	( 1,990,052)	( 1)	( 1,886,133)	( 1)
Share of the profit of subsidiaries and associates	<u>5,653,411</u>	<u>3</u>	<u>2,335,661</u>	<u>1</u>
Total non-operating income and expenses	<u>4,952,067</u>	<u>3</u>	<u>3,161,977</u>	<u>2</u>
PROFIT BEFORE INCOME TAX	18,033,211	10	8,316,314	5
INCOME TAX EXPENSE	<u>1,994,842</u>	<u>1</u>	<u>711,593</u>	<u>-</u>
NET PROFIT FOR THE YEAR	<u>16,038,369</u>	<u>9</u>	<u>7,604,721</u>	<u>5</u>



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

	For the Year Ended December 31			
	2016		2015	
	Amount	%	Amount	%
OTHER COMPREHENSIVE INCOME (LOSS)				
Items that will not be reclassified subsequently to profit or loss				
Remeasurement of defined benefit plans	(\$ 657,109)	-	(\$ 163,686)	-
Share of the other comprehensive income of subsidiaries and associates	( 298,416)	-	( 158,219)	-
Income tax benefit relating to items that will not be reclassified subsequently to profit or loss	111,708	-	27,827	-
Items that may be reclassified subsequently to profit or loss				
Exchange differences on translating foreign operations	( 867,506)	( 1)	393,288	-
Unrealized gain and losses on available-for-sale financial assets	2,933,162	2	( 2,344,410)	( 2)
The effective portion of gains and losses on hedging instruments in a cash flow hedge	( 69,360)	-	( 1,360)	-
Share of the other comprehensive income of subsidiaries and associates	( 1,251,789)	( 1)	( 285,356)	-
Income tax benefit relating to items that may be reclassified subsequently to profit or loss	<u>11,791</u>	-	<u>231</u>	-
Other comprehensive loss for the year, net of income tax	( <u>87,519</u> )	-	( <u>2,531,685</u> )	( 2)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	<u>\$ 15,950,850</u>	<u>9</u>	<u>\$ 5,073,036</u>	<u>3</u>
EARNINGS PER SHARE				
Basic	<u>\$ 1.04</u>		<u>\$ 0.49</u>	
Diluted	<u>\$ 1.03</u>		<u>\$ 0.49</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, 2015	\$ 157,348,610	\$ 382,680	\$ 37,217,876	\$ 56,957,880	\$ 27,086,283	\$ 24,106,715
Appropriation of 2014 earnings						
Legal reserve	-	-	-	2,216,027	-	( 2,216,027)
Special reserve	-	-	-	-	47,049	( 47,049)
Cash dividends to ordinary shareholders - NT\$1.0 per share	-	-	-	-	-	( 15,734,861)
Cash dividends to preference shareholders - NT\$1.4 per share	-	-	-	-	-	( 53,575)
Reversal of special reserve	-	-	-	-	( 349)	349
Net profit for the year ended December 31, 2015	-	-	-	-	-	7,604,721
Other comprehensive income (loss) for the year ended December 31, 2015, net of income tax	-	-	-	-	-	( 294,078)
Total comprehensive income (loss) for the year ended December 31, 2015	-	-	-	-	-	7,310,643
Disposal of the Corporation's shares held by subsidiaries	-	-	( 707)	-	-	-
Adjustment to capital surplus arising from dividends paid to subsidiaries	-	-	318,021	-	-	-
Adjustment from changes in equity of subsidiaries and associates	-	-	76,837	-	-	( 42,347)
BALANCE AT DECEMBER 31, 2015	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

(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 Hedges	Total Other Equity	Treasury Shares	Total Equity
\$ 732,469	\$ 9,283,354	\$ 146,192	\$ 10,162,015	(\$ 8,587,461)	\$ 304,674,598
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	( 15,734,861)
-	-	-	-	-	( 53,575)
-	-	-	-	-	-
-	-	-	-	-	7,604,721
466,327	( 2,710,006)	6,072	( 2,237,607)	-	( 2,531,685)
466,327	( 2,710,006)	6,072	( 2,237,607)	-	5,073,036
-	-	-	-	9,263	8,556
-	-	-	-	-	318,021
-	-	-	-	554	35,044
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



# Standalone Statements of Cash Flows

	For the Year Ended December 31	
	2016	2015
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Profit before income tax	\$ 18,033,211	\$ 8,316,314
Adjustments for:		
Depreciation	18,409,717	18,598,624
Amortization	10,951	11,071
Finance costs	1,990,052	1,886,133
Interest income	( 124,145)	( 166,372)
Dividend income	( 350,156)	( 222,530)
Share of the profit of subsidiaries and associates	( 5,653,411)	( 2,335,661)
Loss on disposal of property, plant and equipment	21,862	22,915
Gain on disposal of investments	( 603,519)	( 1,857,244)
Impairment loss recognized on financial assets	488,299	416,000
Increase (decrease) in provision for loss on inventories	( 2,919,280)	2,883,645
Unrealized (realized) gain on the transactions with subsidiaries and associates	384,546	( 225,679)
Recognition of provisions	7,252,605	3,949,768
Others	4,461	249,953
Changes in operating assets and liabilities		
Notes receivable	( 28,817)	142,971
Notes receivable - related parties	( 126,058)	( 38,990)
Accounts receivable	( 354,531)	920,295
Accounts receivable - related parties	( 1,128,653)	275,777
Other receivables	( 516,076)	1,156,871
Inventories	( 1,913,314)	674,674
Other current assets	170,378	84,467
Accounts payable	2,084,866	( 1,412,321)
Accounts payable - related parties	611,935	( 533,489)
Other payables	2,647,544	( 1,314,346)
Provisions	( 6,547,481)	( 3,709,365)
Other current liabilities	382,509	( 92,297)
Net defined benefit liabilities	71,415	102,061
Other noncurrent liabilities	340	59,240
Cash generated from operations	32,299,250	27,842,485
Income taxes paid	( 821,131)	( 2,163,500)
Net cash generated from operating activities	31,478,119	25,678,985
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Acquisition of available-for-sale financial assets	( 193,268)	( 462,930)
Proceeds from disposal of available-for-sale financial assets	649,443	1,941,520
Proceeds from the capital reduction on available-for-sale financial assets	2,267	541,925
Proceeds from the capital return on investment accounted for using equity method	999,968	13,748
Proceeds from disposal of debt investments with no active market	-	848,915
Acquisition of investment properties	-	( 594,606)

	For the Year Ended December 31	
	2016	2015
Acquisition of investments accounted for using equity method	( \$ 11,426,350)	( \$ 22,533,483)
Acquisition of property, plant and equipment	( 10,152,877)	( 10,661,694)
Proceeds from disposal of property, plant and equipment	-	125,537
Increase in refundable deposits	( 11,605)	( 10,384)
Increase in other receivables - loans to related parties	( 1,321,809)	( 660,000)
Increase in other financial assets	( 941,687)	( 318,927)
Interest received	124,587	165,095
Dividends received from subsidiaries and associates	4,993,852	11,071,395
Other dividends received	335,602	222,530
Net cash used in investing activities	( 16,941,877)	( 20,311,359)
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>		
Proceeds from short-term borrowings	15,500,000	17,530,000
Repayments of short-term borrowings	( 16,725,401)	( 13,962,453)
Increase (decrease) in short-term bills payable	( 12,847,014)	10,947,384
Proceeds from long-term bills payable	5,899,355	-
Repayments of bonds payable	( 4,650,000)	( 8,150,000)
Proceeds from long-term borrowings	14,817,064	16,683,267
Repayments of long-term borrowings	( 10,139,862)	( 6,339,917)
Dividends paid	( 7,911,996)	( 15,784,094)
Interest paid	( 2,129,360)	( 1,982,364)
Net cash used in financing activities	( 18,187,214)	( 1,058,177)
<b>NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>	( 3,650,972)	4,309,449
<b>CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE YEAR</b>	<u>4,523,387</u>	<u>213,938</u>
<b>CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR</b>	<u>\$ 872,415</u>	<u>\$ 4,523,387</u>
<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, 2016 and 2015:</b>		
Cash and cash equivalents in the standalone balance sheets	\$ 2,477,746	\$ 7,518,687
Bank overdraft	( 1,605,331)	( 2,995,300)
Cash and cash equivalents in the standalone statements of cash flows	<u>\$ 872,415</u>	<u>\$ 4,523,387</u>

# Ownership of Subsidiaries and Other Equity Interests

(December 31, 2016)

Companies	Amount (NT\$1,000)	Ownership (%)
<b>Investments Accounted for using Equity Method</b>		
<b>Investments in Subsidiaries</b>		
Listed companies		
Chung Hung Steel Corporation	3,874,362	41
China Steel Chemical Corporation	1,950,504	29
China Steel Structure Corporation	1,326,140	33
China Ecotek Corporation	1,246,732	45
CHC Resources Corporation	760,007	20
Less : Shares held by subsidiaries accounted for as treasury stock	2,043,880	
Subtotal	7,113,865	
Unlisted companies		
Dragon Steel Corporation	99,354,903	100
China Steel Asia Pacific Holdings Pte Ltd.	39,218,733	100
CSC Steel Australia Holdings Pty Ltd.	16,566,147	100
China Steel Express Corporation	11,812,497	100
C. S. Aluminum Corporation	8,943,205	100
China Steel Sumikin Vietnam Joint Stock Company	7,438,362	56
Gains Investment Corporation	6,693,670	100
China Prosperity Development Corporation	3,688,033	100
CSC Steel Corporation India Pvt Ltd.	2,217,610	100
China Steel Global Trading Corporation	1,890,621	100
Kaohsiung Rapid Transit Corporation	1,292,762	43
China Steel Resources Corporation	990,395	100
China Steel Machinery Corporation	948,625	74
CSC Precision Metal Industrial Corporation	860,415	100
White Biotech Corporation	793,307	87
InfoChamp System Corporation	740,772	100
China Steel Security Corporation	526,323	100
Himag Magnetic Corporation	394,815	69
CSC Solar Corporation	329,316	55
China Steel Management Consulting Corporation	16,204	100
Less : Shares held by subsidiaries accounted for as treasury stock	6,532,962	
Subtotal	198,183,753	
<b>Investments in Associates</b>		
Unlisted companies		
Honley Auto Parts Co., Ltd.	722,718	38
Taiwan Rolling Stock Co., Ltd.	699,342	36
Eminent II Venture Capital Corporation	644,183	46
Kaohsiung Arena Development Corporation <sup>20</sup>	492,320	18
Hsin Hsin Cement Enterprise Corp.	363,905	31
Dyna Rechi Co., Ltd.	309,402	25
TaiAn Technologies Corporation <sup>21</sup>	16,053	17
Subtotal	3,247,923	
Total	208,545,541	



Companies	Amount (NT\$1,000)	Ownership (%)
<b>Available-For-Sale Financial Assets-Noncurrent</b>		
<b>Domestic investments</b>		
Listed shares		
Tang Eng Iron Works Co., Ltd.	1,398,974	9
Reichi Precision Co., Ltd.	726,864	5
CSBC Corporation Taiwan	254,122	2
Taiwan High Speed Rail Corporation	4,455,523	4
Subtotal	6,835,483	
Emerging market shares and unlisted equity securities		
O-Bank Co., Ltd.	695,364	4
CDIB Partners Investment Holding Corporation	519,134	5
Overseas Investment & Development Corporation	52,366	6
CDIB BioScience Ventures I, Inc.	11,963	5
Mega I Venture Capital Co., Ltd.	2,558	3
Phalanx Biotech Group	5,644	2
Subtotal	1,287,029	
<b>Foreign investments</b>		
Listed shares		
Maruichi Steel Tube Ltd.	2,097,316	2
Yodogawa Steel Works, Ltd.	336,783	1
Subtotal	2,434,099	
Unlisted equity securities		
CSN Mineracao S.A.	2,672,590	0
Dongbu Metal Co., Ltd.	554,587	4
Sakura Ferroalloys Sdn Bhd	1,412,015	19
Sakura Ferroalloys Sdn Bhd – Preferred	355,573	19
Subtotal	4,994,765	
Total	15,551,376	
<b>Bond Investments with no Active Market</b>		
Unlisted preference shares – overseas		
East Asia United Steel Corp.- Preferred A	1,837,425	19
Total	1,837,425	
TOTAL	225,934,342	

<sup>20</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>21</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, 2017)

## C. S. Aluminium Corporation

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

## China Steel Express Corporation

Chairman : H. Lee  
President : Y.H. Chen  
Main business : marine cargo transportation, chartering  
of vessels, and shipping agency  
Address : 24F. No.88, Chenggong 2nd Rd., Qianzhen  
Dist., Kaohsiung City 80661, Taiwan, R.O.C.  
Tel : 886-7-337-8888  
Fax : 886-7-338-1296  
CSC Ownership : 100%

## 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  
Dist., Kaohsiung City 80661, Taiwan, R.O.C.  
Tel : 886-7-338-3515  
Fax : 886-7-338-3516  
CSC Ownership : 29.04%

## China Steel Global Trading Corporation

Chairman : M. H. Chen  
President : Y. K. Lin  
Main business : import / export  
Address : 10F. No.88, Chenggong 2nd Rd., Qianzhen  
Dist., Kaohsiung City 80661, Taiwan, R.O.C.  
Tel : 886-7-332-2168  
Fax : 886-7-335-6411  
CSC Ownership : 99.99%

## CHC Resources Corporation

Chairman : H. C. Kuo  
President : K. N. Chung  
Main business : pulverized blast furnace slag and  
slag cement  
Address : 22F. No.88, Chenggong 2nd Rd., Qianzhen  
Dist., Kaohsiung City 80661, Taiwan, R.O.C.  
Tel : 886-7-336-8377  
Fax : 886-7-336-8433  
CSC Ownership : 19.83%

## China Ecotek Corporation

Chairman : C. T. Wong  
President : R. Q. Chen  
Main business : engineering, design and construction of  
environmental protection installations  
Address : 8F, No.88, Chenggong 2nd Rd. Qianzhen  
Dist., Kaohsiung City 80661, Taiwan, R.O.C.  
Tel : 886-7-330-6138  
Fax : 886-7-336-3030  
CSC Ownership : 44.76%

## China Steel Structure Co., Ltd.

Chairman : H. P. Chen  
President : C. L. Chen  
Main business : steel structures and construction  
Address : No.500, Zhongxing Rd., Yanchao Dist.,  
Kaohsiung City 824, Taiwan, R.O.C.  
Tel : 886-7-616-8688  
Fax : 886-7-616-8680  
CSC Ownership : 33.24%

## Chung Hung Steel Corporation

Chairman : S. D. Chiu  
President : H. M. Huang  
Main business : hot rolled and cold rolled steel  
products, steel pipes  
Address : 317 Yu-Liao Road, Chiao Tou District,  
Kaohsiung 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 : S. J. Wu

Main business : machinery manufacturing

Address : 3 Taichi Road, Hsiao Kang District,  
Kaohsiung 81246, Taiwan, R.O.C.

Tel : 886-7-802-0111

Fax : 886-7-806-3833

CSC Ownership : 73.97%

### Gains Investment Corporation

Chairman : M. H. Wu

President : C. H. Kuo

Main business : hi-tech investments

Address : 26F. No.88, Chenggong 2nd Rd., Qianzhen  
Dist., Kaohsiung City 80661, Taiwan, R.O.C.

Tel : 886-7-338-2288

Fax : 886-7-338-7110

CSC Ownership : 99.99%

### China Steel Security Corporation

Chairman : C. M. Hsu

President : K. Y. Wu

Main business : security services and systems

Address : 17F, 247 Ming Sheng 1st Road, Hsin Hsing  
District, Kaohsiung 80046, Taiwan, R.O.C.

Tel : 886-7-229-9678

Fax : 886-7-226-4078

CSC Ownership : 99.96%

### China Prosperity Development Corporation

Chairman : J. G. Liu

President : Y. C. Hsu

Main business : real estate development and investments

Address : 23F. No.88, Chenggong 2nd Rd., Qianzhen  
Dist., Kaohsiung City 80661, Taiwan, R.O.C.

Tel : 886-7-536-2500

Fax : 886-7-536-2413

CSC Ownership : 99.99%

### InfoChamp Systems Corporation

Chairman : S. H. Chang

President : Y. L. Ko

Main business : information system planning (ERP)  
and automatic control systems

Address : 19F. No.88, Chenggong 2nd Rd., Qianzhen  
Dist., Kaohsiung City 80661, Taiwan, R.O.C.

Tel : 886-7-535-0101

Fax : 886-7-535-0110

CSC Ownership : 99.99%

### China Steel Management Consulting Corporation

Chairman : C. L. Wu

President : C. P. Chang

Main business : management consulting

Address : 1 Chung Kang Road, Hsiao Kang District,  
Kaohsiung 81233, Taiwan, R.O.C.

Tel : 886-7-805-1088

Fax : 886-7-803-7819

CSC Ownership : 99.99%

### HIMAG Magnetic Corporation

Chairman : S. J. Tsai

President : T.C. Lin

Main business : magnetic materials and specific  
chemicals

Address : 24-1 Chien Kuo Road, Nei Pu Industrial Park,  
Ping Tung Hsien 91252, Taiwan, R.O.C.

Tel : 886-8-778-0222

Fax : 886-8-778-0227

CSC Ownership : 69.49%

### Dragon Steel Corporation

Chairman : S. C. Wang

President : D. S. Chen

Main business : hot-rolled steel products

Address : No.100, Lung Chang Road, Li Shui Village,  
Lung Ching District, Taichung 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, 2017)

## China Steel Resources Corporation

Chairman : C. L. Meng

Main business : desulfurization slag recycling

Address : No.38, Yanhai 3rd Rd., Hsiao Kang Dist.,  
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, and  
post-processing

Address : 28F. No.88, Chenggong 2nd Rd., Qianzhen  
Dist.,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>22</sup>

Managing Director : H. K. Chen

Main business : cold rolled steel products

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

Tel : 60-6-231-0169

Fax : 60-6-231-5698

CSC Ownership : 46.37%

## 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>22</sup>

Chairman : J. L. Lee

President : B. T. Hung

Main business : pure titanium, titanium alloy,  
nickel alloy, and mold steel

Address : No.18 Changyang Road, Wujin Economic  
Development Zone, Changzhou,  
Jiangsu Province, China

Tel : 86-519-89610128

Fax : 86-519-89610120

CSC Ownership : 70%

## China Steel Corporation India Pvt. Ltd.

Managing Director : K. S. Tseng

Main business : electrical steel coils

Address : 804 Iscon Atria 1, Opp. GEB Training Center,  
Gotri Road, Vadodara – 390015, Gujarat,  
India

Tel : 91-922-7989880

CSC Ownership : 100%

## Qingdao China Steel Precision Metals Co., Ltd.<sup>22</sup>

Chairman : Y. K. Lin

President : Y. C. Chang

Main business : Metal materials and products,  
car accessories, and customized  
metal processing

Address : 3F. No.500, Fenjin Road, Economic &  
Technological District. Qingdao City,  
Shandong, China

Tel : 86-532-58718558

CSC Ownership : 60%

## **United Steel Engineering and Construction Co., Ltd.**<sup>22</sup>

Chairman : Y. K. Lin

President : S. H. Liou

Main business : Metal materials and products,  
car accessories, and customized  
metal processing

Address : No.168, Shuanghua Road, Huaqiao Economic  
Development Area, Jiangsu, China

Tel : 86-512-57601373

CSC Ownership : 80%

## **CSC Solar Corp.**

Chairman : R. Q. Chen

President : S. D. Lin

Main business : Solar power generation

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

Tel : 886-7-536-8156

Fax: 886-7-536-8104

CSC Ownership : 55%

<sup>22</sup> Invested through China Steel Asia Pacific Holdings Pte. Ltd.



#### **Head Office**

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